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About the Journal

Pertanika is an international peer-reviewed journal devoted to the publication of original papers, and it serves as a forum for practical approaches to improving quality in issues pertaining to tropical agriculture and its related fields. Pertanika began publication in 1978 as the Journal of Tropical Agricultural Science. In 1992, a decision was made to streamline Pertanika into three journals to meet the need for specialised journals in areas of study aligned with the interdisciplinary strengths of the university.

The revamped Journal of Social Sciences & Humanities (JSSH) aims to develop as a pioneer journal for the Social Sciences with a focus on emerging issues pertaining to the social and behavioural sciences as well as the humanities, particularly in the Asia Pacific region. Other Pertanika series include Pertanika Journal of Tropical Agricultural Science (JTAS); and Pertanika Journal of Science and Technology (JST).

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Foreword

Welcome to the First Issue 2013 of the Journal of Social Sciences and Humanities (JSSH)!

JSSH is an open access journal for the social sciences & humanities published by Universiti Putra Malaysia Press. It is independently owned and managed by the university and run on a non-profit basis for the benefit of the world-wide social science community.

In this issue, there are **25 articles** published; out of which **17 articles** are regular articles and **8 articles** arise from an International Conference on "Role of Humanities & Social Sciences in Holistic Development of Future Technocrats-Looking Ahead (RHSSFT)" held in India. The authors of these articles vary in country of origin (Malaysia, Iran, China, and India).

The regular articles cover a wide range of topics, from a study of the elements promoting learning from a strategic partner in the case of Malaysia (Mansor, Z. D.), a case study of factors affecting the willingness to pay for renewable energy amongst Eastern Malaysian households (Aini, M. S. and Goh Mang Ling, M.), a study to explore the influences of consumer socialization agents on branded apparel purchase among urban Malaysian Tweens (Carol Boon Chui Teo, Samsinar Md Sidin and Mohd Izzudin Mohamad Nor), a microscopic analysis on the behavioural design protocols in architectural design studios (Farzad Pour Rahimian and Rahinah Ibrahim), the effects of musical fit on consumers' choice when opportunity and ability is limited (Yeoh, J. P. S. and North, A.), a study to explain the uniqueness in the history of Johore, which involved the processes of evolution, transformation and metamorphosis (N. Hussin and A. Bidin), Singapore's Economic Development, 1961-1965 (S. Abdan, N. Hussin and R. Omar), to an argumentative study on Islam between human inspiration and divine revelation (Zulkarnain Mohamed and Ungku Maimunah Mohd. Tahir).

The research studies include topics related to sociology, psychology, education, language and literature; a study on sociological appraisal of happiness capital and youth development in Iran (Mohammad Taghi Sheykhi), the contributions of verbal abuse to internalizing problems among early adolescent students in Selangor (Tan, I. L. Y., Mariani, M. and Rohani, A), the exploration on the role of self-esteem as a mediator between perceived parental warmth and depression among early adolescents (Lim Hui Jun, Rozumah Baharudin and Tan Jo-Pei), a study that investigates the relationships of birth order, parent-child relationship, personality, and academic performance (Ha, T. S. and Tam, C. L.), a comparative analysis of word structures in Malay and English children's stories (Lay Wah Lee, Hui Min Low and Abdul Rashid Mohamed), developing a content

subscale to assess university students' argumentative essays (Vahid Nimehchisalem and Jayakaran Mukundan), profiles of Malaysian Malay standard accent and identity values in Malaysia (Idris Aman and Rosniah Mustaffa), Mandarin attrition among tertiary students (Yu Zhonggen, Chan Swee Heng and Ain Nadzimah Abdullah) and the symbolic order of language and social existence in James Joyce's father foreclosure (Laleh Massiha and Noritah Omar).

I conclude this issue with 8 articles arising from the RHSSFT conference; an analysis of gender differences in investment behaviour of engineers towards mutual funds (Rashmi Chaudhary), intelligence, emotional and spiritual quotient as elements of effective leadership (Shabnam and Tung, N. S.), instilling creativity, critical thinking and values for holistic development through humanities and liberal arts courses among engineering students (Pushp Lata and Devika), soft skills for successful career (Kavita Tyagi and Ashu Tomar), a pragmatic study of intercultural communication in Kiran Desai (Rajyashree Khushu-Lahiri and Urjani Chakravarty), future technocrats perception on dissemination of technology (Anupriya Kaur, Madhur Kaushal, Jai Sisodia and Shruti Chopra), integrating humanities and liberal arts in engineering curriculum (Geetha Bakilapadavu and Sushila Shekhawat) and a study on the benefit of integrating technology with management (Aggarwal, N. and Medury, Y.).

I anticipate that you will find the evidence presented in this issue to be intriguing, thought provoking, and hopefully useful in setting up new milestones. Please recommend the journal to your colleagues and students to make this endeavour meaningful.

I would also like to express my gratitude to all the contributors; namely the authors, reviewers and editors for their professional contributions who have made this issue feasible. Last but not the least the editorial assistance of the journal division staff is fully appreciated.

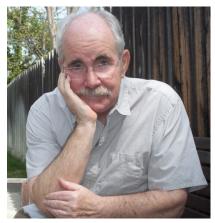
JSSH is currently accepting manuscripts for upcoming issues based on original qualitative or quantitative research that opens new areas of inquiry and investigation.

Chief Executive Editor

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Editorial on ESL/EFLi

English-as-a-Foreign Language



Professor Graham Thurgood:Language teaching research has suffered over the last four or five decades

Successful language teaching is a central part of development, an important tool for business, and the major source of access to wider world knowledge. Even with this obvious importance and despite the considerable research that has been done, the feeling that it could be done better is widely shared.

Language teaching research has suffered over the last four or five decades from a misguided preoccupation with theories and methods at the expense of investigating actual classroom materials and techniques being used. The major

finding is that what is taught in our methodology classes has little consequence for the teaching and learning taking place in the classrooms. Rather than being real, much of the theory seems to be a hypothetical construct with little direct connection to the classroom.

Nonetheless, we have learned three things that are relevant to our understanding of language teaching: First, individual abilities differ; all else being equal, learners with high language learning aptitudes learn better than those with low aptitudes. Aptitude, something that we have almost no control over, accounts for much of the difference between strong and weak learners. The second thing that we have only limited control of is that, comparing students with similar aptitudes, the research shows that the younger the student at the beginning of the language learning, the greater will be the student's level of success.

Recently, there has been a shift to classroom-based research, which, in practice, means a focus on classroom-management techniques and activities used by teachers. The engine that makes this classroom teaching successful is memory. To the degree that activities and techniques are consistent with how memory works, the techniques and activities are successful; to the degree that they are not consistent with how memory works, the

techniques are less successful. The more successful activities present language in ways that help with retention in memory. In general, we recognize that greater frequency of exposure to material results in better retention, particularly if it is distributed over time. Clarity is equally important. The greater the clarity of the conceptual, visual, or auditory image, the clearer the ideas are, the more the related language is retained. Time spent preparing visual aids, working out how to present material, and thinking about how to make things clearer is time well spent.

The conclusion is that, if we are interested in improving the teaching of languages, our focus should be on the techniques and materials used in the classroom. Notice it is not a focus on lesson plans, but more specifically on the structure of activities used to put the lesson plans into practice that needs to be emphasized.

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March, 2013

My other major academic interest has been linguistics, with an emphasis on the establishment of historical relationships between Southeast Asian languages. This focus includes work on Sino-Tibetan (Thurgood and LaPolla, 2003; 2007), the Chamic languages (Austronesian) (Thurgood 1999), and various Li languages of Hainan.

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Exploring Influences of Consumer Socialization Agents on Branded Apparel Purchase among Urban Malaysian Tweens

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ABSTRACT

Tween consumers today interact with brands, television media and friends as their main agents of socialization. These agents have impacts on their consumption patterns. In the Malaysian market, the tween segment has emerged and also taken the retail trade by storm. Tweens are now able to influence their parents' purchasing decisions and this has changed the spending behaviour of their family. This paper seeks to examine consumer socialization sources for tweens and how these socialization agents can influence their preference for branded apparels. Data was collected using a structured survey questionnaire to elicit responses on the purchase preferences of branded apparels. The respondents comprised of 150 urban tweens between the ages of 8 to 12 years. Findings revealed that urban tweens had relatively high awareness on brand names and strong purchase preferences for branded apparels. Peer, parental and advertisement influences, combined with their obsession for television media, have significantly affected their purchase of branded apparels. Arguably, parental selective power still has some exertion on tween's purchase decisions although the influence is declining. Parents and tweens often wear apparels of the same brands. The findings of this study have several implications for marketers, consumers, and family policy makers.

Keywords: Tweens, consumer socialization, parental influence, peer influence, parental selective power

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INTRODUCTION

The Tween Market in Malaysia

The "tween" concept originated in marketing and even though it is a widely used term in marketing and media research, the concept should not be taken for granted. The concept is based on being "in-be-tween" childhood

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and teen-hood (Cook & Kaiser, 2004) or pre-teens. Tweens or tweenagers are loosely defined by those at the ages of 8 to 12 years old, based on the Western context (Siegel *et al.*, 2004; Soltan, 2004). The tween market is an attractive market for retailers. These young customers are an important segment in the marketplace as they exert enormous influence on the allocation of spending power across a growing number of product categories.

Tweens in Malaysia are narrowly classified between the age of 10 to 14 years old and they make up about 10 percent of the total population (Euromonitor International, 2005). This is the age group where children grow to become individuals with the majority of influence coming from family and friends. This is also a moulding age for a wide range of consumer products such as branded fashion apparel, sportswear, and jewellery, fast food, entertainment and hair accessories (Euromonitor International, 2010). In recent years, new products such as handbags, cosmetics, electronic gadgets and mobile phones have been largely purchased by tweens. It appears that tweens today have more decision power than their older teenage counterparts and are often given more liberty to purchase anything they like. These tweens are likely to show brand loyalty as they grow older, as it is perhaps the first time they make decisions over which brands they buy (Martensen, 2007; Prince, 2011).

In the case of Malaysia, most of the marketers and consumer researchers have largely ignored these tweens as a consumer segment because of their little disposable income or insignificant role in purchase decision making. However, a new trend has emerged. The modern tweens have more buying power because they receive more allowance and parents also allow them to handle their finances. For instance, a typical tweenager in Malaysia receives an allowance of between RM20 to RM50 per month. Most of them are highly susceptible to advertising as well as peer pressure and will most likely spend to look 'cool' (Euromonitor International, 2005).

As tweens increasingly evolve themselves into important consumers in today's consumer culture, it is deemed important to investigate their shopping behaviour, such as the motivations underlying the choices behind their purchases and also the places they frequent to shop these products. Thus, they certainly have an influence on their family's purchase decisions. Tweens are now able to influence their parents' purchase decision making and thus, affecting the spending patterns of their family. Recently, a large number of branded and luxury apparel outlets have mushroomed to cater to the tween markets. Some of the tween brands of apparels in the Malaysian retail market are 'Osh Kosh B'Gosh', 'Gap Kids', 'Miss Whatever, Girls', 'Guess Kids' and 'Seed and Padini Kids'. This signifies that wearing apparels with brand is a part of the lifestyle which is not only for adults but also for the tweens. As indicated, tweens' preferences for branded apparels are influenced by the major consumer socialization agents,

namely, television commercial exposure, as well as parental and peer influences (Calvert, 2003; Sancheti, 2009). The understanding of the socialization factors that influence tweens to purchase branded apparels has become significant, especially for marketers, as tweens are now regarded as an attractive market segment by itself with high profit potential. This study explored the phenomenon of preferences for branded apparels among urban Malaysian tweens. Notably, the effects of parental influence and parental selective power on tweens' purchases of branded apparels were measured. In addition, the roles of television media and peer influence were also studied to determine their influences on tweens' purchase behaviour.

The Soaring Tween Consumer Segment

Clothing is an essential part of our daily life; the importance of which varies among individuals. Determining the level of one's interest in clothing is an important practice in evaluating one's apparel attitudes and consumer behaviour. Some previous studies have shown that younger shoppers tend to be more involved in the purchase of apparel items relative to older shoppers (Fairhurst et al., 1989; Drake-Bridges & Burgess, 2010). Generation Y consumers' choices and purchases of branded apparels are primarily meant to express their individuality, creativity, and uniqueness, as well as to maintain their social norms (Knight & Kim, 2007). Simpson et al. (1998) found the attributes of tweens' purchase of clothing are related to status; they are interested in wearing the latest fashion, to be in-style, and gaining prestige of wearing branded clothing. The tween years are deemed a time whereby peer pressure and "fitting in" play a very important part of their childhood.

In light of the increasing role of young consumers' involvement in purchase decisions, recent studies have begun to examine the relatively under-researched but increasingly important tween market and their involvement in the purchase decision making of their family. Shoham and Dalakas (2006) and Tinson (2007) have highlighted how the adolescent children influence their parents to yield to their purchase requests. Although previous studies have noted that older teenagers have greater influence on family purchase, tweens have also exerted a significant influence over their parents' choices of product purchase.

Despite the tweens' increasing role in family decision making and spending power in the retail sector, there is a paucity of research into the buying pattern and behaviour of this consumer segment. Extensive research on adult consumers' brand recognition has not been paralleled by the same level of studies done on young consumers (Gregan & Roedder, 1995; Siegel et al., 2001). Nonetheless, numerous studies have shown that children's unique shopping patterns are developed and affected by consumer socialization agents, which include family, peers, media and schools (Moschis, 1981; Shoham & Dalakas, 2006; Tinson & Nancarrow, 2010). These influences are critical consumer socialization agents among children and adolescents, and more often than not, have an impact on the younger generation to buy certain products or brands. Recent studies have focused on environmental factors such as television, parents and peers mainly on children's brand awareness (Valkenburg & Bujizen, 2005; D'Alessio *et al.*, 2009), but little is known about consumer socialization sources for tweens.

In addition, some apparel marketers have taken the external factors that can affect the tweens' purchasing pattern for granted. Basically, tweens' unique shopping patterns are developed and affected by consumer socialization agents, which include television commercial exposure, parental and peer influences. Tweens' consumption and perception to advertising are differently motivated according to cultural differences and consequently, the tween segment is not globally homogenous (Andersen et al., 2008). Hence, tweens' attitudes towards brands should be developed separately and marketers should certainly not assume that the findings derived from the Western research could be similarly applied to the Malaysian context. Similarly, the marketing tools that have been practiced in the West may not be effective in Malaysia due to the differences in terms of culture, beliefs, attitude and the general lifestyle.

Therefore, there is a need to investigate the underlying socialization characteristics of Malaysian tweens that could differ in terms of their perceptions and reactions. By ignoring the importance of studying the tweens' purchasing behaviours, marketers or apparel producers will miss the opportunity

to achieve the optimum revenue and market capacity. Exponentially, marketers will not be able to survive especially with the intense market competition. This study firstly sought to investigate the preferences of branded apparels among tweens and to identify the consumer socialization agents influencing their purchase preferences. In more specific, the influences of consumer socialization agents on the purchase preference for branded apparels were determined. Subsequently, ethnic and gender differences for these agents were also examined.

The significance of this study will provide marketers the opportunities to generate new marketing strategies in planning for the best promotional tools to capture this new consumer segment. Tweens' purchasing power in America was estimated at \$38 billion, and family expenditures on tweens were amounted to \$144 billion in 2007 (Sree, 2005). More importantly, the findings will have implications for marketing strategies that capture the interest of potentially moneyspinning and lucrative tween segment in Malaysia. In the same vein, with the proselytisation of advertisement and Western media, marketers need to be sensitive to the burgeoning global tween's behaviour to spend on products.

METHODOLOGY

This study employed primary data collection using a survey approach. The necessary data was obtained mainly using personal interviews to guide the younger samples

of tweens to respond to the questions as they might have less experience in filling in the questionnaires. Hence, the questionnaires were only self-administered to older tweens. This method was vital to ensure high reliability and accuracy of the data collected. The target sample included tweens between 8 to 12 years of age. For the purpose of comparing with existing the literature and past studies, this study utilized the more widely definition of 8 to 12 years of age. Previous studies in the tween Asian market have used both the younger (from 8 years old) and older tween segments (from 10 to 12 years old) (Tomari, 2008; Chan, 2011). Using convenience sampling, 150 tweens were selected from the urban areas of the Klang Valley and Kuala Lumpur to participate in the survey as these areas are representatives of the major urban young consumer markets in Malaysia. Moreover, the urban tweens were most likely to be exposed to branded apparels and tended to possess a certain level of awareness towards these brands. Using the shopping mall intercept method, the respondents were identified at fast food restaurants of major shopping malls in the city and the Light Rail Transit stations.

The research instrument comprised close-ended, structured questions, which had been adapted from the works of Dotson and Hyatt (2005) and Flurry and Burns (2005). Items tapped included their demographic profile, consumer socialization agents and how those agents might have an influence over the choices and preferences of branded apparels. Tweens' influence power towards

their parent's purchase decisions in branded fashion and clothing preferences was also surveyed. Using a 5-point Likerttype scale, with 1 = Strongly Disagree to 5 = Strongly Agree, the instrument measured the influences by peers (6 items), television (9 items), and parents (10 items) as independent variables, while brands (4 items) as the dependent variable. The 4 items in brand with the word 'clothes' were changed to 'apparels' to suit to the concept of fine and branded apparels as opposed to clothes which refer to formal clothing and other accessories. This was done to assist the young respondents to understand the content and to adapt to the Malaysian context.

FINDINGS AND DISCUSSION

The demographic profile of the respondents in Table 1 shows that males (42%) and females (58%) are almost equally represented. Meanwhile, the age distribution indicates that 12 year old tweens as the largest group. The ethnic group, Malays (56.7%), accounts for more than half of the total respondents while Chinese and constitute 24% and 14%, respectively. The ethnic composition reflects the typical Malaysian urban population composition. The main household income group is from RM3001 to RM4000 per month (40.7%), whilst 22.7% are in the income group of RM4001 and above. These income groups are representatives of most urban families, with a relatively good social economic background. Most of the respondents have 2 to 3 siblings (82%), and this is an indicative of the nuclear family and the small family size prevalent in modern urban households in Malaysia. In addition, most of the families surveyed have siblings, supporting the view that tweens' influence on family purchase in this study was not biased and not dominated by the decision of a one-child family.

Tweens' Preferences towards Branded Apparels

The preferences for branded apparels focus on how far the tweens are aware of fashion trends, and their ability to recognize and purchase branded fashion clothing. The findings presented in Table 2 indicate that most urban tweens like to wear certain branded apparels (M = 4.19, SD = 0.61). This means they are brand-conscious, paying particular attention to brand names when they go shopping (M = 4.00, SD = 0.78). They also tend to wear apparels with the brand names displayed, indicating their strong preferences to purchase apparel from a particular brand (M = 3.91, SD = 0.86). These findings are consistent to Sidin *et al.*'s (2008) study, where Malaysian children were found to show high preference ranking towards brand names by frequently choosing products with well-known brands. However, purchasing a particular brand of

TABLE 1 Demographic Profile of the Respondents

CHARACTERISTICS	FREQUENCY	PERCENTAGE (%)
Gender		
Male	63	42
Female	87	58
Age		
8	13	8.7
9	10	6.7
10	30	20.0
11	29	19.3
12	68	45.3
Ethnicity		
Malay	85	56.7
Chinese	36	24.0
Indian	21	14.0
Others	8	5.3
Number of Siblings		
1 (Only child)	1	0.70
2 to 3	123	82.0
4 to 5	24	16.0
6 and above	2	1.3
Household Monthly Income		
RM1000 and below	2	1.3
RM1001 to RM2000	7	4.7
RM2001 to RM3000	46	30.7
RM3001 to RM4000	61	40.7
RM4001 and above	34	22.7

apparel is relatively important to them with a lower mean score than other items (M = 3.37, SD = 0.97). This could be attributed to the fact that brands are more important than price and style when making apparel purchase. This is in line to the findings by Park (2005).

Consumer Socialization Agents of Tweens

Factor analysis using Principal Component with varimax rotation on the 25 scale items was performed on the entire sample of the respondents. Table 3 provides the results derived from the factor analysis. The study generated 5 socialization agents of tweens based on a cut-off factor loading of 0.45 for a sample size of 150 as recommended by Hair et al. (2006) and an eigenvalue greater than one. All the 5 factors had satisfactory reliability scores of 0.68 to 0.88 as recommended by Hair et al. (2006, p. 137), whereby the Cronbach's alpha value of 0.6 is acceptable for exploratory studies. The alpha values greater than 0.6 indicates a satisfactory internal consistency reliability (see Maholtra & Birks, 2007, p. 358-359). Total variance as explained by the 5 factors accounted to almost 60%. According to Hair et al. (2006, p. 120), the factor solution that accounts for 60% of the total variance (and even less in in some cases) is regarded as satisfactory as information is often less precise in social science research.

Meanwhile, peer influence (with 6 items) accounted for 25.3% of the total variance appeared as the first factor. The second factor (namely, television commercial exposure) contained 5 items and it accounted for 13.64%. This was followed by obsession with watching television, which emerged as the third new factor, with 4 items and 9.41% of the total variance. The fourth factor, i.e. parental influence, comprised of 4 items which explained 5.87% of the variance. A new dimension, which is termed as parental selective power, appeared as the fifth factor with 2 items and accounted for 4.96% of the total variance.

As the reference group, peer group played a role in influencing the product choice among the tweens. They feel that it is vital for them to fit in with their peers and thus believe what their peers think is more important rather than what their parents think. They appear bothered when their friends possess something that they do not have. In other words, urban tweens like to wear what their friends are wearing and will most likely purchase the same brand too. Most significantly, these urban tweens

TABLE 2
The Mean Scores of Tweens' Preferences for Branded Apparels

Preferences for Branded Apparels	Mean (M)	Std. Deviation (SD)
I like to wear certain brands of apparels	4.19	0.61
I think having a name brand apparel is important	3.37	0.96
I pay attention to brand names of apparels when I go shopping	4.00	0.78
I like wearing apparels with brand name showing	3.91	0.86

believe that successful people wear brand names. These findings are similar to the work by Dotson and Hyatt (2005), whereby tweens reported peer and TV influence as their main consumer socialization agents. Children's ability to recall brands and peer influence lead to brand recognition (Valkenburg & Bujizen, 2005). Similarly,

Ong and Chan (1999) showed peer group and media as the main sources of influence on purchases among Malaysians. Semuels (2006) observed that during the tween years, kids switch from being influenced by their parents and the brands they buy to being influenced by their peers and the brands they aspire to own.

TABLE 3 Factor Analysis of Consumer Socialization Agents

	Mean	8_				
	Score	1	2	3	4	5
Factor 1: Peer Influence						
It is important for me to fit in with my friends	4.08	0.80				
I like to wear what my friends are wearing	3.78	0.79				
What my friends think is more important than what my parents think	3.07	0.78				
I buy the same brands as my friends	3.59	0.74				
It bothers me when my friends have something that I don't have	4.17	0.74				
Successful people wear name brands	4.43	0.62				
Factor 2: Television Commercial Exposure						
I like commercials with celebrities	4.12		0.69			
I learn a lot about brand from watching TV	3.95		0.58			
Most TV ads are cool	3.97		0.56			
I make buying decisions on items for the whole	2.79		0.54			
family I value my parents' opinion on what I buy	3.66		0.40			
Factor 3: Obsession with Watching Television						
Watching TV is an important part of my life	3.73			0.84		
I always watch TV after school	4.15			0.84		
Watching TV is fun	4.46			0.79		
TV ads tell the truth about products	3.25			0.47		
Factor 4: Parental Influence						
My parents and I agree on what I should wear	4.03				0.78	
I like to go shopping with my family	3.89				0.72	
My parents let me buy the brand of apparels that I	4.14				0.57	
want	3.67				0.52	
I talk to my parents about brands						
Factor 5: Parental Selective Power						
I buy the same brands as my parents	3.59					0.84
My parents choose the apparels they buy for me	3.25					0.75
Cronbach's Alpha		0.88	0.68	0.77	0.73	0.68
% of Variance Explained		25.3	13.64	9.41	5.87	5.0

Tweens favour commercials which involve celebrities and agree that TV advertisements are cool. They learn brand names through advertisements as well as commercials and this has had some influence on their family buying decisions. However, some urban tweens do value and consider their parents' opinions on what they should buy.

The current study observed that Malaysian tweens are obsessed with watching television. In particular, they perceive TV media an important part of their life and watching TV is fun. They always watch TV after school and believe the advertisements shown on TV. This connotes tweens' TV culture and obsession with TV and its commercials. This cultural obsession is caused by the fact that some TV ads feature tween and teenage commercials. Tweens are influenced by imagery and assimilate information pertaining to certain products from this imagery. Asian children are more likely to be influenced by TV because of their obsession for it and brands exposure from TV commercials and therefore directly affecting their choices. They learn of brands from reality TV, celebrity personalities and idol emulation (Semuels, 2006). TV viewing is associated with desirable and undesirable consumer socialization (Shim et al., 1995) and a source of information for new products (Fiates et al., 2008). Another insight found tweens' attention style to a strong liking for advertisements, where the more stimuli, the better (Bergstrom & Bluementhal, 2001).

Parents today tend to agree with their children on what they should wear and allow them to buy the brand apparels of their choice. This socialization process between parent and tweens actively involves communication about brands and product choices. Children as young as nine have as much knowledge of advertising slogans as do their parents, even in product categories targeted for adults (Dotson & Hyatt, 2000). As more parents now involve their children in shopping, the more conscious children reported being of brand, price, colours, peer, and style in buying apparels (Shim et al., 1995). Among Malaysians, family consistently emerged as a great influence over purchase decisions on food and beverages, cosmetics and toiletries, as well as clothes (Sidin et al., 2008).

Parental selective power revealed that ultimately urban parents still have some control over the choices of apparels suitable for their children. On one hand, the tweens seem to have some power to select their brand choices, although their preferences are likely to be influenced by their parents' decisions on type of apparels and brands. Some tweens and parents wear the same brand names. Both parents and their tweens are label-conscious, especially parents from the baby boomers era, who grew up in affluence. Parents want to show their status through their kids (Semuels, 2006). Parents do make decisions on the choice of branded apparels for their children and this is notably done amongst Asian families. These findings are consistent with Carlson

and Grossbart's (1988), whereby parental styles can influence children's product preference. Authoritarian mothers are active in shaping learning experiences and discussing their children's opinions and TV media mediation.

Gender Comparison of Consumer Socialization Agents towards Tweens' Preferences for Branded Apparels

In this study, gender and ethnicity comparisons on socialization agents of tweens were determined using independent sample t-test. Table 4 indicates that female tweens demonstrated a stronger preference in purchasing branded apparels (t=4.65, p=0.001), influenced by television commercials (t=3.54, p=0.001) and were susceptible to parental influence (t=3.38, p=0.001), as compared to male tweens. Grant and Stephen (2005) found that parental and peer group approval as key decision factors influencing tweenage girls' fashion clothing purchases. In contrast, Valkenburg and Bujizen (2005) found American boys to

have superior brand recognition and brand recall as compared to girls. Ozgen (2003), on the other hand, reported that gender on the relationship with parents and peers as socialization agents was insignificant. The findings are supported by Sidin *et al.* (2008), who found that female children showed high preference ranking towards brand names for food product purchases. Tweens' consumption differs in different countries and this could be explained by cultural factors, as echoed by Andersen *et al.* (2007) that the tween consumer segment is not a globally homogenous segment as many marketers would have thought it to be.

Ethnicity Comparison of Consumer Socialization Agents towards Tween Preferences for Branded Apparels

The findings presented in Table 5 indicate that Chinese tweens were dominant in the preferences of branded apparels (F= 4.19, p=0.003), while Indian tweens were mostly influenced by their parents in purchasing branded apparels (F=4.20, p=0.022).

TABLE 4
Gender Comparison on Consumer Socialization Agents

Variables	Mo			
	Male N=87	Female N=63	t-value (b)	Sig
Preferences of Branded Apparels Purchase	3.58	4.07	4.65	.0001*
Peer Influence	3.74	3.94	1.76	.081
Television Commercial Exposure	3.53	3.82	3.54	.001*
Parental Influence	3.75	4.07	3.38	.001*
Parental Selective Power	2.67	2.76	0.59	.554

^{*}Significant at p ≤0.05. (a)Mean score is based on a 5-point Likert Scale, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree. The higher the mean score, the greater the respondent's presence towards the factor will be. (b) T-value using independent sample t-test between the male and female respondents

The differences could be explained by the cultural factors and parental styles. Bristol and Manglebury (2005) discussed permissive and authoritative parental styles in individualistic cultures found in the Western cultures, whereas protective and indulgent styles as prevalent in collective cultures as in Asian cultures. These could influence tween socialization patterns and consumption choice. These findings are supported by the studies on tween market in other Asian markets. In particular, TV commercials appear to have a large impact upon the brand preference and purchase behaviour of children in the Indian market (Khandai & Agrawal, 2012), and they are fully aware of the various advertisement dimensions that influence their desires to purchase (Razzaque, 2009).

Consumer Socialization Agents on Tweens' Preferences for Branded Apparels

The relationships between socialization agents and preference for brand apparels were evaluated using multiple regression analysis. Overall, the four socialization

agents explained 45.1% of the variance of branded apparel preferences. This shows a moderately acceptable result. In addition, F = 29.75 was quite large and the corresponding p-value was significant (p=0.0001). Based on the information given in Table 6, peer influence (β =0.33) contributed the strongest in explaining the tweens' preferences for branded apparels, and this was followed by parental influence (β =0.30) and TV commercial exposure (β =0.23). On the contrary, parental selective power (β =0.16) contributed the least in explaining the tweens' preference for branded apparels.

These results are in line with the study by Dotson and Hyatt (2005), which showed that peer and television influences were significant consumer socialization agents as opposed to the amount of television viewing acts which served as an insignificant predictor. Parental brand awareness was significantly related to children's brand recall, while peer influence significantly helped in predicting children's brand recognition (Valkenburg & Bujizen, 2005).

TABLE 5
Ethnicity Comparison on Consumer Socialization Agents

Consumar Socialization Agents	Means (a)				- F (p)	C: ~
Consumer Socialization Agents	Malay	Chinese	Indian	Others	- F (°)	Sig.
Preferences of Branded Apparels	3.72	4.19	3.98	3.66	4.92	0.003*
Peer Influence	3.73	4.06	3.97	3.96	2.44	0.067
Television Commercial Exposure	3.66	3.78	3.76	3.55	0.80	0.495
Parental Influence	3.82	4.03	4.20	3.91	3.32	0.022*
Parental Selective Power	2.80	2.58	2.81	2.31	0.91	0.436

^{*}Significant at p \leq 0.05. ^{a)}Mean score is based on a 5-point Likert Scale where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree. The higher the mean score, the greater the respondent's presence towards the factor will be. ^(b) F value using ANOVA between Malay, Chinese, Indian and "Others"

Ong and Chan (1999) found that young family members consistently emerged as a great influence over purchase decisions on food and beverages, cosmetics and toiletries as well as clothes. Peer groups were also found as the main source of influence for the purchases of books and magazines, while mass media was the main source of influence for electrical goods.

IMPLICATIONS OF THE STUDY

The findings of this study have important implications for marketers as well as consumer and family policies. Understanding the influences of their socialization agents will provide invaluable insights into tweens' mindset towards brands offering with new avenues for marketers' thought into tween-oriented marketing and brand strategy. The findings of this study have implied that urban Malaysian tweens may be more effectively targeted by marketers using the strategies that can stimulate the word-of-mouth and peer-topeer marketing strategies which encourage these tweens to talk about the brand name of apparels with their friends as this portrays a high tendency of social interactions in their daily life due to the collectivist Malaysian

culture that is strongly attached to reference groups. Meanwhile, advertisements and commercials developed by marketers should include elements of friendship and tweens' lifestyle so as to capture the potentially lucrative tween market.

Thus, marketers can exploit the power of television commercials and ads that capture market potential among Malaysian urban tweens due to their obsession with watching TV. Walters (2009) calls for appropriate strategies to these preteens who are in a voracious search for self-image and identity which is often done through TV where fashion trends are set by celebrity icons. Urban tweens are more than likely to go shopping with their parents; therefore, the advertisements should not just attract and please tweens but they must also attract their parents' interests. As the findings have indicated that urban Malaysian parents do, to some extent, allow their children to decide on their choice of branded apparel, the parents still ultimately play their roles in advising and giving opinions. In order to reduce the parents' autocratic and selective power in purchasing apparels for their children, marketers may develop strategies that attempt to bridge the gap between

TABLE 6
The Relationship between Consumer Socialization Agents and Preferences for Branded Apparels

Consumer Socialization Agents	β	t	Sig.
Peer Influence	0.33	4.393	0.01*
Parental Influence	0.30	4.064	0.01^{*}
TV Commercial Exposure	0.23	2.970	0.01^{*}
Parental Selective Power	-0.16	-2.251	0.03*

^{*}Significant at p \leq 0.05, F= 29.75, R= 0.671, R square = 0.451

children and parents, such as by creating events, activities or programmes that require the involvement from both parties to create a family-oriented atmosphere with activities for all ages that instil positive brand-oriented experiences in children.

Moreover, parents should also consider their children's interest in determining their image and appearance. Rationally, parents should give opinions and advice on the suitability of apparels that should be purchased by their children. In addition, parents should give their children clear guidelines as to what clothing is acceptable. According to Drake (1999), parents are responsible in choosing appropriate shopping formats for their children but at the same time, they should tolerate them by allowing some degree of authority in decision-making in order to provide freedom for them to explore and determine the kind of apparels they should like to wear.

The findings have also added to the understanding of tweens' consumption behaviours for marketers. Marketers have commonly regarded that tween consumers are a globally homogenous group. This tween segment has captured the attention of marketers and is reported to be the fastest growing market niche. In addition, the findings have highlighted the role of female tweens as the main influencers in the modern yet conservative culture of Malaysia.

Nevertheless, the present study has some limitations. In particular, it was based on a convenient sampling and this sample size was rather small and restricted to urban tweens only. Hence, there is a limited representativeness of the results. This also means that generalization of the findings should be done with care. A larger sample could be tested over a wider range of urban cities in Malaysia so as to make generalization more meaningful. In addition, the present study dealt with branded apparels, thus, it may not be possible to generalize results to other product types. For this reason, future research is recommended to explore other product and service categories such as holiday travel, private education, meals out and entertainment services that tweens today have greater influence on.

The present study was confined to ad influence on TV media as the main socialization agent. Future research should extend to upcoming online social media such as Facebook and Twitter on product purchases among tweens and also extend to include the Facebook generation and Generation Z. The investigation towards tweens' influence power on family purchase decisions should be further studied in order to identify the strategies implemented by those who influence their parents in terms of branded apparel purchases. The strategies applied by the tweens in influencing their parents' decisions include bargaining, persuading, or adopting emotional strategies which for instance are pouting, sweet talking, or using guilt trips. Despite some limitations, the findings have provided richer insights for marketers and researchers into how tweens, especially those from a more Asian perspective, have an impact on family consumption behaviour.

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Relationships of Birth Order, Parent-Child Relationship, Personality, and Academic Performance

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ABSTRACT

This study investigated the relationships between birth order, personality, academic performance, and parent-child relationship amongst 120 college students from the Klang Valley. The sample constituted of 30 firstborns, 30 middleborns, 30 lastborns, and 30 only children with a mean age of 20.0 years (SD= 1.85). Instruments used in this study were Ten Item Personality Inventory (TIPI) and Parent-Child Relationship Survey (PCRS). Results indicated that participants of different birth orders did not differ significantly in terms of their personality, academic performance and parent-child relationship. Furthermore, this study also found no relationship between parent-child relationship and academic performance. However, extraversion was found to be correlated positively with academic performance. Besides, this study also indicated that parent-child relationship did correlate with children's openness to experience, emotional stability, and conscientiousness. This implies the importance of a match between one's personality trait and field of study, as well as the importance of good parenting practices.

Keywords: Birth order, personality, parent-child relationship, academic performance

INTRODUCTION

People are intrigued by the fact that children of a family behave differently although they are raised in the same environment, such as

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neighbourhood, and share the same genetic pools from both of their parents. On top of behaviours, siblings do differ in terms of personality characteristics (Michalski & Shackelfold, 2002), college attendance (Bayer, 1966), intelligence (Boomsma et al., 2008), familial sentiment (Salmon & Daly, 1998), and others. Firstborns are always described as being responsible, high achievers and perfectionists, whereas lastborns and only child are always described as the baby of the house and are mostly spoiled children (McGuirk & Pettijohn, 2008). As a result, these differences among siblings have attracted the attention of researchers over the past decades.

In 1920s, Alfred Alder was one of the pioneers who studied the effects of ordinal position of birth, sex of siblings and family size on children's developmental course. It is important to note that although siblings do share environmental context, there is one context that is impossible to be shared with – birth order (Dixon, Reyes, Leppert, & Pappas, 2008). This is the variable that makes the child a unique individual in a family. Generally, parents are excited and anticipated about their first child and hence, tend to be overly protective and pay more attention, investment, as well as expectation on this first child. However, parents' attention, investment, and expectation vary across children (Michalski & Shackelford, 2002). As the second child arrives in the family, the firstborn may experience dethronement and the same happens to the second born once a third child arrives and so forth (Adler, as cited in Adams, 1972). Besides, Downey (2001) also suggested that parental resources that a child receives decrease as the sibship size grows bigger. Therefore, every child experiences different levels of parental resources and investment as a result of their birth order, while these unique experiences will in turn shape their developmental course. According to Carlson and Kangun (as cited in Claxton, 1994), such differential treatment by parents has been a "centuries old phenomenon that extends across cultures".

To date, most of the birth order effect studies were conducted in the West and there were very little published studies that reported birth order effects within Malaysian context. The results found in the western countries may not be generalized into Asia context due to cultural difference and differences in parenting styles (Chao, 1994). Thus, this study aimed to examine the relationships between birth order, personality, parent-child relationship and academic attainment among college students from the Klang Valley, Malaysia. A better understanding of these relationships might help parents to understand the differences amongst their children, which may in turn facilitate parent-child relationship.

LITERATURE REVIEW

Birth order is defined as a person's rank by age among his or her siblings (Steelman, 1985). In other words, it is the chronological order of birth in a family. Birth order can be classified into firstborn, middleborn, lastborn and only child.

Personality, on the other hand, refers to the unique constellation of consistent behavioural traits of an individual (Weiten, 2007). It helps to explain why everyone acts differently in a similar situation. Cattell (as cited in Weiten) has identified 16 personality dimensions by using factor analysis. Later, McCrae and Costa (1997) proposed Five Factor Model and suggested that human behavioural traits could be further summarized into five distinct factors, namely, extraversion, neuroticism, agreeableness, openness to experience, and conscientiousness.

The third variable of this study is parent-child relationship. Sears (1951) described parent-child relationship as the socialization between the parents and the child. This dyad relationship is seen to differ in terms of general quality and closeness and it is partly determined by the parental investment within this dyad (Rohde *et al.*, 2003).

Lastly, academic attainment refers to one's achievement in schools or colleges and it is usually measured by academic grades (Hauser & Sewell, 1985) or college attendance (Bayer, 1966). Besides, McCall (1994) defines academic underachiever as a student who performs below his or her expected cognitive abilities, which are frequently measured by IQ, aptitude or educational test.

Birth Order and Personality

The most prominent topic of birth order studies is its impact on personality. Over the decades, a large number of studies have been carried out to examine personality differences among siblings. Alfred Adler, one of the pioneers of this topic of interest, has theorized that each birth position has a set of personality traits. According to Adler (as cited in McGuirk & Pettijohn, 2008), firstborns are always seen as leaders, high-achievers, ambitious, and conforming. They attempt to please their parents via traditional way, which is through academic performance and responsible behaviours (Paulhus, Trapnell, & Chen, 1999). Middle birth children, on the other hand, may experience difficulty finding a position of privilege and significance in the family

because they never have the opportunity to monopolize parents' attention (Adams, 1972). Thus, they constantly fight to stay ahead of their younger siblings and uphold or perhaps, surpass their older brothers or sisters. In contrast, lastborns and only children are frequently viewed as the baby and spoiled kid of the family. It is because both of these birth positions are the only focus of the family. However, unlike the only children, the laterborn children, including the middle birth and last birth children, are aware of the higher status of the firstborn, so, they will seek alternative strategies to outstand their siblings (Paulhus et al., 1999).

Dethronement theory

In addition, Adler (as cited in Adams, 1972) also proposed a dethronement theory. Before the birth of the younger sibling, the eldest child has his or her parents' complete attention but he or she is later dethroned by a newborn sibling. As a consequence of dethronement, the child struggles to regain parental attention and his or her family niche. This leads the firstborn to develop characteristics such as conscientious and conservative (Paulhus et al., 1999). Besides, firstborns may be more independent and competent as a result of dethronement (Adams). These personality characteristics are seen to facilitate one's academic attainment in the future.

Family-niches model

Another theory that describes birth order effect on personality development is family-

niches model (Sulloway, 1996). According to Sulloway, children are motivated to solicit parental investment when they perceive differential parental investment within the family. They compete for parental investment by creating distinctive niches. Sulloway also hypothesized that firstborns are less agreeable as compared to the laterborns because they dominate the younger siblings to minimize the diversion of parental investment. In contrast, the younger siblings avoid confrontation with the firstborns to solicit parental investment, which in turn leads them to be more agreeable. Besides, he also suggested that firstborns correlate negatively with openness as compared with laterborns because openness is the factor that assists the laterborn children to create alternative approaches to compete for parental investment. Furthermore, he concluded that firstborn are more conscientious than the laterborns because firstborns echo their parents' attitudes, beliefs, and personality characteristics. On the other hand, laterborns may develop attitudes, beliefs, and personality characteristics that are apart from the elder siblings and parents. Therefore, Sulloway describes the laterborns as born to rebel.

In the past, studies that were carried out to examine the relationship between birth order and personality have generated inconsistent findings. Some studies succeeded to find significant birth order effects on personality differences between siblings (Healey & Ellis, 2007; Paulhus *et al.*, 1999), while some others have failed to support Adler's predictions and Sulloway's theory (as cited

in Parker, 1998). For instance, Healey and Ellis who studied university sample (n =161 sibling pairs) and older adults (n =174 siblings pairs) reported that there were significant differences between firstborn and secondborn siblings in their personality traits. Firstborns scored significantly higher on conscientiousness and lower in openness to experience than their secondborn siblings, which supported the dethronement theory and family-niche model. Moreover, Paulhus and others had their participants to nominate the most achieving and conscientious sibling within their family and found that the firstborns were rated as more achieving and conscientious than laterborns. Similar findings were replicated in Michalski and Shackelford's (2002) study, where they found that firstborns correlated negatively with agreeableness. Furthermore, Tharbe and Harun (2000), who examined personality differences amongst 161 form five students in Kuala Lumpur, also reported that birth order theory was applicable to Malaysians. They found that there were certain dominant trait patterns although no significant relationship between birth order and personality was reported.

There were also studies that found no relationship between birth order and personality traits. For instance, Jefferson, Herbst, and McCrae (1998) administered brief measures of neuroticism, extraversion, and openness to experience to 9964 participants and reported that the self-report of personality dimensions were unrelated to birth order. However, the authors found that peers did rate the younger siblings as higher in agreeableness and openness.

Yet, spouse ratings failed to replicate such findings. On top of that, Parker (1998) also administered a short form of NEO-PI to 593 only children, firstborns, middleborns, and lastborns, but found no relationship between birth order and personality traits. The inconsistency of birth order effects on personality had led Ernst and Angst (as cited in Dixon et al., 2008) to conclude that the birth order effect on personality traits were artefacts of poor research designs where confounding variables, such as socioeconomic status (SES) and sibship size, were not controlled. The results were biased because families of higher SES and smaller in size would constitute of more firstborns whereas families of lower SES but larger in size would constitute of more laterborns. Furthermore, Michalski and Shackelford (2001) also claimed that the use of within-family designs would provide more advantages over the use of between-family designs as it decreased the variation of SES, sibship size, and parental personality traits.

Birth Order and Parent-Child Relationship

On top of personality difference, research evidences also proved that parent-child relationship differed amongst siblings. As mentioned above, parent-child relationship is partly determined by the parental investment within the dyad. However, parental investment decreases as sibship size increases (Downey, 2001).

Kilbride, Johnson, and Streissguth (as cited in Taylor & Kogan, 1973) discovered

that mother-first child interaction was significantly more intensive than motherlaterborn child interaction, regardless or the social classes. In another study, Rohde et al. (2003) measured parentchild relationship quality by examining: (1) parental favouritism, (2) rejection of parental authority by becoming the family rebel, (3) closeness to kin, and (4) seeking of emotional support after a distressing event. They reported that parents preferred the lastborns the most and the laterborns tended to be the family rebels. Besides, they discovered that firstborn felt closest to the parents more than lastborn did whereas the middleborns were least likely to feel close to their mother but were more likely to name their father or sibling. Moreover, Kidwell (1981) claimed that middleborns experienced less positive relationship with their parents as compared to firstborns and lastborns and they viewed their parents as less supportive, less reasonable and more punitive.

Birth Order and Academic Achievement

In addition, ordinal position does impact one's intelligence (Boomsma *et al.*, 2008), which in turn influences one's academic achievement or college attendance (Bayer, 1966). Intrauterine theory, confluence hypothesis, and resource dilution hypothesis are commonly offered to explain such association.

Intrauterine theories

Some of the intrauterine theories claim that young mother is able to provide a

"rich uterine environment" for her earlier born children, and this results in greater health and intelligence in the earlier-borns (Adams, 1972). However, there are intrauterine theories that suggest the otherwise because mothers experience less labour and less likely to use forceps in subsequent delivery, which in turn reducing the possible damaging to the child's health and intelligence (Adams).

Confluence hypothesis

Another theory that explains the relationship between birth order and academic performance or college attendance is confluence hypothesis (Zajonc & Markus, 1975). Zajonc and Markus claimed that the impact of birth order on cognitive achievement is largely influenced by the attention one receives from his parents and siblings and the opportunity to serve as intellectual resource. As expected, firstborns usually get the most attention from their parents. Once the sibship size grows bigger, the amount of attention that the subsequent siblings receive is getting lesser and lesser. Thus, intelligent quotients (IQ) amongst the siblings decrease steadily with birth order. Therefore, firstborns who had the most attention should have higher IQ as compared to the laterborns. However, this is largely depended on the age gap between the siblings. Zajonc and Markus proposed that when the older siblings take up the role of teaching, it would actually enhance their intellectual development. However, this effect does not happen until the older siblings are 11 years, plus or minus 2 years.

On the other hand, the youngest and only children never have the opportunity to serve as an intellectual resource and hence, they do not perform as well as firstborns academically.

Resource dilution hypothesis

The last theory that explains the association between birth order and academic achievement is resource dilution hypothesis. Downey (2001) describes resources as money, personal attention and cultural objects, such as books, music, pictures and others. He also suggests that parental resources are finite and will be diluted by the addition of siblings. According to resource dilution model, parents are able to allocate their time and resources fully to their only child or firstborn whose sibling(s) has yet arrive. However, the arrival of new child makes the parents to divide their resources accordingly. For example, parents may not be able to send all of their children to university due to limited education fund and this explains the overrepresentation of only child or firstborns in colleges or universities. Besides, resource dilution model also claims that the relative richness of parental resources also affects one's educational success. As a result, only child and firstborn, who had the full parental resources before the arrival of new sibling, achieve better academic attainment than do laterborns.

There were empirical research findings that demonstrated the birth order effect on academic achievement and college attendance (see Bayer, 1966; Breland, 1974; Nuttall, Nuttall, Polit, & Hunter, 1976).

Travis and Kohli's (1995) study (N = 817) found that birth order did impact the total years of education completed among the middle class population. The authors also found that only children appeared to excel academically too, which supported the resource dilution hypothesis. In addition, Nuttall et al. (1976) studied a sample of 553 participants from four suburban Boston communities and reported that firstborn girls had better academic attainment than the laterborn girls, but such effect was not reported in boys. Similar findings were replicated in Breland's (1974) study, who found that firstborns had higher scores in National Merit Scholarship Qualification Test (NMSQT). When step-down analysis was carried out, the birth order difference was only found in purely verbal of NMSQT test.

There were also studies that suggested birth order was unrelated to education achievement, which were against the aforementioned theories. For instance, Edwards and Thacker (1979) recruited 326 college freshmen of two-child families into their studies and discovered no association between birth order and grade point average. However, Edwards and colleague explained that the results might due to the failure to control age difference between siblings and most of the participants were college students, who initially had had high achievement already. However, Hauser and Sewell (1985) found no relationship between birth order and educational attainment as well. They examined 9000 Wisconsin high school graduates among their full sibship and reported no significant birth order effect on academic achievement when other confounding variables were controlled.

Personality and Academic Achievement

Interestingly, personality characteristics seem to play a part in one's academic achievement as well. Conscientious individuals are well-organized, focused, persistent, and efficient and hence, they have their own revision schedule. Open individuals are said to have divergent thinking style, which helps these individuals in terms of creativity (Musgrave-Marquart, Bromley, & Dalley, 1997). Individuals who are highly agreeable are gentle, cooperative, and are able to maintain social connection. These characteristics are highly favourable in situations when group project assignments and collaborative learning are involved (Chowdhury & Amin, 2006). In contrast, extraverts are outgoing and are interested in social and impulsive activities. Therefore, they spend fewer hours in revision. Last but not least, neurotics usually experience stress or anxiety more than non-neurotics and hence, these perceived stress and anxiety may impact students' performance during stressful events, for instance examinations (Chamorro-Premuzic & Furnham, 2003b).

Relationships between personality factors and academic achievement have been confirmed by tremendous research evidence. For instance, Musgrave-Marquart et al. (1997) examined the relationship between personality and academic achievement amongst 161 undergraduates. Their results showed significant relationships between academic

achievement and personality factors, such as neuroticism, conscientiousness, openness, and agreeableness. Chowdhury and Amin (2006), who studied a sample comprised of 105 students taking Introductory Economics, also reported that conscientiousness, agreeableness, and the interaction of conscientiousness and agreeableness correlated significantly to students' performance in the course. Students who were highly conscientious and agreeable achieved better performance than those who scored low in conscientiousness and agreeableness subscales. In addition, Chamorro-Premuzic and Furnham (2003a; 2003b) also found that personality traits such as neuroticism, conscientiousness, psychoticism, and extraversion correlated significantly with exam marks, which accounting to about 10-17% unique variance in overall exam grades. Moreover, Ooi, Goh, and Beh (n.d.), who examined the relationships between personality trait and academic performance of 95 INTI International College Penang (IICP) students, also concluded that personality type did have an effect on academic performance.

Parent-Child Relationship and Academic Achievement

Additionally, children's relationship and interaction with each parent and perceived social support from family members facilitate positive academic achievement as well (DuBois, Eitel, & Felner, 1994). DuBois *et al.* (1994) suggested that positive parent-child relationship makes the parents

a valuable source that helps children with school assignments. In addition, Patterson, DeBaryshe, and Ramsey (1990) also claimed that strong bonding with parents also prevents the emergence of delinquency behaviour, which is strongly associated with poor academic outcome.

However, Forehand, Long, Bordy, and Fauber's (1986) study proved that only father-adolescent relationship predicted children's academic performance because conflicts usually happened between mothers and adolescents. Thus, when conflicts between father and adolescent occurred, it was more disruptive to adolescent school performance. Besides, children's failure in academic performance was usually ascribed as the father's responsibility, and hence creating more conflicts.

Parent-Child Relationship and Children's Personality

On top of its influence on academic performance, parent-child relationship seems to be related to children's personality as well. A child has a great deal of interaction, irrespective of positive or negative, with his or her parents since the day he or she was born. Hence, these interactions are said to be the major determinants of a child's personality and behaviours (McCrae & Costa, 1988). Walters and Stinnett (1971) also agreed that mothers and fathers have very strong impacts on their sons and/or daughters. However, they argued that such impacts from mothers or fathers are very different and the intensity of influences varies across childhood and adolescence.

There were a number of researches that confirmed the relationship between parentchild relationship and adults' personality. For instance, McCrae and Costa (1988) recruited 619 participants into their study and found that adult children who were well-adjusted, agreeable, extraverted, open to new experience, and conscientious recalled their parents as loving. Those who described themselves as introvert, less conscientious, but were open to new experiences recalled their parents as casual rather than demanding. Lastly, McCrae and Costa (1988) reported that there was also association between the attention scale and extraversion subscale. Similar findings were replicated when peer-rating of the adult children personality were substituted.

In addition, Siegelman (1965) also examined the association between parentchild relations and adult children personality amongst 151 undergraduate college students. The respondents who were anxious and introverted recalled their parents as rejecting while respondents who were less anxious and extraverted recalled their parents as loving. In the following year, Siegelman (1966) replicated his study with 106 fourth-, fifth-, and sixth-grade males. However, unlike his previous study that used the selfreport measure of personality, this study utilized peer nomination method. The results indicated that boys who reported their parents to be punishing were rated as withdrawn by their classmates while boys who reported their parents to be loving were not rated as withdrawn.

HYPOTHESES

If the aforementioned theories are valid, one's personality, relationship with parents, and academic performance can be predicted by looking at one's ordinal position. However, of all the aforesaid literatures, most of them were conducted in the western countries and little is known about the relationship between birth order, personality, parent-child relationship and academic achievement in Malaysian context. As a result, this study aims to examine if such relationships between birth order, personality, parent-child relationship and academic performance can be found among Malaysian college students. Therefore, the proposed hypotheses are:

- Siblings of different birth positions differ significantly in terms of Conscientiousness and Agreeableness.
- 2. There is significant difference in the quality of parent-child relationship among firstborns, middleborns, lastborns, and only children.
- 3. There is significant difference in academic performance among firstborns, middleborns, lastborns, and only children.
- 4. Extraversion, conscientiousness, agreeableness, openness to experience and emotional stability correlate with academic performance.
- 5. Parent-child relationship correlates positively with academic performance.
- 6. Parent-child relationship correlates with children's personality traits (i.e.,

extraversion, openness to experience, agreeableness, emotional stability and conscientiousness).

METHOD

Study Design

This was a cross-sectional study that aimed to discover the relationships between birth order, personality, parent-child relationship and academic performance among college students who aged between17 and 24. The independent variable of this study was birth position of the participants, whereas dependent variables were participants' personality traits, parent-child relationship, and academic performance.

Participants

After unusable data (e.g., incomplete information or participants who were non-Malaysians) were filtered, only 120 college students from the Klang Valley (i.e., Bandar Sunway, Petaling Jaya and Subang) were qualified to be involved in this study. This study did not target a large group of participants because it was difficult to get only child and hence, only 120 participants were selected into this study so that it constituted a fair amount of the participants from each birth position (i.e., firstborn, middleborn, lastborn and only child). The participants' age ranged from 17 to 24 years, wherby the mean age was 20.0 years with a standard deviation of 1.85. There were 35 (29.2%) and 85 (70.8%) males and females respectively. Of the participants, there were 13 Malays (10.8%), 96 Chinese (80.0%),

10 Indians (8.3%), and 1 unknown (0.8%). Seventy-five percent of the participants (n= 90) were science stream students when they were in high schools. Besides, every participant is Malaysian and has taken Sijil Pelajaran Malaysia (SPM). In addition, the participants of this study consisted of 30 firstborns, 30 middleborns, 30 lastborns, and 30 only children (see Table 1).

TABLE 1
Descriptive Demographic Characteristics of the Participants

Variables	Frequency	Percentage (%)	
Gender	Trequency	Tereentage (70)	
Male	35	29.2	
Female	85	70.8	
Race			
Malay	13	10.8	
Chinese	96	80.0	
Indian	10	8.3	
Others	1	0.8	
Nationality			
Malaysian	120	100.0	
Non-Malaysian	0	0	
Stream			
Science	90	75.0	
Art/ Business	30	25.0	
Birth Order			
Firstborn	30	25.0	
Middleborn	30	25.0	
Lastborn	30	25.0	
Only child	30	25.0	

Materials

The participants were required to fill in the consent form and demographic sheet (see Appendix A) before they proceeded to the questionnaires behind. The participants'

SPM results were scored according to the grades that they obtained. Grades A, B, C, D, and F were credited 5, 4, 3, 2, and 1 point, respectively. The total points of the participants' best 6 subjects represented their academic performance. The higher the total points, the better it was the academic performance of the participants.

The scales used in this study were Ten Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003) and Parent-Child Relationship Survey (PCRS; Fine & Schwebel, 1983). TIPI (see Appendix B) is a 10-item brief scale that measures the Big-Five personality traits: extraversion (B1 and B6), emotional stability (B4 and B9), openness to experience (B5 and B10), conscientiousness (B3 and B8), and agreeableness (B2 and B7). The participants were required to rate on a 7-point Likert scale, ranging from strongly disagree to strongly agree. Items B2, B4, B6, B8, and B10 had to be reverse-scored before the mean scores for each subscale was computed. TIPI has good test-retest reliability, r=. 72, and external correlation, r=.90. Besides, it also demonstrates strong convergent and discriminant validity, r=.77, with the full Big Five Inventory.

PCRS (see Appendix C) is a 24-item scale that was intended to measure the quality of parent-child relationships. It comes in two forms, one for assessing the mother-child relationship while the other for assessing the father-child relationship. Both forms are identical except for the words "mother" and "father" are interchangeable. Sample of PCRS shown in Appendix D was

the father version. Despite the fact that both forms are identical, they measure different factors of parent-child relationship. The factors for father subscale are positive affect (items 3, 14, and 18-24), father involvement (items 1, 2, 6, 9, 10, and 16), communication (items 7, 8, and 15-17), and anger (item 13). Meanwhile, the factors for mother subscale are positive affect (items 1-3, 6, 7, and 15-23), resentment/role confusion (items 9 and 14), identification (items 13, 23, and 24), and communication (items 4, 5, 7, 8, and 15-17). Before PCRS score was computed, negatively worded items such as 9, 13, and 14 (see Appendix D) had to be reverse-scored. The mean score for each factor was easily computed by summing the individual item scores and dividing by the number of items on that factor. The total score for PCRS was the sum of the mean scores of every subscale. The higher the PCRS score, the better the parent-child relationship is. PCRS has an excellent internal consistency, with alphas for the father subscale that ranged from .89 to .94, with an overall alpha of .96, and alphas for mother subscale that ranged from .61 to .94 with an overall alpha of .94.

Data Analysis

Raw data of this study were keyed into and analysed using Statistical Package for the Social Sciences (SPSS) 14.0. The analyses used were the analysis of variance (ANOVA) and Pearson correlation. Hypotheses 1, 2, and 3 were tested using ANOVA whereas hypotheses 4, 5, and 6 were tested using Pearson correlation.

Procedure

The participants were approached randomly in campuses and were briefed about the purpose of this study by the author. As the participants agreed to participate in the present study, each of them was required to sign consent letter. Once consent was obtained, demographic sheet, TIPI and PCRS were administered to them. The instruction for each scale was written at the top part of every scale.

RESULTS

Birth Order and Personality

Table 2 shows that the skewness values of each personality factor fall between -1 and +1. Thus, it can be concluded that the dependent variable (i.e., personality traits) was normally distributed among the four birth positions.

It was hypothesized that siblings of different birth orders differed in terms of conscientiousness and agreeableness. Such differences amongst the participants were tested using ANOVA. The results indicated that the effects of birth order on agreeableness, F(3, 116) = 1.75, p > .05,and conscientiousness, F(3, 116) = 0.30, p>.05, were not statistically significant. In addition, the participants of different birth orders did not differ significantly in terms of extraversion, F(3,116) = 0.78, p > .05, openness to experience, F(3, 116) = 0.55, p>.05, and emotional stability, F (3, 116) = 1.00, p > .05 too (see Table 3). This signified that one's personality is not affected by his

birth position in a family. Hence, the first hypothesis was rejected.

Birth Order and Parent-Child Relationship

As shown in Table 4, both the Kurtosis and skewness values were within the range of -1 and +1. Hence, it can be concluded that the dependent variable, parent-child relationship, was normally distributed amongst the four birth orders.

Furthermore, it was hypothesized that quality of parent-child relationship also differed amongst siblings of different birth orders. The relationship quality difference was analyzed using ANOVA. The results showed no significant differences in terms of father positive affect subscale, F (3, 116) = 0.85, p > .05, father involvement subscale, F(3, 116) = 0.34, p > .05, father communication subscale, F(3, 116) = 0.45, p > .05, father anger subscale, F(3, 116) =0.71, p>.05, father-child relationship total score, F(3, 116) = 0.29, p > .05, mother positive affect subscale, F(3, 116) = 1.15, p > .05, mother communication subscale, F (3, 116) = 0.84, p > .05, mother resentment/role confusion subscale, F(3, 116) = 0.72, p > .05, mother identification subscale, F (3, 116) = 0.34, p > .05, and mother-child relationship total score, F(3, 116) = 0.20, p > .05, amongst the four birth positions (see Table 5). This indicated that the quality of parent-child relationship remained the same irrespective of the birth orders. Thus, second hypothesis was rejected as well.

TABLE 2 A summary of descriptive statistic for personality among different Birth Orders

		Statistic	Std. Error
Firstborn			
Extraversion	Mean	4.4667	.30881
	Median	4.2500	
	Variance	2.861	
	Std. deviation	1.69143	
	Skewness	.027	.427
	Kurtosis	983	.833
Agreeableness	Mean	4.8333	.14843
	Median	4.7500	
	Variance	.661	
	Std. deviation	.81297	
	Skewness	036	.427
	Kurtosis	.006	.833
Conscientiousness	Mean	4.5000	.20622
	Median	4.5000	
	Variance	1.276	
	Std. deviation	1.12954	
	Skewness	.096	.427
	Kurtosis	028	.833
Emotional stability	Mean	4.3833	.18675
	Median	4.2500	
	Variance	1.046	
	Std. deviation	1.02287	
	Skewness	.390	.427
	Kurtosis	141	.833
Openness to experience	Mean	4.9167	.19926
	Median	5.0000	
	Variance	1.191	
	Std. deviation	1.09137	
	Skewness	134	.427
	Kurtosis	.488	.833
Middleborns			
Extraversion	Mean	4.3167	.23548
	Median	4.5000	
	Variance	1.664	
	Std. deviation	1.28977	
	Skewness	.010	.427
	Kurtosis	.307	.833

cont'd Table 2

		Statistic	Std. Error
Agreeableness	Mean	4.3167	.17201
	Median	4.2500	
	Variance	.888	
	Std. deviation	.94215	
	Skewness	057	.427
	Kurtosis	442	.833
Conscientiousness	Mean	4.4333	.20724
	Median	4.5000	
	Variance	1.289	
	Std. deviation	1.13512	
	Skewness	184	.427
	Kurtosis	739	.833
Emotional stability	Mean	4.3167	.20550
	Median	4.2500	
	Variance	1.267	
	Std. deviation	1.12559	
	Skewness	032	.427
	Kurtosis	-1.188	.833
Openness to experience	Mean	4.8333	.21620
	Median	5.0000	
	Variance	1.402	
	Std. deviation	1.18419	
	Skewness	824	.427
	Kurtosis	1.207	.833
Lastborns			
Extraversion	Mean	4.6833	.24969
	Median	4.7500	
	Variance	1.870	
	Std. deviation	1.36763	
	Skewness	.095	.427
	Kurtosis	-1.115	.833
Agreeableness	Mean	4.7167	.18520
-	Median	4.5000	
	Variance	1.029	
	Std. deviation	1.01441	
	Skewness	.714	.427
	Kurtosis	369	.833

cont'd Table 2

		Statistic	Std. Error
Conscientiousness	Mean	4.5333	.27432
	Median	4.5000	
	Variance	2.257	
	Std. deviation	1.50249	
	Skewness	.193	.427
	Kurtosis	740	.833
Emotional stability	Mean	4.7833	.25673
	Median	5.0000	
	Variance	1.977	
	Std. deviation	1.40616	
	Skewness	429	.427
	Kurtosis	.208	.833
Openness to experience	Mean	5.1500	.21057
	Median	5.2500	
	Variance	1.330	
	Std. deviation	1.15333	
	Skewness	339	.427
	Kurtosis	705	.833
y children			
Extraversion	Mean	4.8333	.23407
	Median	5.0000	
	Variance	1.644	
	Std. deviation	1.28206	
	Skewness	114	.427
	Kurtosis	-1.115	.833
Agreeableness	Mean	4.7333	.18215
	Median	4.5000	
	Variance	.995	
	Std. deviation	.99770	
	Skewness	.387	.427
	Kurtosis	.243	.833
Conscientiousness	Mean	4.7333	.24299
	Median	5.0000	
	Variance	1.771	
	Std. deviation	1.33089	
	Skewness	530	.427
	Kurtosis	029	.833

cont'd Table 2

		Statistic	Std. Error
Emotional stability	Mean	4.4000	.18785
	Median	4.2500	
	Variance	1.059	
	Std. deviation	1.02889	
	Skewness	.644	.427
	Kurtosis	.296	.833
Openness to experience	Mean	4.8333	.17671
	Median	4.7500	
	Variance	.937	
	Std. deviation	.96787	
	Skewness	.203	.427
	Kurtosis	448	.833

TABLE 3 Analysis of Variance for the Personality Factors of Four Birth Positions

Personality	Firs	Firstborn		Middleborn		Lastborn		Child	E (2 11 ()
factors	Mean	SD	Mean	SD	Mean	SD	Mean	SD	-F(3, 116)
EX	4.47	1.69	4.32	1.29	4.68	1.37	4.83	1.28	0.78
OPE	4.92	1.09	4.83	1.18	5.15	1.15	4.83	0.97	0.55
AGB	4.83	0.81	4.32	0.94	4.72	1.01	4.73	1.00	1.75
CSC	4.50	1.13	4.43	1.14	4.53	1.50	4.73	1.33	0.30
EMOS	4.38	1.02	4.32	1.13	4.78	1.41	4.40	1.03	1.00

Note. EX = extraversion; CSC = conscientiousness; AGB = agreeableness; OPE = openness to experience; EMOS = emotional stability.

TABLE 4 A Summary of Descriptive Statistic for Parent-Child Relationship among Different Birth Orders

		Statistic	Std. Error
Father-child relationsh	nip		
Firstborns	Mean	18.1337	.85574
	Median	18.8667	
	Variance	21.969	
	Std. deviation	4.68711	
	Skewness	799	.427
	Kurtosis	1.094	.833

cont'd Table 4

		Statistic	Std. Error
Middleborns	Mean	18.9415	.65013
	Median	19.1667	
	Variance	12.680	
	Std. deviation	3.56089	
	Skewness	180	.427
	Kurtosis	328	.833
Lastborns	Mean	18.7967	.78919
	Median	19.6556	
	Variance	18.685	
	Std. deviation	4.32259	
	Skewness	523	.427
	Kurtosis	482	.833
Only children	Mean	18.1985	.76521
	Median	18.1833	
	Variance	17.566	
	Std. deviation	4.19122	
	Skewness	151	.427
	Kurtosis	154	.833
Iother-child relationsh	ip		
Firstborns	Mean	19.9143	.88853
	Median	20.7619	
	Variance	23.685	
	Std. deviation	4.86671	
	Skewness	707	.427
	Kurtosis	.092	.833
Middleborns	Mean	20.7786	.70390
	Median	20.7500	
	Variance	14.864	
	Std. deviation	3.85541	
	Skewness	143	.427
	Kurtosis	527	.833
Lastborns	Mean	20.3706	.88810
	Median	21.8929	
	Variance	23.662	
	Std. deviation	4.86432	
	Skewness	852	.427
	Kurtosis	024	.833

cont'd Table 4

		Statistic	Std. Error
Only children	Mean	20.4056	.62087
	Median	20.3095	
	Variance	11.564	
	Std. deviation	3.40064	
	Skewness	062	.427
	Kurtosis	240	.833

TABLE 5
Analysis of Variance for Parent-Child Relationship Mean Scores of Four Birth Positions

C. 1 1	Firstborn		Mido	dleborn	Las	Lastborn		Child	F (2.11.6)
Subscales	Mean	SD	Mean	SD	Mean	SD	Mean	SD	-F(3,116)
Father									
PA	5.39	1.11	5.38	1.00	5.42	1.00	5.03	1.29	0.85
IN	4.52	1.48	4.83	0.99	4.63	1.34	4.56	1.33	0.34
CM	4.01	1.37	4.33	1.31	4.05	1.53	3.91	1.58	0.45
AG	4.20	1.81	4.40	1.38	4.70	1.62	4.70	1.53	0.71
TT	18.13	4.69	18.94	3.56	18.80	4.32	18.20	4.19	0.29
Mother									
PA	5.29	1.33	5.75	0.97	5.56	1.21	5.75	0.88	1.15
CM	5.08	1.41	5.50	1.17	5.40	1.35	5.55	1.12	0.84
RS	5.08	1.56	4.70	1.58	4.80	1.56	4.48	1.71	0.72
ID	4.47	1.41	4.83	1.34	4.61	1.56	4.62	1.34	0.34
TT	19.91	4.88	20.78	3.86	20.37	4.86	20.41	3.40	0.20

Note. PA = positive affect subscale; RS = resentment/ role confusion subscale; IN = involvement subscale; ID = identification subscale; CM = communication subscale; AG = anger subscale; TT = total score

Birth Order and Academic Achievement

As shown in Table 6, the skewness values for firstborns, middleborns, lastborns and only children were -2.451, -2.522, -2.122 and -1.541 respectively, which had the tendency towards zero. This result implied that the data were near normal distribution.

It was also hypothesized that birth order played a significant role on one's academic performance as well. Such relationship was analysed using ANOVA. However, with an alpha level of .05, the birth order effect on academic performance was not statistically significant at all, F(3, 116) = 0.70, p > .05 (see Table 7). This finding suggested that birth order did not affect one's academic performance. Therefore, the third hypothesis was not supported.

Personality and Academic Achievement

The fourth hypothesis postulated that personality factors correlated with academic performance. Such relationship was analysed using bivariate correlation. The Pearson correlation showed that there was a relationship between personality and academic performance. However, significant positive association was only found between

extraversion and SPM results, r = .20, p < .05, though such relationship was weak. Hence, the better the academic performance, the more extraverted the person was. However, no significant relationship was reported between other personality factors and SPM results (see Table 8). As a result, forth hypothesis was supported.

TABLE 6
A Summary of Descriptive Statistic for Academic Performance among different Birth Orders

		Statistic	Std. Error
Firstborns	Mean	28.4000	.51995
	Median	30.0000	
	Variance	8.110	
	Std. deviation	2.84787	
	Skewness	-2.451	.427
	Kurtosis	6.347	.833
Middleborns	Mean	27.2667	.74268
	Median	28.5000	
	Variance	16.547	
	Std. deviation	4.06782	
	Skewness	-2.522	.427
	Kurtosis	8.201	.833
Lastborns	Mean	27.1000	.87013
	Median	29.0000	
	Variance	22.714	
	Std. deviation	4.76590	
	Skewness	-2.122	.427
	Kurtosis	4.137	.833
Only children	Mean	27.7000	.58947
	Median	29.5000	
	Variance	10.424	
	Std. deviation	3.22864	
	Skewness	-1.541	.427
	Kurtosis	1.991	.833

Parent-Child Relationship and Academic Achievement

In addition, it was also hypothesized that parent-child relationship correlated positively with academic performance. Pearson correlation was conducted to test the relationship between parent-child relationship and academic performance. The results showed no significant associations between father positive affect subscale, r =.08, p>.05, father involvement subscale, r=.17, p>.05, father communication subscale, r = .06, p > .05, father anger subscale, r=.09, p>.05, father-child relationship total score, r = .13, p > .05, mother positive affect subscale, r = .03, p > .05, mother resentment/ role confusion subscale, r = .15, p > .05, mother identification subscale, r = .05, p>.05, mother communication subscale, r = -.05, p > .05, as well as mother-child

relationship total score with SPM results, r = .06, p > .05, respectively (see Table 9). Such findings showed that the quality of parent-child relationship is unrelated to children's academic performance. Thus, the fifth hypothesis was also rejected.

Parent-Child Relationship and Children's Personality

On top of the hypotheses tested above, parent-child relationship was also hypothesized to be correlated with children's personality traits. In order to examine such relationship, the Pearson correlation was used to discover the associations between all the personality factors and parent-child relationship subscales. The results indicated that openness to experience was rather weak, but significantly, correlated with father communication subscale, r

TABLE 7
Analysis of Variance for SPM Results of Four Birth Positions

Variable		stborn	Middleborn		Lastborn		Only Child		E (2.116)
variable	Mean	SD	Mean	SD	Mean	SD	Mean	SD	-F(3,116)
SPM Results	28.40	2.85	27.27	4.07	27.10	4.77	27.70	3.23	0.70

TABLE 8
Correlation Matrix Depicting the Relationships between Personality Factors and SPM Results

Personality factors	SPM Results	EX	OPE	AGB	CSC	
EX	.20*					
OPN	.17	.29**				
AGB	.09	10	.11			
CSC	.09	01	.12	.15		
EMOS	.05	.05	.14	.43**	.10	

Note. EX = extraversion; CSC = conscientiousness; OPN = openness to experience;

EMOS = emotional stability; AGB = agreeableness.

*p<.05.

TABLE 9 Correlation Matrix Depicting Relationships between Parent-Child Relationships Subscales and SPM Results

Subscales	SPM	FPA	FIN	FCM	FAG	FTT	MPA	MRS	MID	MCM
FPA	.08									
FIN	.17	.63**								
FCM	.06	.64**	.84**							
FAG	.09	.31**	.19*	.25**						
FTT	.13	.80**	.84**	.87**	.61**					
MPA	.03	.44**	.49**	.43**	.12	.46**				
MRS	.15	.11	.23*	.12	.07	.17	.26**			
MID	.05	.40**	.43**	.38**	.21*	.45**	.82**	.25**		
MCM	05	.35**	.45**	.47**	.16	.46**	.90**	.26**	.70**	
MTT	.06	.40**	.49**	.42**	.18	.47**	.90**	.61**	.85**	.86**

Note. FPA = father positive affect subscale; MPA = mother positive affect subscale; FIN = father involvement subscale; MRS = mother resentment/ role confusion subscale; FCM = father communication subscale; MID = mother identification subscale; FAG = father anger subscale; MCM = mother communication subscale; FTT = father-child relationship total score; MTT = mother-child relationship total score; SPM = SPM results.

*p<.05. **p<.01.

=-.19, p < .05, father-child relationship total score, r = -.19, p < .05, mother positive affect subscale, r = -.21, p < .05, mother communication subscale, r = -.23, p < .05, and mother-child relationship total score, r = -.24, p < .01. See Table 10. The results implied that the better the parent-child relationship, the less open to experience the person would be. Furthermore, as shown in Table 10, weak but significant associations were also reported between father anger subscale and conscientiousness, r = .23, p<.05, as well as father anger subscale and emotional stability, r = .21, p < .05. Such relationships suggested that the less anger a person felt towards his or her father, the more conscientious and emotionally stable the person was. Thus, the sixth hypothesis was supported (see Table 10).

DISCUSSION

Summary of the Results of Data Analysis

This study examined the relationships between birth order, parent-child relationship, academic performance and personality. In summary, this study found no significant differences in terms of personality factors, academic performance, and parentchild relationship of different birth orders. Furthermore, this study also revealed that parent-child relationship was unrelated to children's academic performance. However, a significant relationship between academic performance and personality factor was reported. Extraversion was found to be correlated positively with academic performance. On top of that, this study indicated that parent-child relationship did correlate with children's personality. Such parent-child relationship subscales

TABLE 10 Correlations between Parent-Child Relationship Subscales and Personality Factors

Subscales	EX	OPN	AGB	CSC	EMOS	
FPA	.14	09	.07	.08	.07	
FCM	.01	19*	06	01	03	
FAG	.07	14	.13	.23*	.21*	
FIV	.11	15	.00	.02	04	
FTT	.10	19*	.05	.11	.07	
MPA	02	21*	.01	02	.01	
MCM	11	23*	.04	01	.01	
MRS	16	14	.06	06	04	
MID	05	18	.08	.02	.08	
MTT	12	24**	.07	02	.02	

Note. FPA = father positive affect subscale; FIN = father involvement subscale; FCM = father communication subscale; FAG = father anger subscale; FTT = father-child relationship total score; MPA = mother positive affect subscale; MRS = mother resentment/ role confusion subscale; MID = mother identification subscale; MCM = mother communication subscale; MTT = mother-child relationship total score; EX = extraversion;

as father-child communication, mother-child communication, mother positive affect, father total score, and mother total score correlated negatively with children's openness to experience. Further, father anger subscale correlated positively with children's emotional stability and conscientiousness as well.

Birth Order and Personality

In contrast to the first hypothesis, this study found that the participants of different birth orders did not differ significantly in terms of conscientious and agreeableness. On top of that, no significant difference was reported for other personality factors. Such findings did not support both dethronement theory and family-niches model, which reports that children of each birth position possess a number of characteristics. Besides, this

study failed to replicate Healey and Ellis' (2007), Michalski and Shackelford's (2002), Tharbe and Harun's (2000), and Paulhus *et al.*'s (1999) findings, where the authors reported that siblings of different birth orders did differ in terms of conscientious, agreeableness, and openness to experience. Therefore, based on the present study, it was concluded that participants' personality is not the results of their experiences of being dethroned or the distinctive niches that they have created in the family.

The inconsistent result could be due to the methodological difference between the present study and other studies. For instance, Paulhus *et al.* (1999), who showed that firstborns were more achieving and conscientious than laterborns, had their participants to nominate the most achieving and conscientious sibling within their family instead of assessing siblings' personality

CSC = conscientiousness; OPN = openness to experience; EMOS = emotional stability; AGB = agreeableness. *p < .05. **p < .01.

Furthermore, Jefferson *et al.* (1998), who reported that younger siblings were more agreeable and open to new experience, employed peer-rating method instead of self-rating. However, the authors reported that birth order was unrelated to personality when self-report data were analysed. As a result, inconsistent results could be due to the methodological difference between the studies.

On top of methodology difference, the insignificant results obtained could be due to the use of between-family comparison. As mentioned previously, Michalski and Shackelford (2001) claimed that the use of within-family design was more advantageous than the use of betweenfamily design as it could minimize the variation of parental personality traits, socioeconomic status, sibship size effects and others. However, due to the difficulty in conducting within-family experiment, this study employed between-family design. Therefore, insignificant results could be due to confounding variables such as sibship size, socioeconomic status, and parental personality traits.

In spite of the tremendous studies that documented birth order effect on personality, there were also scholars who were against this idea. Hoffman (as cited in Jefferson et al., 1998), who investigated family environment as a source of personality difference amongst siblings, claimed that one's personality is the outcome of multiple interactions of such influences as parental intervention, peer relationships, and family

sibship size. She also argued that any single of the aforesaid influences was unlikely to explain much variance in one's personality outcome. Therefore, the insignificant result of this study could be explained by Hoffman's speculation, where personality was not determined solely by birth order.

Birth Order and Parent-Child Relationship

On the contrary to the second hypothesis, this study indicated that there was no significant difference in parent-child relationship amongst different birth positions. In other words, the quality of parent-child relationship remained the same regardless of the birth order. Such results contradicted the research findings obtained by Kilbride *et al.* (as cited in Taylor & Kogan, 1973), Kidwell (1981), and also Rohde *et al.* (2003).

One of the reasons of the insignificant result could be due to participants' age. The participants of this study were young adults who had a mean age of 20.0 years. According to Erik Erikson's (as cited in Santrock, 2008) psychosocial theory, young adults are in the stage of intimacy versus isolation. At this point, young adults start to form intimate relationship and healthy friendships with others, otherwise isolation will result. Therefore, close, intensive relationships with friends and lovers could be the main focus of the participants, regardless of ordinal positions in this study. As a result, quality of parent-child relationship amongst participants of different birth order did not differ significantly. Besides, studies that documented significant differences or changes in the parent-child relationship of different birth positions (Hilton, 1967; Taylor & Kogan, 1973) were conducted among children aged between 2- and 5-years old instead of young adults.

Second, the method used to measure quality of the parent-child relationship could also be a factor that led to the insignificant results. Robbins (as cited in Hilton, 1967) claimed that the reliability of retrospective report of children's perceived parent-child relationship or parents' report about the manner in which they treated their children was subjected to biasness. Children who had unfinished business or issues with their parents might rated the items negatively. In this study, self-rating measure was employed where participants were required to rate the perceived parent-child relationship. Thus, there could be a possibility that participants' responses were biased.

Third, such insignificant results could be resulted by the age gap of the siblings. Adler (as cited in Kidwell, 1981) stated that birth order effects could be completely absent when the age gap between their ages was large. For instance, firstborn A's experiences, whose younger sibling is ten years apart, could entirely be different from that of firstborn B, whose younger sibling is only two years apart. As a result, firstborn A was initially raised as an only child due to the wide spacing, and hence, had all his or her parents' attention and resource. However, age gap of the siblings was not controlled in this study. Therefore, this could be a possible confounding variable that led to insignificant results.

Birth Order and Academic Achievement

Intrauterine theories, resource dilution hypothesis, and confluence hypothesis conclude that there is significant difference in terms of academic achievement amongst individuals of different birth positions. Most of the literature has also documented that firstborns and only children have better academic achievement or college attendance as compared to middleborns or lastborns (see Bayer, 1966; Breland, 1974; Nuttall et al., 1976; Travis & Kohli's, 1995). However, the findings of this study have failed to support the aforementioned theories and hypotheses. Yet, it replicated the research findings by Hauser and Sewell (1985) and Edwards and Thacker (1979) as birth order was found to be unrelated to participants' SPM results.

There were a few possible explanations for the absence of relationship between birth order and SPM results among Malaysian college students. First, the participants of the present study comprised of college students. In order to be enrolled into college, every student has to fulfil the entrance score. As a result, the participants of this study were all high-achievers already. This could be shown in their average SPM results' score. The mean SPM results score of this study was 27.62 out of 30. Besides, parental age and age difference between siblings, which were not controlled in the present study, could be the determinants of one's academic attainment as well (Edwards & Thacker, 1979). Third, the insignificant results could be the artefacts of study design. Due to the fact that the present study was a between-

family design, there was high a possibility that SPM results could be influenced by other confounding variables such as parenting styles, parental expectation, familial intellectual environment, biological determinants and others. Last but not least, Blake (1981) found that sibship size actually exerted a greater effect on individuals' academic attainment than birth order did after age, socioeconomic background, religion, community size, southern origin and family status were controlled. Sibship size effect was also confirmed by Pong (1997) who reported that large sibship size would impede both Malay and non-Malay children. Obviously, more systematic research is required to examine the roles of birth order and sibship size in one's academic achievement.

Personality and Academic Achievement

In line with the forth hypothesis, this study found a significant relationship between personality and academic performance. However, the research findings of the present study are not in parallel with the literature mentioned previously. In the past, the researchers found that such personality factors as conscientious, agreeableness, openness to experience, and neuroticism were related to academic achievement (for e.g., Chowdhury & Amin, 2006; Musgrave-Marquart et al., 1997). This study, however, found no significant association between these personality factors and academic achievement. Yet, a significant relationship was reported between extraversion and SPM results.

The possible explanation for such a relationship is that the current study comprised of mostly science students. As reported, 75% of the participants were from science stream. In Malaysia, science stream students are obligated to enrol Mathematics, Additional Mathematics, and two or all science subjects (i.e. Chemistry, Biology, & Physics), whereas art/business students are required to take a combination of History, Geography, Principles of Accounts, Business or Basic Economics. As compared to art/business students, the subjects that science students took require complete understanding and application. Besides, Science is all about exploration, research, and experiments, where students are expected to learn by conducting experiments. Thus, it was postulated that being extraverted is advantageous for science students as they have to do practical work, instead of pure memorization, to gain true knowledge. Conversely, conscientiousness or agreeableness does not seem to play an important role in the progress of gaining knowledge for science students. Such explanation supports the research findings of this study as positive relationship was reported between extraversion and SPM results.

Another possible explanation for the reported relationship was based on Eysenck's theory. According to Eysenck's theory (as cited in Dobson, 2000), the arousal level difference between introverts and extraverts causes the differences observed in their response to task performance and environment. Introverts who have higher level of cortical arousal is likely to result in poorer performance under stress, whereas extraverts who have lower level of cortical arousal is likely to bring about better performance under stress. Therefore, extraverted students should be able to perform better under stressful event, such as examination.

Parent-Child Relationship and Academic Achievement

In contrast to the fifth hypothesis, the current study reported that parent-child relationship was unrelated to children's academic performance. This finding supported DuBois, Felner, Brand, Adan, and Evans's (1992) and Dubow, Tisak, Causey, Hryshko, and Reid's (1991) research evidences as their studies suggested that adolescents' perceived social support from family members was unrelated to academic adjustment. Besides, other family variables were somewhat found to exert a greater impact on school-aged children only (DuBois *et al.*, 1994).

On top of perceived parent-child relationship, academic performance could be mediated by other family factors as well, such as family general levels of academic aspiration and achievement orientation, parenting styles, the degree to which a family is characterized by order and routine, or the autonomy and control one has over his or her family relationships (DuBois *et al.*, 1994). Therefore, it was speculated that children's academic achievement was not solely affected by their relationship with the parents but it could also be mediated by the aforesaid family variables. Hence,

significant relationship between parentchild relationship and children's academic performance was not reported.

Parent-Child Relationship and Children's Personality

This study found that parent-child relationship was correlated with openness to experience, emotional stability, and conscientiousness. The participants who were conscientious and emotionally stable reported to feel less anger towards their fathers. Surprisingly, the participants were less open to experience although good parent-child relationship was reported. Nonetheless, this relationship was not in parallel to the aforesaid literature.

The available explanation that was postulated to explain the negative relationship between openness to experience and parent-child relationship was the childrearing practice of the Chinese. Belsky (as cited in Julian, McKenry, & McKelvey, 1994) once stated that parental behaviour is largely depended on parents' views and perceptions about raising children. These behaviours would later influence children's developmental outcome. In comparison to Caucasian parents, Chinese parents exhibit more conservative parenting characteristics (Julian et al., 1994). In a paper, Wu et al. (2002) summarized that Chinese parents encourage modest behaviours and use shaming and love withdrawal to foster dependency and sensitivity toward others' feelings. Besides, these parents are also directive and protective. Chinese children are generally viewed as incapable of understanding and hence, parents are supposed to provide a safe and appropriate environment for their children (Wu et al., 2002). Thus, Chinese parents are generally more protective. For instance, children are encouraged to stay physically close and be dependent to their parents. In addition, Chinese parents always assume the responsibility in making decision and regulating children's behaviour. In summary, Chinese children do not have much autonomy as Caucasian children. In the long run, Chinese children would grow up to be less open to new experience and more dependent to their parents. Due to the fact that the participants involved are 80% Chinese, it was not surprised to see a negative relationship between parent-child relationship and openness to experience.

Strengths and Limitations

All in all, the current study consists of a number of strengths that have made the research findings valid and informative. First, this study involved equal number of participants from different ordinal positions and hence, the research findings were not biased in terms of any birth position. Second, the issue whether only child is raised as a firstborn or lastborn is still a controversial one; thus, some studies either excluded only child from their study or grouped them into the firstborn category. Therefore, the inclusion of only child as a distinct birth order category was a merit of the current study. Third, this study employed tools (i.e., TIPI & PCRS) that have strong reliability and validity. Last

but not least, this study was one of the very little studies that examined the birth order effects in the Malaysian context.

Despite the aforementioned strong points, the current study is still limited in some aspects. First, the measured parentchild relationship could be biased because the participants could rate it negatively if they had unfinished business with their parents when they were involved in this study. Besides, it also involved both parties (i.e. the parents and the child), so the inclusion of the ratings from both parties could be more informative. Second, most of the participants were recruited from Sunway University College. Hence, the research findings might not be strong enough to be generalized to every young adult in Malaysia. Third, age gap and sibship size, which might led to the absence of birth order effects, were not controlled in this study. Finally, the research findings of this research could be the artefacts of the nature of between-family study.

Implications

The major implication of the research findings is to educate the importance of good parenting practices among the Asians parents, especially the Chinese. Asian parents are advised to nurture independence and decision making since their children were young. Besides, they should be less protective and let their children to grow, learn and master everything on their own so that they are open to new experience, independent and strong enough to face challenges in their life. In addition, it is

suggested that secondary schools consider providing brief personality test and advice for students who are going to choose their mainstream. Moreover, it seems personality traits do play a role in one's academic achievement. If one's trait matches his field of study, there is no doubt that it may enhance one's academic performance in that area. Furthermore, educators may want to understand their students' strengths and weaknesses, as well as their learning styles in order to promote learning progress.

Future Direction

For future study, it is recommendable to increase the sample size and collect data from various universities so that the power and generalization of the study could be increased. Furthermore, researchers are advised to collect data from both parents and children or to employ the observation method to countercheck the measured parent-child relationship. Besides, researchers should take such confounding variables as sibship size, age gap between siblings or socioeconomic status into account if birth order studies were to be conducted. Moreover, researchers should attempt to employ within-family design to study birth order effects so that confounding variables are well-controlled.

On top of birth order studies, researchers could make an attempt to explore and compare the personality difference between science and art/business students, as well as its impact on academic achievement.

CONCLUSION

In conclusion, the current study has reported that there is no significant difference in the academic performance, parent-child relationship and personality amongst children of different birth orders. These findings are different from those which have been conducted in the western countries where children of different birth position were found to have different personality traits and different attainments in terms of their academic performance. Besides, parentchild relationship is not related to children's academic achievement. However, this study indicates that extraversion is positively correlated with academic achievement. Furthermore, parent-child relationship correlates negatively with children's openness to experience but positively with conscientiousness and emotional stability. This implies the importance of a match between one's personality trait and field of study as well as the importance of good parenting practices.

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APPENDIX A

Demographic Sh	reet				
A1. Age:					
A2. Gender:	 M Fe 				
A3. Nationality:		ılaysian n-Malaysia	ın		
A4. Race:	 M Ch Inc Ot 	ninese dian			
A5. Birth order:	 M La 	rstborn iddleborn (stborn nly child	if you are no	t firstborn, lastl	oorn, or only child)
A6. Total number	of siblings,	including y	ourself, in y	our family:	
A7. I am a		stream stu	dent.		
A8. Your Sijil Pel	1. Sc 2. Ai	rt	raculte:		
•		, , ,		e scale given)	
A = 5	B = 4	C = 3	D = 2	F = 1	
□ Malay Langua □ Chinese Langua □ History □ Science □ Chemistry □ Physics □ English for Scie □ Basic Econom	nage ence and Techr	nology	_ □ Moral _ □ Islami _ □ Mathe _ □ Biolog _ □ Additi _ □ Princi _ □ Busing	c Studies smatics gy onal Mathemat ples of Account	
☐ Business Acco	ounting		_ □ Geogr	aphy s:	
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APPENDIX B

Ten Item Personality Inventory (TIPI)

Instruction: Here are a number of personality factors that may or may not apply to you. Please circle a number that indicates the extent to which *you agree or disagree with each statement*. Below the table each factor is illustrated further.

		Strongly disagree	Disagree moderately	Disagree a little	Neutral	Agree a little	Agree moderately	Strongly agree
В1	Extraverted Enthusiastic	1	2	3	4	5	6	7
B2	Critical Quarrelsome	1	2	3	4	5	6	7
В3	Dependable Self-disciplined	1	2	3	4	5	6	7
B4	Anxious Easily upset	1	2	3	4	5	6	7
B5	Open to new experiences Complex	1	2	3	4	5	6	7
В6	Reserved Quiet	1	2	3	4	5	6	7
В7	Sympathetic Warm	1	2	3	4	5	6	7
В8	Disorganized Careless	1	2	3	4	5	6	7
В9	Calm Emotionally stable	1	2	3	4	5	6	7
B10	Conventional Uncreative	1	2	3	4	5	6	7

• Extraverted : Tend to be with people and seek out relationship with others.

• Critical : Judges self or others severely. Worry too much about what is said and done.

• Dependable : Able to be trusted by other people.

• Anxious : Constantly perceive that there are threats around you.

• Open to new: Don't mind trying new things and are open to others' idea. experience

• Reserved : Tend to be personally guarded, keep to yourself and find it difficult to be

close with others.

• Sympathetic : Sensitive to others' feelings. Expresses a willingness to understand and help.

• Disorganized : Don't mind if things are messy and do things as it comes.

• Calm : Relaxed and tranquil. Patient and does not get frustrated easily.

• Conventional : Secure and confident with routine tasks. Like to keep to norms and reject new approaches.

APPENDIX C

Parent-Child Relationship Survey (PCRS)

Please complete the following items about your *father*.

D1	How much time do you feel you spend with your mother? (1= almost none, 7= a great deal)	1	2	3	4	5	6	7
D2	How well do you feel you have been able to maintain a steady relationship with your mother? (1= not at all, 7= extremely)	1	2	3	4	5	6	7
D3	How much do you trust your mother? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D4	How confident are you that your mother would not ridicule or make fun of you if you were to talk about a problem? (1= not at all, 7= extremely)	1	2	3	4	5	6	7
D5	How confident are you that your mother would help you when you have a problem? (1= not at all, 7= extremely)	1	2	3	4	5	6	7
D6	How close do you feel to your mother? (1= very distant, 7= very close)	1	2	3	4	5	6	7
D7	How comfortable would you be approaching your mother about a romantic problem? (1= not at all, 7= extremely)	1	2	3	4	5	6	7
D8	How comfortable would you be talking to your mother about a problem at school? (1= not at all, 7= extremely)	1	2	3	4	5	6	7
D9	How confused are you about the exact role your mother is to have in your life? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D10	How accurately do you feel you understand your mother's feeling, thoughts, and behaviour? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D11	How easily do you accept the weaknesses in your mother? (1= not at all, 7= extremely)	1	2	3	4	5	6	7
D12	To what extend do you think of your mother as an adult with a life of her own, as opposed to thinking of her only as your mother? (1= think of as only a mother, 7= see as adult with life of her own)	1	2	3	4	5	6	7
D13	How often do you get angry at your mother? (1= almost never, 7= quite often)	1	2	3	4	5	6	7
D14	In general, how much do you resent your mother? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D15	How well do you communicate with your mother? (1= not at all, 7= extremely)	1	2	3	4	5	6	7

D16	How well does your mother understand your needs, feelings, and behaviour? (1= not at all, 7= extremely)	1	2	3	4	5	6	7
D17	How well does your mother listen to you? (1= not at all, 7= extremely)	1	2	3	4	5	6	7
D18	How much do you care for your mother? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D19	When you are away from house, how much do you typically miss your mother? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D20	How much do you respect your mother? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D21	How much do you value your mother's opinion? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D22	How much do you admire your mother? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D23	How much would you like to be like your mother? (1= not at all, 7= a great deal)	1	2	3	4	5	6	7
D24	How much would you be satisfied with your mother's lifestyle as your own? (1= not at all, 7= extremely)	1	2	3	4	5	6	7





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Happiness Capital and Youth Development in Iran: A Sociological Appraisal

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ABSTRACT

The paper explores the dimensions of happiness capital among youth as joy-seekers in different contexts. Due to the increasing use of social networks, the youth are increasingly pursuing perpetual happiness. Happiness capital by itself motivates the youth to move better towards the goals of happiness. The present research examined happiness capital and development of youth of the age groups of 15-29 years through different variables. The research was conducted in Tehran City, in which 489 respondents were randomly selected from different parts and neighbourhoods of the city. It explored the forces responsible for not-ever-lasting happiness among the youth. It was mainly based on the hypothesis that "social and economic conditions such as income, employment, general quality of life and successful marriage create happiness capital within the youth". The research method used in this work was a combination of theoretical frameworks and empirical realities. The paper concludes that in the present changing and globalizing world, societies must make the necessary policies for the happiness and leisure pursuits of the youth in order to prevent the likely controversies.

Keywords: Happiness capital, social networks, quality of happiness, life satisfaction, well-being

INTRODUCTION

Happiness capital, as inspired from social capital, was coined and posited by the author to represent how it highly influences individual performance at

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different dimensions. The concept of social capital is frequently used by different social sciences. It is a wide term, and that is why it can be defined accentuating different aspects, depending on the perspective, such as happiness, in the present article. Social capital, being the outcome of social relations, creates closer treatment and cooperation between individuals and groups (Bourdieu, 1992). Just as a university

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education (human capital) can increase productivity, so do social contacts affect the productivity of individuals and groups (Putnam, 2000). Based on Putman's theory, youth development is influenced by happiness capital.

Social capital is anything that facilitates individual or collective action, generated by networks of relationships, social norms and trust (Coleman, 1988). Based on Coleman's view, happiness capital facilitates youth development in different areas. Fukuyama (2002) argues that social capital is a necessary precondition for a successful development, but strong rules of law and basic social and political institutions are necessary to build social capital. Based on Fukuyama's perspective, happiness capital could be counted as a prerequisite of youth development in any society.

Happiness is strongly connected to productivity with special reference to youth. Therefore, happiness allows one to maximize performance and achieve one's potential. Happiness capital enables youth to improve their performance, and consequently the organizations to develop sustainability.

While social capital, as a sociological concept, integrates aspects of social behaviour such as trust, cooperation, relationships, networks and social solidarity, the new concept of happiness capital strengthens and improves those aspects, and lets youth proceed with more enthusiasm. In the recent years, there have been attempts to quantify the influence of happiness capital upon community achievements, youth and other sectors of population in a

society. Loury (1977) defined social capital as a set of designated intangible resources in families and communities that help to promote the social development of the young people, which could be translated into happiness capital. Similarly, happiness capital concept has been recognized as an agent to further contribute to social capital.

The concept of happiness capital has motivated the author to elaborate on it. He has witnessed great changes within the youth, as a result of their new social networks in the past two decades. For example, having access to telephones or mobile phones is also positively correlated with happiness among these youth. Both variables are likely to facilitate social connections and networks, among other things (Clark et al., 2009). People at all levels, especially the youth, are ever seeking happiness at different levels and dimensions. In the present study, the author was searching out what happiness capital is, or what it means among the youth of both genders in Tehran? Generally speaking, all the people or the people of all nations are ever and inherently seeking happiness capital and better fortune, or so to say, satisfaction with life. The concept of happiness capital has intrinsically captured the attention of sociologists, psychologists, and economists. They have been analyzing and discussing the concept with special reference to youth. So far as the youth in Iran are concerned, they are directly and indirectly searching a way of life in which they could find more and lasting happiness. Yet, satisfaction of wants does not always lead to happiness. That is, sometimes avoiding an enjoyment is

more desirable than attaining it, since it may have risky and challenging consequences (Rahimi Yeganeh, 2007).

Due to the appearance of more means of communications and the increase in social networks, youths have become so concerned with finding more happiness in their lives. Similarly, as more competition has emerged in the lives of different classes of people in the modern time, they have become so interested to find increasing and lasting happiness. Similarly, due to the increasing social, economic and cultural changes in the lives of the youths in modern time, they have been highly motivated about their happiness. They try their best in different ways and directions to get to more happiness in their life course. The two concepts of unhappiness and happiness are also there in the present time. The youth are doing their utmost to get out of sadness or what may be called "marginality" in any way they can, so that they can get to happiness. Similarly, all classes of people (including the rich and the poor) are trying their best, attempting the most, and highly investing to access to happiness. So, happiness by itself motivates the youth to move better in their lives at the levels they are. They always try to avoid misery, and instead, get to satisfactory happiness in life. Therefore, the younger generations are attempting to access to more prosperity and success through education, new skills and personal income. Somehow or the other, happiness capital may be transferred to potential younger generations in any society.

In the present research, the youths of the age groups of 15-29 years were examined through different variables to measure their happiness. Policy issues and opportunities, all play role in the quality of happiness among the youth (Headey, 2010), not only in Iran, but in every other country with especial reference to urban areas and larger cities. In the present research, the author searched out the relevant perspectives and theories in order to validate the current research as much as possible.

Since 1950, post-war capitalism has led to an unprecedented standard of living with special reference to the youth, particularly in the West. Such an atmosphere has not translated into an equal upsurge in human happiness (Layard, 2005). The paper aimed to find out how happiness capital emerges among the youth of both sexes in Tehran, as a dynamic urban area of the country. Studies have indicated that while higher income does boost the levels of happiness among the youth at poverty line, this does not hold true for the rest of the population (Sen, 2009). While sociology as a part of social science focuses on the concept of happiness, psychology centres around the pathology of the issue (Nettle, 2005). The paper explores what happiness capital is, what conditions generate it, why it seems not to last, and what can be done to cultivate and sustain it.

However, there are two forces which do not let happiness to become lasting. That is, first the youth become habituated to what they get, and then care more, or something else. Secondly, they compare what they have with others. In other words, happiness is merely an imaginary goal that gives us direction and purpose (Layard, 2005).

Theoretical Perspectives

The theory that happiness is relative is based on three postulates: (1) happiness results from comparison, (2) standards of happiness adjust, and (3) standards of comparison are arbitrary constructs (Veenhoven, 2004). In the meantime, happiness is not always conditioned, based on all these three postulates. Happiness does not depend on the real quality of life. Therefore, conditions create happiness; after hard times, happiness is more felt. Similarly, recent investigations on happiness claim that happiness is reported to be as high in poor societies as it is in rich societies (Easterlin, 2003). It is influenced by societal norms, values, and frames, which vary across different countries and cultures.

There is a logical relationship between income and happiness within countries. Income matters to happiness (Diener et al., 1993; Oswald, 1997). Yet, the definition of happiness varies across people and societies; it depends on norms, expectations and the capacity to adapt. Deprivation and abject poverty in particular are injurious to happiness. Usually after the basic needs are met, other factors such as rising aspirations increasingly become important. In addition to income under conditions of the new aspirations by the youth, the government must think of and make outlets for happiness within the youth. A number of studies on happiness have confirmed the effects of rising aspirations and economic behaviours

(Frank, 1999). This process affects happiness and the quality of happiness capital within the youth.

"Set point" theory of happiness states that every individual is presumed to have a happiness level that he or she goes back to over time even after major events such as winning a game or getting divorced (Easterlin, 2003). On average, wealthier countries (as a group) are happier than the poor ones (as a group), and happiness seems to rise with income up to a certain point, but not beyond it.

Research on happiness has been applied to a range of issues. These include relationship between income and happiness, inequality and poverty, effects of macro policies on individual welfare, etc. Meanwhile, surveys on happiness are particularly well suited to addressing questions that revealed preferences do not answer well. Happiness surveys also facilitate the measurement of the effects of broader, non-income components of inequality such as race, gender and status, all of which seem to be highly significant (Graham & Felton, 2006). These results find support in work in the health arena, which finds that relative social standing has significant effects on health outcomes (Marmot, 2004).

The theory of utilitarianism by (Mills, 1863) somehow reflects meaning and scope of happiness capital. It is often described by the phrase "the greatest good for the greatest number of people." It is also known as "the greatest happiness principle." Happiness or pleasure is used versus suffering or pain.

Happiness capital, being a state of mind or feeling characterized by contentment, love, satisfaction, pleasure, or joy, has been defined and analyzed in sociological, biological, psychological, and religious contexts, and most measures of happiness are based on self-report. It could also be measured through facial emergence¹.

Subjective well-being (SWB), as coined by (Diener, 1984), includes three components, namely, life satisfaction, positive effects and negative effects. Overall, variables such as income, marital status, age, residence, employment status, and so on, have impacts well-being and happiness.

Happiness surveys may also be utilized to gauge the welfare effects of various public policies such as how a tax on tobacco may affect well-being (Gruber & Mullainathan, 2002). Similarly, happiness surveys can be used to examine the effects of different macro-policy arrangements on well-being. For example, most studies find that inflation and unemployment have negative effects on happiness. The effects of unemployment are stronger than those of inflation (Di Tella et al., 2001). For instance in Iran, high levels of unemployment postpone marriage which eventually inflate unhappiness among the youth. The standard "misery index", which assigns equal weight to inflation and unemployment, may underestimate the effects of the latter on well-being (Frey & Stutzer, 2002). Based on another hypothesis, the unemployed are less unhappy when there are more unemployed around them, and when there is public support for unemployment benefits.

On the other hand, happiness economics opens a field of research questions which still need to be addressed. These include the implications of well-being findings for national indicators and economic growth patterns, the effects of happiness in behaviour such as work effort, consumption and investment. Similarly, unhappiness or frustration may be used for gauging the potential for social unrest in various contexts.

Health and happiness are reciprocally related to each other. Good health is linked to higher level of happiness and vice versa. A number of studies have found that happier people are healthier. Yet, some studies have exposed paradoxes in income-happiness relationship. That is to say, advances in health conditions do not necessarily result in equivalent increases in happiness, particularly as overall health conditions improve. This relationship is known as "Easterlin paradox". However, higher levels of happiness are associated with better health outcomes (Dolan, 2006).

In these days of worldwide economic turmoil, there is a lot of talk about the "misery-index⁽²⁾" which is calculated by adding together the unemployment rate and the annual inflation rate (Okun, 2008). It is a concept which attempts to gauge the negative effects that both inflation and unemployment have on welfare, and is used as a way to measure the effects of each of these two phenomena on a particular country's citizens' welfare. The

¹ Facial EMG

"misery index" assumes a straightforward "trade-off²" of one for the other; namely, inflation versus unemployment. In other words, raising the inflation rate of 1% has equivalent negative effects on welfare, as does raising the unemployment rate. The assumption highly affects happiness in general with special reference to the youth.

Some other social scientists, such as Di Tella and MacCulloch (2006), believe that unemployment has far greater costs for happiness than does inflation — at a ratio of about four to one, i.e. much higher than the most important variables affecting well-being or happiness is unemployment status. That is one of the most traumatic events that can happen to people. That happens obviously due to the loss of income. In addition to that, there is also a cultural stigma to unemployment that impacts happiness.

Based on the research conducted in various countries around the world (Stevenson & Wolfers, 2008), countries with higher levels of per capita GDP have on average higher levels of happiness. Yet, there are cases with positive growth rates having lower happiness levels. This negative correlation between economic growth and happiness is known as the "paradox of unhappiness". However, country-level patterns affect incomehappiness relationship. Moreover, factors such as good health, social network, and intellectual curiosity contribute to happiness of the youth.

Quality of Life (QoL)

QoL is known as the conditions in which one lives, his/ her standard of living, or the degree of basic enjoyment of basic fulfilment in life. OoL is concerned with youth health, safety, and job satisfaction. It is associated with attempts to develop techniques and methods for improving the experience of work. These include job redesign, autonomous work groups and labour management committees (Huse & Cummings, 1985). Youth are the real wealth of a nation. Therefore, the basic objective of development is to create an enabling environment for them to live long, healthy, creative and happy lives, i.e. to be educated and to enjoy a decent standard of living.

QoL constructs that are measured metrically rather than by thresholds are, in general, much more straightforward. Happiness and subjective well-being are ascertained via numeric scales by survey questionnaire. Utility is, of course, ubiquitously measured in money terms, often by per capita GNP. The most straightforward of the macro quality of life instruments is happy life expectancy (Veenhoven, 1999). However, happiness capital highly contributes to the increasing trend of quality of life as a whole.

QoL is an individual's perception of his/her position in life in the context of the culture and value system in which he/she lives in relation to one's goals, expectation, values and concerns — incorporating physical health, psychological state, level of independence, and social relations. Quality of life refers to a subjective evaluation

² Any situation in which one thing must be decreased for another to be increased.

which is embedded in a cultural, social and environmental context. An individual's happiness is highly influenced by the above aspects.

RESEARCH METHOD

Methodologically speaking, the focus of the study was to present a combination of theoretical frameworks and empirical realities. For the empirical part of the study, some 489 young people were randomly selected from different parts and neighbourhoods of Tehran City. They were approached through direct interviews with the help of designed questionnaires. In that, questions pertaining to leisure music, leisure trips, educational success, making a pilgrimage, happiness due to marriage, happiness due to care of elder parents, happiness due to income, and other questions were investigated in order to assess the happiness capital of the

transforming youth. Eventually, the filled-in questionnaires were edited, electronically extracted, and presented in the form of tables. The author also researched and reviewed the background literature on the youth of different societies of the world. In the theoretical part, the researcher tried to refer to, and make use of relevant theories such as Easterlin (2003), Diener *et al.* (1993), Frank (1999), etc.

The main hypothesis of this research is, "Social and economic conditions such as income, employment, general quality⁽³⁾ of life and successful marriage create happiness capital within the youth". Rising aspirations and increasing knowledge and awareness interacting with the preexisting cultural and normative difference influence the happiness capital within the youth. However, the research takes advantage of the analytical and research tools through discovering and interpreting

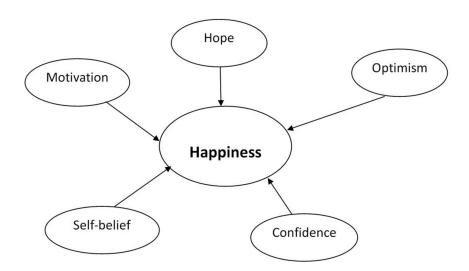


Fig.1: Other Variables Influencing Happiness Capital among the Youth in Tehran City (Model is derived as a result of interviews conducted with the respondents)

that are provided by new approaches in sociology, psychology as well as economics.

FINDINGS

Data analysis reflects findings of the research. This process of inspecting, clearing and transforming data highlights useful information relevant to the given research. In this section, the data collected are exposed through tables/abridged tables, and descriptive statistics.

Another set of data regarding happiness due to marriage among the youth indicates that out of the total number of 489 respondents, 121 respondents (24.8%) were not at all happy with their marriages, 144 (29.5%) of the youth were happy with their marriages, 116 respondents (23.72%) were much happy, and finally 108 young respondents (22.1%) were very much happy with the events of their marriages in Tehran City.

As one of the variable of this research, occupation also came to reach such conclusion. Out of the total number of 489 respondents, 90 respondents (18.4%) showed no happiness because of their access to occupations. Similarly, 85 young

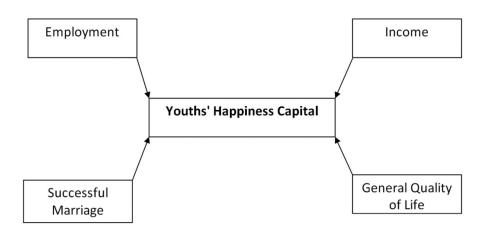


Fig.2: Factors Determining Youths' Happiness Capital in Tehran City

TABLE 1 Classification of Youth of by Age and Gender in Tehran City

A ===	M	Iales	Fe	emale	,	Total
Age	Number	%	Number	%	Number	%
Age 15-17	12	2.45	32	6.54	44	9
Age 18-20	24	4.91	61	12.47	85	17.38
Age 21-23	23	4.7	167	34.15	190	38.85
Age 24-26	37	7.57	71	14.52	108	22.09
Age 27-29	37	7.57	25	5.11	62	12.68
Total	133	27.2	356	72.8	489	100

TABLE 2 Collective Table of Youth by Various Variables Contributes to Happiness in Tehran City

						Level	Level of Happiness				
Factors of Happiness	Gender		Not at all	To Sc	To Some Extent		Much	Ve	Very much	T	FOTAL
		No	%	No	%	No	%	No	%	No	%
Happiness due to their	Males	45	9.2	57	11.66	17	3.48	14	2.86	133	27.2
educational success	Females	47	9.61	145	29.65	06	18.4	74	15.13	356	72.8
	Total	92	18.81	202	41.31	107	21.88	88	18	489	100
Happiness due to going to	Males	34	6.95	50	10.22	25	5.11	24	4.91	133	27.2
pilgrimage	Females	25	5.11	106	21.68	117	23.93	108	22.09	356	72.8
	Total	59	12.07	156	31.9	142	29.04	132	27	489	100
Happiness due to their care	Males	19	3.89	46	9.41	32	6.54	36	7.36	133	27.2
for their parents	Females	24	4.91	102	20.86	126	25.77	104	21.27	356	72.8
	Total	43	8.79	148	30.27	158	32.31	140	23.63	489	100
Happiness due to their	Males	14	2.86	54	11.04	37	7.57	28	5.73	133	27.2
participation in charities	Females	21	4.29	114	23.31	118	24.13	103	21.06	356	72.8
	Total	35	7.16	168	34.36	155	31.7	131	26.79	489	100

TABLE 3 Collective Table of Youth by Various Variables Contributing to Happiness in Tehran City

				Level	of Ha	ppiness				
Variables Contributing to Happiness	Not	at all	To Soi	me Extent	N	luch	Very	much	ТО	TAL
to Trappiness	No	%	No	%	No	%	No	%	No	%
(1) Medical Services	137	28.1	251	51.33	82	16.8	19	3.9	489	100
(2) Counseling Services	274	56.1	152	31.1	48	9.9	15	3.1	489	100
(3) Marriage Facilities/ Services	259	53	173	35.4	40	8.2	17	3.5	489	100
(4) Housing Facilities	258	52.8	130	26.6	72	14.7	29	5.9	489	100
(5) Law&Order for the Youth	136	27.8	233	47.7	87	17.8	33	6.8	489	100
(6) Educational Facilities for the Youth	96	19.6	230	47.1	118	24.1	45	9.2	489	100
(7) Social Security for the Youth	252	51.5	155	31.7	56	11.5	26	5.3	489	100
(8) Monthly Income of the Youth	193	39.5	192	39.3	75	15.3	29	5.9	489	100
(9) Food Conditions of the Youth	52	10.6	180	36.8	179	36.6	78	16	489	100
(10) Health Conditions of the Youth	83	17	226	46.2	139	28.4	41	8.4	489	100

respondents (17.4%) were to some extent happy to have access to occupations, 144 (29.5%) were much happy and finally, 170 respondents (34.8%) expressed their utmost happiness to have access to jobs.

Income indicator plays a determining role in the happiness of youth. The present research showed that 193 respondents (39.5%) were very much happy due to their individual incomes, and 75 others (15.3%) were to some extent happy with their incomes.

While having a baby is expected to bring about happiness, the research reached different and unexpected conclusions. In that, out of a total of 489 respondents, 170 (34.8%) were not at all happy with having a baby/child, 140 (28.6%) were happy with

that to some extent, 96 respondents (19.6%) were much happy with having a child, and finally, 82 respondents (17%) were very much happy with that. However, the reaction towards the questions was different so far as male/female child is concerned.

Services such as medical insurance have impacts on youth happiness not only in Iran, but around the world. It acts as a means of security for the individuals. In this question, the researcher identified that out of 489 respondents, 104 (21.3%) of the addressees responded that insurance services did not make them happy at all. Another group, i.e. 236 respondents (48.3%) were to some extent satisfied with the issue. Similarly, 123 respondents (25.2%) benefited much from the medical insurance and 26 others

(5.3%) somehow or the other indicated youth happiness.

Other issues and facilities which contributed to the happiness among the Iranian youth, and the ones which are relevant to the Iranian standards could be listed as counselling services to the youth, marital financial facilities for the youth and housing facilities for them. Similarly, creation of law and order for the youth, educational facilities, social security, as well as satisfaction with the monthly income, food and health conditions and the like were also among the variables measured to evaluate the scale and quality of happiness among the youth in the present research, based on the data presented in Table 3.

In an effort to represent happiness among youth, among other factors, seven different variables such as health security, social relations, occupational status, recreation, provision of accommodation, education and wealth were used. Based on the variables reflected in Fig.3, youths are subject to further happiness. What indeed is the term happiness? It refers to certain accepted standards and satisfaction with those standards as they affect us (or in this paper the youth). For many youths, the most important part of happiness capital is the availability of functional social networks.

DISCUSSION

As indicated earlier, happier people perform better in the labour market and in general in their careers. They could even invest more in their children's future. Happier people are generally healthier. It also matters to their future outcomes. Many social psychologists argue that happier people earn more income in later periods than their less happy cohorts do (Diener *et al.*, 2008).

However, there are a lot of variables responsible for happiness in general among youths. These factors and variables play roles in the appearance of happiness among

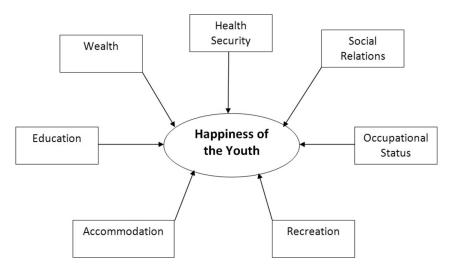


Fig.3: Objective Indicators Leading to Happiness among Youth

them in Iran. In the present research, out of the a thousand and one factors which play part in the creation of happiness, the researcher selected a few. Happiness may appear among the youth, following their access to educational aims. It may also appear among them for the ritual opportunities based on the Iranian standards. It also somehow or the other seems to show in the youth when they are satisfied with giving care and support to their parents.

Similarly, based on the varied culture, happiness sometimes appears among the youth through donating charities. In Iran, happiness is widely created because of the marriage among the youth. Likewise, as many youth attain employment, they get happy. Other variables which add to the happiness among the youths are the increase in income and the access to regular income.

As far as the Iranian youth of both genders are concerned, they highly become happy when they get a baby, or a baby is born in a young family. Similarly, social services and counselling services are somehow or the other responsible for creating happiness within the youth. That means, when they have it, they are happy, and when they lack it, they are less happy. As getting married is somehow financially hard for the youth to manage these days in Iran, they feel happy whenever they get the facilities such as loans for their marriage arrangements. Another variable which is highly responsible for a lasting happiness among the youth is securing accommodation/housing.

The research findings also showed how law and order contribute to the happiness

among youth. In Iran, many youths get the happiness for having the access to higher education. Among other factors which are responsible for the happiness among youths are social security, unemployment insurance, and those of similar opportunities. As discussed earlier on, poverty in socioeconomic contexts is largely responsible for the unhappiness among the youth. On the other hand, satisfaction with monthly income highly contributes to the happiness among them.

Access to food sufficiency also, as examined, adds to the happiness of youth, as far as the universe of study is concerned. In another question, the researcher could find out the quality of happiness among the youth because of local health conditions or health status. However, sufficient income or financial security, leisure possibilities or services, largely contribute to the emergence of happiness among the youth.

CONCLUSION

The present research looked at several fundamental relationships, namely, between happiness capital and income, happiness and economic development levels, happiness and health, happiness and quality of life, and how they interact and contribute to happiness capital. Youths have become more concerned with happiness due to the increase in social networks. Not only the youths in Iran, those around the world are also expecting increasing means of happiness. The paper concludes that under such circumstances, societies must be prepared to do everything possible to

arrange the necessary policies for youths in order to prevent controversies. In the globalized world of today, youth are prone to more changes as compared to those in the previous time. Factors such as unemployment and inflation highly affect happiness among the youth, and these add to stress, conflicts and challenges within them. Similarly, under an atmosphere of peace and lasting happiness, development in general will be attainable and sustainable.

The data collected for the present youth research are reflected in the forms of tables and descriptive statistics. Various variables have been analyzed, and through these, the scale of happiness among the youth has been measured. For example, though having a baby is a part and parcel of the Iranian value system, under the present socio-economic conditions, about one-third (34.8%) of the respondents disagreed with this, and were not at all happy with having a baby. Similarly, the variables such as monthly income, educational status, etc., were measured to determine the scale and quality of happiness among the youth in Tehran City. The research reached the conclusion that many youth were not that happy because of their deterred marriages under the unemployment crisis in the society. It is concluded that sufficient income and leisure services highly contribute to happiness capital among youth, which is achieved rather than ascribed.

END NOTES

¹Life satisfaction is a measure of an individual's perceived level of well-being and happiness. It is frequently assessed in surveys by asking individuals

how satisfied they are with their own lives. It is sometimes used as a synonym for subjective happiness, i.e., a state of mind or feeling characterized by contentment, love, satisfaction, pleasure, or joy. A variety of sociological, biological, psychological, religious and philosophical approaches have striven to define happiness and identify its sources.

²Misery index is an economic indicator adding unemployment to the inflation rate. It is assumed that a higher rate of unemployment and a worsening of inflation create economic and social costs for a country. The basic misery index causes unhappiness under the condition of joblessness. It is even followed by an increase in the crime rate in the society with special reference to the youth.

³General Quality of Life requires that people's basic and social needs are met, and that they have the autonomy to choose to enjoy life, to flourish and to participate as citizens in a society with high levels of civic integration, social collectivity, trust and other integrative norms, including at least fairness, equity and possibly to some degree of social justice and egalitarianism — all within a physically and socially sustainable global environment.

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A Comparative Analysis of Word Structures in Malay and English Children's Stories

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ABSTRACT

Malay is described as an alphabetic language with salient syllabic structures. In our attempt to develop a reading intervention program for early Malay struggling readers, word analysis of Malay children's stories was conducted. Additionally, in order to have a better understanding of Malay word structures, a cross-linguistic comparison with English was attempted. The results indicate significant cross-language differences for Malay and English words in terms of phoneme-grapheme correspondences, syllabic structure and types of inflectional morphemes. Malay is empirically shown to be a transparent language but with multiple syllabic structures and inflectional morphemes. The analysis also revealed that the most frequent occurring word structures in the Malay texts were bi-syllabic, with CV+CVC, CV+CV, V+CVC, and CVC+CVC word structures. This suggests that unlike English, the major set of word stimuli in early Malay reading intervention programs have to be bi-syllabic, which implies that additional syllabic decoding skills have to be taught in early reading intervention.

Keywords: Word analysis, cross-linguistics, English, Malay, reading intervention

INTRODUCTION

The mappings between orthography, phonology and semantics of languages give rise to the differences in writing scripts which normally fall into three main

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types: alphabetic, syllabic and logographic (DeFrancis, 1989). Standard Malay is an alphabetic-syllabic writing script used in Malaysian schools. Malay is an agglutinative language. The meaning of words can be changed by adding inflectional morphemes such as prefixes, suffixes, and circumfixes to the root words. For example, the verb 'makan' (eat), when added with the suffix '-an', becomes 'makanan' (food)

(refer to Benjamin, 2009, for a review on Malay affixes). Due to this agglutinative feature, poly- or multisyllabic words are common in this language.

In this paper, we aimed to analyse the structure of Malay words in order to inform reading intervention programme for Malaylearning struggling readers. This analysis is crucial since many researchers have provided evidence that the incidence and severity of reading disabilities are influenced by the orthography and phonology of a language (e.g., Ellis et al., 2004; Katz & Frost, 1992; Miles, 2000; Ziegler & Goswami, 2005). For languages with alphabetic and syllabic scripts, many researchers have differentiated between languages with transparent and opaque letter-sound correspondences. Transparent languages, such as German, Greek, Spanish, Turkish and Welsh, have letters and sounds with an almost one to one relationship, while opaque languages such as French and English have inconsistent letter-sound correspondences (see Ellis et al., 2004 for a review). This distinction is believed to contribute to processing differences in word naming, where transparent orthography promotes direct phonological decoding while opaque orthography requires additional visual and onset-rime processing, on top of phonological decoding (Ellis et al., 2004; Katz & Frost, 1992; Miles, 2000; Ziegler & Goswami, 2005).

To date, many reading intervention programs have been designed for Englishspeaking children. The efficacy of these English reading intervention programs has been widely studied and reported (Vellutino et al., 2004). To our knowledge, there is no evidence-based treatment programme available yet for children who are struggling to learn Malay. If we are going to utilize and to base our intervention programme on the treatment frameworks that are originally designed for English-speaking children, we need to first understand the cross-linguistic differences between Malay and English. This has been made explicit to us by reviews of the first author's earlier works (Lee & Wheldall 2010; Lee et al., 2009). In line with the orthographic depth hypothesis (Katz & Frost 1992), we hold the same view as the reviewers of our earlier work that Malay language has specific phonological and orthographic features that potentially entail the struggling readers of this language to be remediated with instruction different from that for the English-learning readers. However, such a view is hard to justify since there are almost no empirical data that have systematically revealed the cross-linguistic differences between English and Malay word structures. As a result, it remains unjustifiable which aspects of treatment used for the English-learning readers are transferable, and which are not.

Few researchers have contrasted the cross-linguistic differences between Malay and English, especially in relation to the analysis of word structure. Earlier works by Lee (2008), and Lee and Wheldall (2009) provided some descriptive similarities and differences between these two languages. Most of the descriptions remained hypothetical, which we have sought to

improve in this study. The aspects of similarities include the fact that the Malay writing system is phoneme-based and it uses the same Latin alphabetic script, i.e. the 26 letters as in English (Lee, 2008). On the other hand, Lee (2008) identified two major features in Malay which are distinctive from the widely studied English language.

First, Malay has a more transparent orthography as compared to English. This means that the grapheme-phoneme correspondences in Malay are more direct as compared to English. For example, the Malay word malam (night) consists of five letters (i.e. 'm' + 'a' + 'l' + 'a' + 'm') and five phonemes (i.e. /m/ + /a/ + /l/ + /a/ + /m/). This results in a 100% direct graphemephoneme correspondence. In comparison, the English word night has five letters ('n' + 'i' + 'g' + 'h' + 't') but only three phonemes (/n/ + /aI/ + /t/). The graphemephoneme correspondence is not as direct as it is in Malay. Lee (2008) previously has indicated that this feature places Malay on a similar granularity-transparency dimension as German or Italian. Researchers, such as Wydell and Butterworth (1999), Miles (2000) and Ziegler and Goswami (2005), have found that children who are learning a transparent language such as Malay acquire phoneme awareness more rapidly than those who are learning a less transparent language such as English. However, a recent study involving a Malay-speaking child, with severe reading impairments in a trial reading intervention programme (Lee 2010), indicated severe difficulties in decoding Malay word stimuli. The child continued

to struggle with phoneme-grapheme decoding despite an intensive intervention programme. According to Miles (2000), even in transparent orthographies, there are inconsistencies in phoneme-grapheme correspondences that dyslexic children still have difficulty with. Therefore, it is important to continue to investigate the features of the phonemes and graphemes in the Malay language context.

Second, as reviewed in Lee (2008), native Malay words are based on four distinct syllable structures, i.e. V, VC, CV and CVC (Hamdan, 1988). These basic structures can be combined in multiple ways to form two syllabic words like bola (ball), with the structure of CV+CV or more complex words like mesyuarat (meeting), with the structure of CV+CV+V+CVC. Malay words are mostly formed by two or more distinct syllables (Karim et al., 2004), with very few mono-syllabic words. The dominance of multi-syllabic words in Malay imposes a challenge in the design of a reading intervention programme for the early Malay poor readers since most of the existing English intervention programmes use mono-syllabic words as the primary stimulus set (e.g. Gillon, 2008; Lindamood & Lindamood, 2007). Monosyllabic words that rhyme, such as 'fat' and 'bat', are the desired stimulus set in those programmes which focus on facilitating phoneme awareness at the word level in English. The differences in English and Malay word structures discussed so far would imply that some aspects of reading intervention in Malay need to be different from the conventional English programmes. However, as proposed earlier, there is a lack of empirical data that has systematically revealed the nature and the scale of these differences. Therefore, there is a lack of evidence-based reference that can be used to design a systematic remedial reading instruction programme in Malay language.

So far, we have descriptively reviewed two primary Malay word characteristics which are different from English. As compared to English, Malay has (1) more direct grapheme-phoneme correspondences and (2) more multi-syllabic words. In this study, we aimed to systematically examine these cross-linguistic differences by analyzing children's translated stories (labelled as E and M to refer to the works written in English and in Malay, respectively). This analysis allows us to contrast the orthography and phonology of the two languages by controlling the type of texts used. We also aimed to further gather differences between the languages, and second, to gain greater insights into the selection of word stimuli for a Malay reading intervention programme. In order to guide our investigation, we focused on two research questions:

- 1. What are the linguistic differences in the Malay and English word structures?
- 2. How can these differences be used to inform the selection of word stimuli for a Malay reading intervention programme?

METHOD

Since we aimed at focusing on analyzing word structures, we specifically looked for reading materials with a close match in translation at the sentential level. Children's translated story books fulfilled this requirement. We randomly chose two stories for our analysis. The first story is Tom Thumb (E1 and M1) and the second story is Thumbelina (E2 and M2). Both stories are classic fairy tales. The stories were retold by Jeff K.L. Lay and published in Malaysia in the year 2001. The stories and language levels were assessed by a trained teacher and a qualified translator in terms of their suitability for readers in early elementary school.

Translation

The translator also commented on the quality of the translation. The stories contained simple vocabularies and short sentences (e.g., He could ride a horse). Literal translations were used to translate from English into Malay. It is a translation strategy whereby text is translated "word-by-word" abiding by the target language grammar. This translation strategy is considered acceptable since sentences in English and Malay both adhere to the "subject + predicate" word order rule. Overall, the meanings of the target text are rather well-maintained. Some examples of the translation are provided to illustrate this:

Source text 1 (English): Tom Thumb was the son of a woodcutter and his wife.

Target text 1 (Malay): Tom Thumb ialah anak kepada seorang pemotong kayu dan isterinya.

Back translation 1: Tom Thumb is/was the son for one woodcutter and his wife.

Source text 2 (English): A mouse often came to the mole's house for dinner.

Target text 2 (Malay): Seekor tikus tanah sering datang ke rumah tikus mondok itu untuk makan malam.

Back translation 2: One mouse always comes to the house of the mole for dinner.

Since both the stories originated from the West, the source text contained some cultural terms, such as *snow, fairy, winter*. However, the illustrations in the book served to give the meaning of those cultural terms. As a whole, the translated Malay texts were judged by the professional translator as a good translation as it conveyed the same message as the source text, with the original meaning maintained.

Analysis

We used a general term 'text' to refer to all the stories, i.e., E1, M1, E2 and M2. For each text, we first converted it into an electronic format by typing it into the Clan transcription processing programme (MacWhinny, 2000). We then used the commands in the Clan programme to calculate the number of word-types and word-tokens. The number of word-types refers to the count of different words in the text. This count functions to provide a compressed view of word variety. Hence,

the count excludes the re-occurrence of the same word in the text. By contrast, the count of word-tokens considers both word variety and any repetitions. It functions to provide a fuller view of word distributions in the text.

Next, we exported the word-type and word-token results from the analysis in the Clan program to a word processor. For both sets of result, we first screened the data for non-words (e.g., oh, hmm) and proper nouns (e.g., Tom Thumb, Thumbelina). Our preliminary analysis showed that these items formed less than 10% of the total word distribution. Despite its relatively small percentage, we excluded these items in order to set up clearer language boundaries for analysis purposes. We then coded the data for (1) word length (grapheme) – the number of letters in the word, (2) phoneme combination – the number of phonemes in the word, (3) number of syllables – the number of syllables identifiable with their syllabic boundaries in a word, and (4) types of inflectional morphemes – prefixes, suffixes, circumfixes, reduplications and irregular words.

RESULT

Word frequency

The word frequency analysis via the Clan programme provided us with the word-type and word-token results. The results are presented in Table 1. These data function to provide an overview of the word size and variety.

The data in Table 1 showed that the English texts contained 213 and 215 word-types while the Malay texts contained 216

TABLE 1 Results of word-type and word-token analysis*

Language	Texts	Number of word-types	Number of word- tokens	Type-token ratios
English	E1	215	482	0.446
	E2	213	485	0.439
Malay	M1	215	413	0.521
	M2	224	450	0.498

^{*} The calculation generated by the Clan program did not exclude non-words and proper nouns. The non-words and proper nouns were excluded in the later analyses.

and 224 word-types. Even though the number of word-types in Malay and its corresponding English texts was almost comparable, there were slightly more word-tokens in the English texts (482 and 485) than in the Malay texts (413 and 450). As a result, a higher type-token ratio was found in the Malay texts as compared to the English. This could be an English to Malay translation effect, where words such as 'woodcutter' and 'swallow' as presented in the methodology section, have multi-lexical forms in Malay, i.e., 'pemotong kayu' and 'burung layang-layang'.

Reliability

For the subsequent coding for English and Malay word items, the inter-coder reliability was checked for the segmentation of phonemes and syllables before we continued with the analysis. Both the adult coders in this study have almost equivalent bilingual literacy in English and Malay, and the first coder has previous research experience in analyzing Malay and English texts. The inter-coder reliability was checked for 351 English word items and 363 Malay word-types in the texts. The analysis excluded

duplicating word-types that occurred in both stories. For example, the word 'day' occurs in both E1 and E2. Hence, one duplicate was removed from this analysis. In total, there were 72 duplicates that were excluded from the English and Malay lists, respectively. The results revealed a high consistency between the two coders, with alpha values above .7 for all the comparison datasets (Pallant, 2007). The consistency levels of 86.0% (n=351) and 95.0% (n=363) were achieved for the segmentations of English and Malay phonemes. This produced high alpha values of .98 and .99, respectively, when tested with Cronbach's alpha coefficient. The consistency levels of 91.2% (n=351) and 98.9% (n=363) were achieved for the segmentations of English and Malay syllables, which in turn produced high alpha values of .95 and .99. A higher inter-coder consistency was found for Malay than English coding. Thus, the finding suggests that the Malay phonemes and syllables are easier to be coded compared to English. This is likely due to the greater transparency of the Malay language compared to English.

Grapheme-phoneme Correspondence

The number of letters and the number of phonemes were calculated as a way to investigate the grapheme-phoneme correspondences in English and Malay words. In order to illustrate the grapheme-phoneme relationships in our data, the English and Malay words were grouped into two categories: (1) words with a direct match of letter and phoneme (e.g. the word 'cut' in English consisted of three letters and three phonemes, /k\pit/), and (2) words without a direct match of letter and phoneme (e.g. the word 'come' in English consisted of four letters, but only three phonemes /k\pim/). The results are summarized in Table 2.

As indicated by the results in Table 2, about 70% of the words in the English texts did not have a direct letter and phoneme match. In contrast, the opposite was observed in the Malay data. In more specific, 72.9% and 76.0% of the words in the Malay texts had a direct match of letter and phoneme. The examples are: aku (/aku/), sini (/sini/) and, besar (/besar/). Meanwhile, the words without a direct match in Malay are words consisting of diphthongs (/ai/, /au/, /oi/) and digraphs (/gh/, /kh/, / η /, / \Box /, /

sy/) (Awang, 2004). The examples of these words contained in the texts are engkau (/enkau/) and orang (/oran/). The result shows that these words occur in about one quarter of the total distribution of wordtypes in each Malay text analyzed. An independent t-test was conducted to assess the statistical relationship of the differences observed. The Malay texts were found to have significantly more words with a direct phoneme and grapheme match (M=0.74, SD=0.44) than the English texts (M=0.30, SD=0.46), t(850,2)=14.35, p<.001. The dominance of words with a direct graphemephoneme correspondence in the Malay texts provided the evidence for the extent of grapheme-phoneme transparency in Malay, relative to English.

Fig.1 and Fig.2 portray the pictorial representations of the analysis results. An example is given to help readers understand the grapheme-phoneme correspondence graphs. As shown in Fig.1, which portrays the grapheme-phoneme correspondence in the English words, the word example A has five graphemes (represented by the point A1) but only two phonemes (represented by the point A2). Meanwhile, the review

TABLE 2
Grapheme-phoneme correspondence in English and Malay words

		Grapheme-phone	me correspondence	Number of word-	
Language	Text (Story)	Direct match (e.g. three letters and three phonemes)	No direct match (e.g. three letters but only two phonemes)	types analyzed (exclude non-words and proper nouns)	
English	E1	31.0%	69.0%	213	
	E2	30.0%	70.0%	210	
Malay	M1	72.9%	27.1%	214	
	M2	76.0%	24.0%	221	

of the English data suggests that A could either be 'where' which is composed by the phonemes /w/ and /eə/ or 'there' which is composed by /ð/ and /eə/. Hence, the wider the difference in the corresponding points in the graph, the less perfect the grapheme-phoneme correspondence will be.

A comparison of Fig.1 and Fig.2 suggests that the number of phonemes in Malay words more directly corresponds with the number of letters in the words, as compared to the English data. This is represented by a narrower spread of the line that represents the 'number of phonemes' away from the line that represents the 'number of letters' in Fig.2, compared to the pattern seen in Fig.1. The patterns in both graphs showed that there are more words

in English with inconsistent graphemephoneme correspondences as compared to Malay. The pattern also reveals that the inconsistency between the number of grapheme and phoneme of a word varies more in English compared to the Malay words.

Taken together, the graphs and the calculations in this section provide empirical data which indicate that the proportion of direct grapheme-phoneme correspondences in Malay is higher than in English. In addition, the data also revealed that despite the transparency of the Malay language, as asserted by Miles (2000), there are still inconsistencies in certain grapheme-phoneme correspondences. These inconsistencies may cause difficulty

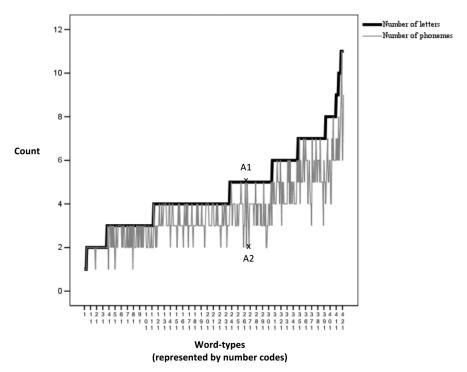


Fig.1: The grapheme-phoneme correspondence in the English words

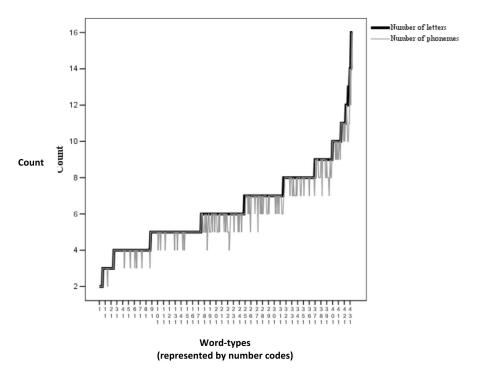


Fig.2: The grapheme-phoneme correspondence in the Malay words

in reading for children with dyslexia (refer to Lee 2010).

Syllabic structure

Next, the number of syllables in the individual word items was calculated. As shown in the comparative data in Fig.3, the majority of the words in the English texts were monosyllabic (about 60%), while the majority of words in the Malay texts were bi- and trisyllabic (about 45% bi-syllabic words and 35% tri-syllabic words). The independent t-tests indicated that these differences are significant. There were significantly more words in the Malay texts with multi-syllabic structures (M=2.66, SD=0.90) than those in the English texts (M=1.49, SD=0.69), t(812.0)=-21.52, p<.001. This empirical

finding is attributable to the transparent and agglutinative characteristics of Malay.

Inflectional morphemes

Next, the types of inflectional morphemes attached to the words in the texts and their relations to the word structures were analyzed. As indicated by the comparative data in Figure 4, there were slightly more affixed words in the Malay texts than in English. The percentages of the root words in the Malay texts were approximately 60%, and the percentages of the root words in the English texts were slightly higher, i.e. almost 70%. This indicated that there were about 10% more affixed words in the Malay than English texts. Further, there was also a more extended range of morpheme

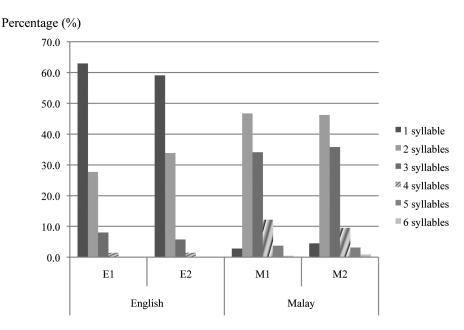


Fig.3: The number of syllables in the words

types used in Malay than in English. The inflectional morphemes used in Malay included prefix (e.g. ber+cakap), suffix (e.g. arah+an), circumfix (e.g. men+dapat+kan), reduplication (e.g. ikan-ikan) and affixed reduplication (men+jerit-jerit). These words involved manipulations at word (e.g. ikanikan) and syllable (e.g., ber+cakap) levels. In addition, the English morpheme rules are less transparent and less predictable than Malay since about 10% of the inflected words in English are in irregular forms (refer to E1 and E2 in Fig.4). Words with irregular forms involve manipulations with the smaller linguistic units, i.e., the phonemes. Some examples of these irregular words are might (may), sold (sell) and men (man). We referred to the phonemic variations in these irregular words as manifestations of phoneme-level manipulations. Nonetheless,

this type of phoneme-level manipulations is totally absent in the Malay data.

The overall findings confirmed our initial descriptions that there are more words in Malay with direct grapheme-phoneme correspondence and with multi-syllabic structures relative to English. The analysis of inflectional morphemes added to our understanding that as compared to English, there is more manipulation at the syllabic level than at the phonemic level for the Malay inflected words.

Given this set of findings, it seems crucial to consider the characteristics of the syllable in the selection of word stimuli in a reading intervention program. For this purpose, we investigated the distribution of words with different syllabic structures for the root words used in the Malay texts. Table 3 presents the data on the

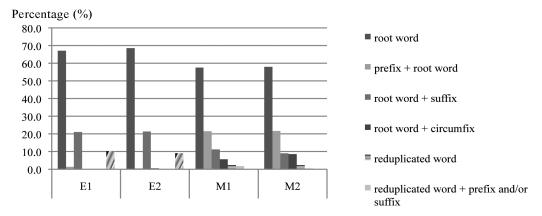


Fig.4: Inflectional morphemes in the words

most frequent occurring word structures in the Malay texts. Then, the most frequent occurring syllabic structures were deduced from this dataset.

Based on the data in Table 3, the most frequently occurring syllabic structures deduced are CV (highlighted in grey) and CVC (highlighted in black). These two syllabic structures formed the most frequently occurring word structures in mono-, bi-, tri- and quadri-syllabic words analyzed. For example, as shown in Table 3, 34.2% of bi-syllabic words in texts M1 and M2 are formed by the structure of CV+CVC (n=54) and 17.7% are formed by the structure of CV+CV (n=28). In fact, the most frequently occurring words in the texts are also these two types of bi-syllabic words. We listed these words in the appendix, together with words with the structure of V+CVC (n=14) and CVC+CVC (n=12).

DISCUSSION

In this study, a contrastive word analysis was conducted to two English and Malay

translated children's stories. The results indicated significant cross-language differences for the texts analyzed (E1, E2, M1 and M2). The cross-linguistic differences were found in the graphemephoneme correspondence, syllabic structures and inflectional morphemes. Consistent with our initial presumptions, there were more words in the Malay texts with direct grapheme-phoneme correspondences than the English texts. Second, there were very few words in the Malay texts with mono-syllabic structure as compared to the words in the English texts. These two differences were proven to be statistically significant. Third, relative to English, more manipulations take place at the syllable level of Malay words than at the phoneme level.

In regard to the second finding, it is important to make explicit that the dominance of English monosyllabic word that we found in this study is partly determined by the nature of the texts analyzed. Our finding corresponds with the finding from the English word corpus built by Masterson, Stuart, Dixon and Lovejoy

TABLE 3 Syllabic structures in the words found in texts M1 and M2

	Syllable structures	Examples in the Malay texts	Number of items	Percent in each category	Total percent (n=197)
1 syllable	C <u>V</u> C	baik, lain, daun, jauh	4	36.4	2.0
	CV	di, ke, si	3	27.3	1.5
	CVC	dan, pun	2	18.2	1.0
	CV <u>C</u>	yang	1	9.1	0.5
	C <u>V</u>	kau	1	9.1	0.5
			11	100.0	
2 syllables	CV + CVC	bebas, besar etc.	54	34.2	27.4
	CV + CV	beli, cuba etc.	28	17.7	14.2
	V+ CVC	amat, akan etc.	14	8.9	7.1
	CVC + CVC	lembut, nampak etc.	12	7.6	6.1
	CV +CVC	datang, kering etc.	10	6.3	5.1
	CV+CVC	sangat, jangan etc.	8	5.1	4.1
	CVC + CV	lembu, pergi etc.	5	3.2	2.5
	V+ CV	ini, itu etc.	5	3.2	2.5
	CVC +CVC	terbang, kandang etc.	3	1.9	1.5
	CVC+CVC	sungguh, pengsan etc.	3	1.9	1.5
	CV + CV	walau, kalau	2	1.3	1.0
	CV + V	dia, dua	2	1.3	1.0
	CV+VC	luar, tuan	2	1.3	1.0
	CVC+CV	bangga, sangka	2	1.3	1.0
	VC+ CVC	untuk	1	0.6	0.5
	V+ <u>C</u> VC	ingin	1	0.6	0.5
	CV+CV	bunga	1	0.6	0.5
	CV+CVC	kenyang	1	0.6	0.5
	CVC +CV	sampai	1	0.6	0.5
	V+CV <u>C</u>	orang	1	0.6	0.5
	V+V	ia	1	0.6	0.5
	V <u>C</u> +C <u>V</u>	engkau	1	0.6	0.5
			158	100.0	

cont'd Table 3

3 syllables	CV + CV + CV	lelaki, berasa etc.	12	54.5	6.1
	$CV_{+V+}CV$	suara, suatu	2	9.1	1.0
	CVC + CV + CV	gembira, kembali	2	9.1	1.0
	V+V+CVC	ialah	1	4.5	0.5
	$CV + CV + \underline{C}V$	telinga	1	4.5	0.5
	$CV + CV + CV\underline{C}$	belakang	1	4.5	0.5
	$CV + CV + C\underline{V}$	teratai	1	4.5	0.5
	CV + CV + V	semua	1	4.5	0.5
	CV + CV + VC	keluar	1	4.5	0.5
			22	100.0	
4 syllables	CV + CV + CV + CV	matahari, daripada etc.	3	50.0	1.5
	CV + CV + VC + CV	keluarga	1	16.7	0.5
	CV + CVC + CV + VC	perempuan	1	16.7	0.5
	V+CV+CV+CV	apabila	1	16.7	0.5
			6	100.0	

C=consonant, V=vowel, C=digraph (/ng/, /ny/ and less frequently /gh/, /kh/, /sy/), V=diphthong (/ai/, /au/, /oi/).

(2010) who found that 2/3 of the words in the early reading materials for British children are monosyllabic words. Therefore, it seems that our claim pertaining to the distributional differences of mono-syllabic and multisyllabic words in Malay and English texts is valid, particularly in relation to children's early reading materials. Correspondingly, these observed cross-linguistic differences are believed to have an impact on reading interventions, which typically make use of the common vocabulary that beginning readers are experiencing with.

The prominence of the syllabic structures in Malay words suggests that this needs to be incorporated into the design of reading instructional program in Malay. However, though it might be useful to refer to the instructions of teaching Englishlearning children to read multi-syllabic words (Duncan & Seymour 2003), those instructions might not be appropriate. The reason is that prosody or stress pattern was found to influence the reading of multisyllabic words in young English learners (Duncan & Seymour, 2003). On the other hand, Malay is not a stress-timed language as compared to English (refer to Aris, 2010, for a review). The syllables in Malay are generally produced with equal intervals of time (Platt & Weber, 1980), with stressed syllables produced with equal length and loudness (Juliah 1993). Hence, other than the quantity difference as we found in this study, there seems to be also other aspects of cross-linguistic differences that we need to recognize when we design a Malay reading remedial program based on an English framework. Other syllable-timed languages, such as Spanish (Mathes, Linan-Thompson, Pollard-Durodola, Hagan & Vaughn 2001) form complementary materials that can be referred to.

Cross-language interaction and bilingualism are becoming increasingly common. This cross-linguistic analysis is important in relation to language acquisition for the bi- or multilingual individuals. In the Malaysian context, we aim to use the current findings to inform our future work on Malay-English bilingual children who are struggling to read in schools that have bi- and trilingual policies. Despite both languages having similar alphabetic scripts, there are significant word structure differences to indicate that cross-language transfer may not be symmetrical across both languages as was found by previous researchers such as Mishra and Stainthorp (2007). The results from this comparative analysis also provide a reference on crosslinguistic differences between Malay and English to help non-Malay readers to understand Malay better.

This study provides empirical data revealing the prominence of CV and CVC structures in Malay texts. The most frequent occurring word structures in the Malay texts were found to be bi-syllabic word structures, including the structures of CV+CVC, CV+CV, V+CVC and CVC+CVC. This indicates that bi-syllabic word structures are the word structures that young Malay readers are most likely to encounter. This evidence set the rationale for us to use bi-

syllabic words as the major set of word stimuli in our early reading intervention programme. This contrasts with reading intervention programs designed for English-speaking children, which typically used mono-syllabic words as the primary word stimuli in tasks to promote phonological awareness (e.g. Gillon, 2008; Lindamood & Lindamood, 2007).

There are two major implications when bi-syllabic word stimuli are used in early reading intervention programmes. First, syllabic manipulation skills have to be taught in addition to phonemic manipulation skills when learning to decode at an early word reading level. Second, cognitive load increases when two types of grain-sizes (syllable and phoneme) are manipulated at the word-level. These two implications provide additional challenges that need to be considered when developing early reading intervention programs for transparent languages such as Malay. In English, it is the opacity of grapheme-phoneme correspondences that impose the challenge for reading intervention. Different aspects of languages present different challenges to learners. Therefore, despite the transparency of Malay, there are still a sizable group of children who are facing difficulties in reading. For example, a study conducted in the state of Penang identified that 9.4% of Grade 1 students in elementary schools had learning disabilities. Amongst these students, 92.3% of them were found to have severe reading disabilities (Socio-economic & Environmental Research Institute Penang, 2003).

LIMITATION OF RESEARCH

A limitation of our research is that we conducted our analysis based only on two English texts and two Malay texts. However, despite the smaller number of texts used, there was a high inter-text consistency for the results obtained. Based on this, we felt that as a preliminary study, the dataset that we analyzed was adequate to give some baseline data. With the direction provided by this preliminary study, we will now proceed to include more texts in our database. A word corpus will be built from this database so that word stimuli can be selected to form the basis for the Malay reading intervention programme.

CONCLUSION

In conclusion, before developing a reading intervention programme for poor readers in a language, we suggest that it is important to first identify the orthographic and phonological components of the word structures in the language. In addition, we advocate that cross-language comparisons need to be conducted, if English intervention programmes are to be used as a basis for developing reading intervention programmes for other languages.

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APPENDIXWords with the most frequently occurring word-structures in M1 and M2.

-				
CV+CV	C (n=54)	CV+CV (n=28)	V+CVC (n=14)	CVC+CVC (n=12)
bawah	musim	beli	akan	bandar
bebas	pasar	budi	amat	hendak
benih	penuh	cuba	anak	kuntum
besar	perut	dari	arah	lembut
bijak	pokok	diri	asal	mondok
boleh	rumah	hari	atas	muncul
bukan	salah	hati	awak	nampak
cepat	sayap	jadi	ayah	rumput
comel	sedar	jari	ayam	sambil
cukup	sejuk	juga	ikan	sarkas
dalam	sihat	kaki	ikut	sempat
dapat	tanah	kami	itik	tempat
dapur	tebal	kata	izin	
dunia	telah	kaya	oleh	
gadis	tetap	kayu		
gagal	tidak	kuda		
halus	tidur	lagi		



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Developing a Content Subscale to Assess University Students' Argumentative Essays

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ABSTRACT

Genre-specific scales are available to evaluate students' writing in English as a Second Language (ESL) situations, but instructors may still feel a need to develop new scales to match their specific testing situations. In order to develop a valid instrument for their testing situation, the researchers reviewed the literature and carried out a survey as well as a focus group study. These led them to a number of subscales, namely, content, organization, vocabulary, language conventions and overall effectiveness. The paper reviews how the band descriptors for the content subscale of the Analytic Scale of Argumentative Writing (ASAW) were determined. Toulmin's (1958/2003) model was used to analyze the patterns of argument in 20 purposely selected argumentative essays written by a group of Malaysian students. The results of the analysis provided the researchers with descriptors for five levels of writing ability. The subscale was tested for inter- and intra-rater reliability as well as concurrent validity. Positive results were observed. ESL writing instructors and evaluators may find the subscales useful for formative assessment purposes. In addition, the samples can be useful models for ESL students to differentiate the successful from unsuccessful argumentative content in writing courses.

Keywords: Assessing English as a second language writing, writing scale development

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In order to assess their bachelor degree students' argumentative essays in their English writing courses, the present researchers required a rating scale. These students were mainly freshmen in a public Malaysian university, Universiti Putra Malaysia (UPM), who are generally of

a lower intermediate level of English proficiency. This university follows a grading system with a numerical value ranging from 0 to 100 categorized into the five grades of A, B, C, D and F. Therefore, this study followed the objective of developing a writing scale that could differentiate five levels of performance from 'excellent' (A) to 'very limited' (F) level.

A writing scale is an instrument that provides writing teachers, researchers or raters with a scoring guide to help them reach more reliable and valid measures of students' writing performance. Writing scales are of different types. They may be either all-purpose or genre-specific (Cooper, 1999). All-purpose scales are generic in nature and are developed to score scripts regardless of the genre in which they were written. A generic scale does not take the genre of the written works into account, whereas a genre-specific scale is sensitive to the type of the text written, that is, whether it is narrative, descriptive or argumentative. As the genre of a text shifts, so does its schematic structure (Lock & Lockhart, 1999). For example, argumentative essays commonly start with the statement of a position, continue with supporting evidence and end with a reiteration of the position. By contrast, descriptions in the form of scientific reports begin with an overview of the classification of the topic under discussion, followed by a presentation of certain information in a logical and thematic order and end with and sometimes without a conclusion (Beck & Jeffry, 2007). This suggests "when we ask students to explain

or argue in writing, we are implicitly asking for certain kinds of sentences" (Strong, 1999, p. 83). In assessing writing, such variations should be considered by including certain criteria that are particularly devised to gauge student writers' ability to handle a specific genre (Cooper & Odell, 1999).

Generic or genre-specific scales may be either holistic or analytic. Holistic scales help the rater assign a grade for a certain script considering the writer's overall writing skill. They are useful for large-scale tests and placement purposes (Cohen, 1994). Analytic scales, on the other hand, divide the writing construct into its various dimensions such as content, language use, organization and the like. They are appropriate for classroom use and diagnostic purposes because they can indicate the particular weaknesses or strengths of student-writers (Weigle, 2002).

Most widely used writing scales that are available in the literature are generic in nature and are not sensitive to the genre of essays. However, the available few genre-specific scales have their own drawbacks. Some of them cover only a few traits of writing and not the whole construct. Connor and Lauer (1988, p. 145), for instance, developed a scale to assess the argumentative quality of written pieces in terms of their 'claim', 'data' and 'warrant'. This scale focuses on student writers' ability in argumentative writing. Moreover, it ignores other traits like language use among other important dimensions of writing in ESL situations.

Admittedly, there are genre-specific scales that cover all important traits of

writing ability; however, they may have been developed in the light of test specifications different from those in another assessment situation. For example, the Writing Scoring Rubrics (Glasswell *et al.*, 2001) were developed for school students in New Zealand. Thus, these rubrics are appropriate for the performance levels of school children's written pieces in New Zealand, and they cannot be used for assessing Malaysian university student's essays.

To best of our knowledge, no analytic argumentative scale has been developed to match with this grading system. Meanwhile, adjusting the existing scales to their situation would complicate the development procedure since their descriptors differentiated only three levels of performance. For this reason a project was proposed that involved developing the content subscale of the Analytic Scale of Argumentative Writing

(ASAW). This paper presents one of the phases of development of this scale. Before a discussion of this particular phase, an overview of the project will follow.

In its development, the ASAW went through the four phases of design, operationalization, trial and validation. In the first phase, design, one of the primary issues of concern, was to specify the evaluative criteria. These criteria indicate the features of writing construct that should be considered in scoring the scripts. Fig.1 presents the procedure in which the evaluative criteria were determined.

As the figure shows, the band descriptors were determined in three different ways. On the one hand, a review of the available scales and the related literature resulted in a list of evaluative criteria. This list was converted into a checklist which was refined quantitatively (a survey of ESL writing

Phase I: Design

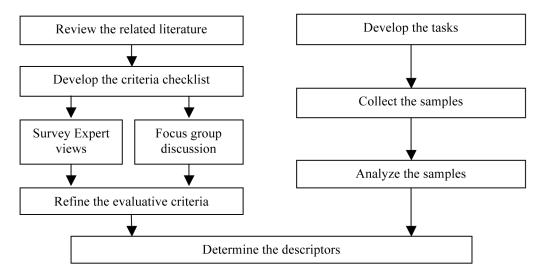


Fig.1: Research Procedure (Design Phase)

instructors' views) and qualitatively (a focus group discussion). A review of the methods and findings of these studies would be beyond the scope of the present paper. However, for an extensive discussion on the development of the checklist based on the literature review as well as the procedure and findings of the survey the reader may refer to Nimehchisalem and Mukundan (2011). Additionally, Nimehchisalem (2010, pp. 167-175) provides the procedure of the focus group study and the modifications that it caused in the final scale.

On the other hand, four argumentative tasks (Appendix A) were designed to collect samples of argumentative essays. The analysis of a number of these samples enables the researchers to describe the varying levels of writing performance in terms of the dimensions of writing construct. This paper involves the analysis of one of these dimensions, i.e., the 'content' that was carried out using Toulmin's model of argument. Other models are also available to analyze arguments, and these include Beardsley's (1950) diagrammatic approach and Scriven's (1976) tree diagram. While Beardsley's theory deals with the argumentative relationships, Scriven's method indicates the argumentative roles that each statement plays in a given text. Even though these theories have been widely used for describing arguments, they are not practical (Johnson, 2000) and also lack the ease and precision of Toulmin's model (Yeh, 1998).

Toulmin (1958/2003) describes <u>claim</u>, <u>data</u>, <u>warrant</u>, <u>qualifier</u>, <u>backing</u> and <u>rebuttal</u> as the elements of a good argument. A claim (C) is the thesis that is being argued. It demonstrates the arguer's standpoint. The data (D) are the facts and pieces of evidence that support the claim. Example (1) shows the relationship between a claim and a datum:

Example (1)

Smoking is dangerous (C) because it is addictive (D).

In this example, the claim that is made on the danger of smoking is supported by a datum that argues smoking is addictive. A warrant (W) is a bridge between a claim and a datum. In Toulmin's words, warrants are "general, hypothetical statements, which can act as bridges, and authorise the sort of step to which our particular argument commits us" (2003, p. 91). Warrants are often implicit propositions like rules and principles that prove the legitimacy of a datum. In Example (1), the reader is convinced that smoking is dangerous because it is addictive since there is an implicit bridge between the claim and the datum that holds anything that is addictive is dangerous. Toulmin (2003, p. 92) demonstrates the relationship between the C, D and W, as follows:



Therefore, the relationship between the argumentative elements of Example (1) can be shown in this way:

Anything that is addictive is dangerous (W)

When the reader has little background knowledge on the relationship between the claim and the data, the writer must explicitly state the warrant. Otherwise, the argument may sound unclear and ambiguous. In Example (2), from Toulmin (2003, p. 92), if the reader is unaware of certain rules, she will find it hard to link the datum to the claim:

Example (2)

Since

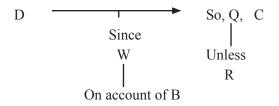
A man born in Bermuda will be a British subject (W)

In addition to the three major elements discussed above, an argument may have three optional elements as well, including the qualifier, backing and rebuttal. Qualifiers (Q) are the cues that indicate the strength of an argument. On Toulmin's words, a qualifier shows "the degree of force which our data confer on our claim in virtue of our warrant" (2003, p. 93). As an example, definitely, in Smoking is definitely dangerous, is a qualifier. As the next element of argument, backing (B) provides further support for the warrant. One may state, "Addiction disables one's thinking" to back the warrant Anything that is addictive can be dangerous. A final element of a good argument is rebuttal (R) that shows the arguer's awareness of certain conditions in which his/her claim may not hold true. Example (3) provides a rebuttal for the claim in the first example:

Example (3)

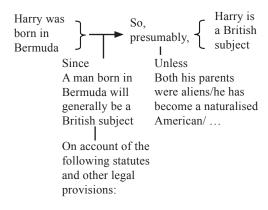
<u>Cigarettes are dangerous</u> (C) <u>unless they are</u> used for medical reasons (R).

The rebuttal "unless they are used for medical reasons" defines the exceptional cases in which cigarettes may not prove harmful. Toulmin (2003, p. 97) illustrates the distinction between the six elements, thus:



Additionally, he provides the following example to further clarify the elements in his model (Toulmin, 2003, p. 97):

Example (4)



This brief review of Toulmin's model is followed by the method of the study described in the next section.

METHOD

The method that was followed to determine the descriptors of the subscale on content is referred to as the "databased approach" (Flucher & Davidson, 2007, p. 98). In this method, the description of samples may be carried out through a direct analysis of some written works with the help of discourse analysis (Fulcher, 1996). Wong (1989) followed the same method to develop a scale for Malaysian learners' narratives.

Samples

Since the ASAW was supposed to be used to measure argumentative writing performance of the students in Universiti Putra Malaysia (UPM), a state university in Selangor, Malaysia, the samples of the study were chosen from this university. The researchers collected samples from a variety of faculties to have access to an appropriate representation of target population's argumentative writing. They selected the participants from among male and female students from six faculties of Economy and Management, Health and Medicine, Design, Communication, Agriculture and Ecology in order to achieve a collection of samples from students with diverse levels of writing ability.

Tasks

Four different tasks (Appendix A) were developed to collect the samples. As

the topics vary, so will the quality of responses elicited from the students be measurably different (Reid, 1993). There is evidence showing that inter-rater reliability may decrease if the raters have to score scripts with different topics (Weir, 1993). This suggests that in scale development establishing the descriptors on the samples that have been collected based on a variety of topics can contribute to the reliability of the scale.

In addition, four different tasks (Appendix A) were used to ensure that all the four types of argument, identified by Reid (2000), had been taken into account. The topic of the first task concerned an argument of a policy. The second topic involved a combination of an argument of fact and an argument of solution while the third was an argument of value. Finally, the last topic would prompt an argument about cause and effect.

Procedure

The researchers read all the collected samples and then impressionistically categorized them into five different levels of performance regarding their content. Next, four different samples were purposely selected for each level of performance. This resulted in a total of 20 samples which were analyzed for their argumentative elements. The sample size was equal to that of a similar study, in which Wong (1989) aimed at developing an analytic narrative scale. The content of the selected samples was analyzed using Toulmin's (2003) model. The analysts were two postgraduate students

of applied linguistics in UPM. They were familiar with the model, but they were still briefed on it and given examples. The two analysts were expected to describe the patterns of use of each element of argument in the samples. Following the briefing session, they analyzed the same batch of samples independently. After the results had been collected, they were cross-checked for inconsistencies. Whenever the descriptions presented by the two analysts did not match, the elements were analyzed once more by the researchers to ensure reliability. The next section shares the results of the analysis of a number of samples based on the model that was described above.

RESULTS

The results of the analysis indicated five levels of performance, namely, very limited, basic, modest, competent and excellent. This is consistent with the researchers' impressionistic categorization of the samples and the five categories in the grading system of UPM. This section presents the results of the analysis of the samples which were accompanied by some examples for each level of performance. What should be stated at this point as a word of caution is that by the term 'mature' arguments, frequently used in this section, the authors simply mean arguments that are 'well-developed' or 'well-elaborated'.

Very limited samples

The first sample, which was reviewed as an example for a 'very limited' or 'F' paper, was written in response to task three that

prompted comparing the advantages and disadvantages of three mass media and stating which one can be considered the most effective.

Example (5)

Communication is very important for us even we are at school, university or at work (C). their are many type we can communicate like picture, music, grafic and animation (C). Right now many media are use for communicate like Internet, television, radio, book or newspaper (C). The most effective media for communication is television, radio and film (C). (112E232)

As both analysts agreed, the writer of this piece merely makes a number of claims. The sample lacks any kind of supporting data provided for these claims. At times, irrelevant claims are evident. As an example, in the last sentence, the writer mentions television, radio and films as the most effective media. However, according to the task, test takers were supposed to mention only one medium as the most effective. The next sample whose content will be reviewed here was written in response to the fourth task that was in relation with the most suitable age for children to start school:

Example (6)

I'm not experience about that topic but I have more own knowledge

about the advantages of attending school from a young age **(C)**. For me, I believe that it is important for young children to go to school as soon as possible **(C)** because that young children can be know ability since from a young age and at the same time that young children more easy become something done incorrectly as first behavior and new knowledge that they can be put in themselves it easy for future. Main purpose why, are see young children... **(143E241)**

The sample began with two claims. Then, it continued with a run-on sentence that was in fact a random collection of words with no meaning. Words like 'because' and 'since' in lines 3 and 4 signal the presence of some data whose meaning is entirely blurred due to the writer's lack of language knowledge. The results of analysis of a few samples at this level led the researchers to this description: 'A very limited sample only makes a number of claims, some of which may be irrelevant.'

Basic samples

The example that had been selected to present the patterns of argumentative elements at a basic level was written in response to the first task that concerned allowing an equal number of boys and girls to have higher education. The sample is presented below, along with its elements of argumentation:

Example (7)

Nowadays, the number of females is more than male (C). About the questions, me as a student totally agree with that (C). In my oppinient, when the numbers of male and female students in every subject is equal, relation among the student will improve (D). It is because, when they get the assignment, they can discuss and make a mix group **(B)**. Other than that, we knew that our country has so many races which is Malay, Chinese, Indian, Iban and others (D). With this environment we as a student have to make friends with student from any kind of races (B). This will improve the spirit of Malaysian **(W)**. (21C712)

The writer of this sample began with a claim that could be linked to the topic; however, it was left isolated from the rest of the argument. Following this irrelevant claim, the standpoint has clearly been stated in the second sentence. Next, a datum was suggested with a rather far-fetched implicit warrant, which holds, 'If there is an even distribution of males and females in a group, the chances for a good relationship between them will rise.' The next sentence has been written to back this warrant, but it cannot be accepted as a strong piece of support. The fifth sentence is an attempt to present an additional foundation in support of the claim made in the second sentence. However, this reason is quite irrelevant to the claim.

This divergence from the topic makes both the backing in the sixth sentence and the warrant in the last sentence irrelevant. The first claim as well as the datum, backing and warrant at the end of the paragraph have been underlined in order to illustrate the irrelevant arguments of this sample. Observing the results of the analysis of the argumentative content of the samples at this level of performance, the researchers defined it in this way: 'A basic sample presents claims, data, warrants and backings, some of which may be irrelevant.'

Modest samples

The sample that has been selected to be presented as a model of a modest paper was written in response to the third task. The sample is presented below. The elements of argumentation have been indicated in brackets in front of each element:

Example (8)

[Paragraph 1]

Media play an important role in our daily life (C). We can know many information through the media (D). Nowadays types of media increase because of technology (C). We can gain information through many ways such as comics, books, radio, television, film, theatre and so on (C).

[Paragraph 2]

Books are one type of media that very useful for us (C). We can improve our knowledge through buy books from bookstore (D). Books are quite easy to get (D) and book's price also cheaper than other types of media (B). Through the book we can learn many things such as knowledge about science, economy, accounting and so forth (D). Books also suitable for people whose not going out and can also gain many knowledge through read books at home (D). The disadvantages of books are many people will feel boring when reading books (C). I also didn't like to read book which contain many words or uninteresting topic **(D)**. Moreover, some people maybe cannot understand the meanings of word in book and this lead communication become ineffective **(D)**.

[Paragraph 5]

In these three type of media, I feel that television is type of media that is most effective (C). It is because we can watch the picture, and listen to the voice of people (D). People whose are maybe not study also see the picture and know a bit what happen shows on television (B). Furthermore, people whose blind can use their's ears to listen (B).

[Paragraph 6, Final] In conclusion, media play important roles in our lives and we cannot without them **(C)**. (105E433)

This sample made a claim about the media in general, followed by a datum that supported it. Then, two more claims made are linked to the topic. In the second paragraph, the writer listed four data in support of a claim on the advantages of books. Next, another claim is made on the disadvantages of books followed by two data in its support. The implied warrant of the second datum is backed.

Apart from backing an implicit warrant, the writer makes no other effort to elaborate on the data about the advantages of books. Additionally, as Connor and Lauer (1988, p.145) note, "everyone-knows" kind of data are evident in this sample, like the third datum that states books enable individuals to acquire knowledge. This can be the advantage of any other media, in fact. Likewise, the fourth datum lacks maturity since people can also learn from television or most other types of media without having to leave home. Therefore, even though the data are relevant to the topic, they do not sound mature. In addition, the writer only touches upon the advantages by listing a few data without elaborating on them.

In the fifth paragraph, a claim was made presenting television as the most effective medium. Two reasons were mentioned and a warrant bridged the first datum to the claim. The second reason, however, sounded out of place. It seemed more relevant for radio

that sounds a more appropriate medium for the blind. Finally, the essay ended with a claim on the importance of media in the last paragraph.

As this sample demonstrates, the argumentative content of the samples at this level is relevant but superficial and unelaborated. In other words, the data are outlined rather than being developed. Thus, with regard to its content, a modest paper may be defined in this way: 'A modest sample presents relevant claims and data, but the data sound immature and are not well-elaborated.'

Competent samples

The samples at this level showed a relatively more mature use of elements of argumentation. This can be observed by a review of the following paragraphs. They have been selected from a sample written in response to Task 3:

Example (9)

[Paragraph 1]

Since the world progresses fast especially in information technology (**D**), people now have more and more options in getting the information (**C**). Selecting suitable media to communicate information now also becomes very important in business and many other fields (**C**) because number of media increase everytime (**D**). Each media has its own advantages and disadvantages (**D**), so we should choose the suitable one carefully (**C**).

[Paragraph 2]

The most famous media, in my opinion (Q), is television (C). Each family should have at least a television today (D), and now the price of a television has dropped sharply (D). We can easily communicate our companies information, for example, to public and audience through television **(D)**. The effect is good **(C)** because television not only provides the sound (D), it also provides the visual that we can see and observe (D). So we can remember the information in longer time (W). However, television will also transfer or send the wrong information, or information that is opposite with our cultural values to society (C), causing the teenagers to learn the wrong messages like smoking (**D**).

[Paragraph 6, Final]

In a nutshell, there are too many media for us to choose to communicate the information (C). We should choose the most suitable media to transfer the information (C) and we also must accept the message and information carefully (C). (107E434)

The sample started with three data and claimed one after the other in the first paragraph. In the second paragraph, the first claim came with a qualifier and was followed by three data supporting it. The claim was repeated before another datum was added on the advantage of television. This datum is bridged to the claim with a warrant. The paragraph ended with a claim on the disadvantage of TV that is backed by an unelaborated datum. The final paragraph is a conclusion of claims that have been put forth rather hastily with no data to support them.

In comparison with the modest sample reviewed in the previous example, this essay presents a more mature development of ideas. Each claim has been supported by a minimum of one datum. Warrants have also been employed to tie the claims to the data that are relevant to the topic. The paper presents a competent model of argumentative content. However, it lacks the maturity of an excellent model. Some of the data sound disconnected from their respective claims. For example, the third datum of the second paragraph takes it for granted that the reader will understand how it is possible to "easily communicate our companies information, for example, to public and audience through television." The reader here expects to know how television may make this happen. Based on the results of the analysis of this and similar samples, a 'competent' or 'B' level sample may be defined thus: 'A competent sample presents a reasonably mature and extensive account of relevant claims and data, but at times lacks adequate backing.'

Excellent samples

'Excellent', or 'A' level, samples demonstrated the most mature and elaborated arguments. A few paragraphs of two excellent samples are presented in this section. The first sample addresses the questions whether children these days have too much free time, whether they should be given more school work and how they should spend their free time (Task 2):

Example (10)

[1st Paragraph]

The word, *children*, reminds me of innocence, happy moments and big dreams (**D**). Childhood was by all means (**Q**), the best time in my life and I believe, in many people's lives (**B**). And childhood memories are sweet and filled with laughter and fun without worries (**B**). Thus, I feel that children should not just use their free time to do only school work (**C**). Their time should be filled by more meaningful and memorable activities (**C**).

[2nd Paragraph]

Of course, unlike adults, children do not need to worry about their career, money and means to support themselves (**D**). Hence, they have abundant time (**C**). So, the question is how should they spend their free time? As all of us know, knowledge does not only come from school work (**D**). In fact, reading other

books like encyclopedias and story books could enhance the children's general knowledge and creativity (B). For this part, the parents play an important role (C). They have to make these reading materials available to the children (D).

[Final Paragraph]

I think (Q), it's best for children not to spend their time only on school work (C). As it will only limit their creativity and options (D). Thus, children should be free to explore the world (C), but of course, under the watchful eyes of their guiding parents (R). After all, we cannot ever be children again (D). (54M625)

The first paragraph began with a datum that made reference to an implicit warrant, that is, 'Any experience filled with innocence, joy and big dreams deserves to be cherished.' This warrant was backed by the next two ideas that preceded two claims. The two claims addressed the topic. In addition, they clearly indicate the position that the writer has chosen to support.

In the second paragraph, a datum preceded the claim that was followed by another datum. This datum conveyed a warrant that argued, 'Children can acquire knowledge from sources other than school.' The next sentence backs this implied warrant. This backing is skilfully linked to another claim that is related to the main claim and is followed by another datum.

Finally, in the conclusion, the two claims were restated. Each of these claims was accompanied by a relevant datum. In addition, the writer had effectively responded to the probable objections by including a rebuttal in the last paragraph. In this sample, the qualifiers had also been used skilfully, in the first paragraph in order to emphasize the warrant and in the last paragraph to mitigate the claim. As it can be noticed, this sample presents an in-depth and effective account of all elements of argumentation in Toulmin's model. Setting off with the data and backings and only then pointing out the claims have contributed to the lucid flow of the argument in the sample. Another sample is reviewed below that compares the advantages and disadvantages of three mass media, stating which one was the most effective:

Example (11)

[Paragraph 2]

The first media that I would pick for comparison of advantages and disadvantages is comic. As we know, comic are very popular among teenagers (C), thus the information that we want to send to teenagers can somewhat reaches teenagers faster than other channels (D). In addition, the availability of comic is very high (D) because we can see comics are being sold in many places such as book stores, roadside newspaper stalls, convenience stores and so on (B). The disadvantages of

comics include the exaggerat of information and the price of comics (C). Many publishers do exaggerate the information in comics in order to get people to buy the comics they publish (D). The price of comics is getting higher (C). People might abandon this media after realizing the price is getting higher (D).

[Paragraph 4]

Last but not least, the media that I would choose to compare is television (C). I think television is the most effective tool to communicate information (C) because nowadays almost every family has a television in their home (D). After working whole day long most people would spend their leisure time watching television comfortably in their home to relax their tired brain (D). The rich variety of channels and popularity of satellite television also increase the effectiveness of television for being a information commuting tool (D). Some more, television stimulates both the hearing pleasure and is able to visualize the information conveyed (D). The only disadvantage I could think off for television being the effective communication tool (C) is the price of sending information via television (D).

All in all, I think (Q) television is the best media to communicate information (C) because of its high popularity (D), availability (D) and attractiveness (D). Although people

[Paragraph 5, Final]

usually label television as an idiot box (**R**), when it comes to the aspect of communicating message (**D**), it is no longer an idiot box (**C**), but a mighty box (**C**). Thus, I would consider television as the best media to communicate information

(C). (82E435)

The first claim in the second paragraph was followed by two data that were bridged to the claim with the implicit warrants 'Availability is a merit.' The writer chose to provide further backing for the warrant. Next, the disadvantages were discussed by two claims, each of which was followed by a separate datum. Like the second paragraph, paragraph 4 also started by

taking a position by putting forth the claims that were supported extensively by four data. However, this has left little time for the writer to elaborate more on the disadvantage of television. Indeed, the claim for the disadvantage was made in a hurry. The final paragraph restated the claim with a qualifier, followed by a summary of the data. A rebuttal preceded a datum and the three claims that concluded the essay.

This sample presents a rather extensive account of merits and demerits of television with effective reasoning. Despite its rather immature claim and its datum in the discussion on the disadvantage of TV, it sets an example of another excellent paper. However, unlike example 10, the writer of this sample chooses to present a good deal of data rather than elaborating on and backing each premise. An excellent sample may be defined as, 'An excellent sample effectively introduces the claim(s), maturely provides an in-depth or extensive account of relevant data in support of the claim(s), backs the

TABLE 1 Content subscale of ASAW

Level	Description	Grade
Excellent	An excellent sample effectively introduces the claim(s), maturely provides an in-depth or extensive account of relevant data in support of the claim(s), backs the warrants, accounts for rebuttals and may employ qualifiers.	A
Competent	A competent sample presents a reasonably mature and extensive account of relevant claims and data, but at times lacks adequate backing.	В
Modest	A modest sample presents relevant claims and data, but the data sound immature and are not well-elaborated.	С
Basic	A basic sample presents claims, data, warrants and backings, some of which may be irrelevant.	D
Very limited	A very limited sample only makes a number of claims, some of which may be irrelevant.	F

warrants, accounts for rebuttals and may employ qualifiers.' Table 1 summarizes the results discussed so far.

Once all the descriptions were ready, they were compared with the findings of the focus group discussion (Fig.1). The participants of the focus group and respondents in the survey had unanimously defined 'content' in terms of 'relevance', 'development of ideas', 'maturity of ideas' and 'consistency of stance'. The results of the analysis of the samples based on Toulmin's model covered all but one of these features, that is, 'consistency of stance'. As it was observed in the samples analyzed for their content, all the writers (either of very limited or of excellent samples) invariably took a consistent position. The sub-trait would not, therefore, differentiate between various levels of performance among the samples of this study. Therefore, 'consistency of stance' was discarded from the final version of the descriptors in the content subscale. Thus, the content subscale of ASAW was developed. Appendix (B) indicates the descriptors that differentiate between the five various levels of argumentative writing content from 'Excellent' to 'Very limited'. The descriptors of this subscale draw the rater's attention to the way the student writer employed the argumentative components in

Toulmin's model. The descriptors indicate as students become less competent, they employ fewer elements of argument.

Reliability and Validity Test Results

A group of university lecturers (n = 5) were trained on the subscale to score a batch of argumentative essays (n = 110). They had a minimum experience of 12 years of rating. Meanwhile, SPSS (version 14) was used to analyze the data. Pearson correlation was used to test the inter-rater reliability between the scores, the results of which are presented in Table (2).

According to the table, the reliability coefficients ranged between .71 and .82. A correlation coefficient of below .50 is generally regarded as low, .50 to .75 as moderate and .75 to .90 as high (Farhadi, Jafarpur, & Birjandi, 2001). Based on these criteria, the scores assigned by the raters using the content subscale indicated moderate or high reliability coefficients.

Additionally, the subscale was tested for its intra-rater reliability. For this purpose, 50 samples from among the same batch of 110 samples were scored by the first rater after a time interval of six weeks. The scores that the rater had assigned were tested for correlation with the scores she had previously given to the same samples and a

TABLE 2 Inter-rater reliability results

Raters	1 & 2	1 & 3	1 & 4	1 &5	2 & 3	2 &4	2 & 5	3 &4	3 & 5	4 & 5
Pearson Correlation Coefficients	.786	.706	.802	.710	.811	.783	.818	.767	.797	.733

TABLE 3
Concurrent validity test results

	Correlation coefficient	Significant value
Content scores and MUET bands	$\rho_{\rm S} = .79$	$r_{\rm S} = .000$
Content and Argumentative Quality Scale scores	ρ= .62	sig-r = .000
Content and ESL Composition Profile content subscale scores	ρ= .74	sig-r = .000

high intra-rater reliability coefficient of .85 was achieved.

Finally, the scores that had been assigned using the content subscale were tested for their concurrent validity. For this purpose, the scores of the same samples, which had been marked using the content of the ASAW, were tested for correlation with the same students' Malaysian University English Test (MUET) band scores. MUET is recognized as a well-established highstakes testing system in Malaysia and its bands indicate students' general proficiency in English. The scores were also tested for any correlation with the scores assigned to them using two other well-established writing scales (Argumentative Quality Scale by Conner & Lauer, 1988, as well as English as a Second Language (ESL) Composition Profile by Jacobs et al., 1981). Table (3) summarizes the results of these correlation tests.

A value of "sixty or above provides strong empirical support for the concurrent validity" (Jacobs *et al.*, 1981, pp. 74-75). Therefore, the students' MUET bands as well as the scores assigned to their samples using the two other scales strongly support the validity of the scores assigned using the

developed subscale. As indicated in the table, the significant values for all three tests of significance are (r_s /sig-r = .000), which are smaller than the level of significance at (α =.05); therefore, there is a significant relationship between the scores produced by the content subscale of ASAW and the other instruments.

DISCUSSION AND CONCLUSION

This paper started with a brief overview of the first phase, or design, of a writing scale called ASAW. The focus was on the part of the phase that dealt with the analysis of a number of samples. They were selected to cover a variety of levels of writing performance of the target population. The results of the analysis based on Toulmin's model led to descriptions that differentiated between the argumentative content in five levels of performance. The analysis of the samples was an essential step in developing the content subscale. Establishing the descriptors on such an analysis would contribute to the empirical value of the scale (Fulcher, 2003). It helped the researchers to formulate and classify the distinguishing qualities of the successful and unsuccessful essays. Furthermore, it helped them make

the aspects of writing skill, which were emphasized in the subscale, relevant to their testing situation. It also offered a way to detect the range of writing ability levels of the target population.

It may be argued that it would be perfectly possible for a student writer to follow Toulmin's model but produce a dull and unconvincing argument. Such a narrow view toward content in this scale would, however, be accounted for with the descriptors of the final subscale of ASAW, that is overall effectiveness, which considers broader and crucial features like the following:

- How is the argument presented and justified?
- Is the style engaging, correct, clear, appropriate and/or ornate?
- Is the task fulfilled?
- Is the word limit considered?

The findings of an analysis of this kind can show ESL writing teachers the areas of argumentative writing skill that can be emphasized in writing courses to improve learners' writing performance. Likewise, L2 student writers can also benefit from such findings. In addition, presenting the examples of this study to students and having them analyze the elements of their own argumentative essays can also provide them with invaluable benchmarks of successful writing in this genre (Campbell, 1998). This issue is of primary importance since research shows that L2 learners are frequently unaware of the criteria according to which their written works are scored

(Mukundan & Ahour, 2009). There is evidence when learners are unaware of the evaluative criteria in writing tests, their test anxiety rises, which in turn lowers their motivation, and in extreme cases, can discourage some learners from completing or continuing their studies (Brennan *et al.*, 2001).

A related discussion in this respect is that today criterion-referenced tests are preferable to norm-referenced tests (Weir, 2005). In criterion-referenced approach, students' performance is assessed using a well-defined set of criteria and test objectives whereas in norm-referenced approach their performance is measured in comparison to other students' (Brown, 1996). A writing scale like ASAW promotes criterion-referenced approach to testing language.

A final point worth mentioning is that although in this study the descriptors were developed with a picture of Malaysian university students in mind, they can be used for evaluating argumentative essays in other testing situations. The findings shared in this paper are by no means local and can prove helpful for writing instructors whose learners are cognitively ready to analyze the elements of argument. Most language learners do not regard assessment as an educational tool; rather, they perceive it as a tricky guessing game of their teachers' expectations (McLaughlin & Simpson, 2004). The descriptors in Table 1 offer a useful tool that can unveil what writing instructors want from their students in ESL writing courses. Formatively, they can aid writing instructors, anywhere in the world, diagnose their learners' areas of strength and weakness in developing the content of argumentative writing.

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APPENDIX

Tasks

Task 1

The editor of an entertainment magazine asked you to write an article for the next month's issue about the most suitable ratio of boy to girl students in Malaysian universities.

Do you think it is fair to admit only boys to universities? Or, do you think girls should also have an equal chance of higher education? Why?

The readers of this magazine are young people and adults. Since you are a busy person, you decide to spend only one hour to write a paper that is about 300 words or more.

Task 2

The editor of an entertainment magazine asked you to write an article for the next month's issue about school children's free time.

Do you think children should only play in their free time after school? What is best for them to do in their free time? Why?

The readers of this magazine are young people and adults. Since you are a busy person, you decide to spend only one hour to write a paper that is about 300 words or more.

Task 3

The editor of an entertainment magazine asked you to write an article for the next month's issue about mass media like TV, magazines, books,

You decide to choose three mass media and tell your readers what is good or bad about each. Then, you conclude which is the best means of sharing information.

The readers of this magazine are young people and adults. Since you are a busy person, you decide to spend only one hour to write a paper that is about 300 words or more.

Task 4

The editor of an entertainment magazine asked you to write an article for the next month's issue. He asked you to write about the best age for kids to start school. Do you think children should start school only after they are 7 years old or when they are younger? Why?

The readers of this magazine are young people and adults. Since you are a busy person, you decide to spend only one hour to write a paper that is about 300 words or more.



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The Effects of Musical Fit on Consumers' Choice when Opportunity and Ability is Limited

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ABSTRACT

Two experiments were carried out to investigate the impacts of musical 'fit' on the choice between two products when the opportunity and ability to consider their relative advantages were either limited (Experiment 1) or ample (Experiment 2). Experiment 1 asked participants to read complex descriptions of two watches within a short time. The watches corresponded with either the luxurious stereotype of classical music or the modish stereotype of funk music. The participants chose between them while listening to either classical music, funk music or no music. Experiment 2 repeated the methodology except that the alternative choice scenario gave the participants more time to choose between the watches. In Experiment 1, when classical music was played, more participants chose the 'luxurious' watch and, when funk was played, more participants chose the modish watch. In Experiment 2, choices were not influenced by the music. This suggests that musical 'fit' influences the preferences between products, but only when opportunity and ability to consider them are limited.

Keywords: Music, consumers, choice, opportunity, ability

INTRODUCTION

Most studies of music and consumer behaviour have been geared towards Western culture. Academics in the West have studied many aspects of music, such as tempo and

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modality effects, as well as variations in tempo, rhythm, harmony and dynamics. For example, North and Hargreaves' (2008) review highlighted the many different effects of music in advertising, retail, and leisure settings, and the varied theoretical mechanisms that have been proposed to underlie these effects. Similarly, Garlin and Owen's (2006, p.755) meta-analysis showed "small-to-moderate, yet quite robust

effects" of background music on dependent variables such as value returns, duration of behaviour and affective response. There is, unfortunately, hardly any research on how music affects consumers living in Asian cultures, and probably no psychological literature at all on Asians being affected by music from their own culture. The present research explores the use of musical fit in Malaysia.

'Musical fit' refers to the tendency for customers to select one product over another on the basis of background music activating superordinate knowledge structures. In essence, music with characteristics that correspond with the central brand messages of a particular product should prime relevant beliefs about the product while consumers are actively considering it. For example, North, Hargreaves and McKendrick (1999) found that playing stereotypically French (e.g., accordion music) or German (e.g., bierkeller songs) music by a supermarket display of French and German wines led to greater selection of wines, at a ratio of three bottles to one, from whichever country was represented by the music playing at that time. This was explained as resulting from the national connotations of the music priming selection of wine based on country of origin. Similarly, Areni and Kim (1993) found that customers in a wine cellar spent more when classical music rather than top 40 music was played, arguing that this was because the affluent, wealthy stereotype of classical music primed customers to act consistently and spend money.

Music is a cultural phenomenon, and it is therefore reasonable to investigate whether there is any effect of music on behaviour that has been identified in one culture can also be identified in another. Moreover, much of the existing research on musical fit effects is based on participants sharing an understanding that a particular piece of music has certain extra-musical connotations. It is perfectly possible, for instance, that (n)either of the these processes occurs outside the Western samples that have been employed. Among a handful of studies conducted in an Asian setting investigating the effects of musical fit would be Yeoh and North (2009) and Yeoh and North (2010a). In the former, the authors investigated the impact of musical fit amongst Malaysian consumers of different ethnic backgrounds on product choice. They found that when ethnically Chinese Malaysian participants were presented with six pairs of product, each containing a Malay or an Indian version of the product in question, with corresponding Malay or Indian music playing simultaneously in the background, product choices corresponded with the ethnicity of the background music played. In a similar vein, Yeoh and North (2010a), investigated the impact of musical fit amongst Malaysian consumers of different ethnic backgrounds on food choices. It was found that food choices corresponded with the ethnicity of the background music played, but only when consumers did not have a clear pre-existing preference for one product over another (see also, Yeoh & North, 2010b; Yeoh & North, 2010c; Yeoh, 2010). Most studies have investigated the effects of musical fit while ignoring the extent to which participants have the ability and opportunity to choose between the products in question: this is despite the fact that some consumer decisions are made after careful deliberation whereas others are made very quickly. The present research aims to extend these Malaysian findings by investigating the extent to which musical fit can prime product selection both when customers do and do not have the opportunity to select between competing products carefully.

As hinted at already, research on musical fit that has employed Western samples has yielding encouraging results to date. In essence, almost all the research to date has argued that music should prime related schemas which, therefore, influence opinions of the product under consideration and its likelihood of selection. For instance, Baker et al. (1994) and Grewal et al. (2003) both reported that the 'upmarket' stereotype of classical music led to it causing perceptions of high-quality service and merchandise. Several studies argue that spending and product selection specifically can result from background music activating related schemas concerning 'wealth' and 'sophistication'. North and Hargreaves (1998) played classical music, pop, easy listening, or no music in a student café. Questionnaire responses indicated that classical music created an upmarket atmosphere, and when customers were asked to state the amount they were prepared to spend on each of 14 items on sale therein, the mean total amounts were £17.23, £16.61, £14.51, and £14.30, respectively. North et al. (2003; see similar results in Wilson, 2003) similarly found that classical music in a restaurant was associated with higher spending per head (UK£32.52) than either pop music (UK£29.46) or no music (UK£29.73). Kellaris et al. (1993) found that music that 'fits' the commercial message in an advert can help reinforce commercial messages that are congruent with (as opposed to incongruent) the music. It is interesting though that a similar argument can also be found commonly in the literature on the effects of rap and rock music on young people.

Several studies on heuristics have shown that people who lack expertise in the field in question will be pre-disposed to rely on heuristics and stereotypes when making judgments. Gigerenzer (2000), for example, claimed that people make decisions through the selection and application of a variety of fast and frugal heuristics contained in our cognitive 'adaptive toolbox'. The adaptive toolbox is a repertoire of rules or heuristics available to a species at a given point in its evolution (Gigerenzer & Selten, 2001). According to Goldstein and Gigerenzer (1999, 2002), real-life judgements and decisions are guided by simple rules that pick out the simplest strategy applicable when the organism is presented with a problem (see also, Newell & Shanks, 2003; Scholler & Hertwig, 2005). Of particular relevance to the present research is the socalled recognition heuristic, which works

only in situations where knowledge is rather limited. There are two conditions whereby the recognition heuristic can be used. The first is that, if only one among a range of alternatives is recognized, then the recognized alternative will be chosen. The second condition is invoked when more than one of the alternatives are recognized and the recognition principle cannot provide discriminatory information. In such cases, people are assumed to have access to a reference class of cues or features subjectively ranked according to their validities: people are thought to search for cues until they discover a feature that discriminates one alternative from the others. Once this single discriminating feature has been found, it is then used to make the decision (Goldstein & Gigerenzer, 2002).

Although representing an apparently consistent set of findings, the existing consumer research on musical fit overlooks one obvious potential caveat. The majority of research on the phenomenon has investigated Western participants in a Western culture. This raises several interesting questions. First, can North et al. (1999) findings concerning the effects of music on preferences for otherwise similar types of wine be replicated outside Western culture? Second and more interestingly, would such an effect apply for all consumer decision processes? Two experiments were carried out to investigate these issues. In the first experiment, three different musical conditions were employed, classical music, funk music and no music. While one of these played in the background, participants

were shown a picture of two watches via a laptop, one of which was associated with the 'luxurious and affluent' stereotype of classical music and the other with the 'modish' stereotype of funk music. Below the pictures of both watches were technical, complex descriptions. The participants were given only 15 seconds to read the descriptions before the screen on the laptop would turn off (while music in the background continues) and they were then asked to choose either one of the watches. Previous research on musical fit together with that on the recognition heuristic suggests that participants who had heard classical music would choose the more 'luxurious' watch, whereas participants who heard funk would choose the modish watch. Since the participants had only 15 seconds and were unable to carefully read or think about the watches, the second condition for the application of the recognition heuristic applies: with limited knowledge of the options available to them, participants would have to rely on any cue that could help them in their decision, in this case the music. The second experiment was identical to the first, but allowed participants as much time as they needed to read about and choose between the same watches. It was predicted that musical fit would not affect participants' choices of watches. Since the participants would have the opportunity to read and think about the watches, they would not need to rely on any cue other than strictly on their own preferences, such that the recognition heuristic and musical fit would have much less scope to influence decision-making.

MATERIALS AND METHODS

Participants

Ninety participants took part in Experiment 1. Thirty participated in the funk music condition, 30 in the classical music condition, and another 30 in a no music condition. Each group comprised 15 females and 15 males. The participants' mean age was 25.90 years (SD = 9.98). In Experiment 2, a new sample was recruited. The participants' mean age was 22.10 years (SD = 2.89). All the aspects of the methodology were identical to Experiment 1, except that the participants in Experiment 2 were told that they had as long as they needed, and were asked to make their selection only once they felt ready. The participants were students from Universiti Putra Malaysia. Testing was conducted individually in a quiet room on campus.

Pilot study

A pilot study was carried out to ensure that the music that was to be used in the main experiment was clearly identifiable as either funk or classical music by a sample of 20 participants drawn from the same general population as the sample used in the main experiment. Each participant in the pilot study was played two types of music and they were asked to state the type of genre of the music being played. All the participants were able to clearly distinguish between the two pieces of music as either funk or classical. Pilot testing also established that the allocated time frame of 15 seconds was insufficient to read the full description of

each watch. This was to ensure that the participants would not have the opportunity to consider carefully which watch they would prefer on the basis of the technical information.

Design

The research employed a between-subjects design in which the participants were played either funk music, classical music or no music, while they were exposed to the two watches. Both watches appeared at the same time, side by side on the screen of the laptop. Watch A was on the left side of the screen and Watch B on the right side of the screen. The funk music was taken from the album Musicology by Prince and the track used from this CD was *Musicology*. Meanwhile, the classical music was taken from the CD 101 Classics - Classical Highlights from the Great Composers Vol. 1. The track used from this CD was J.S. Bach's Brandenburg Concerto No. 3 in G major.

The participants in both the funk and classical music conditions heard this music via headphones attached to a laptop while they simultaneously observed the watches. The pictures used were of at least 100KB and downloaded from the internet. A caption beneath each picture stated 'Watch A' or 'Watch B'. Below the captions were complex descriptions for each watch. The pictures were displayed on the screen for 15 seconds before the screen turned off automatically. The music (or no music) continued until the participants finished answering a five item questionnaire.

'Watch A', representing the stereotype of classical music, was a picture of a pair of expensive, crystal-faced analogue watch with either black or white leather straps and a sparkling polished surface. 'Watch B', representing the stereotype of funky music, was a picture of a pair of modishly designed digital watches. These watches were in luminous bright pink, silver and shiny brown colours. The language used to describe the watches was technical in nature (e.g. "Watch A: Uses a co-axial escapement in conjunction with a free sprung-balance without index"; "Watch B: Made with polyurethane for flexibility and comfort and laser-etched with patterns for a crafted touch").

Procedure

The participants were shown the two competing products while the music (or no music) was played at a constant volume, sufficient to be heard clearly. Once the screen displaying the watches switched off, the music continued playing while a five-item questionnaire was administered. Question 1 required the participants to state which watch they would choose. Question 2 asked them the extent to which they would prefer Watch A or Watch B by giving a rating between 0-10 (where 0 represented 'strong preference for Watch A' and 10 represented 'strong preference for Watch B'). Question 3 asked the participants whether or not the music playing in the background influenced their choice of the watches. Question 4 asked the participants the extent to which the music being playing influenced their choice of the watches. The participants responded to Question 4 by giving a rating between 0-10 with 0 representing 'no influence at all' and 10 representing 'very strong influence'. Question 5 asked the participants to estimate how much the chosen watch would cost if bought at a local watch shop by selecting one of three options, namely 'below RM500', 'between RM500-RM1000', and 'above RM1000'.

RESULTS AND DISCUSSION

In Experiment 1, a chi-square test was carried out to determine whether the choice of watches was associated with the type of music played. The result of this was significant (χ^2 (2, N=90) = 13.32, p=0.001). Watch choice was cross-tabulated against background music in Table 1. This indicates that the participants had a strong tendency to choose Watch A when classical music was played and Watch B when funky music was played. When there was no music played, the participants did not show a preference for either watch.

TABLE 1 Music x watch choice

			Watch	
		A	В	
Music	No music	16	14	
	Funk	10	20	
	Classical	24	6	

A second chi-square test indicated no association between the choice of watches and the participants' statement of whether or not the music playing influenced their choice of watch (music conditions only) (Question

TABLE 2 Music x watch price

			Watch prices		
		Below RM500	Between RM500-RM1000	Above RM1000	
Music	No music	11	16	3	
	Funk	9	16	5	
	Classical	9	16	5	

3). The result of this was not significant, indicating that the participants were not aware of or at least were not willing to state the impact of the music on their selections.

A one-way ANOVA and an independent t-test were performed on data from the participants concerning the extent to which they preferred Watch A over Watch B (Question 2) and the extent to which they believed that their choice of watches was influenced by the music (in the music conditions only) (Question 4), respectively. The results of neither test were not significantly significant. This indicates that although the music did influence the choice of watches, the effects on the rating scales were not strong.

The frequency with which people selected each of the three price options is shown in Table 2. In all the three conditions, most participants rated the watches to be worth between RM500-RM1000, and a corresponding chi-square test was not significant.

In Experiment 2, the chi-square test was carried out to determine whether the choice of watches was associated with the type of music played. The result of this was not significant. Watch choice is cross-tabulated against background music in Table 3.

TABLE 3 Music x watch choice

		Watch	
		A	В
Music	No music	15	15
	Funk	12	18
	Classical	19	11

A second chi-square test was carried out on participants' statements of whether or not music influenced watch selection (Question 3) (music conditions only). The result of this was not significant (χ^2 (2, N =90) = 3.22, p < .05), indicating once again that the participants did not believe that they had been influenced by the music. The one-way ANOVA and an independent t-test were performed on data from participants concerning the extent to which they preferred Watch A over Watch B (Question 2) and the extent to which they believed that their choice of watch was influenced by the music (in the music conditions only) (Question 4) respectively. The results of the one-way ANOVA were significant (F (2, 87) = 3.22, p < .05), and means and SDs are reported in Table 4. The t-test results were not significant. These indicate that although Table 3 showed no effect of music on the main variable (namely, the watch

TABLE 4
Mean ratings in responses to the questionnaire

Music	Mean rating for watch	SD	Mean rating for music's influence on choice	SD
No music	5.27	3.27	N/A	N/A
Funk	6.00	2.98	4.63	3.30
Classical	3.93	3.33	3.97	3.16

TABLE 5 Music x watch price

		Watch prices		
		Below RM500	Between RM500-RM1000	Above RM1000
Music	No music	11	16	3
	Funk	11	15	4
	Classical	5	15	10

chosen), the music did at least lead to a slight preference for the associated watch, since funk led to ratings indicating a greater preference for the modish watch whereas classical music led to ratings indicating a greater preference for the more traditional watch. As such, there was an effect of musical fit, but it was not strong enough to affect the watches that participants actually selected. The result of the t-test was not significant, again indicating that the participants did not believe they had been influenced by the music.

The frequency with which people selected each of the three price options is shown in Table 5. Nonetheless, the chi-square test showed no significant association between the two variables.

CONCLUSION

Previous studies concerning musical fit have indicated that music can increase the amount

consumers' spend or the products that they select. In contrast, the research reported here demonstrates that musical fit is able to prime consumers' choice of products only when their ability to consider the alternatives is limited, consistent with earlier research on heuristics. Specifically, Experiment 1 showed that when classical music was played, the stereotypically 'classical' watch was selected, and when funky music was played, the modish watch was selected. However, when there was no music played, the participants were not primed to choose one over the other. Experiment 2, in which the participants had as much time as they wanted to make their decision, did not produce similar data. In this case, although a one-way ANOVA indicated that the music did lead the participants to have a slight preference in favour of the associated watch, the effect of musical fit in this case was not sufficiently strong

to influence participants when they were simply asked to choose one watch over the other. Although the results of Experiment 2 were of non-significant, it should be noted that they were not too far from meeting this statistical criterion. In more specific, the results are marginally significant (producing a p value of .0675 on the chisquare associated with the funk vs. classical manipulation), and so the effect would have been significant (95% confidence), had we increased the sample to 40 people instead of 30 (assuming the proportions remained the same). Nonetheless, the results are weaker than when the participants were given only limited time to reach their decision. In conjunction, the results of the two experiments here indicate that musical fit effects operate more strongly when the opportunity to choose between the options is limited, causing the participants to rely on musical cues when making their judgements.

In both the experiments, the participants failed to rate music as having a strong influence on their selections. Although it was unsurprising that this should have been found in Experiment 2, in which the music had little influence on judgements, it is more surprising that the participants in Experiment 1 should not have noticed, or at least been unwilling to admit, that music had influenced their choice of watches. Further research may investigate whether, under such circumstances, the participants are simply unwilling to admit the effect of musical fit or are instead unaware of it, and if so then why.

One other interesting aspect of the present findings concerned the amount of money that participants stated that they would expect to pay for the watches. In both the experiments, the participants were unwilling to pay large amounts for the watches, and this likely explained the non-significant results in respect of this variable. While this might be attributable to a simple floor effect, via which the participants were not presented with a sufficiently wide range of options at the lower end of the scale to capture any effects of musical fit, the possibility remains that this aspect of the findings is correct and that musical fit influenced product choice but not the monetary value that they placed on the products. Future research should investigate this.

These studies were conducted under strict laboratory conditions and on an individual basis. The results of these studies might not be similar if they were to be repeated under different, more naturalistic conditions. For instance, could the findings be replicated among a group of participants sat at home watching an advert break on TV? Similarly, would any effect obtained be strong enough to last until those people were actually in a commercial setting that required them to select between two competing products? Furthermore, in 'real' commercial settings, consumers often have to choose between three or more competing products, rather than the two products with which they were presented in the research here. Would musical 'fit' effects be diluted when the participants are given more than

two options to choose from? Also, would the participants' choices be different if they were told that they would be actually given the product at the end of the experiment?

Future research may also investigate if it is possible to adapt arguments made by Hansen and Hansen (1991) concerning cognitive priming by rock and rap music lyrics. These arguments lend themselves to hypotheses that can be made for subsequent research on musical fit effects on consumer behaviour. For instance, greater familiarity with the products in question reduces the processing load associated with weighing up their relative advantages. This in turn would reduce the likelihood of consumers being influenced by cognitive priming in general and musical fit specifically. In short, musical fit effects should be less likely to occur when consumers have previous experience of selecting between the products in question.

These findings may have implications for television and radio advertising, which tend to employ short exposure times that limit consumers' ability to enter into a detailed evaluation of the products in question. Advertisers would accordingly do well to ensure that adverts contain some degree of musical fit (see also Zhu & Myers-Levy, 2005; Keallaris & Cox, 1989; North et al., 2004; MacInnis, & Park, 1991). However, there are possible limitations to these effects as well. For example, if consumers have no prior experience of the music used then chances are that they may not derive the appropriate communicative intent from that music. Rather, practitioners should employ either very well-known

pieces of unambiguous music or rely on the stereotypes associated with entire musical styles. Similarly, it remains to be determined whether too great a degree of musical fit could instead lead to the advert in question seeming somewhat hackneyed.

In theoretical terms, the research here suggests that heuristics and stereotypes are relevant to a consideration of the impact of music on consumer decision-making. Real life commercial judgements and decisions made in the presence of background music are guided by simple rules that pick out the simplest strategy applicable when presented with a problem or choice. Of particular relevance to the present research is the socalled recognition heuristic. This states, for example, that when one or more products are similar, then a single discriminating feature will be used to make a decision between them. Use of the 'right' music could be such a feature, although others may well play a role also. However, if such an assertion is correct then future research might investigate whether the factors that experimental work has shown to increase the likelihood of heuristic processing being employed also increase the influence of music fit. For example, if heuristic processing is more likely to be employed under conditions of high arousal or cognitive load, does this mean that there is more opportunity for musical fit effects to occur when a store is crowded or hot, or when people are listening to radio adverts in the car rather than in their living room?

Since ambiguous information tends to be interpreted as consistent with primed schema,

this suggests that perceptions of ambiguous products may be influenced by music that primes certain specific perceptions (see for e.g., North & Hargreaves, 1998). Future research may follow-up the findings in this study on why participants did not appear to be aware of the impact of musical fit on their watch choices. A further possibility is that musical fit operates as, in effect, a form of demand characteristic, under which the participants feel compelled to respond in a particular way. Given the previous research, described earlier, indicating that musical fit effects exist in real commercial setting, this is perhaps less troubling than it might first seem. Indeed, it is far from clear what practical distinction there is between pointof-purchase advertising effects and demand characteristics.

Similar limitations on the generality of the present findings are suggested by the Elaboration Likelihood Model (see Petty & Cacioppo, 1981; Petty et al., 1983). In the present context, this proposes that a crucial aspect of consumers' responses to advertising is the extent to which they have the motivation, ability, and opportunity to evaluate the product carefully. Future studies can examine if musical fit would still operate if participants were given the motivation to evaluate the products (i.e., being told that they actually will be given the product at the end of the experiment). There is clearly scope for further research, but the present findings do suggest that, under the right conditions, musical fit may influence choice for commercial products.

In the meantime, there are nonetheless other clear gaps in the literature on musical fit, and these should be investigated by future research. First, there is no direct evidence substantiating the claim that music primes product-related schemas, often demonstrated via enhanced recall and recognition. Second, if schemas and cognitive shortcuts underlie musical fit, the effect should vary depending on the nature of the products in question; interest in and familiarity with them; and concurrent cognitive load. Hence, it is possible to explain almost any finding in terms of the highly complex theories that have been produced concerning elaboration likelihood, involvement, and fit. For example, resourcematching explanations suggest that the presence of music in an advert may reduce recall because it detracts from the cognitive resources available for advert processing, whereas research on musical fit suggests that the presence of music may enhance recall providing it is congruous with expectations. Furthermore, Heckler and Childers (1992; see also, Houston et al., 1987) argue that incongruity between different elements of an advert may improve recall by encouraging deeper processing, such that incongruous music may be optimal in facilitating recall of advertising. As such, any finding can be presented as 'consistent with previous research'. This is so problematic here because there are indeed numerous instances of studies yielding data inconsistent with the predictions of the approaches outlined above. For example, Morris and Boone (1998) found few differences in brand attitudes and purchase intent when the participants were shown adverts with either no music or music that fitted the product playing in the background. Brooker and Wheatley (1994) found that differing musical tempi (with the different processing resources they require) had no effect on unaided recall of radio adverts. Such inconsistencies in research findings are no doubt due to the very complex stimuli and cognitive processes involved in advertising research. Future studies should investigate non-linear relationships between variables, and over the short-term at least, adopt very reductionist experimental methods that sacrifice ecological validity for the sake of greater insight into the conditions under which certain theories do and do not operate. In conclusion, musical fit has the potential to influence consumer decision-making, although the present research highlights one possible limitation on the generality of this, and further research is undoubtedly necessary before practitioners can reliably employ the effect in real commercial settings.

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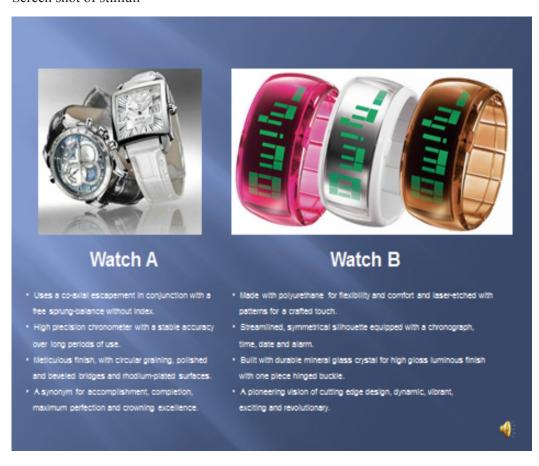
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APPENDIX 1

Screen shot of stimuli





SOCIAL SCIENCES & HUMANITIES

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Elements Promoting Learning from a Strategic Partner: A Malaysian Case

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ABSTRACT

Strategic alliances (SAs) are becoming a popular and prominent strategy to help many firms sustain its competitive advantage in the rapid and unexpected global economy. This inter-organisational structure is becoming essential feature in today's intensely competitive market as a means for facilitating market entry, acquiring new technology, leveraging economies of scale, and enhancing new product development capabilities. Additionally, in the recent trends of strategic alliance literature, they have been linked to the organisational learning literature where alliances create environments for learning and knowledge transfer. This phenomenon is referred to as 'alliance-based learning'. The main purpose of this paper is to discuss how learning can be promoted via alliance arrangement. The study used an in-depth case study method, where a child business was set up upon the signing of strategic alliance agreement between parent partner in Malaysia with foreign parent partner from the UK, and the partnership had included learning as one of their main objectives.

Keywords: Strategic partner, organisational learning

INTRODUCTION

Globalisation has called many more firms to rely on alliances as a strategic necessity for sustaining competitive advantage and creating customer value (Iyer, 2002). Aside from explicit strategic and operational primary motives in the recent partnership agreement. Extant literature regarding how alliances could promote and facilitate learning has been found (for example from Hamel, 1991; Inkpen, 1996, 1998, 2000; Serrat, 2009, and many more). For instance, Inkpen (1998) has stated that alliances are vehicles of opportunity that provide a formal structure for creating a laboratory for learning.

motives, learning has become one of the

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This study was conducted with the objective to identify the factors that promote learning through the formation of strategic alliances. The paper has presented a case and findings as a qualitative and in-depth study of the company.

RESEARCH METHODOLOGY

This study covered research on International Strategic Alliances (ISAs) and the organisational learning (OL) process, which involved a strategic co-operation between a local parent partner, foreign partner and 'child' alliance company. For the purpose of this study, the child company/ business is defined as a company/business that is established upon the formation of alliance, and is based in the local partner country. The focus of the study identified the foreign parent partners as the sources of learning, and the child as the receiver of this foreign partner knowledge. A case derived from a manufacturing company is presented in this paper. The company is known as Polyethylene Company. It was incorporated on 11 July 1991, as a 'child' business established under the Strategic Alliance MOU signed by a local parent known as Parent P and a foreign parent known as Parent B, with an equity ratio of 60%:40%.

This alliance marked the beginning of the upstream petrochemicals industry development, as well as economic and industrial development in Malaysia and was incorporated to be the major customer of the Ethylene Company, which had also formed an alliance with foreign partner B

and foreign partner J Co. Ltd. This ethylene project and plant is located in the same area as the polyethylene plant [sharing plant facilities under Integrated Petrochemical Complexes (IPCs)], and thus, Polyethylene Company receives supplies of feedstock directly from the ethylene plant, without involving lengthy transportation.

The data collection process on this company was drawn based on interviews with selected personnel and access to the company's annual reports and brochures, as well as plant observations. The interviews, which are the main source of data, were conducted with the General Manager (a BP expatriate), the senior manager of operations, training manager, technical superintendent, and ex-laboratory engineer (all were key personnel of the child company). The interviews were also conducted with two junior engineers and all the questions were set differently (the questions designed to each of the interviewees are different so as to reflect their positions and responsibilities).

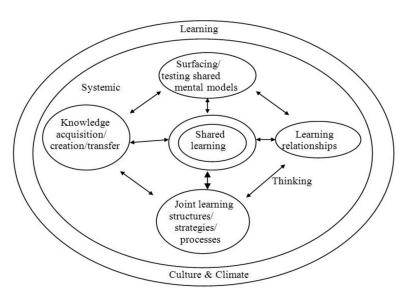
STRATEGIC ALLIANCE AND ORGANISATIONAL LEARNING

In the modern business world, the main goals for organisations are to perform well, to find the right strategies, and to make the right decisions that help them to be more competitive through co-operation and competition (Zineldin, 1998). Serrat (2009) emphasizes that everywhere, organisation has discovered that they cannot "go" alone and must now turn to others to survive. Thus, strategic alliances (SAs) are becoming a popular and prominent

strategy in the global economy to satisfy the rapid market changes. It is reported that the formation of SAs or co-operative activity has increased dramatically in the recent years (Dyer & Singh, 1998) due to the effects of globalisation (Imai & Itami, 1984; Narula & Hagedoorn, 1999; Buckley et al., 2002). SAs can be defined in various ways and provide a variety of firms' motives for its formation. For example, Inkpen (2000), who suggests that alliances provide a platform for learning, has described an alliance as two or more organisations that are brought together because of their different skills, knowledge, and complementary strategies. These partnerships of two or more corporations or businesses are also set to achieve strategically significant objectives that are mutually beneficial. SAs can be used as a mechanism for growth strategies and for entering new markets

(Harrigan, 1986; Contractor & Lorange, 1988; Kogut, 1988; Glaister & Buckley, 1996), obtaining new technology (Lei & Slocum, 1992; Faulkner, 1995), reducing financial risk and sharing costs of R&D (Pucik, 1988), learning and developing new knowledge (e.g. Hamel, 1991; Grant, 1996; Khanna *et al.*, 1998; Beamish & Berdrow, 2003; Senthil & White, 2005; Serrat, 2009) and as a source for achieving competitive advantage (e.g. Grant, 1991; Ireland *et al.*, 2002).

In identifying the facilitating factors for promoting learning through strategic alliance, this study made used of the framework suggested by Morrison and Mezentseff (1997) in their study on alliance within a co-operative learning environment with the objective to achieve long-term success (see Fig.1).



Source: Morrison and Mezentseff (1997, p. 354)

Fig.1: Learning Framework for Successful Co-operative Strategic Partnerships

The framework was chosen as a base for continuing research in this study. This framework is particularly interesting as it has suggested a few key learning elements that facilitate learning process in alliance. These elements are:

- 1. The outer layer, which is named as learning climate/culture.
- 2. The second layer is systemic thinking.
- 3. Within systemic thinking, there are sub-elements which are knowledge acquisition, creation and transfer, surfacing and testing of shared mental models, learning relationships, and joint learning structures elements.

This study combined these ideas, particularly testing the model and key elements suggested by Morrison and Mezentseff (1997). More importantly, the research work was an attempt to study the learning process in a different possibility, from what is suggested by Morrison and Mezentseff, whereby in their case, they focused on the learning process of the parent partners, while the present study looked into the learning process between the child from its foreign partner. In this view, the study would identify whether or not these key elements (as suggested by Morisson and Mezentseff, 1997) were applicable in the selected local child respondent organisations.

Morrison and Mezentseff (1997), in defining the terms in their framework, suggested that the element 'systemic thinking' helps alliance companies form their mutual dream for the relationship. It is very important that the dreams of the partners are mutually agreed upon so that there is a collective driving force to achieve this goal. The element 'share mental mode' suggests that people within these relationships need to test share their ideas and perceptions about the learning environment. This process facilitates decision-making, action, and learning. Further, the authors suggested a learning environment that builds 'learning relationship' between partners. This relationship can be achieved through a knowledge connection and a network that influences how well the firm can learn and build new core competencies. Additionally, they agreed that 'joint learning structures' can be sustained through: first, identifying and becoming aware of new knowledge; second, transferring/ interpreting new knowledge; third, using knowledge by adjusting behaviour to achieve intended outcomes, and finally, incorporating such knowledge by reflecting on what is happening and adjusting learning behaviours.

Objectives for Forming International Strategic Alliance for Our Case

In order to complement the back-up of rich natural resources, the company Polyethylene Company formed a strategic alliance with the UK partner with the objectives to seek tangible assets such as financial support, plant and equipment technology, as well as technical and managerial capabilities. It also sought intangible assets, such as firm's reputation, brand equity and superior customer services reputation, especially

in the polyethylene business. From the interviews, the respondents also stated that both the parent and child companies agreed that the prime objective of this alliance should involve acquiring learning on manufacturing polyethylene products. The alliance also brought together a strong JV set-up, which gave access to the foreign parent partner's best practices, multicultural workforces that drive various ideas and contributions, international image, experienced manpower, and strong financial backing. Further, the alliance also contributed in terms of an integrated supplier partnership, where it could bring benefits in terms of accessing secure and reliable feedstock, and at a more competitive price. Additionally and indirectly, since the start of its operation, Polyethylene Malaysia has also developed other related strength, in terms of:

- 1. Proven gas-based technology.
- 2. Good technical service capability.
- 3. Stable workforce (few industrial disputes).
- 4. Modern product range.
- 5. Regional marketing expertise.

In summary, it could be said that by forming the alliance, the child business (i.e., Polyethylene Company) would gain technology, skills and experience in manufacturing the polyethylene related products, 'standard prototype plant', which was to be built by the vendor selected by the parent partner 'B' and finally, programmes under 'shadow posts' who were loaned to the

child company plant to guide and supervise the local staff.

SUMMARY AND FINDINGS

Alliance history

Based on the interviews, both parent partners, 'P' and 'B' have already had other established business ties prior to this alliance. For example, one respondent stated that among the reasons for the parent company 'P' to choose the other parent company 'B' to be its alliance partner were:

- 1. The existence of previous alliance relationships and trust between parent partners. The parent partners (B and P) have had a long-term relationship of nearly 30 years and both have similar types of business. The new business was set up with the intention of expanding into added-value products.
- 2. The alliance between the parent partners 'P' and 'B' was set up at the right time for proposing an added-value product and for continuous learning.

Based on the above-mentioned reason, it can be summarised that this alliance apparently did not involve too much 'paperwork' and therefore, Polyethylene Company was incorporated with few problems or disagreements.

Within the alliance agreement, parent 'B' agreed to license the polymer technology, design the polymer plant and transfer the knowledge (which included skills to operate the plant), and manufacture the polyethylene product using up-to-date technology. Foreign parent 'B' would find a suitable

contractor to build the child company plant so that it would be a 'prototype' or similar to their polyethylene plant.

Implementation

In terms of implementation and commitment, it was agreed in their alliance contract that whenever Polyethylene Company plant commenced its operations, parent 'B' expatriate staff would be loaned on a 'shadow post' basis to guide and observe the local staff working on the plant equipment and machines. Similarly, parent 'B' would also facilitate the transfer of technology by providing intensive courses for the local staff and put no restrictions on R&D, which allowed the child company to improve product development based on their experience and new ideas. The alliance agreement placed no restrictions on the Polyethylene Company for using parent 'B' Chemicals' Innovene Gas Phase technology and for using its marketing strategy under the pre-marketing activities based on their product. In addition, the child company

would also be invited to join international seminars with other parent 'B' subsidiaries, as long as the company paid the membership fee.

Communication

In order to encourage the process of learning, all staff was encouraged to communicate regularly, either formally or informally. For example, the child company holds regular meetings with all staff, along with the specific issues to be discussed in each meeting. Table 1 summarizes the types of meeting that the staff attended and the themes that are to be discussed.

The foreign parent organization or parent company 'B' staff and the alliance managers, who are based at the Polyethylene company, also communicate regularly. For example, the GM himself communicated with the UK parent organisation by e-mail and attended board and shareholders' meetings. As expatriate staff who was loaned and responsible for assisting the learning process at the child company, the

TABLE 1 Types of Meetings at Polyethylene Malaysia Sdn. Bhd.

Time	Members/staff	Issues
Every morning	Compulsory for all operational staff, others are welcomed	To solve/share ideas on everyday problems
Every week	All supervisors and operation manager	To solve and bring ideas on operational problems
Every month	Managers, GM, committee members	To discuss operational issues, and new ideas
Annual shareholders' meeting	Shareholders, GM	To discuss financial issues
Annual Board Meeting	Board of directors, GM	To discuss operational issues, financial issues, etc.

(Sources: adapted from the interview with the respondents)

GM occasionally attended the company's morning and monthly meetings, where he would share ideas and help to solve any problem. Daily morning meetings between the key managers and the technical and operational staff were important for these people to share ideas and information because during the meetings, the managers took the opportunity to open up discussions with the staff to ask question or discuss problems. For example, as stated by one of the respondents:

"The managers try to identify any technical or operational problems from the staff through question and answer sessions, and give feedback to correct mistakes or errors. In case they were unable to solve the problem, then they would bring the issue to the upper level management for a solution."

Other than that, the staff communicates informally when they meet either during working hours or during their leisure time. In summary, all respondents agreed that communication between partners took place when local staff communicates with the parent staff and vice versa and when the local staff communicated and interacted with local colleagues, supervisors and managers. Thus, this suggests that they were all in consensus that communication takes place at almost everywhere, with everybody either through e-mail, formal or informal meetings. In another point, networking or knowledge connection, which promotes 'absorptive capacity' from

foreign parent to child company staff, took place when the experts were loaned to the child company on a 'shadow post' basis during the commissioning period. These expatriate staff (managers) that were loaned on rotational basis helped promote communication and sharing of ideas and experiences with the child staff.

Learning Process

As stated before, all child staff underwent training before they were appointed to any specific post or job. A respondent said,

"The child company will make sure that new employees are competent to work before they start working. This will happen through comprehensive training – in house and abroad. Whenever the needs to train occur, the company will provide whatever they can. But, if the expert is there, then the staff will be trained individually by the expert till he has achieved certain levels which are certified by the expert and the supervisor."

Learning is very important in order to help the child company achieve its objectives. It was suggested that learning takes place from the foreign partners in this alliance through:

- 1. Formal technical training
- 2. Shadow postings
- 3. Permanent expatriate posts located at the child company plant

Key Facilitating Learning Elements

Theoretically, the findings of the case study at least support the suggested elements in the learning framework by Morrisson and Mezentseff (1997). The study also found a positive relationship between all the elements—'shared mental models', 'systemic thinking', 'joint learning strategy/structure and process', 'knowledge acquisition/creation/transfer', 'learning relationship' and learning culture and climate'— and the overall organisation learning outcomes and performance; be they at individual, team or organisational levels.

Learning Culture and Climate

According to the extant literature, knowledge can happen when employees have access to organisational knowledge, can find new and better ways to perform, work together, break down barriers, share a vision, fill gaps in knowledge, increase productivity, satisfy customers, and ultimately compete (Tsang, 1998). Based on the interviews, it was believed that the child had no problem in assessing the acquired learning. In this view, it can be summarised that the culture promoting the learning environment at the child company was developed and evolved through the following situations:

- Mutually agreed alliance objectives between partners in the relationship.
- Commitment from the top management of the child company to build a positive staff relationship.
- Each member of staff develops knowledge by working as a unit.

- Providing, sharing and expanding useful information, be it 'explicit' or 'tacit' knowledge.
- Having regular communications and discussions, both formal and informal.
- Providing facilitative technology to enhance the transfer of knowledge (i.e. via the Internet), communication and storing useful information.

Additionally, the respondents suggested that in order to promote learning culture amongst the staff, the top management had initiated the following:

- Inculcating staff with the child company objectives, philosophy and values from start of employment.
- Training starts from the first day of working, either through on-thejob training or self-development programmes.
- Identifying staff's competency from the beginning, so that they are assigned with the appropriate work. This is considered important for building a positive commitment and encouraging job development.
- Encouraging staff to learn in a continuous process.
- Encouraging staff to work with colleagues, share ideas and learn from mistakes.
- Requesting feedback and assessing learning outcomes.

Knowledge Acquisition, Creation and Transfer

It is agreed that knowledge, whenever is shared and properly managed, should be able to increase individual as well as organisational learning. It was established from the interviews with the majority of the key interviewees, as well as further observation at the child company, that knowledge acquisition from the foreign partner was mostly facilitated through technical training (during project period), 'shadow posting', on-the-job-training, as well as the initiative of local company to provide a compulsory self-development programme, internal R&D, facilitative technology and encouraging key personnel to attend international conferences and seminars. Thus, it can be summed up that learning at child company has been acquired and considered as important, based on arguments that they have successfully acquired and progressed in learning from the foreign partner, at least in terms of skill to manufacture polyethylene products. This can be proven as they stated that their knowledge has made them able to operate the plant, with or without the presence of the parent expatriate staff. Furthermore, with such knowledge, they have been able to share and improvise new ideas, and then bring the ideas into international discussions (seminars), where many other parent partner subsidiaries have also attended.

Systemic Thinking

Systemic thinking helps alliance organisations share their objectives. Based

on the interviews, it was established that all staff at Polyethylene Malaysia were briefed to share the company's objectives and to encourage to collective efforts for achieving learning. The management was also responsible for designing the necessary mechanisms for learning to take place and evaluating its outcomes. For example, learning outcomes are assessed using internal and external benchmarking and both partners – the foreign partner expatriates and the child - were collectively interacting to produce new ideas and solve problems.

Shared Mental Models

It is suggested that in a learning organisation, members need to share their ideas and perceptions about the learning environment so that it would facilitate decision-making, action, and learning. Hence, based on the information, it can be suggested that top management at this child company are responsible for directing the commitment of their staff to share ideas and perceptions about the learning environment. This is because it has been reported that each member of the staff is responsible for acknowledging and promoting the shared culture and values, to give full support to colleagues, supervisors or subordinates, as well as for minimising product failure, customer complaints, accidents/incidents, and optimising the working time frame of 8 hours (staff have to work 8 hours per day). In addition, these interviewees also suggested that in order to help local staff cope with the everyday change in work and ideas, the following measures were adopted:

- Share alliance-learning objectives.
- Bridge and reduce cultural gap between foreign and child partners.
- Adopt a process focus in which learning is concentrated on innovating and generating new ideas.
- Work according to a common philosophy and safety statements set by parent partners.
- Direct a commitment towards helping the child company achieve its objectives.
- Encourage frequent dialogue and communications.
- Revise the child company's objectives at each annual board meeting.

Building Learning Relationship

The management at the child company is also responsible for promoting an understanding that people at the top management level play a major role in encouraging and assisting the development of the alliance relationship; they also act as an agent of learning. For example, it was reported that the GM is willing to be involved in regular morning meetings with the technical and operational staff so that he can share ideas. Other than that, supervisors are responsible for identifying any problems encountered by their subordinates and solving them. This happens through frequently requested feedback on the jobs delegated to the staff. Conversely, the staff are encouraged to communicate regularly with their supervisors to promote a 'supervisorsubordinate' approach in the on-the job training programme. From these, it can be deduced that the child company promotes 'leadership commitment' to enhance the creation of knowledge.

Joint Learning Structures/Strategies/ Programmes

Local staff in the child company has also been able to learn and acquire the skills to manufacture polymer and polyethylene products faster and easier, as both alliance partners - the foreign parent 'B' and child - are involved in the development of jointlearning programmes. This has provided the opportunity to create new knowledge. These joint-learning programmes happened through; first, expatriate manager rotation: second, 2-yearly world-wide seminars; and third, visit plant sites. Additionally, the interviewees also suggested that it was due to the in-house R&D projects, in-house new idea generations, and commitment towards a continuous learning process that helped the learning achieve successfully by the local staff. Based on the interviews, the tacit and explicit knowledge acquired by the child company is summarized in Table 2 below.

TABLE 2
Types of Knowledge Transfer at Polyethylene
Malaysia Sdn. Bhd.

Explicit knowledge	Tacit knowledge
Product formula	Skills and experience in developing polymer-based products
Manual for handling material/ equipment	Skills and experience in handling plant equipment
Plant operation manual	Learning about different culture

Computer course	Learning to communicate with different nationalities
Plant safety rules	Learning to develop new ideas or new product
Plant policy	Learning to develop successful marketing

products

cont'd Table 2

(Source: Interviews)

skills in supplying and

delivering polyethylene

In addition, the study also tried to relate the importance of the elements related to top management qualities with such as 'shared mental models', 'systemic thinking', and 'building learning relationship' in order to help the organizational learning process took place. Thus, those selected respondents were also asked to choose from a list of leadership qualities available at their workplace that help to support their learning

process. The summary of the findings for the percentages of the respondents who agreed on the leadership qualities that were practiced at Polyethylene plant are listed as shown in Table 3.

Based on the results depicted in Table 3, it can be anticipated that leadership qualities can ease and enhance the learning process especially when it involves international strategic alliance between two different countries with two different languages and cultures.

In summary and based on the original key elements suggested by Morrison and Mezentseff (1997), it can be concluded that the elements 'communication and network' and 'learning mechanism' are also important and need attention. This is because in terms of the element 'communication and network', the child company emphasizes

TABLE 3 Leadership Qualities to Promote Learning Process, as Described by the Respondents at Polyethylene Malaysia Sdn Bhd.

Qualities	Percentage agreed
Manager acts as an agent of learning	90%
Communicate regularly	95%
Developed focus and shared objectives	85%
Direct shared vision	85%
Promotes learning culture	90%
Support improvement in teams	90%
Admitting mistakes and openness to new learning	70%
Work together	90%
Willingness to take risks in ambiguous situations	70%
Build trust	75%
Willingness to make special efforts	75%
Willingness to co-operate	80%
Willingness to be transparent	75%
Promote systemic thinking on this specific alliance	85%

the need for both partners – the child and the foreign parent - to communicate regularly, and has been able to reduce the communication gap by having a specific channel for communication and networking or an appointed agent for networking between both partner. Finally, the child company has also shown that it has given considerable attention to the element 'learning mechanism' through the process of feedback and assessment and deciding benchmarking for product quality, which helps to increase staff's commitment, as well as achieve continuous learning and ability to maintain the product quality as per standard required by the foreign parent partner.

CONCLUSION

The paper presents the research on International Strategic Alliances (ISAs) and the organisational learning (OL). Based on the case study used in this research, it can be suggested that learning can be one of the important reasons for forming ISAs. This is because learning is a key feature of the process by which firms accumulate technology in order to compete and add value to their current product. This paper has presented how Polyethylene Company as the child business was formed under alliance negotiation with a learning objective. The foreign parent partner or company 'B' agreed to provide the technology and skills in the polyethylene products to the child company, and it had also designed a proper planning strategy for acquiring such skills. Based on the findings, it can be suggested that this company has designed its organisational

structure, strategy and system, in line with achieving the specific learning objectives. The child company also deliberately designed strategies for promoting learning culture, and built systemic thinking and shared mental models so that they could be committed to the learning and the jobs delegated to them. In addition, to ensure a long-term commitment between the partners, they also set up a joint-learning structure and strategies (by organizing world-wide seminars, encouraging in plant R&D and continuous learning). All of these have helped the 'child' to be able to acquire and manage knowledge from its foreign parent partner.

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Verbal Abuse and Internalizing Problems in Early Adolescence: Negative Attributional Style as Mediator

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ABSTRACT

This study examined the contributions of verbal abuse to internalizing problems among 324 early adolescent students (aged 11-13 years) in Selangor, and the mediating role negative attributional style plays in this relationship. Students were selected using a cluster sampling method and responded to a self-administered questionnaire. Children's Perception of Parental Verbal Aggression (CPPVA; Solomon & Serres, 1999), The Children's Attributional Style Questionnaire (CASQ; Seligman *et al.*, 1984) and Internalizing Symptoms Scale for Children (ISSC; Merrell & Walters, 1998) were used to measure the variables in this study. Data were analyzed using Baron and Kenny's (1986) statistical framework for assessing the mediational effects. Findings suggest that negative attributional style partially mediates verbal abuse and internalizing problems. This study sheds light on how verbal abuse contributes to internalizing problems in Asian context. Implications for intervention and prevention work related to internalizing problems among early adolescent students are also discussed.

Keywords: Internalizing problems, verbal abuse, negative attributional style, early adolescents

INTRODUCTION

A recent study by World Health Organization (WHO) in 2009 found suicide was the second largest cause of death for youth

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from age 10 to 24 worldwide. Similarly, The National Suicide Registry Malaysia (NRSM) revealed an average of 60 suicide cases per month in the country in year 2010. National press reported the alarming fact recently that the suicide rates in Malaysia are on the rise (NST, 2010; The Star, 2011). It is stated that teenagers and young adults commit suicide on their tremendous pressure in schools, breakdown in relationships and

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family issues. Likewise, the prevalence of psychiatric morbidity in the age group of 5 to 16 for Malaysian children and adolescents increased from 16% in 1996 to 20.3% in 2006, respectively (National Health Morbidity Survey [NHMS], 2006). Taken altogether, these discouraging facts raise a considerable concern regarding the incidence of internalizing problems among adolescents.

Psychological symptoms, such as depression, anxiety, social withdrawal, and somatic complaints, are increasing in prevalence during transition from childhood to adolescence (Wenar & Kerig, 2006). Early adolescents are more likely than elementary school children to have problem of internalizing disorders, such as anxiousness, depression and insecurity (Buchanan & Holmbeck, 1998). Most of the parents and teachers agreed that early adolescence is the difficult time of life for them. This is the time when conflict with parents, mood disruptions and risk behaviour are more likely to occur (Arnett, 1999; Buchanan & Holmbeck, 1998). Adolescents with internalizing problems often suffer in silence, a nature which covert into negative cognitive thought process (Sanders et al., 1999), and thereby contributing towards negative thoughts and self-related behaviours (Merrell & Walters, 1998). People around may not be aware of the internalizing symptoms the adolescent is experiencing. Thus, adolescents who are enduring internalizing problems may commonly experience emotional despair and social isolation. In

more specific, internalizing problems in the early adolescents may lead to negative outcomes, such as poor peer relation, diminished school performances, increased risk of psychological disorders, drug use, and suicidal behaviours (Merrell, 2008).

Verbal Abuse and Internalizing Problems

A review of literature suggests that verbal abuse confers risks to the psychiatry problems within internalizing spectrums such as depression (Courtney et al., 2008; Gibb, 2002; Gibb et al., 2004; Gibb et al., 2003; Gibb et al., 2001), anxiety (Iwaniec, 2006), and social withdrawal (Affizal, 2008; Shaffer et al., 2009). The impacts of verbal abuse on the occurrence of internalizing problems in early adolescence have been reported in past studies. Among other, Affizal (2008) investigated the relationship between teachers' verbal abuses and students' self perception in a sample of 376 students aged 10 and 11 years. The author found the act of verbal abuses from teachers, such as undermining, blocking and diverting, or negative evaluation, predicted students' low self-worth and self-esteem. In this study, victims of verbal abuse tended to display negative emotional problems and social adjustment. More specifically, in a study related with developmental pathways between childhood emotional maltreatment and adaptational outcomes in early adolescence, Shaffer et al. (2009) found a strong association between emotional maltreatment and social withdrawal. The study concluded that adolescents who were emotionally maltreated were more likely to have difficulties in their social relationship. In addition, the relation between verbal abuse and internalizing symptoms was also supported in the study by Sachs-Ericsson *et al.* (2006) who established the influences of verbal abuse in developing internalizing problems, as mediated by self-critical style. Adolescents who were verbally victimized and severely criticized would internalize the critical voice of the abusive caregiver, and believed that they were "bad" and "worthless" (Iwaniec, 2006; Seligman *et al.*, 1995).

The Mediating Role of Negative Attributional Style

What mediates the process by which verbal abuse may contribute to the development of internalizing problems? Researchers suggest that verbal abuse and internalizing problems may be mediated by the way individuals interpret negative experiences in their life (i.e. negative attributional style). Negative attributional style is the way of attributing the causes of negative life events to stable, internal, and global factors (Seligman et al., 1984). As such, past studies related to the influence of verbal abuse on negative attributional style and the influence of negative attributional style on adolescent internalizing problems are discussed.

Verbal Abuse and Negative Attributional Style

Past studies have found that verbal abuse is more likely to be related to negative attributional style than other forms of abuse (i.e. physical and sexual abuse) (Gibb, 2002; Gibb & Abela, 2008; Gibb et al., 2004; Gibb et al., 2003; Gibb et al., 2001; Rose & Abramson, 1992). Gibb (2002) conducted an extensive review on qualitative and quantitative research related the impacts of different types of abuse on attributional style and found that childhood verbal abuse was significantly associated with cognitive style (i.e. negative attributional style). Nonetheless, the same study revealed that physical abuse had no significant relation with cognitive style. The above finding was further supported when Gibb et al. (2003) tested Rose and Abramson's (1992) developmental model for childhood abuse and negative cognitive style using a cross sectional study. A stronger association appeared in the relationship between verbal abuse and negative cognitive style as compared to physical and sexual abuse. In fact, verbal abuse was found to be more related to negative cognitive style than was physical or sexual abuse, in line with the notion proposed by Rose and Abramson (1992). According to Rose and Abramson (1992), verbal abuse is more likely to predict negative attributional style because the negative self-schema is directly supplied by the abuser. On the other hand, victims of physical or sexual abuse were making their own explanation about the causes of abuse. They have greater opportunity in developing a more benign explanation compared to victims of verbal abuse. Therefore, verbal abuse may confer a higher risk for the development of negative attributional style.

Negative Attributional Style and Internalizing Problems

Negative attributional style has been extensively studied in child psychopathology. For example, children who had greater potential to interpret their negative life experiences to internal, stable, and global factors were more likely to experienced depression. Seligman et al.'s (1984) theory of learned helplessness may lend a support on this. Depressive symptoms are associated with a characteristic way of attributing bad events by internal, stable, and global causes (i.e. negative attributional style). Seligman et al. (1984) found that children who attributed internal, stable, and global ways of construing causes of negative events significantly predicted their level of depression 6 months later. This argument is still consistent with the recent studies (e.g. Brown & Kolko, 1999; Gladstone & Kaslow, 1995; Joiner, 2000; Joiner & Wagner, 1995; Runyon & Kenny, 2002).

In another study, Joiner (2000) examined the association between depression and anxiety in a sample of 60 young psychiatric inpatients (22 boys and 38 girls, aged 9-17); depressive symptoms were prone to increase within participants with a negative attributional style who reported higher number of negative events, but not anxious symptoms. However, Luten *et al.* (1997) revealed that anxiety and attributional style was significantly correlated, where pessimistic attributional style was not specific to depression. It was also mentioned in the study that it is important to find out the relation of pessimistic attributional style

and anxiety, where depression and anxiety tend to co-occur. Other studies have also examined the co-existence of psychological symptoms within internalizing spectrums in relation with negative attributional style. The findings showed that negative attributional style was consistently correlated with internalizing problems (Brown & Kolko, 1999; Frey & Epkins, 2002; Hankin & Abramson, 2002). Likewise, Frey and Epkins (2002) investigated cognitive models of internalizing and externalizing problems in a juvenile delinquent sample and found that the internalizing group of delinquents showed more negative attributional style than the non-internalizing group. Besides, in a study of abuse victims, Brown and Kolko (1999) found an association between self-oriented attribution and internalizing problems. They stated attributions as the main predictor for developing psychopathology after abuse. Negative attributional style is a process of cognition, which is also referred to as cognitive vulnerability (Gibb, 2002). Therefore, it has more linkage to internalizing problem, a problem directed at the self associated with covert cognitive thought processes (Sanders et al., 1999).

Given past studies, verbal abuse is positively related to negative attributional style (Gibb, 2002; Gibb *et al.*, 2003; Gibb *et al.*, 2001; Rose & Abramson, 1992), whereas negative attributional style is positively related to internalizing problems. This suggests that negative attributional style may be a mediator in the relationship. Prior studies (Gibb & Abela, 2008; Gibb

et al., 2004; Gibb et al., 2003; Gibb et al., 2001) have examined the relationship between verbal abuse, attributional style and depression. However, there is strong evidence for the co-occurrence of depression, anxiety, and social withdrawal, and only a very few studies have examined the same association on internalizing problems.

OBJECTIVE OF THE STUDY

Numerous studies have examined the relationships between verbal abuse, negative attributional style and depression. For instance, Metalsky and Joiner (1992) proposed attributional style as specific in predicting depression. Relatively few studies have examined this particular topic of interest comparatively on internalizing problems, making this a timely study to conduct. Moreover, victims who are rejected and verbally maltreated by significant persons, such as mothers, will result in a greater tremendous effect (Iwaniec, 2006). On the other hand, Seligman et al. (1984) found that mother has stronger influences (during ages 8 to 13) on child's attributional style for bad events and their depressive symptoms, as compared to father. Thus, this study investigated participants' self perceived verbal abuse specifically from mother.

The objective of the present study was to examine the relationships of verbal abuse, negative attributional style and internalizing problems. Negative attributional style was hypothesized to mediate the relationship between verbal abuse and internalizing problems. As such, three predictions were

examined to accomplish the first objective. First, a significant and positive relationship between verbal abuse and internalizing problems was expected. Second, verbal abuse was expected to be significantly and positively related to negative attributional style. Finally, negative attributional style was expected to mediate the relationship between verbal abuse and internalizing problems.

METHODS

Participants

The population in this study comprised of students aged between 11 and 13 years from a total of 203 primary and secondary schools in Petaling district. The representative primary and secondary schools were randomly selected from two main areas of the district, namely, Petaling Perdana and Petaling Utama. Classrooms of primary five, primary six, and secondary form one of each school represent clusters of the subjects. A total of 324 participants (153 males, 171 females) were involved. The average age of the participants was 12.07 years (SD = 0.84). Ethnicity indication is as follows: 86.1% Malay, 7.4% Indian, and 5.9% Chinese, and 0.62% categorized as "Others". Approval was sought from the Ministry of Education, Department of Education Selangor, and also the principal of each school to conduct the research investigation. Data were gathered using a self-administered questionnaire. For the participants aged 11 and 12 years, the researcher read out and explained each statement so as to provide a better understanding and avoid misleading.

Measures

Verbal abuse. Verbal abuse was assessed with Children's Perception of Parental Verbal aggression (CPPVA; Solomon & Serres, 1999). The CPPVA comprised of a 27-item scale that measured emotional abuse based on seven types of verbal aggression drawn from the literature, which are rejecting, demeaning, ridiculing, cursing, terrorizing, criticizing, and insulting. For the purpose of the study, two statements related to physical punishment were excluded. The participants were required to make a choice between two versions of the statement separated by the word "But" and mark whether the statements such as "really true in my case" or "almost true in my case" best describe their experience. All the statements were scored 1, 2, 3, 4, score 4 is attributed for most negative answer. Higher scores indicated higher frequencies of which a child perceived he or she received verbal abuse. Cronbach Alpha for the CPPVA scores in the present sample was .78.

Negative attributional style. The Children's Attributional Style Questionnaire (CASQ; Seligman *et al.*, 1984) contained 48 items. Each item was a hypothetical event (24 negative and 24 positive). The current study only involved participants' attributional style for negative events, and only the corresponding 24 negative event items were used. For each event, the participants were presented with two possible causes of each event and they were asked to choose the item that best describes the way they think. The two causes held constant for three attributional dimensions

(internal-external, global-specific, and stable-unstable). The items were scored by assigning a value of *I* to each internal, global, or stable response and a θ to each external, unstable, specific response. Higher scores indicated a more depressogenic attributional style. The Cronbach Alpha for the CASQ scores in the present sample was .52. This is compatible with reliability reported by the original authors, which is .50. Although the alpha value for CASQ was relatively low, it had been established as a valid measure of attributional style for negative events (Joiner, 2000; Turner & Cole, 1994; Seligman et al., 1984; Gibb, 2002).

Internalizing problems. Internalizing problems was measured by Internalizing Symptoms Scale for Children (ISSC; Merrell & Walters, 1998). The ISSC was a comprehensive self-report for children aged 8-13 to assess the symptoms of various internalizing problems, including depression, anxiety, social withdrawal and somatic complaint in a combined manner in 48 items. The participants were asked to rate the accuracy with which the symptoms reflected on a four point scale, ranging from θ (never true) to 3 (often true). Higher scores indicated greater internalizing symptoms. The Cronbach Alpha for the present sample is .85.

Data Analysis

The data were analyzed according to Baron's and Kenny's (1986) statistical concept and recommendations for examining the presence of mediation effect. Multiple

regression was conducted in three steps to test three equations, as demonstrated in the Fig.1. In the first step, the internalizing problems score was regressed on the verbal abuse score (path c). In the second step, the score of negative attributional style was regressed on the verbal abuse score (path a). In the third step, the internalizing problems score was regressed on both the verbal abuse and negative attributional style score. This was done to test whether the negative attributional style was related to internalizing problems (path b) and the estimate of coefficient between the verbal abuse and internalizing problems with controlling for the negative attributional style (path c). If the negative attributional style was a complete mediator, the effect of the predictor (verbal abuse), when controlling

for negative attributional style, should be zero. If it was only a partial mediator, the effect would be merely reduced, but not eliminated. In psychological research, it would be unusual for the effect of path c' to be reduced from statistical significance to zero (Baron & Kenny, 1986). Thus, the effect of reduction or change in regression coefficient would be evaluated as the degree of the potency of mediator.

RESULTS

Table 1 presents the means, standard deviations, reliability, and the Pearson correlations for the study variables. All the variables were significantly correlated as expected. Meanwhile, verbal abuse was positively and significantly correlated with negative attributional style and internalizing

TABLE 1 Means, standard deviations, reliability, and correlations for study variables

Variables	M	SD	Cronbach's Alpha	1	2	3
1. Verbal abuse	31.08	7.67	.78	_	.15**	.31**
2. Negative Attributional Style	9.69	2.42	.52		_	.18**
3. Internalizing Problems	59.97	14.93	.85			_

Note: ** p < .01

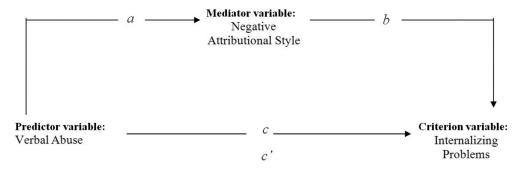


Fig.1: Illustration of path coefficient among variables in the mediational model

TABLE 2 Testing negative attributional style as mediator using multiple regression

Steps in Testing Mediation	В	SE B	95% CI	β
Step 1 (path <i>c</i>) Outcome: Internalizing Problems Predictor: Verbal Abuse	.59	.11	0.39, 0.80	.31***
Step 2 (path <i>a</i>) Outcome: Negative Attributional Style Predictor: Verbal Abuse	.05	.02	0.01, 0.08	.15**
Step 3 (paths <i>b</i> and <i>c'</i>) Outcome: Internalizing Problems Mediator: Negative Attributional Style Predictor: Verbal Abuse	.86 .55	.34 .11	0.18, 1.528 0.34, 0.77	.14* .28***

Note. * *p* < .05, ** *p* < .01, *** *p* < .001

problems. Similarly, negative attributional style was also positively and significantly correlated with internalizing problems.

Table 2 shows the mediational analyses of present study. As the steps have been explained in the earlier part of the study to test that the predictor (verbal abuse) was related to outcome variable (internalizing problems), the internalizing problems were regressed on verbal abuse (Step 1). Verbal abuse was found to be significantly related to internalizing problems (B = 0.59, $\beta =$ 0.31, p < 0.001), path c was significant, and the condition for mediation in step 1 was also met. The second step was to test if verbal abuse was related to mediator (negative attributional style), and if negative attributional style was regressed on verbal abuse. The results revealed that verbal abuse was also significantly related to negative attributional style (B = 0.05, $\beta = 0.15$, p <0.01), and thus, step 2 was met (Path a was significant). Next, to test if the mediator (negative attributional style) was related with the outcome variable (internalizing problems), internalizing problems were

regressed on both verbal abuse and negative attributional style. Negative attributional style was significantly related with internalizing problems controlling for verbal abuse (B = 0.86, $\beta = 0.14$, p < 0.05). Path b was also significant. The third step also provided estimation for path c'. If path c' was zero, there would be a complete mediation. Nevertheless in the present study, path c' was reduced in negligible value (B = 0.55, $\beta = 0.28$, p < 0.001) from path c but was still significant (B = 0.59, β = 0.31, p < 0.001). In addition, the amount of mediation was calculated using the unstandardized regression coefficients from the study. This is an alternative way of calculating the amount of mediation in terms of the total effect which has been mediated as defined by ab/c, as suggested by Shrout and Bolger (2002). It is important to note that this study received a calculated value of 0.068. Therefore, approximately 6.8% of the total effect of verbal abuse on internalizing problems was mediated by negative attributional style.

DISCUSSION

The purpose of this study was to examine the role of negative attributional style as the mediator in the relation of verbal abuse and internalizing problems. The objective was met, whereby three predictions of Baron's and Kenny's statistical recommendations for mediation effect were successfully fulfilled. Meanwhile, negative attributional style was found to be a partial mediator for verbal abuse and internalizing problems. The strength of the relation between verbal abuse and internalizing problems was reduced from 0.59 to 0.55 when negative attributional style was included in the model.

Some important findings have been highlighted in the predictions of mediation analyses. In the first regression of the mediation analysis, the analysis has shown that verbal abuse is a predictor for internalizing problems. This supports the notion that adolescents who are verbally victimized by their mother will internalize hurtful words that are directed to the self. They thus display problems such as depression, anxiety, social withdrawal and somatic complaints simultaneously (Affizal, 2008; Courtney et al., 2008; Gibb, 2002; Gibb & Abela, 2008; Gibb et al., 2004; Gibb et al., 2003; Gibb et al., 2001; Iwaniec, 2006; Trickett & McBride-Chang, 1995; Vissing, Straus, Gelles, & Harrop, 1991). The second regression showed that verbal abuse is a significant predictor for negative attributional style. This finding is consistent with several past studies which indicate that verbal abuse contributes to the development of negative attributional style (see Gibb, 2002; Gibb & Abela, 2008; Gibb et al., 2004; Gibb et al., 2003; Gibb et al., 2001; Rose & Abramson, 1992). The final regression analysis revealed that partial mediation occurred. When negative attributional style was controlling for, the effect between verbal abuse and internalizing problems decreased. Though it was negligible, the result showed that there was still association between the variables. This supports that verbal abuse may contribute to the risk for internalizing problems in the presence of negative attributional style.

The findings in this study suggests that in treating adolescents with internalizing problems, practitioners must take into account their attributional styles, and investigate the possible experiences of verbal abuse. Cognitive therapy that trains one's cognitive skills, changing one's pessimism to a more flexible optimism has always been an effective way in treating internalizing problems and abused victim. In fact, it helps to recognize adolescents' dysfunctional beliefs provided by verbal abuser. Abused victims who attribute positive (optimistic) interpretation to negative events they face tend to be more resilient to internalizing problems than those who do not.

Prevention work, on the other hand, should also target on parents on the way they communicate with their adolescent children. Studies have supported that conflict with parents increases in early adolescence, as compared with preadolescence (Arnett, 1999). During this critical period, hurtful words, with or without intention, do not differ in undermining the parent-child

bond and result deleterious impacts on adolescent's development. Prevention work such as campaign and workshop for building robust parent-child relationship must pay more attention to the appropriate communication skills between parent and child in order to effectively avoid verbal abuse.

Meanwhile, a number of limitations should also be noted in this study. First, the statistical significance of mediated effect was tested in the present study. According to Frazier, Baron and Tix (2004), the product of paths a and b is equal to the difference in paths c and c and the statistical significance of the difference between c and c' can be estimated by testing the significance of the products of paths a and b. In this study, standard error term mentioned by Baron and Kenny (1986) was used. In more specific, the product of paths a and b was divided by the standard error term to test whether a mediator carried the influence of predictor to outcome variable. The calculation of the test was as dividing mediation effect (ab) by square root of $b^2sa^2 + a^2sb^2 +$ sa^2sb^2 , where a and b were unstandardized regression coefficients and sa and sb were standard errors. This yielded a z-score. If the z-score is greater than 1.96, the effect is significant at the .05 level. In present study, however, the results indicated that the magnitude of indirect effect was not statistically significant (z-score was 1.81). In the present study, negative attributional style was found to be a weak mediator for verbal abuse and internalizing problems. In this respect, the result is consistent

with a study which did not find negative attributional style as a strong mediator for negative events and internalizing problems (Rodriguez, 2006). Although the role of negative attributional style as a significant mediator is not supported in present study, the results still suggest the importance of intervention and prevention work for adolescents.

Second, the attributional style measure exhibited low reliability, which might have reduced the strength of relations between attributional style and other measures (Shrout & Bolger, 2002). Nevertheless, the internal consistency of CASQ in the present studies is similar with the original study as well as the previous studies (Abela, 2001; Gibb & Alloy, 2006; Nolen-Hoeksema, Seligman & Girgus, 1986; Seligman et al., 1984). Moreover, it should be noted that there are norms and cultural differences in applying the measure. Some items in the construct might not accurately represent the situations faced by children and adolescents in Malaysia. Thus, future studies should consider modifying or developing a more local embedded construct in assessing attributional style. On the other hand, measures that have higher reliability, such as Children's Attributional Style Interview (Conley, Haines, Hilt, & Metalsky, 2001) and Youth attributional style questionnaire (Brozina & Abela, 2003) are recommended by Gibb and Alloy (2006), and these are worth to gain initial exposure upon utility in the local context.

Third, although cross-sectional design can be highly informative, especially in the early stages of investigation (Cole & Turner, 1993), the causality of the variables cannot be assessed. Hence, it is suggested that future studies examine the changes of variables over time and whether these changes mediate the relationship. In addition, a longitudinal study is also recommended for future studies.

Finally, this study focused on one and the only variable, i.e. negative attributional style, as possible mediator. Other cognitive variables might have stronger effects in mediating the relation of verbal abuse and internalizing problems, such as self-criticism (Sachs-Ericsson *et al.*, 2006) and hopelessness (Courtney *et al.*, 2008). Thus, future study may consider exploring other possible mediators for better prediction of the relation between verbal abuse and internalizing problems.

CONCLUSION

In summary, despite the limitations, by examining the mediating effects of negative attributional style on the relation between verbal abuse and internalizing problems, the findings from this study have contributed to the existing international research literature on internalizing problems, especially in the Asian context. These findings also have both applied and practical implications for intervention and prevention work so as to address internalizing problems among early adolescent students.

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Factors Affecting the Willingness to Pay for Renewable Energy amongst Eastern Malaysian Households: A Case Study

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ABSTRACT

Energy choices that are made today will greatly influence the climate of tomorrow. In addition to reducing emission of greenhouse gases, renewable energy sources will also enhance future energy security. In this vein, a study utilizing a cross-sectional research design was conducted to examine the factors affecting the willingness to pay for renewable energy (RE) among households in Malaysia. A self-administered questionnaire was used as a tool for data collection. The mean age of the respondents was 42 years, with both genders equally represented. The results indicated that that majority of the respondents were concerned about the environment and showed a positive attitude towards it. Nonetheless, there were differences in the levels of awareness and knowledge with respect to different types of RE. Age and RE awareness were found to have significant relationships with the willingness to pay for renewable energy. The results also indicated that higher educated consumers were more willing to pay for renewable energy, whereas no gender differences were observed. Strengthening support and ultimately adoption of RE products and services have to be intensified as the willingness to pay for RE by the respondents was found to be modest.

Keywords: Renewable energy, household, environment, attitude, willingness to pay

INTRODUCTION

Energy is an important resource for human development and economic growth.

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Globally, the energy demand has increased in the recent years, and this is in tandem with the rapid economic growth, particularly in developing nations. Fossil fuel, which is a non-renewable energy (NRE) such as oil, coal and gas, provided about 82 percent of the world's demand for energy and it had been identified as the largest single contributor to increased carbon dioxide gas

(IPCC, 2007). Carbon dioxide is one of the green house gases that have been identified as the main cause of global warming. As such, much research in the recent years has focused on alternative energy sources, particularly renewable energy (RE), such as solar, hydropower, biomass, wind and geothermal. These are in the form of energy that will not be exhausted over time, can be regenerated in a relatively short time and is environmentally friendly.

Malaysia is the 26th largest source of greenhouse gases in the world, a position that places her within the ranks of industrialized nations (United Nation Statistics Division, 2007). Carbon dioxide emission of Malaysia is relatively high as compared to the world's average and other Southeast Asian countries due to her rapid economic growth and industrialization. Malaysia has made a positive start in reducing its carbon footprint by implementing carbon-mitigating projects and adopting several renewable energy and energy efficiency initiatives. For instance, in the Eighth Malaysia Plan (2000), the Government declared renewable resources of energy as the fifth fuel of the nation after petroleum, natural gas, coal and hydro. This commitment was further reinforced in the Ninth Malaysian Plan (2005), where it was manifested with the formation of the Ministry of Energy, Green Technology and Water Malaysia on 9 April 2009. Malaysia is also a signatory to Kyoto Protocol, which means that she is committed to reducing carbon dioxide emission and other green house gases. As a consequent to Copenhagen Climate Change

Conference, Malaysia has agreed to reduce its carbon emissions up to 40% by the year 2020 compared to the 2005 level (UNFCC 2009). In the Tenth Malaysia Plan (2010), the Government of Malaysian reaffirmed her commitment to address the issue of climatic change by embarking on various strategies in order to reduce her carbon footprint.

Energy is a critical ingredient for growth and development as well as one of the critical ingredients for the majority of economic and social activities. It was found that there is a direct relationship between energy consumption and economic growth (Ageel & Butt, 2001). It is thus one of the indispensable factors in ensuring continuous development and economic growth of a nation (Rogner & Popescu, 2001). In order to meet the set target of 40% reduction in carbon emission, while at the same time maintains the economic growth, the nation has to embark on diversification of fuel sources. Hence, greater utilization of renewable energy and energy efficiency drives are necessary. Currently, the main sources of energy in the country are mainly from non-renewable fossil fuels and natural gas (Abdul-Rahman & Lee, 2005). As such, the nation has no option but to move from NRE dependence to NE reliance in the immediate future as it ensures energy security and environmental sustainability. Households constitute an important target group as residential sector was found to consume about 16-50% of the total energy worldwide (Saidur et al., 2007) and this share is expected to rise in the future (Abrahame & Steg, 2009).

Factors Affecting the Willingness to pay for RE

Many studies have been undertaken to identify the factors that influence proenvironmental behaviour. Pro-environmental behaviour is defined as a behaviour that consciously seeks to minimize the negative impacts of one's actions on the natural and built world, such as energy conservation (Kollmuss & Agyeman 2002). In the present study, pro-environmental behaviour is the adoption of NE sources by the individuals for their consumption.

RE is a relatively new energy source as compared to NRE that is being promoted for consumption of both the producers and consumers. As such, the public may not be aware of the existence, benefits and options of RE for their adoption. According to the findings of Department of Trade and Industry of Scotland (DTI 2003), knowledge of specific renewable technologies varies considerably among the citizens. A total of 44% of the respondents were found to have good knowledge regarding solar power while only 10% on biomass energy. The study also indicated that solar, hydroelectric and onshore wind power was more understood by the general public as compared to marine and biomass. Similar findings were found by Cutler (2006), where the respondents had greater information on solar, wind and tidal power but very little understanding of biomass. A survey among London residents also showed that the majority of them have heard about solar (95%) and wind power (94%) and most stated that they were more aware of those

two as compared to the other RE sources (London Renewable, 2003).

Meanwhile, some studies have shown that knowledge about energy issues plays a central role in influencing their attitude and behaviour towards energy technologies. The awareness of the presence of the RE options and the knowledge regarding them is critical to approval (DTI 2003) and ultimately the willingness to pay for its adoption. For example, the lack of knowledge about biomass may explain very low levels of approval for this technology in the public opinion (McGowan & Sauter, 2005). A survey by Cutler (2006) found that 86.1% of those with some perceived degree of knowledge of the RE were willing to pay something more per month for renewable energy. Meanwhile, the percentage of the respondents who were willing to pay for NE energy increased as more information was given to them (Farhar, 1999). Thus, generating awareness, as well as providing information and education to the public on RE is the first step towards its acceptance and adoption.

Many studies have established that attitude is one of the predictors of behaviour and behavioural intentions (Ajzen & Fishbein, 1980; Bord et al., 2000; Poortinga et al., 2004). A study by Ivanova (2004) among Queensland consumers shows that those who were concerned about the environment were more willing to pay for RE. Furthermore, those who perceived the negative impacts of electricity generation to the environment were found to be willing to pay more for RE as compared to those

who perceived otherwise. In addition, Patrick (2007) reported that support for RE technologies is motivated by levels of environmental concern, specifically about climatic change.

Socio-demographic factors such as age, gender and educational status are also found to influence environmental knowledge, attitude and behaviour. With regards to age, younger people were found to be more willing to pay for renewable energy as compared to those of the older generation. A study by Cutler (2006) reported that younger persons (18-44 years) were more willing to consider installation of solar water heating and more positive about wind farms and tidal power as compared to those of the older generations. A similar tendency was also noted among the residents in Devon, whereby the respondents who were over 60 years old were less likely to support renewable energy as compared to the younger generation (MORI, 2004). Although the level of RE awareness may be lower among the younger generation (Patrick, 2007), they were shown to be more open to embracing new technology as demonstrated by the above findings.

Gender differences are normally discerned in many environmental studies. A longitudinal study by Zelezny *et al.* (2000) from 1988 to 1998 found that women were significantly more concerned about the environment and had higher participation rate in pro-environmental behaviours than men. Patrick (2007) reported that there was a stronger support by women for new renewable energy development (90%) than

men (66%). However, O'Connor *et al.* (2002) found that gender did not predict the willingness to act or the support of environmental policies. Gender roles socialization theory, which stipulates that individuals' behaviours are shaped by gender expectation within the context of cultural norms (Zelezny *et al.*, 2000), has been used to explain gender differences in environmentalism. Hence, dissimilarity in the findings regarding gender may be attributed to the differences in the individual culture and traditions.

Meanwhile, educational status is another factor that has been found to influence the willingness to pay for renewable energy. A survey conducted by Ivanova (2004) showed that people of higher educational status were more willing to pay for RE. Similar results were also noted by Wiser (2007), whereby a person who was more willing to pay for RE was more highly educated. They were also found to have accepted renewable technology readily (Gardner & Ashworth, 2007). Other environmental studies seem to indicate similar results, whereby higher educated persons were more likely to reduce green house gases (O'Connor et al., 1999) and making more effort to take care of the environment (Patchen, 2006).

In general, there are two strategies involved in dealing with climatic change processes, namely, mitigation and adaptation. Adaptation involves the preventive measures to avoid, prepare for, or respond to potential effects or impacts from climate change. However, mitigation efforts emphasize on reducing and limiting the occurrence of

climatic change. It focuses on tackling the causes of climatic change [such as the increases of Green House Gases (GHGs)] by reducing these emissions at the sources and augmenting the sinks or reservoirs (areas that absorb Carbon Dioxide such as forests and oceans) (McCarthy et al., 2001; Semenza et al., 2008). Mitigation is a more preferred method as it is cheaper to prevent than to remedying global climate where it would cost one per cent of countries' total GDP, while failing to remedy it would cost 5 per cent of countries' total GDP (Stern, 2006). Hence, changing the consumption pattern of the citizens is one of the mitigation strategies that can be adopted in averting global warming. In order to effectively combat climate change in general and reduce GHGs emissions in particular, efforts are not only required at international and national levels, but voluntary mitigation by individuals also plays a vital role in engaging a more sustainable and low carbon lifestyle (Semenza et al., 2008). As such, the adoption of RE sources by the consumers is one of the essential strategies to overcome global environmental catastrophe. With increased prosperity and greater urbanization, Malaysians will undoubtedly continue to adopt a carbonintensive lifestyle in the future.

Many studies have been conducted in Malaysia on environmental related aspects focusing on the knowledge, attitude, purchasing and consumption pattern of consumer products such as food, clothes and appliances. However, very little focus has been given to social science research on energy, particularly on NRE. In this vein, an exploratory study was undertaken to examine several significant psycho-social factors as discussed above that might affect the willingness to pay for renewable energy. These factors include RE awareness and knowledge, attitude towards environmental concern, age, gender and educational level. The understanding of these factors will enable the government to develop appropriate policies and programmes to enhance public acceptance as it is the key to successful implementation and adoption of RE (Ekins, 2004).

METHODS

The study utilized a cross-sectional research design using the survey method. An urban residential area, Mabel Garden which is located in the City of Kuching, was selected for the study. Kuching is the capital city for the state of Sarawak. The population of Sarawak consists of multiethnic groups with a wide variance in terms of socio-economic backgrounds. In order to ensure that the samples for the study are acquainted with the phenomena of the study, a modern residential area was purposively selected for the study. The residential area consisted of 300 link houses and a total of 100 households, which were systematically selected using a sampling fraction of three.

The respondents of the study consisted of the head of the households with both genders equally represented using a quota method. If the house selected was occupied by single individuals or unavailable, successive house was taken as a replacement. Data were collected using interview survey and as such, the return rate was 100 percent. According Bartlett *et al.* (2001), sample size value that is appropriate for the alpha level of 0.05 from a population of 300 is 85. Hence, one hundred samples selected for the present study is sufficient to generalize the findings to the population selected only.

The questionnaire comprised of five sections that aimed to determine the factors affecting the willingness to pay for renewable energy among the households. Part A consisted of six openended and closed-ended questions to gauge the demographic background of the respondents including age, gender, marital status, number of family members, and highest level of educational and total income of the households. Part B consisted of three items which were adopted and adapted from Curry (2004) to measure the environmental awareness. The respondents were asked to rank the level of importance of various social and environmental issues facing the country using a scale of 1 (most important) to 8 (least important). A person can be considered to be "concern about the environment" if the environmental issue is ranked in the top three position (Curry, 2004). Next, the respondents were asked to rank the seriousness of the different types of environmental problems faced by the nation such as global warming, pollution, land degradation, etc., using a similar ranking scale as the previous item. The third question requested the respondents to select only one of the four choices that were

given with regards to trade-offs between environmental issues and economic priority. The following section gauged the level of the attitude towards environmental concern which was adopted and adapted from Curry (2004) and Carlson (2004). The attitude towards environmental concern is defined as a person's evaluative state, associated with psychological feelings of distress or worries regarding the natural environment and may be accompanied by supporting behaviour (Carlson, 2004). The scale consisted of 10 items, with a 5-point Likert Scale response format. Two of the questions were negatively worded and hence, they were recorded for data analysis. Part D comprised of 5 items to examine the respondents' awareness on the different types of RE. The questions were adopted and adapted from Curry (2004). It was gauged using a 5 point Likert Scale type ranging from 1 (know a lot) to 5 (haven't heard of it at all). Subsequently, the respondents were asked to indicate their information sources of RE. Ten other items were utilized to gauge the RE awareness level using the five-point Likert scale format. They were adopted and adapted from Renewable Energy Awareness Scale developed by Morgil et al. (2006). The last part comprised of five items which was adopted from Farhar (1999) to measure the willingness to pay for renewable energy among the respondents. The response format consisted of a 5-point Likert Scales type, where 1 indicates the "most unfavourable" to 5 which indicates "the most favourable." A pre-test was conducted on the questionnaire using 20 people so as to test for its suitability and reliability. The reliability of the attitude towards the environment, RE awareness and willingness to pay for NE was 0.762, 0.682 and 0.846, respectively, which are therefore acceptable.

In this study, the data were collected using the interview survey method. These data were analyzed using Statistical Package for Social Science (SPSS) version 13.0. A descriptive analysis was used to summarise the patterns of responses of the cases in the samples. Meanwhile, inferential statistical analysis, namely Pearson Correlation test, was employed to examine the relationships among the variables, while ANOVA was used to examine the difference between the educational level and willingness to pay for renewable energy. T-test was administered to determine the differences between genders on the willingness to pay for renewable energy.

RESULTS AND DISCUSSION

The demographic characteristics of the respondents are shown in Table 1. It was found that the majority of the respondents were married (98%) while the remaining 2% were single headed households. The mean age of the respondents was 42.4 years, with average household family members of 4.86. Almost half of the respondents had a total household income of above RM3500 per month (USD1167) and could be classified as low middle income earners. The total score and the ranking of various social, economic and environmental issues in Malaysia by the respondents are presented in Table 2. The

data indicate that they were most concerned about the rising cost of living in the country. This could be justified as from February 2007 to January 2009, the total Consumer Price Index went up by 6.38% (Department of Statistics Malaysia, 2009). The concern for the environment was ranked third after health care and it was only rated slightly above crime. Meanwhile, unemployment, road accident, drugs and foreign workers issues were regarded as of lesser importance as compared to the other issues above. From a cross-tabulation analysis of the ranking of socio-economic issues by gender, the data indicated that more males (36%) ranked the rising cost of living as the most important issues facing the nation today as compared to the females (20%). Generally, there was only a slight variation in the ranking of other issues by both genders. Those in the lower education group and presumably of lower income level were found to regard the rising cost of living as the most pressing issue as compared to the higher educated respondents. However, the opposite is true for environmental concern. From the above data, it could be concluded that the respondents were concerned about the environment, as proposed by Curry (2005) that those who placed environment in their top three matters of concern could be considered as an environmentally concerned person. The concern for the environment by the respondents is justified as the data from Malaysian Quality of Life Index (MLQI 2004, the latest figure as of now) which indicates that the environmental index value has been showing a negative trend

TABLE 1 Demographic characteristics of the respondents

Variables	N (%)	Mean	S.D	Min	Max
Age (years)					
18 - 34	38				
35 – 55	42				
56 and above	20	42.41	13.35	22	77
Gender					
Male	50				
Female	50				
Marital status					
Married	98				
Divorced	2				
Number of family members including the respondent					
2 – 3	21				
4 – 6	64				
7 – 9	15	4.86	1.67	2	9
Highest Level of Education					
Primary/Secondary School	44				
Pre-University/College/ University	55				
Total Income of Household					
Below RM 1500	9				
RM 1500 – RM 3000	36				
RM 3001 – RM 5000	35				
Above RM 5000	20				

N = 100

TABLE 2 Level of importance of socio-economic issues in Malaysia

Issues	Total Score	Level of Importance [from 1 to 8]
Rising Cost of Living	287	1
Health Care	384	2
Environment	395	3
Crime	396	4
Unemployment	421	5
Road Accident	520	6
Drugs	593	7
Foreign Workers	604	8

Scale: 1= most important to 8 =least important

indicating deterioration in the quality of the environment in the country.

The respondents' ranking on the seriousness of various environmental problems facing Malaysia at present is shown in Table 3. In particular, air pollution, global warming and destruction of forest were rated as the first, second and third most pressing environmental issues, respectively. Air pollution, especially in the urban areas of the country, is rather apparent. The main source of air pollution is due to mobile sources such as motor vehicles and traffic jam in the city, which is a normal phenomena. This was reflected in the mean value of the Air Pollutant Index of 68.5 (moderate health effects) for the major cities in the country for the year 2008 (Department of Statistics Malaysia 2009). Unexpectedly, global warming, which is a relatively new recognized phenomenon, was the second most environmental concern of the respondents. Land, water and solid waste problems were the next clusters of environmental issues that were perceived rather significantly by the respondents. The cross-tabulation analysis showed that almost 50% of the respondents of both genders regarded haze/air pollution as either the first or the second pressing issue and they seemed to agree that endangered species was the least concern of all. Global warming seemed to be the concern of all the respondents, regardless of their education background and age.

TABLE 3 Level of importance of environmental issues in Malaysia

Environmental Problems	Total Score	Level of Importance [from 1 to 8]
Haze/Air pollution	326	1
Global warming	346	2
Destruction of forest	386	3
Land degradation	414	4
Water pollution	424	5
Solid waste	487	6
Toxic waste	512	7
Endangered species	701	8

Scale: 1= most important to 8 =least important

The respondents' preference between protecting the environment and protecting the economy is shown in Table 3. The results showed that more than half of the respondents (58%) indicated that "both the environment and economy are important, but the environment should come first". However, only 23% of the respondents agreed that both the environment and the economy are important, but the economy should come first. There were 16% of the respondents who preferred that "the highest priority should be given to protect the environment, even if it hurts the economy" Only 3% of the respondents showed no regards for the environment, whereby "the highest priority should be given to economic considerations such as jobs even if it hurts the environment." Thus, 74% (58% plus 16%) of the respondents were of the opinion that the environment should take precedence over economic development. Seemingly, the findings above are similar to that by Curry (2004), where most of the

TABLE 4
Preference between protecting the environment and protecting the economy

Statements	(%)
Both the environment and the economy are important, but the environment should come first.	58
Both the environment and the economy are important, but the economy should come first.	23
The highest priority should be given to protect the environment, even if it hurts the economy.	16
The highest priority should be given to economic considerations such as jobs even if it hurts the environment.	3

respondents were of the opinion that both are important but the environment should take precedence over the economy.

The respondents' attitude towards environmental concern was examined using 10 statements giving a range of possible score of 10 to 50. Higher scores indicate a positive attitude towards environmental concern. The result showed that most of the respondents (71%) have positive attitude towards environmental concern, whereas only 3% of the respondents showed negative attitude towards environmental concern. The remaining 26% of the respondents were with moderate score of attitude towards environmental concern (Table 5). Overall, most of the respondents' attitude towards the environmental concern is positive, as indicated by an average score of 42.68 and this commensurate with the ranking of environment as an important issue.

Table 6 illustrates the respondents' awareness towards the sources of renewable energy. The respondents who selected the response category of 'know a lot' to 'just heard about' are regarded as being aware of sources of RE although the level of

awareness varied. The results indicated that the most well-known sources of RE are solar energy, followed by hydro and wind energy. Only a few respondents knew about biomass and geothermal energy. The greater awareness on solar energy is anticipated as domestic solar water heaters are the most visible and apparent to the consumers as compared to other RE products. It was reported that 10,000 domestic solar water heaters were installed in Malaysian homes in 2002 (Malaysia Renewable Energy Report, 2005). As for hydropower energy, Malaysia's first hydroelectric power station was built in 1900 and there are currently a total of 58 hydro-electric stations in the country (Lugman & Fakhrul-Razi, 2009). Furthermore, there is a 2.4 GW hydroelectric project which is presently under construction in Bakun, a place that is located about 650 km from the respondents' residence, Kuching. However, it can be concluded from the responses of the respondents that the majority of them considered themselves as having low level of knowledge about the sources of RE, although the majority (83%) were also found

TABLE 5
Attitude towards environmental concern

Variables	n (%)	Mean	S.D	Min	Max
Renewable Energy Awareness		42.68	4.80	27	50
Low $(10 - 30)$	3 (3)				
Medium (31 – 40)	26 (26)				
High (41 – 50)	71 (71)				

TABLE 6
Awareness towards sources of renewable energy

Technology or Energy Source	Know a Lot (%)	Know a Little (%)	Know Very Little (%)	Just Heard About it (%)	Haven't Heard of it at all (%)	Level of Awareness
Solar energy	31	47	13	7	2	1
Hydropower energy	35	42	8	12	3	2
Wind energy	16	35	24	19	6	3
Biomass energy	5	25	29	16	25	4
Geothermal energy	5	16	26	21	32	5

to have a moderate level of awareness on general aspects of RE such as its positive impacts to environment (Table 7).

Table 8 shows the distribution of respondents with regards to their main sources of RE information channels (they were allowed to indicate more than one source). The three main sources of information regarding RE was newspaper (90%), magazines (57%) and formal education (45%). Knowledge and information of RE provided by printed mass media in the country particularly newspapers usually highlights specific government projects and related problems. They lack fundamental and in depth knowledge of the subject matter. It is however vital to note that quite a substantial proportion of the

respondents have attributed their formal education as one of the main RE information channels. This is reflected in the education background of the respondents, whereby all of them had at least undergone a minimum of 11 years of education (secondary school education). Environmental education is not taught as a single subject in Malaysian schools but integrated in compulsory subjects such as geography, science, and living skills. Knowledge gained through this means is more structured and focused as compared via mass media. The results from a cross-tabulation showed that more educated and younger respondents obtained their knowledge on RE through their formal education as compared to school leavers and older cohorts. However, there is no

TABLE 7 Renewable energy awareness level

Renewable Energy Awareness	n (%)	Mean	S.D	Min	Max
Low (10 - 30)	1 (1)				
Medium (31 - 40)	83 (83)				
High (41 - 50)	16 (16)	37.15	3.46	30	48

difference across gender, education level and age with regards to acquiring RE through reading of the newspapers.

TABLE 8 Sources of RE information

Sources	Percentage
Newspaper	90
Magazine/Brochures	57
Formal education	45
Radio	39
Television Living near RE development	18 5
Internet	5
Being a member of environmental group	3

The mean value for each of the five statements that were used to gauge the willingness to pay for RE is as shown in Table 9. The data indicated that the respondents were none committal in their willingness to pay for RE (mean=3.08), especially when it entails direct monthly bill payment. However, they were found to be slightly more willing to engage in purchasing RE products and somewhat supportive of the RE policies. The recent announcement of tax reduction on hybrid motor vehicles by the prime Minister of Malaysia during the tabling of Malaysian budget for 2011 was timely. This initiative

would enhance the adoption of more green and energy efficient mode of transport by the citizens of the country.

TABLE 9
Mean of five—item on willingness to pay for renewable energy

Items	Mean
How favourable would you pay 10% more in your monthly electric bill for renewable energy?	2.82
How favourable would you pay more for a house that has a renewable energy system already installed, such as Solar Photovoltaic System?	3.07
How favourable would you pay more for renewable energy products? For example, solar water heating	3.27
How favourable would you purchase a fuel efficiency vehicle like hybrid car if it cost 15% to 30% more expensive than traditional fuel engine cars?	3.12
If the government makes a policy to generate 10% of your electricity supply from renewable energy, how favourable would you be willing to pay to support the government's policy?	3.14

Scale: 1= Most Unfavourable; 2= Unfavourable; 3= Neutral; 4= Favourable; and 5= Most Favourable

An independent group t-test indicated that there is no significant difference in the willingness to pay for renewable energy between male and female (t = 0.0001, p > 0.05). This may be due to the nongender bias culture, especially with regards

to the accessibility to education in the country. Conversely, a significant difference was found between educational level and consumers' willingness to pay for renewable energy (t=-3.110, p<0.01). Highly educated respondents (college and tertiary education) were more willing to pay for RE as compared to those with only school certificates. Similar results were also found by other studies, whereby more educated persons were found to be more willing to pay for RE (Ivanova, 2004; Wiser, 2007). Table 9 displays the results of Pearson correlation between age, attitude towards environmental concern and RE awareness level with the willingness to pay. Data indicated that there was a low significant relationship for age (r=-2.86, p<0.01) and RE awareness (r=0.285, p<0.01), with the willingness to pay but not for the attitude towards environmental concern (r=0.013, p>0.01). Therefore, younger respondents and those with greater awareness of RE were found to be more willing to pay for RE. Past research also showed that younger people (Ivanova, 2004; Cutler, 2006; MORI 2004), or those who were more aware of RE (Cutler, 2006; DTI, 2003), were more willing to pay for renewable energy.

CONCLUSION AND IMPLICATIONS

The renewable energy policy in Malaysia was only initiated by the Government in 2001 and is still in its infancy stage. In 2009, less than 1% of the total generated electricity in the nation was from the RE sources which were below a set target of 5% (Tenth Malaysia Plan, 2010). Several initiatives and action plan have been developed to enhance RE production in general but they are not directly associated with consumers per se. This is reflected in the above findings whereby the respondents had only general awareness of RE and were rather reluctant to pay for RE products and services. The results of the study displayed a similar propensity to other environmental research in the country, where high environmental awareness and concern did not correspond with pro-environmental behaviour (Norhasmah et al., 2004; Aini et al., 2007; Sharifah Azizah et al., 2005). Nonetheless, the respondents showed a deep commitment and concern for the environment and this represents a foundation for strengthening RE acceptance and behavioural change. The awareness and knowledge of the Malaysian consumers on RE can further be intensified

TABLE 10 Correlations of age, attitude and awareness with the willingness to pay for RE

Variables	Willingness to Pay for Renewable Energy			
variables	Correlation (r)	Sig. (2-tailed)		
Age	-0.286**	0.004		
Attitude towards Environmental Concern	0.113	0.265		
Renewable Energy Awareness	0.285**	0.004		

^{**} Correlation is significant at 0.01 level.

through a formulation of public education and campaigns that are especially focusing on the educated and the young, as they have been found to be more receptive of RE. Mass media channels, such as newspaper, television and radio, could be used to educate the public in general as they have also been found to be the most common sources of information on RE. Imparting of awareness and knowledge energy and environment at secondary school or tertiary levels should further be enhanced as it has been found to be an effective learning source.

There are other factors that have to be considered in enhancing adoption of RE besides influencing the socio-psychological factors of individuals, such as finance, policies and regulations. RE products and services generally cost more to purchase, and coupled with concern over the rising cost of living, will further thwart their adoption. The European governments have been successful in increasing the consumer demand for green power through implementation of appropriate legislations and incentives. They include, for example, liberalization of the electricity and gas markets and incentives for purchasing of RE products. Similarly, the government of Malaysia has also undertaken some initiatives in this direction, such as the recent exemption of tax on hybrid cars imported to the country. The government of Malaysia is also considering adopting an eco-point (cash-back) system similar to the Japanese, whereby cash coupons will be provided upon purchasing of energyefficient appliances. As indicated earlier, the products utilizing RE and energy efficient are more expensive than their competing products. As such, tax incentives and subsidies would give consumers incentives to purchase them. In addition, appropriate regulatory and infrastructures (availability and accessibility) have to be put in place so as to provide a conducive atmosphere for RE adoption. In so far as public education is concerned, several government bodies such as Standards and Industrial Research Institute of Malaysia (SIRIM), Energy Commission, Department of Environment and The Ministry of Domestic Trade, Cooperatives and Consumerism have collaborated with various other stake holders, such as consumer organizations and manufacturers in carrying out various initiatives to increase public awareness and adoption of energy efficient and RE products. Mass media channels such as newspaper, magazines, television and radio ought to increase their readiness to sponsor sustainable energy educational programmes as they are rather hesitant to do so (Y. Hafiza, pers. Comm.).

Meanwhile, scholars have recognized that modification of behaviour is a complex issue, whereby various other social-psychological factors interact but not in a predictable manner. It has been acknowledged that lifestyle decisions are seldom based on rational considerations of the facts only but they are influenced by the interaction of subjective factors such emotions, culture, norms, preferences, values, etc. These variables may be explored

in future studies so that RE intervention strategies can be adjusted to accommodate various segments of the society.

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Perceived Parental Warmth and Depression in Early Adolescents: Path Analysis on the Role of Self-esteem as a Mediator

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ABSTRACT

The prevalence of depression in Malaysia instigated the twofold objectives of the present study. First, the relationship between perceived parental warmth, self-esteem and depression was examined, followed by the exploration on the role of self-esteem as a mediator between perceived parental warmth and depression among early adolescents. The model for early adolescent's depression was guided by Beck's cognitive theory of depression and parental acceptance-rejection theory. A total of 1394 adolescents aged 13 to 15 years, who reported living with both married and biological parents, provided complete self-report data on the measures (Conger's subscale for parental warmth, Rosenberg Selfesteem Scale, Beck Depression Inventory for Malays) for the three observed variables (namely, perceived parental warmth, self-esteem and depression). In order to determine the role of self-esteem as a mediator, Pearson correlation was first conducted to ensure that the initial variable (perceived parental warmth) was related to the outcome (depression) and mediator (self-esteem) variable as suggested by Baron and Kenny (1986). Path analysis was then employed to establish the mediating effect of self-esteem. Results revealed that the data from the study fitted the model and that perceived parental warmth had an indirect effect on depression through self-esteem. Findings also revealed that self-esteem was a complete mediator in the relationship between perceived parental warmth and depression. Implications for the alternative approach in preventing depression were further discussed.

Keywords: Depression, early adolescent, mediator, perceived parental warmth, self-esteem

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INTRODUCTION

Depression is ranked fourth as the world most immobilizing illness (World Health Organization, 2010). About 9% of Malaysians suffer from major depression

that subsequently placed this mental health disorder as the fourth most immobilizing illness in the country (Malaysian Psychiatric Association, 2010). Depression has been reported to be high in prevalence among women and men, causing it to become a concern to mental health practitioners as well as policy makers (Malaysian Psychiatric Association, 2010). The impact of depression is detrimental to the psychological well-being of the people, including among early adolescents, which will bring adverse effects to a country's progress.

Early adolescence is a period of development when one will experience rapid physical and biological changes. It is a challenging period for adolescents having to adjust to those changes while at the same time, expected to turn out well. Yet, with puberty as the onset of early adolescence, studies on cognitive processes have postulated that adolescence is a period of increased vulnerability to risk taking and decision making (Furby & Beyth-Marom, 1992; Steinberg & Cauffman, 1996). Risktaking behaviour that includes suicide and self-harm is often due to depression rooted by risky perceptions and appraisals. Risky perceptions in the present study refer to adolescent's perception towards parental warmth and risky appraisals refer to low self-esteem.

THEORETICAL FRAMEWORK

In his theory, Beck noted that depression is the result of negative thoughts (Beck & Alford, 2009), which are shaped by

dysfunctional belief system from early experiences. Earlier in his research, he emphasized on the domination of three possible belief themes that are dysfunctional: (1) I am defective or inadequate; (2) all of my experiences result in defeats or failures, and (3) the future is hopeless. Beck (1967, 1976) additionally posited that depression is caused by the negative cognitive triad consisting of negative beliefs regarding the self, the world and the future. He asserted that the negative views of self increase negative feelings that promote sense of failure or loss, which emphasizes the defectiveness of inadequacy belief theme. Furthermore, research on the triad by Simons and Miller (1987) suggested that the only element of the triad related to depression in adolescents is negative selfregard. Their findings supported Beck's (1967, 1974) earlier claim that disapproval of self is the core factor of depression.

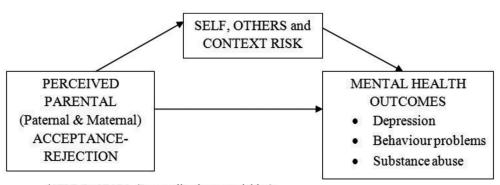
Against this theoretical background, the present study was also guided by the parental acceptance-rejection theory, known as PARTheory (Rohner et al., 2009). Parental acceptance and rejection forms the warmth dimension of parenting refers to the quality of the affectional bond between parents and their child. One end of the dimension is characterized by parental acceptance and the other end is characterized by parental rejection. As an evidence-based theory, it attempts to answer five classes of questions that can be divided into three sub-theories, which are the personality sub-theory, coping sub-theory and sociocultural systems subtheory. For the personality sub-theory,

predicting and explaining psychological consequences of parental acceptance and rejection are attempted because of the need for positive response. The lack of parental warmth (negative response), however, is likely to develop negative self-esteem, an element in the mental representations of rejected persons. In addition to that effect, the sub-theory suggests that mental health issues, such as depression, are likely to be a universal correlate of perceived parental rejection. Thus, a mediation model (Rohner, 2005), as shown in Fig.1, was produced to explain the relationship between parental

warmth and mental health outcomes. The model proposes that mental health outcome (depression) is motivated by external (perceived parental warmth) and internal (self-esteem) factors.

LITERATURE REVIEW

In relation to the warmth dimension of parenting, past research often examined various aspects or dimensions of parenting in explaining adolescent's outcome. The dimensions are often divided into two; parental support and control (Bean, Barber, & Crane, 2006), parental acceptance and



- *SELF FACTORS (Personality theory variables)
- COGNITIVE, i.e., mental representations (internal working models) including negative worldview
- · AFFECTIVE, e.g., anger; negative feelings about self
- BEHAVIOURAL, e.g., aggression

*OTHERS

- · Affiliation with deviant peers
- · Troubled interpersonal relationships, and
- Others

*CONTEXT

- School problems
- Involvement in "drug culture", and
- others

Fig.1: Mediation model of the relationship between parental (paternal and maternal) acceptance-rejection and mental health outcomes.

rejection (Rohner, 2005), or parental responsiveness and demandingness (Simons & Conger, 2006). The former dimension refers to the emotional aspect of parenting, while the latter refers to the behavioural aspect. Studies (Bean *et al.*, 2006; Mason *et al.*, 1996) have revealed that the behavioural aspect of parenting is frequently associated with adolescent's behavioural problems, while the emotional aspect of parenting is associated with adolescent's emotional problems.

Although Barber et al. (2004) suggested that individual contributions of each dimension should not be examined in isolation, while significant contributions of the emotional aspect of parenting on self-esteem and depression have constantly been revealed in past studies. In a pilot study among university students in Taiwan (Restifo et al., 2009), parental care in reference to parent's affection, emotional warmth, empathy and closeness revealed a stronger link to self-esteem and depression compared to parental overprotection. In another study by McPherson (2004), parental care had the highest predictive value in a model linking parental care, monitoring and authoritative parenting to depression, which had a 5% of variance explained for the model. Therefore, the emotional aspect of parenting seems to be contributive to self-esteem and depression.

Studies examining parenting by two individuals (father and mother), rather than one individual (father or mother) to predict self-esteem and depression, are still limited in the literature. When parents

are the study interest by researchers, they utilized individual scores of mother and father. Yet, when Bean and colleagues (2006) examined maternal and paternal support individually within the same model to explain youth behaviours, the findings revealed that maternal and paternal supports were significantly correlated. Thus, parents consist of two individuals instead of an individual, who holds a relatively long-term primary caregiving for a child (Rohner, 2005). Thus, it is no doubt that in a two-parent family, parents consist of either both biological parents or one biological parent and one step-parent.

With regards to the role of self-esteem, DuBois and Hirsch (2000) suggested that self-esteem plays a secondary or supporting role. According to Butler (as cited in Siyez, 2008), self-esteem influences certain behaviours during the development confusion of adolescent. Past research by Openshaw et al. (1984) concluded that adolescents' self-esteem was a reflected appraisal of the parents rather than a modelling outcome of their parents' selfesteem. Thus, self-esteem functions as a mediator in the link between parental warmth and depression. Nonetheless, inconsistency in terms of the role of selfesteem between perceived parental warmth and depression as a partial or complete mediator does exist. In a model linking maternal acceptance, psychological control, firm control to depression (Garber et al., 1997), the relationship between maternal acceptance and depression were partially mediated by the child's self-worth. In contrast, Liu (2003) revealed that selfesteem was a complete mediator in the relationship between parental care and depressive symptoms.

OBJECTIVES OF THE STUDY

The present study comprised two objectives. First, the study aimed to examine the relationships between perceived parental warmth, self-esteem and depression. Perceived parental warmth and selfesteem were hypothesized to be negatively correlated with depression, while perceived parental warmth was hypothesized to be positively correlated with self-esteem. Secondly, the study aimed to explore the role of self-esteem as a mediator between the perceived parental warmth and depression. Self-esteem was hypothesized to be a complete mediator in the relationship between perceived parental warmth and depression. Thus, Fig.2 demonstrates the baseline model of early adolescent's depression linking perceived parental warmth, self-esteem and depression.

METHOD

Sampling Procedures and Sample

Data for the present study were a subset of a nation-wide study on parenting behaviour and the well-being of adolescents in Malaysia. This cross-sectional survey comprised of Form 1, Form 2 and Form 4 students who were attending daily schools in 2010 from five selected states (Kelantan, Melaka, Penang, Sabah, and Selangor). The original survey employed a multistage design, specifically the probability proportional to size (PPS) sampling technique at three stages with a cluster size of 40 students. Stages identified were locality, state and district level that resulted in a total of 73 secondary schools selected, and a total of 2934 students for the study. The survey was conducted by trained enumerators between April and May of 2010.

Given that the focus of this study was on early adolescents, Form 4 students were excluded in the present study. To focus on a particular family structure, which is a two-parent family, only Form 1 and Form 2 students living with both biological parents who are still married were included in the

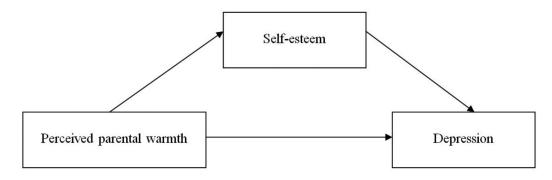


Fig.2: Model of early adolescent's depression.

present study. Approximately 1605 (54.7%) students from the nation-wide data set were eligible for further analyses.

Measures and Translation

Translation. Original scales in the English version were translated by the research team and experts in the field of family and parenting ecology. A forward-backward procedure was used to translate the scales into Malay. In the procedure, two panels of translators were involved, in which the first panel translated the English version into Malay and the second panel retranslated it into English. The two versions were then reviewed by an expert team and adaptation was made for effective communication to the sample.

Depression. The presence of depression was assessed based on the 20-item of the Beck's Depression Inventory for Malays (BDI-M), that was translated and validated by Mukhtar and Oei (2008). One item from the original 21 item Beck Depression Inventory was discarded in the BDI-M due to the cultural and religious perspective held by Malaysians. The respondents were to read a series of four evaluative statements for each item and to select one statement being the most accurate description of their feelings during the past week, including the day of the data collection. The sample items included were sadness, past failure, self-criticism and indecisive. Summative scores ranging from 0 to 60 were used as the observed variable for depression, in which higher scores indicated higher level of depression.

Self-esteem. The Rosenberg Self-esteem Scale (1965) was used to assess the level of self-esteem. The respondents were to read a list of ten statements dealing with their feelings about themselves and to select the most accurate response on a four-point Likert scale ranging from 1 "strongly disagree" to 4 "strongly agree". The sample items included were 'On the whole, I am satisfied with myself' and 'I take a positive attitude towards myself.' Five items were reverse coded as instructed by Rosenberg (1965). The summative scores ranging from 10 to 40 were used as the observed variable for self-esteem, in which higher scores indicated higher level of self-esteem.

Perceived parental warmth. Respondents gave their perceptions of parental warmth on a four-item scale for fathers and mothers, respectively [developed by Conger (2004) for the Iowa Youth and Families Project]. Each item was responded on a scale ranging from 1 "never" to 7 "always". The sample items included were 'How often do your parents let you know that he/she cares about you' and 'How often do your parents let you know he/she appreciates you, your ideas or the things you do?' The summative scores ranging from 8 to 56 were used as the observed variable for the perceived parental warmth, in which higher scores indicated higher level of parental warmth.

Data Analysis

Listwise deletion procedure was used to eliminate missing data on the measurement scales. A total of 1394 data were retained for further analysis and sufficient for a simple three variable mediation model (Hoyle & Kenny, 1999). Thus, the sample after deletion consisted of 44.8% male and 55.2% female adolescents (with an average of 13.4 years) who reported living with both married and biological parents. The average age for fathers and mothers were 46.45 and 42.25, respectively. The majority of the fathers (28.1%) and mothers (31.1%) attained upper secondary school of formal education. The average monthly income for both parents was RM 1739.58.

According to Baron and Kenny (1986), there are four steps involved in establishing mediation, as follows:

- Step 1: Show that the initial variable is correlated with the outcome.
- Step 2: Show that the initial variable is correlated with the mediator.
- Step 3: Show that the mediator affects the outcome variable by controlling the initial variable.
- Step 4: To establish a complete mediation, the effect of the initial variable on the outcome variable controlling for the mediator should be zero.

However, James and Brett (1984) rationalized that if there is a complete mediation, step 3 should be modified by not controlling the initial variable. Therefore, Pearson correlation was used to meet steps 1 and 2, while path analysis was employed to meet steps 3 and 4. The version 18 of both SPSS and AMOS were used in the analytical data process.

For the path analysis, the AMOS modelfitting programme adopted the maximum likelihood estimation to generate the model since each observed variable met the normality assumption by obtaining a value below absolute 2 and 7 for skewness and kurtosis, respectively (Curran et al., 1997). The direct path from the perceived parental warmth to depression was fixed to zero so as to meet step 3. For self-esteem to be considered as a complete mediator, the direct path from the perceived parental warmth to depression had to be insignificant when the path was freed. In order to evaluate the goodness of fit for the model of early adolescent's depression, the root mean square error of approximation (RMSEA) with a cut-off value of less than .06 and the comparative fit index (CFI) with a cut-off value of .95 or above was reported to be considered as a good fit (Hu & Bentler, 1999). The chi-square statistic was not reported due to its sensitivity to large sample sizes (Hox & Bechger, 1998; Kline, 2005; Schreiber, 2008).

RESULTS

Relationships between Perceived Parental Warmth, Self-esteem and Depression

Table 1 indicates that the relationships between perceived parental warmth, self-esteem and depression were statistically significant at .01 level. Based on the general accepted rule of thumb (Tabachnick & Fidell, 2001), all the correlations were below .70. As hypothesized, perceived parental warmth was positively correlated

with self-esteem. In relation to depression, perceived parental warmth was negatively weak, while self-esteem had a stronger negative relationship. Hence, steps 1 and step 2 to establish mediation were met since the initial variable (perceived parental warmth) was correlated with the outcome (depression) and the mediator (self-esteem).

The Role of Self-esteem as a Mediator

When the direct path from the perceived parental warmth to depression was fixed to zero, the data were found to be acceptably fit to the model (RMSEA = .055; CFI = .990; p = .023), as shown in Fig.3. The squared multiple correlation (R²) for self-esteem and depression was .08 and .20, respectively. The values indicated that about 8% of the variability in adolescents' self-esteem could be explained by perceived parental warmth, while self-esteem could explain 1/5 of the variability in adolescents' depression.

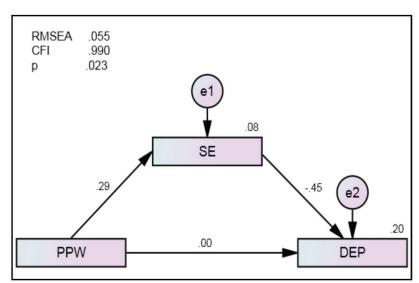
Table 2 summarizes the standardized direct and indirect effects of perceived parental warmth, self-esteem and depression. The direct effect of self-esteem to depression

TABLE 1 Intercorrelations between perceived parental warmth, self-esteem and depression

	M	SD	1	2	3
1. Perceived parental warmth	42.31	8.44	(.86)		
2. Self-esteem	28.62	3.96	.288**	(.67)	
3. Depression	10.83	8.04	181**	446**	(.86)

Figures in parentheses are coefficient alpha.

^{**} p < .01.



Note: PPW = perceived parental warmth, SE = self-esteem, DEP = depression

Fig.3: Standardized path for the model of early adolescent's depression.

without controlling for perceived parental warmth met the requirement in step 3 to establish mediation. Thus, the indirect effect from perceived parental warmth to depression through self-esteem was a negative effect.

When the path from perceived parental warmth to depression was freed, a saturated model was generated. As mentioned earlier, for self-esteem to be a complete mediator, the direct path from perceived parental warmth to depression has to be insignificant. The results revealed that the path had an estimate of -.054, with p = .022. Thus, self-esteem is a complete mediator in the relationship between perceived parental warmth and depression.

DISCUSSION

The purpose of the present study was to examine the relationships between perceived parental warmth, self-esteem and depression. Additionally, the study explored the role of self-esteem as a mediator between perceived parental warmth and depression.

Correlational findings revealed that perceived parental warmth, self-esteem and depression were significantly related with each other. The findings support that parental warmth is closely linked to self-esteem and depression (Restifo *et al.*,

2009). The negative relationship between perceived parental warmth and self-esteem with depression emphasizes the fact that adolescents who lack of parental warmth and have low self-esteem will have higher tendency to experience depression. In addition, the positive relationship between perceived parental warmth and self-esteem indicated that adolescents who perceived their parents to respond positively will develop high self-esteem.

Even though self-esteem has been suggested to play a supporting role, it is of equal importance for early adolescents who perceive their parents to be lacking in parental warmth. Although the study conducted by Garber et al. (1997) indicated self-worth to partially mediate the relations between maternal acceptance and depression, the present study investigated on both maternal and parental warmth. The findings from this study suggest that paternal warmth is essential in the emotional development of early adolescents. This suggestion is consistent with the finding of Bean et al. (2006) who found a significant direct path from paternal support to depression, while the direct path for maternal support was insignificant.

With regards to the theoretical framework, the findings in the study

TABLE 2 Standardized effects of adolescent's self-esteem and depression

Outcome	Determinant	Direct	Indirect
Depression	Perceived parental warmth	-	129
	Self-esteem	446	-
Self-esteem	Perceived parental warmth	.288	-

support Beck's (1967, 1974) notion that disapproval of self is the core factor of depression. Self-esteem was found to be strongly related to depression and it has the strongest direct effect in the mediation model. The indirect effect of perceived parental warmth to depression through selfesteem also supported the mediation model produced in PARTheory. These findings indicate that depression is motivated by perceived parental warmth and self-esteem. Furthermore, 20% of variance explained for depression indicated the important roles of perceived parental warmth and self-esteem in the development of depression among early adolescents.

CONCLUSION

As a summary, depression is one of the common mental health disorders and it has become a concern to the mental health professionals as well as policy makers. Nonetheless, the pathway to depression remains unclear in Malaysia. Thus, based on the findings from the present study, it is evident that perceived parental warmth and self-esteem are factors contributing to depression among early adolescents. For early adolescents, developing their self-esteem was found to be important in avoiding depression. Their self-esteem can be encouraged by parents though expressing adequate parental warmth. Yet, for those who lack parental warmth, selfesteem indeed plays the role of buffering the negative consequences of depression. Therefore, mental health practitioners and policy makers should create awareness on

the importance of self-esteem to individuals and parents in preventing depression.

Another discovery to be highlighted in the present study is the examination of parenting by two individuals (father and mother). Hence, when researchers examine parenting in a two-parent family, they should consider both parents instead of one. The effect of one parent in a two-parent family on adolescent's development may be biased in terms of adolescents choosing sides between their father and mother. If a mother is the primary caregiver in the family, then adolescents would perceive their father to be lacking of warmth, and vice versa. Therefore, the cooperation of parenting between father and mother is essential to develop adolescent's self-esteem and to avoid the development of depression among early adolescents.

IMPLICATIONS

Although cognitive behavioural therapy is a common approach in treating depression, self-learned emotional regulation strategies such as cognitive reappraisal can be taught to adolescents in school. Cognitive reappraisal refers to the modification of thoughts in a situation (Gross & John, 2003). As revealed in the study on the influence of perceived parental warmth to depression, adolescents who perceived themselves as lacking parental warmth could be taught to modify their perception towards the situation from the thought of not being a worthy individual to the thought that lacking parental warmth does not devalue their sense of worth. Thus, mental health

professionals can formulate a training programme for adolescents to modify their dysfunctional thoughts, which would reduce the vulnerability of experiencing depression as well as increasing their self-esteem.

LIMITATIONS AND RECOMMENDATIONS

Several limitations were identified in the present study. First, various dimensions of self-esteem were not taken into account when determining the role of self-esteem as a mediator. For instance, Openshaw et al. (1984) suggested that the influences of parental support on the various dimensions of self-esteem would differ. Ang et al. (2006) also noted that the unidimensionality of self-esteem might not be applicable in an Asian school-based sample. Meanwhile, findings from the Youth in Transition study (Owens, 1994) supported the notion that a bidimensional construct of self-esteem should be encouraged in self-esteem studies. Hence, future research examining the role of self-esteem should include the different elements of self-esteem.

Another limitation worth noting is the unexplored differences on depression and the model of early adolescent's depression between females and males. It is clear that the pathway to depression differs between females and males (Nolen-Hoeksema, 2001). Their way of coping with the lack of parental warmth also differs in such a way that females tend to be more emotional (Operario, Tschann, Flores, & Bridges, 2006), while males tend to be more behavioural. Thus, cross-sample attenuation

is encouraged to extend the exploration of gender differences in the pathway to depression.

Finally, it is important to mention the limitation of self-reported data. Parental warmth was a perceived construct in the present study which might have neglected the obvious truth of the actual parenting. Although children's report has been proven more valid than parent's report (Gonzales et al., 1996), some studies have revealed that adolescents tend to assess on certain family characteristics negatively compared to their parents (Ohannessian et al., 2000). This negative perception on parental warmth may have inflated the insignificant direct effect from perceived parental warmth to depression. Therefore, future studies should include an inter-rater assessment to capture actual parenting.

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Profiles of Malaysian Malay Standard Accent and Identity Values

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ABSTRACT

This paper discusses the profiles of the standard accent of Malay language in Malaysia. The discussions are linked with the issues of identity and integration values. For this purpose, five phonological variables which had been identified as relevant in these regards were chosen and analysed, namely, the final syllable open-ended vowel (a) such as in saya 'I', the final syllable close-ended vowel (i) such as in bilik 'room' and (u) such as in duduk 'sit', the initial (r) such as in rumah 'home', and the post-vocalic (r) such as in pasar 'market'. The pronunciation of these variables by the informants in four formal speech styles, which had been specially designed, was recorded. A total of 125 informants from four cities were involved in this study. The profile of accent was examined from five social variables. These include the informants' socio-economic status, gender, age, geographical location and native or non-native speaker factor. The study reveals that the notion of the national standard accent of Malaysian Malay - at some point - has been demonstrated by the informants and this is applicable through all the five social variables, within two patterns of phonological variables. Firstly, the phonological variables of (i), (u), and $(r)_1$ were used prominently as standard accent, and secondly, (a) and (r)₂ were used alternately between the standard and non-standard accents. The findings illustrate the existence and the growth of national identity and integration values, where the informants were able to accommodate their accent to the standard variation in the formal context of the study. In this sense, they are also inclined to identify themselves more with the national identity as compared to the local identity.

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INTRODUCTION

The language spoken by someone and his/ her identity as a speaker of a language is inseparable. According to Crystal (2003), "language is seen as the primary outward sign of a group's identity" (p. 34), and language signals who we are and where we belong to, in terms of age, sex, social status, personality, intelligence, social group, geographical, nationality, contextual background, etc. For Le Page and Tabouret-Keller (in Tabouret-Keller, 1997), language acts are perceived as acts of identity. Furthermore, according to Tabouret-Keller (1997), features of the language are the link which binds individual and social identities simultaneously. The features imply the whole range of language use, from phonetic to lexical units, syntactic structures, and even in personal names. This notion implies that the relationship between language and identity is often very strong even though with a single phonemic feature; for instance, we can include and exclude someone to or from any social group (Tabouret-Keller, 1997).

Hence, from the linguistic point of view, there is a social meaning for phonological aspects, especially in relation to integration and identity of a language community (cf. Honey, 1997). Montgomery (1995, p. 64) asserts that variations in pronunciation can become powerful indicators of regional identity and affiliation. Meanwhile, differences in the patterns of variation caused by geographical or spatial isolation are regularly transformed into powerful mechanisms for asserting and recognizing

social differences (Spolsky, 1998). Furthermore, in the case of English for example, post-vocalic (r), such as in car and fourth is capable of implying social significance. In this context, there are two variants of (r) - pronounced or silent. In Scotland, Ireland, Boston, New York, and eastern USA, pronounced (r) is a standard prestige accent and implies the integration and identity of English speakers of those regions (Holmes, 2001). Besides that, there are also accent² differences between British, USA, and Australian English. The different accents show the identity and simultaneously imply the national integration of the respective nations. In line with that, Coupland and Bishop (2007) found that British's accent-types associated with 'standard' speech are strongly favoured in the prestige and attractiveness dimensions.

In a broader sense, language is apparently an effective instrument as a symbol of national identity and integration within a multi-racial nation and between separated geographical locations of a country. Crystal (2003, p. 34) asserts that "the most widely encountered symbol of emerging nationhood is language". In the context of Malaysia as a multi-racial country³, the Malay language (bahasa Melayu), which is the national and official language of the country, plays the above-mentioned role. Meanwhile, in the dimension of regional differences, Malay language acts as an integrating device between the people of the Malay Peninsula with Sabah and Sarawak states in Borneo⁴. The Malay language was implemented as the national and official language of Malaysia on September 1st, 1967 for the Malay Peninsula, 1973 for Sabah, and 1985 for Sarawak state (Salleh, 1993). Prior to that, English was the national and official language of the nation. However, in the implementation, neither pronunciation nor phonological matters was taken into consideration.

For Malaysia, pronunciation, specifically accent, can also be a symbol for national identity and integration⁵. This is due to the fact that the Malay language is not just spoken in Malaysia, but also in Indonesia (known as Bahasa Indonesia), Brunei, Singapore, and southern Thailand, but with different accents. The accents of the Malaysian Malay language among speakers who are separated by different regions and comprised multi-lingual and multi-dialectal society background could change if they take into account the issues of integration and national identity when conversing in a formal situation. In sociolinguistics, this phenomenon is termed as 'speech accommodation,' that is, using the same pronunciation as a way of showing identicalness (Holmes, 2001; Downes, 1998; Giles, 1984). For instance, based on our current observation, and when interviewed by the national electronic media, the Federal Ministers as well as singers from Sabah and Sarawak in Borneo were found to be trying to accommodate their Malay language accent to the standard Malay Peninsula language, which has the national features. In addition, Aman and Mustaffa (2009) found that a majority of informants (male, higher SES, younger age group) in Kuching, Sarawak, are accommodative to the national standard accent when they interact in a formal context. These are early signs of their awareness towards the national identity.

This article is an attempt to seek answers concerning the profile of the national Malaysian Malay accents and its inter-relation with identity values. In more specific, the first aim was to obtain a usage level of the standard accent for five phonological variables in accordance to the five non-linguistic variables, namely, socioeconomic status (SES), gender, age, native/non-native, and regional. Simultaneously from such figures, a discussion was carried out to see their links with identity values of the respective non-linguistic variables. A general comment on the national identity was also made.

Malaysian Malay National Accent

The standard Malay accent as a Malaysian national language in this article is the accent that is normally spoken in the formal official government broadcasting agency - Radio Television Malaysia (RTM) national news programme, governmental official meetings, as well as in national schools and higher learning institutions. According to Omar (1992), the standard Malay language is based on the Johor-Riau dialect [which covers the southern of Malay Peninsula areas like Johor, Singapore, Riau islands (in Indonesia), Melaka, Selangor, and up to Ipoh in Perak with minimum phonological differences] which had emerged incidental in nature and "become the model of correct and prestigious usage without so much as a discussion or asking for a consensus from speakers" (p. 206). She also asserts that the southern style of pronunciation has become the norm for RTM even at the branch stations in northern states, Sabah and Sarawak and has a variety of uses in schools and in official functions.

In the case of Malaysian Malay language, the phonological variables which play a significant role in the issue of identity and potent as an integration function among their multilingual society are: open-ended (a), such as in saya 'I', close-ended (i), such as in bilik 'room', close-ended (u), such as in duduk 'sit', initial (r) such as in rasa 'feel', and post-vocalic (r) such as in lebar 'wide' (cf Aman, 1995; Omar, 1985). In a formal context, these variables are pronounced as the standard national accent, such as [sayə], [bile/], [dudo/], [rasə], and [lebar] respectively. The pronunciation reflects the Malaysian identity, which differs from the speakers of the Malay language of other countries, such as Indonesia or Brunei. Thus, the standard pronunciation of Malaysian Malay could be a manifestation of the national identity of its people. Nevertheless, there are also variations in pronunciation of those phonological variables in the daily use of the language, depending on the geographical location, local dialect (cf. Omar 1977), and race. So, there is [saya], [bilik], [duduk], [Fasa], and [leba], [lebaw] or [leb].

In the specific case of post-vocalic (r), it is worth providing a further explanation. Although in general, the national standard accent is based on Johor-Riau Malay dialect, as stated by Omar (1992), according to Onn (1980, p. 16) in Johor Malay local dialect, post-vocalic (r) is regularly omitted or realized as a non-trilled [ř], but in this article, we believe that based on a period of time and the impact of numerous factors such as modern education, Kuala Lumpur as a new political and administrative centralisation, and media (cf. Omar, 2004), there would be an accommodation in pronunciation among the speakers. This view is concord with Omar (1992, p. 219) who stated that "a standard language usually has as its basis a regional dialect, but in its evolution it tends to show developments which diverge from the base dialect from which it grows" and this is happening to the standard Malay, where it is now lacking in many of the features of Johor-Riau dialect (Omar 2004, p. 121)⁶. In the specific case of post-vocalic (r), Omar (1985, p. 139) stated

TABLE 1 Standard and Non-Standard Accents of Malaysian Malay

Phonological Variables	Standard Accents	E.g. Non-Standard Accents
(a) open-ended: saya 'I'	/ə/ — [sayə]	/a/, / / - [saya], [say]
(i) close-ended: bilik 'room'	/e/ – [bile/]	/i/ - [bilik]
(u) close-ended: duduk 'sit'	/o/ – [dudo/]	/u/ - [duduk]
(r) ₁ initial: rumah 'home'	/r/-[rumah]	/Ф/ - [Фumah]
(r) ₂ rhotic: pasar 'market'	/r/ – [pasar]	/ø/, / / - [pasa]; [pas]

that there were tendencies for the final (r) to be pronounced as a fricative velar among RTM newscasters. In other words, postvocalic (r) is increasing to be pronounced [r] slightly. Based on that argument, therefore in this article, our stand is to categorise the [r] as the standard variation (see also Table 1).

The Malay Accent Research

This study is on the accent of Malaysian Malay. The framework used is a combination of the sub-discipline of sociolinguistics and phonology, or so-called socio-phonology. This socio-phonological study is considered relevant because it is more practical (Milroy, 1987a) and is able to show a considerable rate of linguistic differences (Omar, 1985; Holmes, 2001). In fact, language accommodation takes place more often in phonology (Omar, 2004, p. 134). Since the study was also to examine the issue of integration and identity, it would investigate the link between linguistic (phonological), style of speech, and social variables as well. It focused on the questions of 'convergent' and 'divergent' in pronunciation. This study is based on the sociological urban sociolinguistics approach which was pioneered by Labov in New York City (Labov, 1972), and later by Trudgill in Norwich (Trudgill, 1974) and Milroy in Belfast (Milroy, 1987b). Details of the research design are as follows.

Phonological Variables

Based on the previous literature on this matter (cf Aman, 1995; Omar, 1985),

there are five (5) phonological variables which have been identified as suitable and appropriate to be analyzed and tested. These include the final syllable open-ended vowel (a) such as in saya 'I', the final syllable close-ended vowel (i) such as ini bilik 'room' and the close-ended vowel (u) such as in duduk 'sit', the initial consonant (r) or (r)₁ such as in *rumah* 'home', and (r) in the final position word (rhotic) or (r)₂ such as in pasar 'market'. Following Omar (1985), of the five phonological variables, two are the most significant in relation to the accent and identity concerns, namely, (a) and $(r)_2$. There is a variance in terms of pronunciation. In the context of this study, accent for the five phonological variables is categorized into two variations - the national/ standard accent (S) and the local or non-standard accent (NS). These five phonological variables were used to test on the informants' pronunciation through four (4) speech styles (see below).

Speech Styles

This study was conducted in a formal context of situation. Being formal, it means recordings were carried out in a situation where the researchers and informants were total strangers. In order to elicit the usage of the five phonological variables, four different styles of formal speech were designed, namely, reading Word List Style (WLS), reading Passage Style (PS), Conversation Style (CS), and Story-Telling Style (STS). These four speech styles differ in their degree of formality (cf. Trudgill, 1974), with WLS being the most formal and

STS the least formal (most casual). WLS and PS involved the reading of a text, and were also considered as 'text style' whereas CS and STS were considered as 'non-text style'. WLS requires the informants to read a list of words prepared by the researchers. CS involves an interview between the informants and the researchers. Among the questions revolved were about themselves, the weather, and views on their hometown. Meanwhile, STS involves the informants to relate events about their past, be it pleasant or bad, or their plans for a better city given the chance to be a mayor, with minimum interruption from the researcher. Labov and Waletzky (1997) named this type of language style as Personal Experience Narrative (PEN). Both CS and STS are still considered as formal styles because the recordings were carried out in a situation where the researchers and informants were total strangers (see Appendix).

The occurrences of the phonological variables for WLS and PS were predetermined, but not for CS and STS as they were subjected to their emergence in the informants' utterances. In WLS, variables (a), (i), (u), (r)₁, and (r)₂ occurred 8 times respectively for every informant. For PS, (a) variable occurred 19 times, (i) 5 times, (u) 10 times, (r)₁ 9 times, and (r)₂ 5 times.

Social Variables

The social or non-linguistic variables taken into consideration in this study are gender, age, socio-economic status (SES), native or non-native speaker (so-called

'nativization'), and regional differences factor (so-called 'regionalization') of the informants. These social variables are the specific identity concerned in this study. Age was further categorized into adolescent (15-25 years old), early adulthood (26-40 years old), adult (41-55 years old), and elderly (56 years old and above) (Wikipedia.org). SES was determined by a combination of the level of education, income, and the type of job indices of informants (cf. Trudgill, 1974). Native informant refers to Malay speakers, while the non-native refers to the non-Malay speakers (mainly of Chinese and Indian origins). Regional differences refer to the two regions that form Malaysia, which are the Malay Peninsula and Sabah and Sarawak states in Borneo Island.

Site of the Study

In order to meet the objectives of the study, four main cities were targeted. These were Melaka (the capital state of Melaka), Kota Bharu (the capital state of Kelantan), Kuching (the capital state of Sarawak), and Kota Kinabalu (the capital state of Sabah). Melaka and Kota Bharu were chosen to represent the Malay Peninsula, while Kuching and Kota Kinabalu represented Borneo for the regional differences variable. Melaka was also chosen to represent a majority area of the non-native speakers of Malay, while Kota Bharu was chosen to represent the minority one. Meanwhile, Kota Bharu, Kuching, and Kota Kinabalu coincided with the native speaker variable factor. One of the apparent local features of pronunciation for the native speakers in Kota Bharu is open-ended (a) is pronounced [], meanwhile, speakers in Kuching and Kota Kinabalu pronounce it as [a] (Omar, 1985).

In this study, the choice for city dwellers was based on the fact that they have undergone socio-cultural and linguistic changes earlier related to development. In addition, city dwellers in this country have increased to 65 percent. This figure is based on the statistics from the Ministry of Rural and Territorial Development, which stated that rural dwellers formed only 35 percent of the population in 2005 (Mingguan Malaysia, 25 March 2007). Thus, focusing on the city dwellers was deemed to be appropriate for this study in order to reveal and discuss the national accent of this particular dynamic group of people. With the diversity in the features and the consideration taken up, it was hoped that the profile of the standard accent could be obtained.

Informants

The data for this national accent study were elicited by the actual use of language among informants, using the different speech style frameworks as mentioned earlier. The language data were gathered from complex features of informants. In other words, the informants selected must be of various socio-economic backgrounds, from both genders, from young to old age (15 – 56+ years old) and from two geographical regions of Malaysia (Malay Peninsula and Sabah & Sarawak in Borneo). Besides that, the native or non-native speaker factor was

also taken into consideration in this study.

A total of 125 informants from the four cities who matched the criteria stated above were interviewed. Sixty percent or 75 of the informants were males and 40 percent (50 informants) were females. The distribution according to age group showed that four age groups were present in the study. Ten percent (13 informants) belonged to the adolescent group (15-25 years old), 35 percent (44 informants) were in their early adulthood (26-40 years old), 42 percent (52 informants) belonged to the adult group (41-55 years old) and 13 percent (16 informants) were those of the elderly group (56 years old and above). From the regional dimension, 60 percent (75 informants) were from the Malay Peninsula and 40 percent (50 informants) were from the Sabah-Sarawak states of Borneo. Seventy-five informants or 60 percent were represented by the native speakers and 50 informants or 40 percent were represented by the non-native speakers. From the scores of the three SES items, the informants were grouped into four categories, namely, middle-lower group (MLG), upper-lower group (ULG), lowermiddle group (LMG), and middle-middle group (MMG). In other words, the lowest SES group obtained in the study was MLG, whereas the highest group was MMG. The distribution according to the SES group was fairly reasonable with MLG at 17 percent, ULG 37 percent, and both LMG and MMG with 23 percent, respectively. Information on the informants is shown in Table 2.

TABLE 2
Demographic Characteristics of the Informants

Non-linguistic Variables	n	%	
Gender			
Male	75	60	
Female	50	40	
SES Group			
MLG - (Middle Lower Group)	21	17	
ULW - (Upper Lower Group)	46	37	
LMG - (Lower Middle Group)	29	23	
MMG - (Middle Middle Group)	29	23	
Age Group			
1 - (15-25 years old)	13	10	
2 - (26-40 years old)	44	35	
3 - (41-55 years old)	52	42	
4 - (56 + years old)	16	13	
Native			
N - Native informant	75	60	
NN - Non-native	50	40	
Region			
MP - Malay Peninsula	75	60	
SS - Sabah and Sarawak state in Borneo	50	40	
N	125	100	

RESEARCH PROCEDURES

This study involved direct audio recordings of the informants' speeches in the four styles, which had specially been designed. The recordings and the fieldwork were carried out by the researchers themselves. The recordings were then listened to with the assistance of two linguistics post-graduate students who had been trained to identify and capture the pronunciation variations of the five (5) phonological variables to note the frequency of their occurrences, and also to record them. The listeners only needed to identify all the phonemes, i.e. whether they were pronounced as the standard or the non-standard variant. The raw data gathered were then analyzed using a coding form, which had specifically been designed for

the purpose of this analysis. The frequency of accent occurrence (standard accent or the non-standard accent) in the four styles was also converted into percentages. A mean of percentage value for every non-linguistic variable and their sub-segment was also calculated. Personal details and SES of the informants were transferred to a coding form. The informants were categorized into groups based on the SES scores, age group, and gender.

The occurrences of the phonological variables for CS and STS were not fixed but subjected to their emergence in the informants' utterances. For STS, the researcher prompted the informants to speak by asking them relevant questions about themselves and their opinions about the

city. For STS, the researchers motivated the informants to tell a story about their past experiences; pleasant or bad (Labov, 1972), with minimum interruption from the researcher.

The number and the criteria of the informants stated earlier on were reasonable and reliable because based on the research methodology carried out, 125 informants in this study uttered the phonological variable (a) 7227 times, (i) 3025 times, (u) 3547 times, $(r)_1$ 2478 times, and $(r)_2$ 2246 times (refer to Table 3). Besides that, those phonological variables were uttered in the four ranges of speech styles, as mentioned above. The complexity of the informant's criteria, the high occurrences of phonological variables within the four speech styles designed are believed to be adequate factors to depict the reality of the accent used and its relationship with identity and integration values.

FINDINGS AND DISCUSSION

Profiles of Malaysian Malay National Accent and Identity Values

From the formal context of this study, in overall, it was deduced that the notion of the national standard accent of Malaysian Malay, at some point, had been demonstrated, of which a majority of the informants were found to use more of the standard accent as compared to the non-standard accent for the sum of five phonological variables. The mean score for the five phonological variables shows that the standard accent used is 71.4 points; while the non-standard used is only 28.6 points (see Table 3). The findings also implied that the majority of the informants had automatically adjusted their pronunciation into the national standard accent whenever speaking in this formal context of interview.

Nevertheless, in the profiles (Table 3), three out of the five phonological variables

TABLE 3
Profiles of Malaysian Malay Language Accents According to Five Phonological Variables

	PHONOLOGICAL VARIABLES								
ACCENTS	Stat.	Open-ended (a)	Close-ended (i)	Close-ended (u)	Initial (r) ₁	Final (r) ₂	Mean		
Standard	f	[↔] 3568	[e] 2729	[o] 3204	[r] 2168	[r] 918	12587		
(S)	%	49	90	90	87	41	71.4		
Non-Standard	f	[a] 3659	[i] 296	[u] 343	[Φ] 310	[O] 1328	5936		
(NS)	%	51	10	10	13	59	28.6		
TOTAL	f	7227	3025	3547	2478	2246			

were found to be used more saliently as the standard accent. They are (i), (u), and $(r)_1$. The standard accent for (i) is [e], (u) is [o], and $(r)_1$ is [r]. The analysis from each of the phonological variables showed that (i), (u), and (r)₁ were used profoundly as the standard accent with the score of between 87-90 percent. Specifically, variables (i) and (u) were used as much as 90 percent as the standard accent, meanwhile (r)₁ was used 87 percent as the standard form. These profiles are also true for all the socio-economic status (SES) groups, both gender, all four age groups, native or non-native speakers, and informant from both regions (refer to Tables 4, 5, 6, 7, and 8 and the discussion given below). These illustrate that the informants have fewer problems in using the three variables as a standard accent. Apparently, the norm in the pronunciation of these phonological variables is still the main reason for this profile of accent.

Meanwhile, it is also noticeable that there is an exceptional case in the profile of two other variables, namely, (a) and $(r)_2$. In this regard, variables (a) and $(r)_2$ were found to be used oscillatory as the standard and non-standard forms. However, the difference in the percentage between the standard and non-standard variant is minimal. For (a), 49 percent is used as standard (pronounced as $[\leftrightarrow]$) and 51 percent as non-standard. As for $(r)_2$, 41 percent is standard or [r] and 59 percent is non-standard. This profile is applicable for upper lower group (ULG) and middle middle-group (MMG) speakers (refer Table

4), for both gender (refer Table 5), and younger age groups (refer Table 6).

The oscillation in the pronunciation of the variable (a) could probably be linked to the factor of 'confusion' among the informants towards the notion of 'codified' pronunciation of Malay, which was imposed by the government through the Ministry of Education in 1987 until 2004 (Aman, 2006; Mingguan Malaysia, 2000, and see end note 8), and the accent that has been used in the news programme of the most popular private television channel – TV3. Under the new 'artificial codified' pronunciation system, it was proposed that open-ended (a) must be pronounced in accordance to the spelling or [a]. Nevertheless, pronouncing of [a] in open-ended (a) has deviated from the normal current standard practice of the Malay language in Malaysia.

With regards to (r)₂, this finding suggests that the 'usual' pronunciation is still the key factor in the choice of accent among speakers. The finding also shows that in certain social and linguistic variables, a number of informants (59%) have difficulty in pronouncing their final (post vocalic) (r) to [r], even in a formal context. This situation is related to the norm that most speakers of the Malay language silent the (r) in this position (cf. Omar 1985). Nonetheless, 41 percent of the informants were surprisingly able to accommodate and change their pronunciation for this specific phoneme. This also implies an interesting development of pronunciation among Malaysian Malay speakers.

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Despite that, in overall, it can be concluded that the usage of the standard accent is reasonably high. It is worth emphasizing that the tendency and awareness on the national accent is applicable to socioeconomic status, gender, age, native or nonnative speaker, and regional variables. A detailed discussion of the profiles and their link with identity matter is given as follows.

Accent and Socio-Economic Status

In general, it can be said that socio-economic status (SES) is not the main cause factor for the accent choice in this study. It was apparent that all the four groups of informant used the five phonological variables more regularly in the standard form than the non-standard form. In other words, there is no SES group that is distinctive from each other. In addition, the different scores between the standard and the non-standard variations for all SES are profoundly clear, having the lowest score as 27.6 point (63.8 – 36.2, ref. Table 4) for MLG. The figures

also show that the higher the SES of the informant, a more standard accent is used. The mean score for the standard accent of the middle-lower group (MLG) is 63.8 point, upper-lower group (ULG) is 69.2 point, and lower-middle group (LMG) is 75.2 point. For the middle-middle group (MMG), the mean is 72.2 point, which is less than LMG score but it is still more than the two lower groups. However, the two middle group informants (LMG and MMG) were noticeably more aware of the standard accent because they used it more profoundly as compared to the lower economic group. In this case, the middle groups used the standard accent more than 72 point, while the lower groups used between 63-69 points. Nevertheless, in detail, the difference between the highest score for the lower group (69.2) with the lowest score of middle group (72.2) is only 3 percent. This difference is too small to show the level of awareness among the SES group (ref. Table 4).

TABLE 4 Socio-Economic Status and National Accent

SOC.					PHC	NOLOC	GICAL	VARI	ABLE	S		
VARIABLES		(a)		(i)		(u)		$(r)_1$		$(r)_2$		Mean
(SES)	Accents	f	%	f	%	f	%	f	%	f	%	
MMG	S	762	44	553	69	762	90	548	90	368	68	72.2
	NS	982	56	245	31	87	10	59	10	176	32	27.8
LMG	S	1046	61	846	92	747	92	522	90	205	41	75.2
	NS	679	39	78	8	68	8	58	10	292	59	24.8
ULG	S	1476	55	921	93	1207	93	726	83	178	22	69.2
	NS	1191	45	66	7	94	7	146	17	624	78	30.8
MLG	S	303	27	383	83	488	84	365	86	148	39	63.8
	NS	802	73	78	17	94	16	58	14	236	61	36.2

The analysis from every phonological variable also shows that all four socioeconomic groups apparently use the standard form more frequently as compared to the non-standard form for the variables (i), (u), and (r)₁. As for (a) and (r)₂, there were tendencies for the higher social groups to use the standard accent, whereby 61 percent of the LMG used the standard form [a] for (a), and 68 percent of the MMG used the standard form [r] for $(r)_2$. These findings denote that for the Malaysian Malay accent (language), SES variable is not a good social 'marker' in terms of language variation. In other words, the status of the speakers could not be identified through their accent. Speakers of this language, irrelevant of their SES background, tend to and are able to accommodate to standard accent in the formal context of this study. This situation can be linked to the fact that the Malaysian society is not formed by strict social segregation. This modern nation is just 50 years of age⁷.

Gender and Accent

A second profile, which was identified from this study, is that there is a similarity in the pattern of accent for both genders whereby they use the standard accent more prominently as compared to the non-standard accent. The mean score of the standard accent for both genders is 73.8 point (refer to Table 5). These findings indicate that both genders have a tendency to shift to the national standard accent in the formal context of speech. In other words, choosing the standard accent is not fully influenced by gender variable.

However, the analysis of every single phonological variable again showed that both genders used (i), (u), and (r)₁ consistently higher in the standard accent. They were used more than 87 percent. Meanwhile, female and male informants merely pronounced the variable (a) alternately in its standard and non-standard accents, with male's usage slightly more in its standard variant as compared to the

TABLE 5
Gender and National Accent

SOC. VARIABLE	PHONOLOGICAL VARIABLES							
	Accents	Stat.	(a)	(i)	(u)	(r) ₁	(r) ₂	Mean
Male	Standard	F	2146	1736	1908	1264	550	
		%	54	91	91	87	46	73.8
	Non-Standard	f	1811	182	188	196	653	
		%	46	9	9	13	54	26.2
Female	Standard	f	1468	1002	1281	983	366	
		%	49	92	92	90	46	73.8
	Non-Standard	f	1496	91	109	105	435	
		%	51	8	8	10	54	26.2

females. The score is 54 percent and 49 percent, respectively. As for $(r)_2$, it is again pronounced more in its non-standard variant as compared to the standard variant by both genders, with 46 percent each and a difference of only 8 percent. The similarity in the pattern of accent by both genders is likely due to the fact that intrinsically, Malay is a non-gendered language and gender has never been a social issue in this society.

Age Variable

There is no clear distinctive pattern of accent usage according to age factor. All four age groups of informant used the standard accent more apparently than the non-standard. The mean score for the standard accent was between 64.4 and 73 points. Only the informants from the elderly group (56 years old and above) used the standard accent with less than 70 point, i.e., 64.4 point. Meanwhile, the other three groups used the standard accent more than 70 point (see Table 6).

This finding illustrates that younger generation informants (adolescent, early adulthood and adulthood) were more aware and sensitive towards the notion of the national standard accent whenever they used the language in a formal context. Education may be a good factor that has influenced the younger group to shift to the standard form. This finding is in line with the literature that "as people get older their speech becomes gradually more standard, and then later it becomes less standard and is once again characterised by vernacular forms" (Holmes, 2001, p. 169). The higher usage of the standard accent among younger informants tends to imply that the future of the national standard accent of Malaysian Malay language notion is good and compelling.

A further analysis for each phonological variable also repeated the same scenario as the two previous social variables, where (i), (u), and $(r)_1$ were apparently used as the standard accent by all the age groups.

TABLE 6 Age and National Accent

SOC.				РНО	NOLO	OGICAL	VAR	IABLE	,			
VAR.	Accents	(a)		(i)		(u)		(r) ₁		(r) ₂		Mean
(AGE)		f	%	f	%	f	%	f	%	f	%	
56 + yrs	S	371	37	322	89	433	87	244	78	95	31	64.4
(Elderly)	NS	630	63	39	11	66	13	70	22	211	69	35.6
41-55 yrs	S	1940	60	1052	93	1450	94	866	83	338	35	73
(Adult)	NS	1271	40	79	7	86	6	175	17	616	65	27
26-40 yrs	S	928	39	849	88	1044	86	831	94	418	54	72.2
(Early Adult)	NS	1447	61	118	12	166	14	49	6	352	46	27.8
15-25 yrs	S	260	46	222	88	277	92	227	97	65	31	70.8
(Adolescent)	NS	307	54	30	12	25	8	8	3	146	69	29.2

Meanwhile, the variables (a) and $(r)_2$ were used alternately in their standard and nonstandard variants by all the age groups. However, what is interesting is the profile of the adult group (41-55 years old), which shows their consistency in using more standard accent for four phonological variables, except for (r)₂. This is associated with the stability of the language attitude among the adult informants as compared to the younger ones. In this sense, younger informants could be influenced or confused by the notion of the 'new codified pronunciation' of Malay in schools that was introduced and implemented by the Ministry of Education in the mid-1980s8.

Accent and 'Nativization'

'Nativization' refers to the category of speakers, whether they are native or non-native speakers of the language. In this study, it was found that this nativization factor did not influence the usage of standard accent in the formal context of language use. The pattern of accent usage for both

categories is merely the same. Both native [Malays in Kota Bharu, Kuching (Sarawak), and Kota Kinabalu (Sabah)] and non-native [non-Malays (Chinese) in Kota Bharu and Melaka city] groups used the standard variant more prominently than the non-standard. In more specific, the mean score for the native speakers is 71.4 point and non-native speakers is 70.4 point (see Table 7).

The detailed analysis showed that both the native and non-native informants tend to consistently use the standard variant than the non-standard for (i), (u), and $(r)_1$ variables. Nevertheless, both categories of informants were found to be using (a) and $(r)_2$ in a contrastive manner. Seventy-one percent of the native speakers pronounced the (a) variable more as [a] (non-standard accent) and $(r)_2$ as standard accent (60 percent). In contrast, 72 percent of the non-native speakers consistently pronounced the standard variant (a) as [ə] and 84 percent of them used the non-standard variant for $(r)_2$.

These interesting findings demonstrated that the native speakers are facing a dilemma

TABLE 7 Nativization and National Accent

SOCIAL			PH	IONOLOG	ICAL VAF	RIABLES		
VARIABLES	Accents	Stat.	(a)	(i)	(u)	(r) ₁	(r) ₂	Mean
Native	S	f	1084	1312	1707	1426	758	
(Kota Bharu,		%	29	85	86	97	60	71.4
Kuching,	NS	f	2700	225	286	39	510	
K. Kinabalu)		%	71	15	14	3	40	28.6
Non-Native	S	f	2484	1417	1497	742	160	
(Kota Bharu,		%	72	95	96	73	16	70.4
Melaka)	NS	f	959	71	57	271	818	
		%	28	5	4	27	84	29.6

in the case of the accent for (a). This is most probably due to the local accent influence, especially for the informants in Kuching and Kota Kinabalu. In Kuching (Sarawak) and Kota Kinabalu (Sabah) regions, (a) in this position is pronounced as [a]. Simultaneously, they were found to be able to realize the standard accent [r] for rhotic (r) or (r)₂ more often than the non-standard. Meanwhile, the non-native speakers found it slightly difficult to realize (r)₂ as a standard variant, but they were able to pronounce [a] as a standard variant for (a).

'Regionalization' Variable

Regionalization refers to the geographical location between the Malay Peninsula and Sabah and Sarawak in Borneo. Both regions are separated by the South China Sea. In this sense, it was found that there is no apparent different pattern of accent for both the regions. The informants from the two regions (Malay Peninsula and Sabah-Sarawak in Borneo) chose to use the standard variant more often

than the non-standard variant, with the mean score of 72.6 point and 68.4 point, respectively (see Table 8). The relatively high scores for the standard variant usage by the informants from Kuching (Sarawak) and Kota Kinabalu (Sabah) implied their willingness to integrate and accommodate for national identity reasons. In other words, in the formal context of interaction, regionalization factor is irrelevant in the case of accent choice.

The detailed analysis of each phonological variable shows the same trend with the previous social variables findings, whereby (i), (u), and (r)₁ were used more apparently as the standard accent by the majority of informants from these two regions. However, in the case of the (a) variable, the Malay Peninsula informants were found to have used the standard variant or schwa more (68 percent) as compared to their compatriots in Kuching and Kota Kinabalu. As for the informant from Kuching and Kota Kinabalu, (a) was pronounced more as the non-standard or

TABLE 8
Regionalization and National Accent

SOC. VAR.			PHC	NOLOGI	CAL VAI	RIABLES		
REGIONAL	Accents	Stat.	(a)	(i)	(u)	(r) ₁	(r) ₂	Mean
Malay Peninsula	S	f	3203	1872	2116	1222	343	
(MP)		%	68	95	95	81	24	72.6
	NS	f	1474	94	103	281	1058	
		%	32	5	5	19	76	27.4
Sabah-Sarawak	S	f	365	857	1088	946	575	
(S-S)		%	14	81	82	97	68	68.4
	NS	f	2185	202	240	29	270	
		%	86	19	18	3	32	31.6

local accent of [a], with 86 percent. For the Malay Peninsula informants, this could be linked to the prevalent pronunciation for the variable (a) as schwa, meanwhile for those from Kuching and Kota Kinabalu, this could be linked to the local accent influence, where (a) is pronounced [a].

For (r)₂, the standard variation is used more by the informants from Kota Kinabalu (Sabah) and Kuching (Sarawak). The score is 68 percent. On the contrary, the informants from Malay Peninsula used it far lesser, i.e., 24 percent only. This shows that the Malay Peninsula informants still silent the phoneme compared to the informants from Sabah and Sarawak who have the tendency to pronounce the phoneme. This can also be linked to the prevalent pronunciation factor for the Malay Peninsula speakers, while for Kuching and Kota Kinabalu speakers, they have the tendency to adjust the pronunciation even though in their normal usage, (r)₂ is pronounced as $[\Phi]$ among Kuching speakers (Omar, 1985).

Speech Style Factor

Speech style refers to two main different types of interaction during the interview, i.e. with text material (so called 'text' style) and without text (so called 'non-text' style). It is believed that the type of speech style used influence the way we use the language. Text could make informants more careful in their speech because it involves reading (cf. Trudgill, 1974).

From the study, although the standard accent is generally realized more in the text style compared to in the non-text style, the pattern of usage does not differ much. This finding implies that the tendency to use the standard accent among the informants is not influenced much by the different speech style factor. It is proven that in the text style, the standard accent was used as much as 72.2 point, while in the non-text style, the standard accent used was 65.6 point, with the difference of only 7 points (see Table 9). These findings are also supported by three phonological variables, namely (i), (u), and (r)₁, which are frequently used as the

TABLE 9
Texts and Non-Text Speech Style Factor

SPEECH			PHON	OLOGICA	L VARIA	BLES		
STYLES	Accents	Stat.	(a)	(i)	(u)	(r) ₁	(r) ₂	Mean
Texts	S	f	1482	1458	1973	1943	784	,
(WLS &		%	44	90	88	91	48	72.2
PS)	NS	f	1923	164	277	182	843	
		%	56	10	12	9	52	27.8
Non-Text	S	f	2086	1003	1269	238	134	
(CS &		%	55	92	95	64	22	65.6
STS)	NS	f	1725	90	66	135	485	
		%	45	8	5	36	78	34.4

standard accent both in the text or non-text styles of speech.

Nevertheless, in further detail, once again, (a) and (r)₂ were used less in their standard variant. In the text style, the scores are 44 percent and 48 percent, whereas in the non-text style the scores are 55 percent and 22 percent, respectively. Considering text style, which is a more formal and careful style, the decrease in the standard variant (44 percent) and the increase in the non-standard (55 percent) for (a) were unexpected. This inversion could be related to the effect of the codified phonetic pronunciation notion of Malay in overall, or prevalence in pronouncing (a) as [a] among Sarawakian and Sabahan. With regards to

a 'new codified' pronunciation notion, most informants might be confused because they thought they were expected to pronounce (a) as [a] in the text style interaction. Conversely during the non-text interaction, which is more casual and where they were expected to use the non-standard variant, they pronounced (a) more as the standard variant (55 percent).

As for (r)₂, the decrease of the standard variant compared to the non-standard is related to the prevalence among the Malay speakers to silent this final consonant. Interestingly for this phonological variable, it was found that the different speech styles do influence the rate of accent type. As expected, the percentage for the standard

TABLE 10
Profiles and Level of Malaysian Malay Standard Accent (SA) According to Five Social and One Linguistic Variable Tested with Six Phonological Variables

SOCIAL VARIABLE	CATEGORY	Mean for SA	LEVEL
	Middle-Lower Group (MLG)	63.8	Satisfactory
SES	Upper-Lower Group (ULG)	69.2	Satisfactory
	Lower-Middle Group (LMG)	75.2	Very good
	Middle-Middle Group (MMG)	72.2	Very good
Gender	Male	73.8	Very good
	Female	73.8	Very good
	Adolescent	70.8	Very good
Age	Early adult	72.2	Very good
	Adult	73	Very good
	Elderly	64.4	Satisfactory
'Nativization'	Native speaker	71.4	Very good
	Non-native speaker	70.4	Very good
Regionalization	Malay Peninsula	72.6	Very good
	Sabah & Sarawak	68.4	Satisfactory
LINGUISTIC VAR.			
Speech style	Text	72.2	Very good
	Non-text	65.6	Satisfactory

accent is higher in the text style (48 percent), but in the non-text style it is only 22 percent. Nonetheless, this sole situation is not be the overall picture of this accent study profile.

CONCLUSION

As a conclusion, it is appropriate to provide Table 10 that illustrates the profiles and level of the standard accent used by six social variables, namely, SES, gender, age, native and non-native group of speaker, as well as regionalization and speech style. The percentage figures are taken from respective previous tables. The formula for rating the level was made by putting the score of 50 point as the threshold value. At this point of score until 59, the status is considered as an even between the standard and the non-standard accents. Hence, it is rated as an 'alternate'. However, if the mean score is between 60-69 points, it is rated as 'satisfactory', 70-79 point as 'very good' and 80 point and more is rated as 'excellent'.

Table 10 shows the profiles and status of the national standard accent of the Malaysian Malay language. From the figures, it can be concluded that the standard accent of the Malaysian Malay has been utilised by a majority of the informants. It is proven that 10 out of 14 social variable categories use the standard variant at a 'very good' level and four others at a 'satisfactory' level. In addition, pertaining to linguistic variable (speech style), the standard accent is used at a 'very good' level for the text style and a 'satisfactory' in the non-text style. No category uses the standard accent at an 'alternate' level. As for the SES

variable, the lowest category of informants - MLG were also able to utilise the standard accent at a 'satisfactory' level. In terms of gender, even though the literature has stated that females tend to change their language towards the standard variety, this study has found that both genders make use of the standard accent at a 'very good' level. The findings also show that younger speakers tend to use more of the standard accent as compared to the 'elderly' group. This is a proof that younger speakers are more open towards changes in their language use. For the 'nativization' factor, it was interestingly found that both native and non-native speakers of Malay language were able to utilise the standard accent at a 'very good' level. In terms of regionalization factor, even though Sabah and Sarawak are geographically separated by the sea from the main part of the country (Malay Peninsula), they still get to use the standard accent at a 'good' level.

Both the profiles and status also denote that the standard accent choice does not impinge directly with any social variables (SES, gender, age, nativization, and regionalization) and linguistic variable (speech style). Instead, it suggests that the formal context of interaction is the main reason why the informants accommodate their accent to the standard form.

Based on the profiles and also the apparent use of the national standard accent in the formal context such as in this study, together with the overall and detailed findings according to socio-economic status, gender, age, native and non-native factor,

and regional variables, it can be concluded that in reality there exist the values of the national identity and integration. In other words, the informants aree willing to be identified with the national identity as compared to the local identity. Thus, these findings are in line with Giles's accommodation theory (cited in Tabouret-Keller, 1997, p. 322), where the "basic postulate of the theory is that people are motivated to adjust their speech style, or accommodate, as means of expressing values, attitudes and intentions towards others."

In a broader sense, these findings suggest that Malay as the national language of Malaysia, specifically in terms of its accents, and in the context of 53 years of independence, is at least able to be an 'identifier' value of identity and integration of Malaysians who differ in socio-economic, nativization, region, gender, and age status (even though it is not a 'marker' yet). In a nutshell, it is a priceless tool which has served its role in the nation's identity and integration.

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END NOTES

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²Accent is a variety of speech differing phonetically from other varieties and normally restricted to differences mostly in phonology (Matthews, 1997).

³Malaysia is a plural society with 26.7 million citizens. Malays as the Bumiputra form 55% of her population, other Bumiputras of Sabah and Sarawak (Kadazan, Murut, Iban, Melanau, etc.) 11.9%, followed by Chinese (24.3%), Indians (7.4%), and others (1.3%) (Population by sex, ethnic group and age, Malaysia, 2010). www.epu.gov.my/html/themes/epu/images/common/pdf/eco_stat/pdf/(retrieved on 21 January 2011).

⁴Malaysia consists of two regions – Malay Peninsula and Sabah and Sarawak states in Borneo.

⁵Besides, there are other factors such as the posting of government staff and students between the two regions, the role of electronic media, especially national television and radio stations, and the role played by the administrative and modern-cultural centre based in Kuala Lumpur.

⁶Original text: "Inilah yang berlaku, misalnya, pada bahasa Melayu standard yang tidak lagi menunjukkan begitu banyak ciri-ciri dialek Johor-Riau" (Omar, 2004, p. 121).

⁷Malaysia was ultimately free from colonialisation in 1957 after respectively being colonialised since 1511 by Portuguese, Dutch, British, Japanese, and British. It lasted for about 500 years.

⁸What was proposed in the new 'codified pronunciation' of Malay system is to pronounce the word in accordance with the spelling or pronounce it phonetically. In the notion, (a) was the phoneme that created the major problem for the language user and according to Omar (1992: 212), it "generates facetious ways of pronouncing words". The policy was not successful because it was not the usual pronunciation of the society. By contrast, Malay language in Malaysia is not a phonetic language. The policy was retrenched after several years of implementation (see *Mingguan Malaysia* 2000).

APPENDIX

THE QUESTIONS

(Based on speech styles)

Early Interaction

(as guidance only)

1. Perkenalkan diri dan bertanya khabar.

(*Introduce yourself*)

2. Tanya sama ada informan memang berasal/tinggal dari bandar itu.

(Ask the informant whether she/he is a local dweller)

3. Tanya namanya.

(Ask his/her name)

4. Nyatakan hasrat anda untuk menemu bual dan memintanya masa 15 minit.

(State your intention and ask permision to spend 15 minutes for that purpose.)

5. Nyatakan perbualan itu dirakam – hanya tujuan akademik. Dapatan dirujuk secara kumulatif; tiada rujukan secara individu dibuat.

(Ask permission to record the interview and state that it is only for academic purposes.)

Reading Word List

I	II	III
bapa	saya	tukar
ikan lontar	hati rambutan	susu resam
jalan	baju	kesal
mata wajar	tiada kebun	buluh jahit
suka	kuala	buku
milik rumah	belukar bilik	rasa cinta
tujuh	rapi	seluar
fikir cantik	kasut teman	zaman lain
bentuk	ambil	kelapa
siar masuk	pasar mengikut	kasar panggil
ruang	reka	pujuk
janji	makan	rombak

Reading Passage

Rumah perlu dirancang untuk kehidupan selesa. Sebuah rumah harus merupakan unit tersendiri yang dirancang, direka bentuk dan dihias bagi memenuhi cita rasa pemiliknya.

Hari ini, kita tidak mempunyai masalah untuk menghias rumah kerana kita boleh mengambil majalah hiasan atau menonton rancangan televisyen sebagai panduan. Bagaimanapun, program hiasan dalaman di media kebanyakannya hanya tertumpu pada ruang tertentu. Malah, kos dan harga perabot serta barang perhiasan tidak pernah disiar. Apa yang dapat dilihat ialah pereka bentuk dalaman memilih idea dan cadangan mengikut trend dan gaya terkini. Biasanya, didorong untuk mempromosi barang penaja program berkenaan.*

Untuk merancang kediaman selesa dan harmoni, kita tidak wajar mengikut trend reka bentuk semata-mata, tanpa berfikir dulu keperluan dan kehendak kita. Kediaman selesa dan harmoni adalah berasaskan kualiti hidup sempurna. Keseronokan penghuninya akan bermula dari pintu masuk lagi. Rumah yang selesa membawa keseronokan untuk penghuninya balik ke rumah, melontar keluar segala tekanan dan kebimbangan, dan menjadikan diri dilindungi di ruang persendirian.

(From *Berita Minggu* newspaper 1 April 2007)

Interview guiding questions

- 1. Apa nama sekolah tuan/puan/encik/saudara? (Which school did you go to?)
- 2. Tingkatan/darjah tertinggi sekolah. (*Your highest level/class in the school*)
- 3. Tahun berapa tamat sekolah. (*Year of graduating from school*)
- 4. Ada kelulusan IPT? Di mana, tahap diploma atau ijazah? (What is your highest level of education- where and what level?)
- 5. Ada menyambung pelajaran lagi? (*Did you further your studies?*)
- 6. Boleh beritahu umur (belasan tahun/20-an/30-an/40-an/50-an). (Could you tell your age group?)
- 7. Boleh beritahu pekerjaan tuan/puan/sdr (atau pekerjaan ibu/bapanya). (*What do you do / what does your father / mother do?*)
- 8. Boleh terangkan sedikit bagaimana kerja tuan/puan itu. (Could you tell more about your job?)

9. Bagaimana pendapatan sebulan, adakah memadai?

(*Is your income sufficient?*)

10. Bagaimana keadaan cuaca di bandar itu kebelakangan ini?

(*How's the weather in the city lately?*)

11. Apa istimewa atau menariknya bandar itu?

(What's so special about the city?)

12. Pernah tinggal di Semenanjung (bagi responden di Kuching dan Kota Kinabalu), di mana, berapa lama, mengapa.

(*Have you ever been to Malay Peninsula?*) (Question for informant in Kuching and Kota Kinabalu only).

Story Telling

 Selama ini, apakah peristiwa/pengalaman yang tidak dapat saudara lupakan atau lucu? Mohon ceritakan.

(Could you relate an experience or incident that you cannot forget? Please tell me the story)

Atau / or

2. Kalau tuan/puan diberi kesempatan/kuasa mentadbir bandar ini, ceritakan apa yang akan tuan/puan lakukan untuk bandar itu.

(If you were the mayor of this city, tell me what would you do for this city?)





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James Joyce's Father Foreclosure: The Symbolic Order of Language and Social Existence

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ABSTRACT

In symbolising society, the father is a significant cultural representation of authority or power. James Joyce's works are commonly read for Irish history, his unique style of writing, and as sources of autobiography. However, his Finnegans Wake (1939) stands out for its unanalysable textuality, creating a form of authority in itself. The omnipresence of the father figure as a performer of paternal authority in almost every page of Joyce's final work reflects an obsession within Lacanian psychoanalysis, that of imaginary and symbolic 'fathers' standing in for the biological father. This study thus attempted to identify the role of the father in Joyce's own life, as well as in Finnegans Wake, based on Jacques Lacan's definition of the father. In order to examine James Joyce's father foreclosure, that is, his expulsion of the father from the Symbolic order, this article focuses on the connections and functions of the writer's Real father, John Joyce; the Imaginary father in Finnegans Wake, H.C.E; and the role of the Symbolic father, performed conceptually by religion. John Joyce and H.C.E, his literary projection, prove impotent in performing their patriarchal responsibilities; while Joyce himself rejects the influence of the Church. In short, despite the paternal function being absent from Joyce's life, the father figure is very much present in his works. Studying the function of these fathers in Joyce's life indicates that he suffered from father foreclosure for two reasons: the failure of his real father, and his refusal to accept any other form of paternal authority.

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INTRODUCTION

Finnegans Wake (1939) stands out for its unanalysable textuality, creating a form of

authority in itself. The omnipresence of the father figure, as a performer of paternal authority) in almost every page of Joyce's final work, reflects an obsession within Lacanian psychoanalysis, that of imaginary and symbolic 'fathers' standing in for the biological father. This study thus attempted to identify the role of the father in Joyce's own life, as well as in Finnegans Wake, based on Jacques Lacan's definition of the father. In order to examine James Joyce's father foreclosure, that is, his expulsion of the father from the Symbolic order, this article focuses on the connections and functions of the writer's Real father, John Joyce; the Imaginary father in Finnegans Wake, H.C.E; and the role of the Symbolic father, performed conceptually by religion. Father, in Lacanian terms, is the one who introduces the child to order and social existence. The absence or impotency of the father in performing his responsibility will leave a hole in the child's psyche that the child will endeavour to fill. Before examining in detail the absence of paternal power in Joyce's life, we will discuss in brief Joyce's biological father, John Joyce, and Lacan's definition of different types of father figures.

JAMES JOYCE'S CATHOLIC UPBRINGING AND HIS ALCOHOLIC FATHER

In pre-school years, James's mind was shaped with the strict catholic ideas imposed by his mother and his tutor. He was told not to commit sins to avoid punishment. But if he did, he should repent. His father, on the other hand, was more a patriot rather than

a strong believer in Catholicism. For him, country was more precious than religion. Out of these contradictions, James was sent to Catholic school to become a priest. After years of Catholic schooling, and after which he was offered to become a priest, he refused but always felt guilty afterwards for disappointing his mother up to her death. Although his father did not play a noticeable role in James's religious training, John Joyce was seen as the main figure in the writer's life, to whom the French psychiatrist Jacques Lacan constantly refers. As John Gross (1970) states:

[o]f all Joyce's emotions, as they figure in his work, the strongest were undoubtedly those centring on his father. In the earlier books they tend to be predominantly negative, not without good reason. From most points of view, John Joyce was a highly unsatisfactory parent: selfish, irresponsible, a heavy drinker, 'a praiser of his own past.' (p. 14)

John Joyce is also considered a failure by other Joycean biographers and critics, such as Jean-Michel Rabaté and Lacan himself, largely stemming from Ellmann's (1959) comprehensive documentation of

^{&#}x27;According to MacCannell (2008), Lacan's interest in Joyce was piqued when Hélène Cixous, who was writing a book on Joyce at the time, became Lacan's assistant. MacCannell also notes that both Joyce and Lacan were sons of alcoholic fathers, with both being "marked by the failures of the paternal metaphor" (p. 46). Joycean language reshaped Lacanian theory, as reflected in Lacan's Seminar XXIII, 1975-76.

Joyce and his family life.² The John Joyce represented in this study is also based on Ellmann's biography, in his role as the carrier of what is known as the Lacanian Law-of-the-Father for his son's life. This Law refers to the set of universal principles which make social existence possible; since communication is the most basic form of social exchange, this law is a linguistic entity, and it is the father figure as a signifier who imposes this law on the subject (Evans, 1996).

In Lacanian psychoanalysis, it is held that the function of the father figure is a determining factor in the subject's psychic structure. Besides being a rival for the mother's love, the function of the father figure (the paternal function) is to introduce the child to the limited and symbolic order of language, and in so doing, the order of social existence, via a castration achieved by the imposition of the Law (ibid.) Castration here refers to the child's recognition of the order of the symbolic system and its limitations as set by the phallic authority. The only way for the subject to enter this order, according to Evans, is to identify with the father through the Oedipus complex (ibid.). In other words, Lacan holds that the father is not so much the one who intrudes upon the mother-child relationship, but more so, the one who should function to prevent the subject from developing psychosis—a mental condition akin to madness, caused by the absence of the Law-of-the-Father,

which leaves a hole in the psychic structure of the subject (ibid.).

Since Lacan makes direct references to John Joyce (Harari 2002), a review of his definitions of the three types of father is necessary here. The Real father for Lacan is the one who owns the mother, and is usually the biological father of the subject. He is usually responsible for the symbolic castration of the subject. However, in some cases, the Real father may be physically present in the subject's life, but may be unable to perform this function. The Imaginary father, meanwhile, is an image that the subject constructs of the father; either to be what the real father could not be: or to be like the real father who could not castrate him (Evans, 1996). The latter can be seen in the imaginary fathers that Joyce creates, such as H.C.E in Finnegans Wake (1939). He is a failure like John Joyce, perhaps more so.

The Symbolic_father is not a real subject but a concept, position or function. It is also called the Name-of-the-father (Lacan, 1977). It is the paternal function that the Real, biological father may or may not have performed, namely imposing the prohibitive Law upon the subject (Evans, 1996). For the subject, this Law defines limitations both in the system of signifiers and in his social existence, reflected in the form of language. The real father can be the performer of these functions, but is not the only one who can do so—other people (including the mother) or other concepts can carry the function of the Name-ofthe-Father. Based on these definitions of

²Ellmann (1959) tells the story of the Joyce family, before James's birth until his death. It contains details of James's relationship to them and his friends, as well as details of his works.

the father in Lacanian psychoanalysis, the paternal function exercised upon Joyce will be examined in the following sections, in relation to John Joyce, as the Real father, H.C.E as the Imaginary father, and religion as the Symbolic father.

BREAKING THE LAW OF THE REAL FATHER

Although John Joyce was physically present in his son's life, he was absent as the carrier of the Law and as the Name-of-the-father. and was thus unable to perform the paternal function in Joyce's mind. Although John Joyce was a witty and talented man, his recklessness led to continuous career failures, losing job after job in a short span of time (Ellmann, 1959). He eventually found a well-paid job in an office, but this did not last long; he was left with an insufficient pension in 1892, after which the financial status of the family began to gradually decline (Ellmann, 1975). By 1902, "the house was in despair, the banister broken, the furniture mostly pawned or sold" (Ellmann, 1959). Not being able to support his family, John Joyce started to sell household items, including the piano, which was a "desperate act for a musical man and one which roused James to fury when he came home to discover it" (p. 143). After the death of Mary Jane Murray, Joyce' mother, the rest of the family sometimes found themselves without anything to eat. Once, when James was away from home for several days, and his siblings asked him if he was ill, he said that he "was suffering from inanition" (p. 144).

The poverty dragged them from one neighbourhood to another, compounding the familial instability. John Joyce was not able to manage the family finances, and his weak figure could never fill Joyce's paternal lack. Moreover, John Joyce was also a heavy drinker, according to Joyce's brother, Stanislaus Joyce (1957). He used to drink to excess in both joy and sadness (Ellmann, 1959). In addition, the father who smoked expensive cigars, while his family did not have anything to eat was also very aggressive towards his wife and daughters. Stanislaus Joyce (1957) also recalls how John Joyce attacked their mother, which affected Joyce's ideas of marriage and family.

The illness of Mary Jane Murray also made John Joyce less of a father. Not only was he unable to purchase good medication for his wife due to his poverty, but he was also very unsympathetic towards her illness (S. Joyce, 1957). This is, at least, what his children thought of him. However, as Ellmann claims, it was the heavy medical costs that led him to seek refuge in heavy drinking, wanting to show his devotion as a husband in his own way (1959). In any case, after his mother's death, Joyce lost the only principal of order in his life. She had been trying hard to keep the family together amidst the instability, but after her death the family became scattered (S. Joyce 1957), which John Joyce did little to prevent.

It should not be ignored, however, that John Joyce was very fond of his eldest son, knowing that Joyce was highly talented (S. Joyce, 1957). Joyce became the focus of his father's attention after he and other relatives

predicted a promising career (Ellmann, 1975). John Joyce wanted to provide the best education for his son despite the poverty that the family suffered from most of their life, and he succeeded in that regard (Ellmann 1959). The father-son love was mutual. According to Stanislaus Joyce, the love of the father was a "dominant passion" in his brother's life, to the extent that it became a "millstone around his neck" (1957, p. 234). Ellmann is also of the belief that Joyce loved his father unconditionally, sins and all. He also loved travelling with his father: according to Frances Restuccia (2009), "breaking the law seems to have united real father and son" (p. 15).

But the love and attention that John Joyce showered upon his son could not compensate for the former's poverty or reckless drinking habits. In the end, his inability to provide a stable life for his wife and children made him a defeated father in James's mind. This also meant that he could not impose the Law upon his son (which in most cases would lead the sons to develop psychosis). In a letter to Harriet Shaw Weaver on his father's death, Joyce writes:

He was the silliest man I ever knew and yet cruelly shrewd. He thought and talked to me up to his last breath. I was very fond of him always, being a sinner myself, and even liked his faults. Hundreds of pages and scores of characters came from him. (Ellmann 1975, p. 360-1)

The mutual father-son love could not be a substitute for the lack of a strong father. Thus, John Joyce could not be the bearer of the Name-of-the-Father, since he could not help Joyce accept the Law of Signifiers and enter the Symbolic order (Evans, 1996). To Lacan, language is a vicious circle of signifiers or symbols; in order to function properly in this system, the speaking subject has to yield to the Law of Signifiers, where one signifier leads to another. When the speaking subject is not introduced to this Law, or refuses it, the signifiers cease to be symbolic, but are taken as real instead. In short, they do not refer to any conceptual idea, but are what they are.

As noted above, it is not only the biological father who can impart the Law, but any other person or set of rules. Although this study focuses primarily on John Joyce, it does not mean, however, that the Lacanian distinction between the Real, Imaginary and the Symbolic father has been ignored. The latter two fathers are not physical beings as such, but are instead Symbolic positions that can perform the paternal function: "the composite of all the imaginary constructs that the subject builds up in fantasy around the figure of the father" (Evans, 1996). It must be reiterated that there was no other Imaginary or Symbolic father figure for Joyce, therefore no Law/ Name-of-the-Father was imposed upon him to prohibit a jouissance (an excess of pleasure, that then becomes pain) and the desire to achieve the Other (ibid.). Since the paternal function is absent from the formula of Joyce's psychic structure, he would thus be capable of committing any sin.

TAKING IN RELIGION AS SYMBOLIC FATHER

As discussed above, John Joyce does not function as the carrier of the Law, or the one who castrates him. As a result, the Phallus and phallic function (that of representing ultimate masculinity) are absent from Joyce's life. As with carrying the Law, it is not necessarily only the Real father who can function as the phallus; even abstracted concepts, such as religion and society, can perform the function—both embody a set of principles that impose the prohibitive Law, which draws the boundaries of a world of symbols, and 'entraps' the subject within it. In Joyce's case, due to his childhood education and the religious schools he attended, religion could have functioned as both a Symbolic father and the phallus for him; but as this section will illustrate, Joyce manages to make his escape from its clutches.

In short, Joyce resisted patriarchal authority wherever he found it (Restuccia 2009). After his real father is proved impotent (in terms of imposing the Law), the prime patriarchal substitute in Joyce's life would have been the church.³ This is mainly because Joyce was raised by his Catholic mother, who wanted him to be a priest, as well as his Catholic education at Clongowes College. However, despite of this religious background, he protests against its influence of religion later in his life; as he stated in the letter to Stanislaus Joyce in 1905: "I am

³Religion, as an imposer of the Law, can be considered as a symbolic father. If the subject accepts this Law, he/she will be posited within the boundaries imposed by the symbolic father, and can lead a social existence that adheres to these boundaries.

incapable of belief of any kind" (Ellmann 1975, p. 62). In another letter to his wife Nora Barnacle in 1904, Joyce states:

Six years ago I left the Catholic Church, hating it most fervently. I found it impossible for me to remain in it on account of the impulses of my nature. I made secret war upon it when I was a student and declined to accept the position it offered me. By doing this I made myself a beggar but I retained my pride. Now I make open war upon it by what I write and say and do (in Ellmann, 1975, p. 25).

Joyce was exposed to religion from early in his life, but repeatedly confesses in his letters to Nora and Stanislaus "How I hate God and death! How I like Nora!" (p. 27). He did not want to accept any kind of imposition of law, and was struggling with the conventions to follow his nature, rather than protesting against them. Furthermore, Joyce did not even get his children baptised because he did not intend to impose religion on them, as it had been imposed on him (S. Joyce, 1957). In short, Joyce does not allow the limitations of any Law to be imposed upon himself, and thus does not experience the fear of castration—both because John Joyce fails to act as the Phallus, and because Joyce himself resists the mastery of potential Symbolic fathers, such as the church. It is the recognition of these very limitations that defines the subject's boundaries, and thus determines his masculinity (Voruz & Wolf, 1999).

To Lacan, the role of the father is very important in the process of shaping the structure of the psyche (Evans 1996). On the other hand, however, Jean-Michel Rabaté (1991) believes that Lacan's reading of Joyce is actually autobiographical, because Lacan did read Ellmann's biography of Joyce very carefully. In any case, John Joyce did play an integral role in shaping Joyce's psychic structure. Although the former could neither possess the Phallus, as it were, nor function as a proper father, his son was enamoured by him—as noted above, Stanislaus Joyce (1957) claims that his brother and his father were close, and they enjoyed travelling together. Thus, despite John Joyce being absent from his son's life as the bearer of the name of the father, the phallus, or the performer of the phallic function, his impotency in performing these functions and foreclosure from his son's life—in that his function and significance as a father figure to his son are repressed or shut out prematurely—is nevertheless present in the male characters of Joyce's major works.

In Finnegans Wake, the father figure is slandered on every page (Rabaté 1991). It is as if by this "Symbolic liquidation" of the father, Joyce attempts to eternalise the failures of his real father in his texts. According to Ellmann and Stanislaus Joyce, John Joyce is the chief model for many of the characters in his son's novels—most pertinently to this subject of this paper, he has been the chief model for Humphrey Chimpden Earwicker (H.C.E) in Finnegans Wake (Ellmann, 1959) and Leopold Bloom in Ulysses (S. Joyce, 1957). These male

characters draw upon John Joyce in that they are also failures in their paternal duties; they are merely the biological fathers of their sons, and lack the force of castration due to their insufficiencies and irresponsibility.

MAKING UP THE IMAGINARY FATHER

Humphrey Chimpden Earwicker (henceforth H.C.E) first appears under the name of Finnegan on the first page of Finnegans Wake, after which he is given various names and is involved in multiple stories. According to Adaline Glasheen (1993) he takes the role of thirty-four different characters, most of whom are historical;4 he even performs a role to pinpoint geographical locations like Ireland, and parts of nature, like a mountain. The delicate part of playing multiple characters is that the whole Earwicker family—the mother, Anna Livia Plurabelle (ALP); the twins Shem and Shaun; and the daughter, Issy-shift in accordance to all the characters. H.C.E can be considered on two levels; "he is the Macrocosm, Here Comes Everybody, and the Microcosm, Humphrey Chimpden Earwicker, a tavern keeper of Chapelizod, a suburb of Dublin on the river Liffey" (Glasheen, 1993, p. 54).

Within the first twenty-eight pages of *Finnegans Wake*, H.C.E is introduced as the prehistoric "hod carrier" called Finnegan. "Bygmester Finnegan, of the Stuttering Hand, freemen's maurer, lived

⁴This character shift reinforces the fact that H.C.E can stand for everyman, or every father. And every father might lack the phallic force and might appear as a failure. Also, H.C.E can be considered a space for the contestation of possible symbolic father figures.

in the broadest way immarginable ..." (Finnegans Wake, 1999, 4: 18-19). Big Master Finnegan builds a "skyerscape" (4: 36) on the bank of the river Liffey. All of a sudden "wan warning Phill felt tippling full" (6: 7) and "Damb! He was dud." (6: 10). "It may half been a missfired brick" (5, 26), and this is how Finnegan falls and dies. His fall happened at the identical place where H.C.E will be involved, and from the same spot the fall of his reputation starts: "His clay feet, swarded in verdigrass, stick up start where he last fellonem, by the mund of the magazine wall, where our maggy seen all, with her sister in shawl." (7: 30-32). Finnegan wakes but not as Finnegan the big master, he is replaced by H.C.E who appears as a Hill beside the river Liffey, his wife Anna Livia Plurabell.

In the first ten pages of Finnegans Wake we are told of two falls and the two people who fall; Tim Finnegan who falls due to a misfired brick as mentioned above and H.C.E due to the sin that he committed or imagined he committed. The fall is of significance not in the way that they fall but in relation to their inability to stand and play the role of the phallus for their children. Their fall is both real and imaginary. They fall for real, they hit the ground and they also fall, from grace. This fall is what makes H.C.E similar to John Joyce. In the following part, we attempt to show how Joyce creates H.C.E as a failed father, following John Joyce as his model.

In the story of Wellington (on page eight of *Finnegans Wake*) who is an incarnation of H.C.E (Campbell & Robinson 1944, 41),

Joyce writes about what will happen later to H.C.E on the same spot that Finnegan falls. In the story there are six characters, a big man "this is the big sraughter Willingdone, grand and magnetic in his goldtin spurs and his iron dux and his quarterbrass woodyshoes and his magnate's gharterd and..." (8: 17-19), three soldiers "this is the three lipoleum boyne grouching down in the living detch. This is an inimyskilling inglis, this is a scotcher grey, this is a davy, stooping." (8, 21-23) and two girls "this is the jinnies... the jinnies is a cooin her hand and the jinnies is a ravin her hair..." (8, 31-34). These are all the parallel characters in the famous scandalous scene in the park that grows to become a big rumour in the city and marks the fall of H.C.E.

The story of H.C.E, two girls and three soldiers are repeatedly told all over the book, implied in the dust of battles or in the various stories: "one's upon a thyme and two's behind their lettice leap and three's among the strubbely beds" (20, 23-24). For example, take the story of Jarl Van Hoother and the Prankquean: there was a lonely man living in the peaceful time of Adam and Eve. His "two little jiminies" (21: 11) Tristopher and Hilary are kidnapped in turns by Prankquean who has been refused three times by Van Hoother. The boys who, according to Glasheen are Shem and Shaun, H.C.E's twin sons, (1663, xxvii), are taught by four wise men and are trained to be blackguards and Cromwellians. The father fails in keeping them and creating the law for them. Finally, "it was resolved that the boys keep the peace, the prankquean should

hold the dummy and van Hoother let off steam" (Campbell & Robinson, 1944, p. 50). "Thus, the hearsomeness of the burger felicitates the whole of the police" (23: 14) Van Hoother, the Earl of Howth a failed father becomes the joke in the town.

The character of H.C.E indirectly implies other important heroic figures in history such as Wellington and Napoleon. Joyce "amplifies the private sin of HCE into an image of a hero" (Campbell & Robinson 1944, 42: 24). A hero's fall is more hurting and painful than an ordinary man; like the fall of a father in the eyes of his son. This is because the father is a hero for the son and he is the one who should have the phallus and make the son possess it through the fear of castration. The father's failure in performing the phallic function is as painful as the fall of a hero. This painful fall makes the father a big failure and shatters the phallus he was supposed to have.

As the main male character of Finnegans Wake, H.C.E is like John Joyce in many respects. This will be discussed in detail in the following section, but suffice to say at this stage that the locus of the novel is centred on the sin H.C.E commits, or those he is thought to have committed; although he himself is absent from the text except in the first two chapters, the story of his fall is present throughout. Given Glasheen's claim that Shem represents the author, it is then only fitting to see parallels between H.C.E and Shem, and John Joyce and his son. What links H.C.E's appearances as historical characters (from the biblical Adam, to Issac, Noah, the Duke of Wellington, Oscar Wilde, Napoleon and many more) is that they all, like John Joyce, suffer a fall. However, the character that the discussion will focus on is H.C.E himself, as a father who is expected to bear the Name-of-the-Father, and castrate his son Shem, but fails to do so.

TRACING THE 'PHALL' OF H.C.E

Like John Joyce, H.C.E is a drunkard and a sinner who loses his reputation in the town. In the first 28 pages of Finnegans Wake, H.C.E is introduced as the prehistoric hod carrier called Tim Finnegan. "Bygmester Finnegan, of the Stuttering Hand, freemen's maurer, lived in the broadest way immarginable" (Finnegans Wake, p. 4). Big Master Finnegan builds "skyerscape[s]" on the bank of river Liffy. One day, "wan warning Phill [he] felt tippling full" and "Damb! He was dud" (pp. 6-10). He falls on the identical place where H.C.E will later be involved; and it is from the same spot that his figurative fall begins: "His clay feet, swarded in verdigrass, stick up start where he last fellonem, by the mund of the magazine wall, where our maggy seen all, with her sister in shawl" (p. 7).

The dead Finnegan wants to wake, and asks: "Anam muck an dhoul! Did you drink me doornail?" (p. 24), which translates as "Soul of the devil! Did you think me dead?" (Campbell & Robinson, 1994, p. 30). He is told that he is known as an honourable man, and since "everything's going on the same or so it appeals to all of us" (FW, p. 26), it

⁵What attracted the critics to <u>Finnegans Wake</u> was the arcane language of the text, where newly coined words were either stuffed with meaning, or were not meaningful at all. Critics endeavored to find meaning for these words in the hope of understanding the message(s) of the whole text.

is better for him to remain dead: "Repose you now! Finn no more" (p. 28). Finnegan wakes, but not as Finnegan the big master, but rather H.C.E, who appears as a hill beside the river Liffy, his wife ALP.

H.C.E is introduced here by a citizen who is speaking with Finn. He is trying to persuade him not to rise:

For, be that samesake sibsubstitute of a hooky salmon, there's already a big rody ram lad at random on the premises of his haunt of the hungred bordles as it is told me...humphing his share of the showthers is senken on him he's such a grandfaller, with a pocked wife in pickle that's a flyfire and three lice nittle clinkers, two twilling bugs and one midget pucelle (Finnegans Wake, p. 29).

The news of H.C.E and his family's arrival in town is then spread. After presenting several different theories about the origin of H.C.E, he is given a name: "Harold or Humphrey" Chimpden, affixed with the nickname "Earwicker" (p. 30). As mentioned earlier, these initials are used throughout the book in various combinations, but "it was equally certainly a pleasant turn of the populace which gave him as sense of those normative letters the nickname Here Comes Everybody" (p. 32). What we first read about H.C.E are his impressive looks. He is said to be "an imposing everybody he always indeed looked, constantly the same as and equal to himself and magnificently well worthy of any and all such universalization..." (ibid.). He has a normal reputation in the town, and is known as a family man.

But almost immediately, slanders are held against him. We are then told of two falls and two fallers; Tim Finnegan who falls due to a misfired brick, and H.C.E, due to the sin that he is thought to have committed. The latter refers to the story of the Duke of Wellington, an incarnation of H.C.E (Campbell & Robinson, 1994), wherein H.C.E is rumoured to have transgressed with two girls in Phoenix Park (Finnegans Wake, p. 8). The rumour eventually spreads around town and marks the fall of H.C.Eboth literally, and from grace (as a father in general, and in particular, as a representation of John Joyce). H.C.E, who is supposed to stand for his children, is unable to exert any paternal authority onto them; in seeing John Joyce do the same, Joyce performs a foreclosure that extends beyond the former, but also onto his Imaginary father(s) as well.

The story of H.C.E's transgression is told repeatedly throughout the book, implied in the dust of battles or the various stories, such as in the story of Jarl Van Hoother and the Prankquean. In this story, Van Hoother has his "two little jiminies" (Finnegans Wake, p. 21), Tristopher and Hilary, kidnapped by the Prankquean. The two boys, who Glasheen (1993) contends are Shem and Shaun, are taught by four wise men and are trained to be a Blackguard and a Cromwellian. In this regard, Van Hoother has not only failed to keep hold of them, but also fails in imposing the Law upon them. Finally, "it was resolved that

the boys keep the peace, the Prankquean should hold the dummy and van Hoother let off steam" (Campbell & Robinson, 1994, p. 50). In the line, "Thus the hearsomeness of the burger felicitates the whole of the police" (Finnegans Wake, p. 23), we see Van Hoother's failures become the joke of the town.

Similarly, H.C.E's transgression becomes a self-perpetuating story which eventually reaches the ears of three singers, who then sing it to the world in the form of "The Ballad of Persse O'Reilly" (pp. 44-7). This drags H.C.E down from folk hero-father to a failed tavern keeper. The metaphorical falls of H.C.E's incarnations are of significance not only in the way that it actually occurs, but in relation to their inability to stand and play the role of the phallic authority to their children. This fall from grace is what makes H.C.E similar to John Joyce.

Furthermore, talking about H.C.E in parallel to historical figures such as Wellington and Napoleon is not merely an avant-garde technique to subvert historicity,⁶ but one that "amplifies the private sin of H.C.E into an image of a hero" (Campbell & Robinson, 1994, p. 42). A hero's fall is more dramatic than that of an ordinary man, and hence more painful to witness—very much like the fall of a father in the eyes of

his son. In Lacanian terms, this is because the father is the one who should possess the Phallus, and make his son possess it eventually through the fear of castration; the father's failure in performing this phallic function is as painful to the subject (the son) as the fall of a hero.

As we saw previously, Joyce's biological father could not function as the Phallus, and Joyce himself does not accept any other type of father figure. Therefore, since Joyce performs a father foreclosure, his writing can be seen as an effort to fill this lack—in Lacanian terms, to erect the fallen Phallus by elevating him to hero-status, and in terms of the posterity of Finnegans Wake, immortal.⁷ As Suzette Henk (1996) claims, "the impudent son forges the name and authority of the Father in letters that litter a world of his own androgynous making" (p. 207). However, where we differ from Lacan is in his belief that Finnegans Wake was written to replace the fallen Phallus, John Joyce—we believe instead that the novel is the ever-erect Phallus, instead of a testament on the failures of various father figures. Joyce himself vividly describes the immortality of his creation: "Four things therefore...in Dyffinarssky ne'er sall fail," with those four things being H.C.E, ALP, Issy, and the twins.

⁶As David Sidorsky (2001) states, the substance of Finnegans Wake corresponds to "a Derrida-like deconstruction of objective history," and the pastiche technique a "parody of historical teleology" (p. 301). The point being that this substance or technique do not merely function in isolation, but are meant to convey meaning.

Critics reacted differently to the obscure language of the text; some found it a waste of genius and nonsense, where others thought that he purposefully created the unanalysable text of <u>Finnegans Wake</u> to be studied for a long time—immortal posterity to compensate for the failings of his real father.

THE BALLAD OF A FAILING FATHER

He was one time our King of the Castle

Now he's kicked about like a rotten old parsnip.

. . .

Arrah, why, says you, couldn't he manage it?

They curse the waves that brought him to their city and want him punished. They want him dead And we'll bury him down in Oxmanstown

Along with the Devil and Danes, With the deaf and dumb Danes, And all their remains.

And not all the king's men nor his horses

Will resurrect his corpus For there's no true spell in Connacht or hell

That's able to raise a Cain. (Finnegans Wake, pp. 45-7)

"The Ballad of Persse O'Reilly" above results in a poisonous atmosphere surrounding the town, which eventually ruins H.C.E's reputation. This ballad is about a hero falling to ground and from grace; and relates to how a father of the family, the person who is expected to carry the Law and castrate his sons, fails to perform his paternal function. Like John Joyce, H.C.E is a failure, both as a member of his own community and as the father of a family. Although they fall for different reasons, both are unable to stand up again.

The effect of this impotency is reflected in the structure of their psyche.

The various versions of the story of H.C.E's scandalous deed in the Phoenix Park are told repeatedly throughout the text. These repetitions reflect the failure of not only one father, but many fathers, including Joyce's own. In the third chapter of Finnegans Wake, we hear H.C.E in the middle of a radio programme announcing his innocence and his phallic power: "my guesthouse and cowhaendel credits will immediately stand ohoh open as straight as that neighbouring monuments..." (Finnegans Wake, p. 54). H.C.E knows that as a father, he has a responsibility to possess the Phallus, and even when he found himself falling from the dignity of phallic figure, he claims it.

But the rumour has spread around in the town, which causes everybody to review the incident. Moreover, H.C.E's family hears about it and they are waiting for a letter to come and reveal the truth: "the letter! The litter! And the soother the bitther! Of eyebrow pencilled, by lipstipple penned. Borrowing a word and begging the question and stealing tinder and slipping like soap..." (Finnegans Wake, p.93). The story of H.C.E is told from different perspectives, but it does bring similar emotions for the family members: "it made ma make merry and sissy so shy and rubbed some shine off Shem and put some shame into Shaun" (p. 94).

CONCLUSION

Joyce's social existence and exchanges, like any other speaking subject, were

highly dependent on the function of phallic authority. His Real father, John Joyce, was a complete failure in his paternal duties; his offspring never felt his paternal power over their lives, not even Joyce, who was his favourite son. In this study, H.C.E, acts as the Imaginary father, who can be seen as a projection of John Joyce. James represents the reality of his Real father in the character of H.C.E rather than what he might expect his father to be. Moreover, James refuses to accept the Law imposed by religion, as his Symbolic father. Whether deprived from a strong Real father, or refusing the Symbolic father, Joyce's psychic structure is void of phallic authority. This lack is the father foreclosure that Joyce suffers from, and is the reason for him developing psychosis, as the language disorders in his text show. Joyce, however, represents his unanalysable, individual style of writing in the text of Finnegans Wake in order to keep critics guessing for many years—the continual effort to analyse this perplexing text renders it immortal, and in a way becomes the Phallus for Joyce, as a compensation for the lack of phallic figure he desired.

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Mandarin Attrition among Tertiary Students

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ABSTRACT

This study aimed at determining whether Mandarin language attrition occurs in terms of Chinese character recognition, word order, and writing ability after a two-month holiday. The methodology of the study is mainly quantitative, and the data were obtained through pre- and post- tests. Pre- and post- Mandarin tests were conducted among 65 participants. The results showed that slight attrition was found in Chinese character recognition, while serious attrition occurred in word order and writing ability. The reasons for the attrition were also discussed. The study suggested that more attention be paid to learning Chinese word order and writing and less to Chinese character recognition for Mandarin learners, especially in Malaysia.

Keywords: Language attrition, Mandarin, Chinese character recognition, word order, writing ability

INTRODUCTION

Language attrition is defined as language proficiency degradation during the natural language contact process rather than the phenomenon which happens when learners

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suffer some trauma or any other pathological hurts (Weltens, 1987, p. 22-37; Hansen, 2001, p. 60-73). It is considered meaningful and worthwhile for this study to be carried out in Malaysia. Recently, a few scholars have been committed to research into language attrition in Malaysia, while it is not enough since many Malaysian tertiary students minor in Mandarin. The biggest pity, however, is that few students succeed in maintaining the Mandarin proficiency level gained in the university after graduation. If we can determine whether students

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suffer any proficiency decrease during the holiday, it will then be meaningful for us to go further in this area in order to prevent or to minimize the impacts of attrition. So far, there are studies (see for e.g., Mehotcheva, 2007) arguing that students experience slight language attrition during the two-month holiday. Nevertheless, very little research on attrition has been conducted related to holiday interval in Malaysia, and thus, it seems worthwhile to conduct the research in Malaysia.

This study aimed to explore the aspects of Mandarin language proficiency experience attrition among the tertiary students of Universiti Putra Malaysia (UPM). The purpose of this study was to test the theory of language attrition that relates time span to the attrited Mandarin language proficiency for the undergraduates at UPM. The time span, an independent variable, was generally defined as a period when the participants receive no specific language training and have no immediate access to language use. The attrited Mandarin language proficiency, the dependent variable, is deemed as the proficiency after the participants stop learning Mandarin for a certain period. The intervening variables such as testing environment, the exam items and the scoring criteria were statistically controlled in the study.

One question is proposed as a stimulus to carry out this study and work the attrition problem out, which is, "will learners go through any language attrition in terms of word order, Chinese character recognition and writing ability during two-month incubation time?"

In the search of a theoretical framework for this study, readings lead to a number of strands that have a bearing on the concepts and theories that underlie the conceptualization and final operationalization of the study.

The SLA theory provides the fundamental basis for situating the study. Ellis (1985) pointed out foreign language learning was primarily located in the classroom. As a result, there will be major differences in the way L2 is learnt when compared to L1. Learning a language is tied up very much with other considerations such as motivation and social factors. In this regard, one of the most influential models is Gardner's Socio-educational theory of motivation (1985), which is linked to foreign/second language acquisition. The theory expounds on how motivation, integrativeness and attitude exert major influence on the learning situation.

Students with less favourable attitudes towards the target language are said to show significantly more attrition than those with more favourable attitudes. If students are more motivated, they will more likely make use of English or try to learn English longer than those who are less motivated, which has been argued and proven by some researchers (Gardner et al., 1985). In SLA, researchers have obtained some evidence indicating the existence of gender differences in motivation and attitude (e.g., Bacon & Finnemann, 1992; Burstall et al., 1974; Clark & Trafford, 1995; Gardner & Lambert, 1972; Ludwig, 1983; Goldberg & Wolfe, 1982). This variable was also considered in this study.

In addition, the notion of language contact is closely related to the study of attrition. Winford (2003), drawing from the works of Weinreich (1953) and Haugen (1950), reaffirms the connection between linguistic and the socio-cultural perspective of language contact. Winford also noted that other factors, such as the degree of bilingualism as well as the history and length of contact, were necessary features that explained the linguistic outcomes of this particular process, which in this study, was manifested in attrition. In particular, Winford (2003. p. 59) has proposed that lexical borrowing must be deemed as a creative process of lexical change under contact situations that can contribute to phonological and morphological alteration.

Another observation purports that the amount and rate of attrition is not uniform across different language sub-skills. Weltens *et al.* (1989) posit that lower-level skills seem to be more vulnerable to attrition than global skills (and productive skills are more vulnerable than receptive skills (Cohen, 1989; Tomiyama, 1999; Yoshida & Arai, 1990). Bahrick (1984) concluded that the knowledge of meaning is more robust than that of form and that attrition affects smaller portions of vocabulary recognition than those of vocabulary recall.

Based on the above explications, it is obvious that the theoretical framework for this study is a composite one, drawing on many aspects, both linguistic and non-linguistic, and founded on a broad-based interpretation of SLA.

LITERATURE REVIEW

Linguistic Features of Language Attrition

In the recent years, there has been an increasing amount of literature on language attrition in linguistic aspects, involving lexical, phonological, morphological and syntactical attrition (Seliger & Vago, 1991; Pavlenko, 2000), word order (Schaufeli, 1996), relative clause formation (Seliger, 1989), case morphology (Larmouth, 1974; Polinsky, 1997), the aspectual system (Montrul, 2002; Polinsky, 1997), and the pronominal system (Sorace, 2000). A few of these studies focus on children language attrition, and thus may not be applicable to adult language attrition. Nevertheless, it has conclusively been shown that attrition in linguistic elements is selective, i.e., the attrition process appears different in different linguistic aspects. Some linguistic elements are more susceptible to attrition while others are more resistant. It has been argued that lexical attrition is more patent than morpho-syntax and phonology for L1 attriters (Kőpke, 2002). Seliger (1989, 1996) has demonstrated that this selective attrition goes through the 'redundancy reduction principle'(p.34), where the attrition process is related to some 'markedness' in the sense that those less marked in one language are more likely to replace those more marked in the other language, whereas the less marked seem able to be retained longer. In this argument, those grammatical elements that have more complex grammatical forms and a narrow linguistic distribution are considered marked. Montul (2002, p. 52) analyzed the data from a group of 20

monolingual Spanish speakers, 31 US-born bilinguals, and 8 Latin America-born bilinguals and concluded that "morphophonological spell-outs and semantic features of functional categories are affected by incomplete acquisition and language loss, and that many of the patterns of divergence found resemble stages of second language acquisition."

It is nearly universally acknowledged that attrition is selective (Seliger & Vago, 1991) and does not influence all aspects of language in the same way. This issue has mostly been evidenced in broad linguistic investigations focusing either on intralanguage effects (simplification, over-generalization) or on interlanguage effects (cross-linguistic-influence, CLI). Although there is increasing concern about this perspective, the studies are rather controversial, and there is no general agreement (Köpke & Schmid, 2003). Recently, a considerable amount of literature has been published using specific theoretical frameworks more systematically, such as Chomsky's Universal Grammar (UG) and minimalism (Gürel, 2002; Gürel, 2004; McCormack, 2001; Montrul, 2002; Sorace, 2000; Myers-Scotton & Jake, 2000), 4-M-Model (Bolonyai, 1999; Gross, 2000; Schmitt, 2001).

Previous Studies on Language Attrition and Retention after Holiday

Smythe *et al.* (1973) conducted a study to investigate second language attrition over summer vacation during which no second language (SL) instruction was provided.

Two hundred and twenty students from three secondary schools in Ontario were tested for the amount of loss in the French skills they suffered during the summer vacation between grades nine and ten. It was concluded that the loss in reading comprehension was slight but significant, while there was a slight but significant gain in listening comprehension.

Meanwhile, Cohen (1974) investigated the effects of summer vacation on Spanish oral skills. The selected 14 participants were Anglo children from the Culver City Spanish Immersion Programme. These children were taught exclusively in Spanish when in kindergarten and then gradually introduced to Mandarin in the 1st grade. The effects of summer vacation between the first and second graders on spoken Spanish were studied, which showed that a three-month summer vacation reduced the Spanish oral skills. Utterance became shorter. At least one grammatical class (preposition) was slightly less used, while another (verbs) was more frequently applied. After the vacation, the participants made more errors compared with before the vacation. Problems with articles and adjectives remained.

Studies on Mandarin Learning and Teaching

As far as the author is concerned, there has been very little literature devoting to studies on attrition of Chinese character recognition, word order and writing ability so far although there have been plentiful studies on other aspects of learning and teaching of Mandarin. Wang *et al.* (2009)

argue that metacognitive beliefs, which identify students who are confident about their ability to learn a foreign language, are positively associated with students' Mandarin as a foreign language achievement results. Successful students were found to have confidence in their abilities. It was revealed that in Mandarin learning, transitive verbs, motion verbs, and internal/ communication verbs were distinguished syntactically; moreover, the 60 target verbs were used in multiple sentence frames (Joanne et al., 2005). One of the core difficulties in achieving fluency of Mandarin for non-native users is the language's substantially contrasting written component. The written script used in the various spoken languages of Chinese (e.g., Mandarin Cantonese) differs greatly from the written script of western languages (e.g. English, Spanish) in that it is not phonetic. In other words, the pronunciation corresponding to written Mandarin cannot be determined directly from solely reading it. This particular trait of written Mandarin thus poses a difficult challenge to novice students, especially those with primarily native English fluency, as they encounter new Mandarin words in the language (Taele & Hammond, 2010). Chen and Liu (2008) presented the core developments of the Web-based Synchronized Multimedia Lecture (WSML) system for fulfilling language learning requirements on listening, speaking, reading and writing and argued that WSML facilitates students in Mandarin comprehension self-learning on the Web and can easily be customized for different foreign language learning.

Numerous scholars such as Chao (1968), Li and Thompson (1981) and Huang (1984, 1989, 1991) have noticed that Chinese is uniquely characterized from other languages. Similar to Italian and Spanish, it is a pro-drop language, but different from these languages, it is a pro-drop language needing little verbal morphology. It is different from English as it is a topic prominent rather than subject prominent language (Li & Thompson, 1976). Mandarin has a more flexible word order than Malay and English. These unique features have posed great challenges for linguists to describe Mandarin language, let alone for Malay-English speakers to learn.

METHODS

The design of this study involved the use of pre- and post- tests aiming at obtaining reliable data. The method used in this study seemed sound but no previous similar method was used to test the attrition in Mandarin attrition. The theoretical framework is based on the related theories in foreign language attrition, such as the influence of motivation on attrition and selective attrition in linguistic elements.

Participants and Sampling

The population of the study is non-Chinese major students who minor in Mandarin in UPM. They were from different faculties majoring in different fields ranging from Malay language, Malay literature, food science and Chemistry, among whom 65 Mandarin learners had been randomly selected. These 65 participants had learned

Mandarin for one semester starting from January, 2008. All of the participants experienced Mandarin test at the end of last semester which is referred to as the "pretest" in this study.

The students, in this study, were mainly from Faculty of Modern Languages and Communications, as well as the Faculty of Food Science and Faculty of Science (majoring in Chemistry). Sixty-five participants (ethnically Malay) who are non-simultaneous Malay-English bilinguals were randomly selected according to their matriculation numbers.

Pre- and Post-tests

Sixty-five participants took the Mandarin pre-test during the course BBC 2401 which was carried out and designed by their instructor. The researcher designed and conducted the post test and the participants took the test during the course BBC 2402. In order to make sure the difficulty is nearly the same as the pre-test, the researcher requested the UPM Mandarin instructor who was in charge of the tests to assess and modify the test items. In addition, the post-test paper was strictly designed based on the content in the textbook. This is in conformity with the pre-tests. All the requirements are exactly the same in both the tests. The participants then took the post-test after a two-month holiday under the same condition, such as classroom and invigilation.

The test comprised of 3 sections, namely, Chinese character recognition, sentence rearrangement and writing. A detailed explanation is given in the following section.

Chinese Character Recognition

This part has a total of 5 sentences. In each sentence, there are two blanks for the students to fill in. For each blank, the students were required to circle one single Chinese character from three similar ones in order to complete the sentence. For instance:

This sentence requires students to distinguish three seemingly identical characters to test their Chinese character recognition. In order to circle the correct one, the students must be able to distinguish the correct one from the three confusing characters since they appear to be nearly the same. The total score is 10. One right circling is given 1 point. The students need to circle two characters in one sentence. Hence, one sentence adds up to 2 points, resulting in 10 points for five sentences. This part aims to identify students' attrition in Chinese character recognition.

Sentence Rearrangement

In this part, the students were required to rearrange 7 sentences to change the disordered into ordered ones. Each sentence comprises of 5 to 9 words. An example is as follows.

These are five Chinese words or characters which should have formed a grammatical sentence. Now the order is manually disrupted. The students were supposed to rearrange the words and change them into a grammatically correct sentence. Only those with adequate knowledge of word order can successfully rearrange them. Each completion of sentence leads to 2 points, totalling 14 points for seven sentences.

Writing

For this part, students were allowed 30 minutes to write a composition on the topic "My Lecturer/Classmate". They should write at least 50 Chinese characters. The total score for this part is 10 points. Mainly based on iBT (Internet-based TOEFL) scoring criteria, the assessment of students' writing was classified into six aspects, namely, answers to question, comprehensibility, organization, flow of ideas, as well as grammar and vocabulary as follows:

9-10 points: (1) the student answers the question thoroughly; (2) the student can be understood completely; (3) the student's response is maturely organized and developed, (4) the student's ideas flow cohesively; (5) the student uses advanced grammatical structures with a high degree of accuracy; and (6) the student uses advanced vocabulary with a high degree of accuracy.

7-8 points: (1) the student answers the question adequately but not thoroughly; (2) the student can generally be understood; (3) the student's response is adequately

organized and developed; (4) the student's ideas generally flow cohesively; (5) the student uses either accurate easier grammatical structures or more advanced grammatical structures with a few errors; and (6) the student uses either accurate easier vocabulary or more advanced vocabulary with some errors.

5-6 points: (1) the student gives a basically accurate response to the question; (2) the student's basic ideas can be understood; (3) the student's response is organized basically and is not thoroughly developed; (4) the student's ideas flow cohesively sometimes and at other times do not; (5) the student has a number of errors in grammar or uses only very basic grammar fairly accurately; and (6) the student has a number of errors in vocabulary or uses only very basic vocabulary fairly accurately.

3-4 points: (1) the student discusses information from the task but does not answer the question directly; (2) the student's ideas are not always intelligible; (3) the students' response is not clearly organized and is incomplete or contains some inaccurate points; (4) the student's ideas often do not flow cohesively; (5) the student has numerous errors in grammar that interfere with meaning; and (6) the student has numerous errors in vocabulary that interfere with meaning.

1-2 points: (1) the student's response is only slightly related to the topic; (2) the student's ideas are occasionally intelligible; (3) the student's response is not clearly organized and is only minimally on the topic; (4) the student's ideas do not flow

smoothly; (5) the student produces very little grammatically correct language; and (6) the student uses very little vocabulary correctly.

0 point: The student either writes nothing or fails to answer the question.

Test Administration

Both pre- and post-tests were administered under the same condition. They were conducted in regular class periods in the same campus environment. Both the tests lasted for two hours. The pre-test was carried out in the last week of May 2008, while the post-test was in the last week of July, 2008. The holiday was around two months. Fig.1 shows the timeline of both the tests.

RESULTS AND DISCUSSION

The data gathered were considered from a normally distributed population. Through

tests of normality, no significant difference was found between the normal distribution and the distribution of the obtained data. Therefore, a parametric test was applied to analyze the data in this study.

The main results were computed by means of the paired-sample *t* test. The full mark of the test was 34 points. The mean performance scores on both pre and post tests are presented in Table 1. Also included in Table 1 are the mean pre-post difference scores, attrited percentages and *t* test results. Each test item is listed in Table 1, including the Chinese character recognition (CCR), sentence rearrangement (SR), and writing (WRT).

Investigation into the data in Table 1 revealed that certain results are perhaps logical. First of all, as shown in Table 1, there are significant differences (p < 0.05) between the pre- and post-tests in

Pretest May

Holiday 2 months

Posttest July

Fig.1: Timeline of the study.

TABLE 1
Mean Mandarin Performance and *t* test results (N=65)

Tant	Test session		D: CC	Attrited	T
Test	Pre	Post	— Difference	Percentage (%)	T
CCR	8.54	7.38	0.16	1.8	3.426*
SR	10.85	8.85	2.00	18.4	2.243*
WRT	6.92	6.00	0.92	13.2	2.521*
Total	26.31	22.23	4.08	33.4	3.965*

^{*}p<.05, two-tailed

terms of CCR, SR and WRT. In particular, the shift in the performance of SR was large in absolute size and also statistically significant in the t test (p < 0.05). This indicated that the students had experienced pronounced attrition in the proficiency of sentence rearrangement, leading to the analysis that students' knowledge of word order had been significantly attrited after a two-month holiday. Secondly, the students' performance scores in CCR also showed a statistically significant (p < 0.05) change despite having a relatively small absolute size. Therefore, it could be inferred that after the 2-month holiday, the students appeared to be unable to recognize as many Chinese characters as it was before the holiday. The students might have gone through attrition in Chinese character recognition. Finally on the WRT test, the students' performance was found to have declined between the two testing sessions as well. This difference was also significant (p < 0.05) but somewhat more pronounced than CCR. As a result, the students' writing ability also appeared to have attrited.

Setting aside the issue of statistical significance for the moment, perhaps the most dramatic finding was that students had shown an unbalanced attrition in their Mandarin competence after the 2-month holiday. In percentage terms, CCR shift represented a moderate drop of less than 2%, while the decline in SR and WRT was much more obvious, with approximately 18% and 13%, respectively. Meanwhile, the students' knowledge of word order and writing ability seemed to be much more seriously attrited than character recognition competence.

Maybe it could be argued that the generalized result was not so convincing since the tests were only locally designed rather than the use of an established or validated test. The test items, however, are theoretically logical to identify attrition in Chinese character, word order and writing ability. The test items of the Chinese character recognition require students to spot out the correct Chinese character among three ones. This directly identifies students' character recognition competence. As for sentence rearrangement, several Chinese words are provided in disorder. What students needed to do was to only change the wrongly ordered words to form grammatically ordered sentences. Therefore, knowledge of word order appeared the first important step to realize grammatical sentences. Writing test is strictly scored based on iBT criteria, which seems reasonable to determine students' writing ability.

Furthermore, Cronbach alpha formula was used to assess the internal consistency, proving that the test is internally consistent and reliable. The Cronbach alpha coefficient of CCR for the pre-test was 0.835 and this was 0.749 for the post-test, while for pre-and post-tests in SR, the coefficient was 0.736 and 0.712, respectively. As for the writing tests, the value of 0.839 and 0.863 had been obtained respectively for the pre-and post-tests. Integrating CCR, SR and WRT into a whole, the item-total Cronbach alpha was 0.881. As a consequence, both tests appeared to have a satisfactory level of internal consistency.

This study produced results which corroborate with the findings of a previous work in the field of linguistic attrition. Word order patterns were explored in the Turkish of immigrants in the Netherlands (Schaufeli, 1996). Deviations in word order, possibly considered as indications of language loss or change, were found between the controlled and the treated groups. It was also argued that speaker's first language competence in late bilingualism, influenced by a second language, decreased in the areas of phonology, morphosyntax, lexis, semantics, pragmatics, rhetoric, and conceptual representations (Pavlenko, 2000). As far as lexical attrition is concerned, disagreed arguments have been put forward. For instance, it was shown that vocabulary loss might be massive (Schmidt, 1985); however, Hutz (2004) has reported that vocabulary loss could be minimal (Hutz 2004; Schmid, 2002). As for writing proficiency, the Spanish writing skills of a German L1 multilingual - mainly fluency were shown to have suffered from language attrition after 8-month non-use of a language (Mehotcheva, 2007).

The students' sharp decrease of performance in the word order and writing might result from the relatively little knowledge they gained before the holiday. It has been argued that the amount of experience gained before the interruption occurs in the learning process influences the level of forgetting (Bailey, 1989; Globerson et al., 1989; Shtub et al., 1993). Therefore, the less knowledge students acquire, the more serious the attrition will be. In this

study, students only learned Mandarin for one semester, and thus, it is hardly believable that they have retained much knowledge of Mandarin. Hence, their suffering obvious attrition could possibly be brought about by their little knowledge of the language.

The moderate attrition in the Chinese character recognition ability may be caused by students' exposure to a special linguistic environment. Malaysia's population comprises many ethnic groups, among which about a quarter is Chinese. They have historically played an important role in trade and business, operating a sea of companies and stores, leading to the fact that many Chinese characters are displayed alongside the streets. People may see many Chinese characters rather than complete Chinese sentences in most areas of Malaysia, such as the trade marks, names of companies, restaurants, schools, and so on. The students in this study are absolutely no exception. During the holiday, they might have been exposed to many Chinese characters while very few complete Chinese sentences had been available since most of them might not have voluntarily learned Chinese without instruction. The result was that students could have possibly experienced less contact with word order. This phenomenon could be the main reason why the students only experienced less than 2% attrition in character recognition while 18% in word order.

Another possible reason for the obvious failure in retaining their writing ability might be the lack of motivation. It has been hypothesized that "since attitudinal and motivational characteristics are related to the level of second language proficiency, they will relate to second language retention" (Garner, 1985, p. 31). When students suspended their learning during holiday, very few of them might be motivated to practice writing in Mandarin. This is especially for the students who only learned Mandarin for one semester, their writing competence could be exceedingly limited. It is possibly painful for them to compose Chinese writings without proper instruction since Chinese characters and syntax are not similar to English and Malay at all. For English-Malay speakers, they might feel uneasy to write a single Chinese character, which possibly discouraged them to write Chinese characters. In view of these, the results seemed reasonable.

Additionally, there may be another factor that impacts participants' motivation, giving rising to the attrition in CCR, SR and WRT. The pre-test directly constituted students' academic results, and the students might be more motivated to perform the test. In contrast, the post-test was not the one affecting their results but merely serving the study, and the students might have not done it as seriously and diligently as the pre-test.

Since Chinese characters are more resistant against attrition, learners might focus more on word order and writing. More research can be done on other language skills, such as listening, speaking as well as reading for the near future. It could also be said that the fewer opportunities for social language contact could be more linked to the

attrition in Mandarin skills of the language. This means the participants participated in significantly fewer social activities that required the use of Mandarin during the holiday than before the holiday. This provided a supportive position for inferring language attrition occurrence.

The last but by no means the least, the linguistic interaction between Mandarin, Malay, English and Hindi may be another unavoidable factor resulting in the attrition of Mandarin in Malaysia. The dissimilarities between these languages might have interfered in the Mandarin language system cultivated in the participants' brain and the similarities might also have caused confusion between the different languages since Mandarin is a language which is phonologically, morphologically and syntactically different from Malay, English and Hindi.

CONCLUSION

In a word, this study found that after twomonth holiday of Mandarin learning, there existed statistically significant language attrition in terms of Chinese character recognition, word order and writing ability although the percentage of attrition in the Chinese character recognition appeared to be much lesser as compared to that of the word order and writing ability.

Admittedly, the number of the participants is not large. However, the valid internal consistency and construct and content validity might ensure that this study could be a fair reference for further research into attrition in terms of Mandarin and could

possibly pave a way for Mandarin learning as well. Research into the attrition of English is plentiful but sparse in Mandarin. Thus, further research into the attrition of Mandarin as EFL is still necessary.

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APPENDIX A

Mandarin Pre and Post Tests

Mandarin Tests (中文版)

Foreign Languages Department, Faculty of Modern Languages and Communication, Universiti Putra Malaysia

Semester 1, 2008/2009

•	
Name:	Matric No.

A. 圈出对的汉字。(10%)

Circle the right characters.

- 1. 我是美国(入、人、八), (住、往、主)在吉隆坡(前测)。我是中国(人、入、八), (往、住、主)在北京(后测)。
- 我喜欢(学、字、子)习汉语,所以我(天、太、大)天汉语书(前测)。我喜欢学习历史,所以我每(太、大、天)都看历史书(后测)。
- 3. 这米饭二(令、今、零)吉,真的(很、恨、银)便宜(前测)。这巧克力十(今、零、令)吉,(银、很、恨)便宜(后测)。
- 4. 那本汉(伍、语、吾) 书不是我(约、的、钓) (前测)。那本英(伍、语、吾) 书不是他(约、的、钓) (后测)。
- 5. 今天星(其、期、斯)六,我不上学,回(家、豪、蒙)了(前测)。 今天星(其、期、斯)五,我上学,不回(家、豪、蒙)了(后测)。
- B. 词句重组 (14%)

Rearrange the following words into order to form sentences.

- 1. 我 图书馆 下午 去 今天 (前测); 我 学校 上午 去 明天 (后 测)。
- 2. 的
 麦克
 换了
 人民币
 美元
 银行

 五百
 去(前测); 的
 玛丽
 换了
 欧元
 人民

 币
 银行
 六百
 去(后测)。
- 3. 去 玛丽 面条 学校 吃 食堂 要 明天(前测);去 杰克 米饭 学校 吃 餐厅 要 后天(后测)。
- 4. 华语
 王老师
 老师
 我们的

 是(前测);
 英语
 张老师
 老师
 我们

Yu Zhonggen, Chan Swee Heng and Ain Nadzimah Abdullah

的 是(后测)。

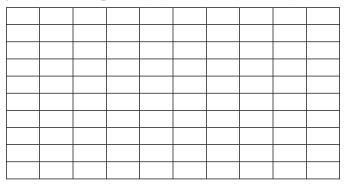
- 5. 要
 一碗
 鸡蛋汤
 喝
 我
 明天(前测)

 ; 要
 一碗
 西红柿汤
 喝
 我
 后天(后测)
- 6. 天安门
 玩
 星期天
 去
 我 (前测); 吉隆

 坡
 玩
 星期六
 去
 我 (后测)。
- 7. 不
 汉语
 难
 发音
 太(前测);

 不
 英语
 难
 拼写
 太(后测)。
- C. 介绍你的老师 (前测);介绍你的同学(后测)(10%)。

Write a short essay to introduce your lecturer (pre test); Write a short essay to introduce your classmate (post test). (no less than 50 words)



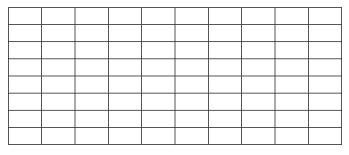
APPENDIX B

Ma	andarin Pre and Post Tests			
Ma	andarin Tests (English version)			
Fo	reign Languages Department, Facu	alty of Modern Languages and Communication,		
Un	iversity Putra Malaysia			
Sei	mester 1, 2008/2009			
Na	me:	Matric No		
A.	Circle the right characters. (10%))		
1.	I am an American (ru, ren, ba), Chinese (ren, ru, ba), (wang, zhu	(zhu, wang, zhu) in Kuala Lumpur (pre test). I am		

- Chinese (ren, ru, ba), (wang, zhu, zhu) in Beijing (post test). 2. I like to (xue xi, zl xi, zi xi) Mandarin, so I read Chinese Books (mei tian, mei tai, mei da) (pre test). I like to (xue xi, zl xi, zi xi) history, so I read books on history (mei tai,
- mei tian, mei da) (post test). 3. This rice is two (lĺngji jinji lingji), really (hen,hèn, yin) cheap (pre test). This chocolate is ten (jinji, língji, lingji), really (yin, hen, hèn) cheap (post test).
- That (hanwu, hanyu, hanwu) book is not (woyue, wode, wodiao) (pre test). That (yingwu, yingyu, yingwu) book is not (woyue, wode, wodiao) (post test).
- Today is (xinqiliu, xinqiliu, xinsiliu). I didn't go to school but (huijia, huihao, huimeng) (pre test). Today is (xinqiwu, xinqiwu, xinsiwu). I will go to school and will not (huijia, huihao, huimeng) (post test).
- B. Rearrange the following words into order to form sentences. (14%)
- 1. I the library this afternoon going to am (pre test); I the school this morning going to am (post test).
- 2. Mike to exchange Chinese currency 500 US dollars for the bank went to (pre test); Mary to exchange Euros 600 Chinese currency went to (post test). for the bank
- is going to noodles school 3. Mary eat dining hall tomorrow (pre test); is going to Jack rice school dining hall the day after tomorrow (post test). eat in
- 4. Mandarin Teacher Wang teacher is (pre test); our English Teacher Zhang teacher is (post test). our
- 5. a bowl of drink I am going to egg soup tomorrow (pre test); am going to a bowl of tomato soup drink

I the day after tomorrow (post test).

- 6. in Tiananmen played on Sunday I (pre test); in Kuala Lumpur played on Saturday I (post test).
- 7. not Chinese difficult pronunciation too is (pre test); not English difficult spelling too is (post test).
- C. An introduction to your teacher (pre test); An introduction to your classmate (post test) (10%). (no less than 50 words)





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Behavioural Design Protocols in Architectural Design Studios: A Microscopic Analysis

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ABSTRACT

Due to the emerging complicated global design problems, new design research methodologies need to analyse the structures and processes of design cognition for discovering multi-aspect and multi-variable design strategies. Adapting such objective methods of design assessment, as opposed to the traditional survey based subjective methods of design performance studies, is therefore essential for improvements of design education in rapidly developing Malaysian design schools. This paper proposes *Protocol* Analysis Methodology for facilitating microscopic study of educational design performance assessment. Protocol Analysis has become the most prevailing research methodology for design research over the last two decades; and can be considered as a reliable methodology due to its objectiveness and accuracy in studying designers' cognitive actions. This paper illustrates how the protocol analysis methodology was used in one experiment for comparing designers' creativity when working with two types of design media, namely, traditional sketching and Virtual Reality 3Dimentional sketching. In this study, a descriptive statistical analysis on protocol data conveyed insight into novice designers' cognitive protocols microscopically in form of various charts and graphs. Results offered objective insights into the changes in the design process that were associated with applying different design media. This paper presents background literature, explains the conducted protocol analysis experiment, and presents results from the protocol data to reveal designers' action and thought protocols. This paper also recommends the application of protocol analysis methodology for performing microscopic design study in architectural education

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in Malaysia. The methodology could also be extended to cover other fields of design in the country. This study recommends the use of protocol analysis methodology to provide empirical data from codification of subjective observations, hence, becoming a stepping stone for leveraging research on teaching and learning in architectural design studios in Malaysian universities.

Keywords: Design studies, protocol analysis, design process, microscopic assessment

INTRODUCTION

Designing is one of the most important activities that distinguishes humans from other beings (Cross, 1999). The emerging globalisation and sustainability issues, combined with the advanced design support technologies, urge building professionals to explore more alternatives for more objectives. Since such 'multi-aspect' design problems are often far too much complicated for the human cognition to involve tradeoffs among different variables, the ability to assess the 'new' design strategies has become progressively more essential (Clevenger & Haymaker, 2011). Although various design performance assessment methods do exist, there is an increasing interest in using advanced methodologies which analyse the structures and processes of design cognition in order to describe designers' behaviours and performance (Dong et al., 2012). Notwithstanding the advantages, such methodologies are often neglected in the assessment of design studio performance in architectural schools which is still using the traditional subjective questionnaire based assessment methods.

Due to the subjective or tacit nature of design process, it is often difficult to assess it using self-report survey methodologies (Bilda & Demirkan, 2003; Kim & Maher,

2008). In other words, designers are often unable to explain their cognitive thinking processes as they are not actually aware of the quality of these procedures (Clayton et al., 1998). Another alternative way of assessing design process is evaluating the design artefacts (Demirkan & Afacan, 2011; Ibrahim & Pour Rahimian, 2010). Although this method can reveal some invaluable facts regarding the quality of work undertaken during the design process (Sarkar & Chakrabarti, 2011), it still ignores a lot of cognitive procedures through which 'creative' design ideas can emerge (Rahimian & Ibrahim, 2011). Thus, mapping such cognitive procedures may open up a lot of opportunities for future developments. Thereby, there is an interest in design education to have some kinds of predictive tests based upon the design process and developing objective and accurate design assessment tools (Kan, 2008). Due to this tendency towards the objective ways of studying designers' problem-finding and problem-solving processes, protocol analysis is becoming the worldwide prevailing method in design studies.

This paper proposes the use of the design protocol analysis methodology in order to replace the existing subjective design assessment methods that are currently used in Malaysian architectural schools. The paper presents a background literature review regarding cognitive approaches to design and design protocol analysis methodology. It also explains the different types and approaches in design

protocol studies. In addition, this paper also presents the conducted sample protocol analysis study during an experiment for comparing designers' creativity when working with two different types of design media, namely, the traditional pen and paper sketching and Virtual Reality Three-Dimensional sketching. It also explains how this conducted study generated graphical results from protocol data in order to microscopically analyse the three pairs of designers' actions and thought protocols. It finally advocates further development of such cognitive based quantitative design research methodologies as a new paradigm in Malaysian architectural design studies.

LITERATURE REVIEW

Cognitive Approach to Designing

Kan (2008) defined design as a series of decisions which expose the relationship of geometries, materials and performance. In this definition, the central activities of designing are independent of different design disciplines and scientifically observable. Seminal literature regarding design studies clustered design activities as thinking and knowing (Cross, 2007), free-hand sketching and interactions (Lawson, 1997), social construction of design solutions (Pour Rahimian et al., 2008), and designing-bymaking (Jones, 1970). Kan (2008) further asserted that some of design activities are more difficult to observe (and predict) as compared to the others.

Visser (2004) critically reviewed the seminal theories regarding cognitive approach to designing. According to Visser (2004), the majority of published literature in the field followed the principle of either "symbolic information-processing (SIP)" approach (Simon, 1979) or the "situativity (SIT)" approach (Schön, 1983). The focus of SIP approach is on designers and the cognitive processes through which they synthesise design problems and undertake rational problem-solving processes to propose solutions. However, the SIT approach relies on the designers' situational environment and context. The original SIT theory was further developed based on the constructionist view of human perception and thought processes in order to explain "situative" designing as a matter of "knowing-in-action" (Schön & Wiggins, 1992) and "reflection-in-action" (Schön, 1992).

From a more advanced cognitive perspective, Visser (2004) focused on the dynamic aspects of designing by analysing designers' activities undertaken in actual professional design projects. As a result of this investigation, Visser (2004) criticised both the SIT and SIP approaches and proposed a new comprehensive cognitive model through the integration of SIT and SIP approaches. Visser's (2004) comprehensive cognitive model explained designing as an "opportunistically organised" activity to define an artefact and evolve the characteristics which can satisfy that artefact. According to this model, design process is developed only through the evolution of internal and external representations and there is no permanent hierarchy among representations of differing levels of idea abstraction. The model also explains that ill-defined design problems can cause some interruptions which not only do not hinder design quality but also create great opportunities for improvement of design practice through reflections in actions. The model explains the value of these reflections due to the potential mutual discovery processed between the external representation and the designer's cognitive reasoning processes.

Tversky (2005) further extended Visser's (2004) model by taking a cognitive evolutionary approach. Tversky (2005) ascertained that constructing the external or internal representations, designers would be engaged with some spatial cognitive processes in which the representations serve as cognitive aids to memory and information processing. Tversky's (2005) model also combined Schön's (1983) "Reflective Practitioner" theory with "symbolic information-processing (SIP)" approach (Simon, 1979) when it defines designing as a reflective communication between the materials that belong to design situation and the internal syntheses of symbolic information that happen in designers' mind. Relying on these theories, Kim and Maher (2008) emphasised on constructive aspects of designing and explained continuous evolution of "problem-space" through the iterative process of "problem-finding" as a very important part of design process that finally leads to the maturity of "solutionspace", or final design artefact.

Design Ideas and Creativity

Kan (2008) argued that creative design ideas are necessary for having good design artefacts. Studying design evolution of ideas is important for design researchers as it could offer an insight into the overall strategies taken during design decision making process (Stones & Cassidy, 2007). Kan (2008) relied on Berlyne's (1971) theory regarding design reasoning and proposed that creative design ideas could only emerge through an iterative and continuous evolution process. Kan (2008) posited that too many pre-defined links among design variables could lead to early fixation of solutions which would result in too similar or boring design artefacts.

Traditionally, the term "creative" was often used as a value to evaluate a design artefact (Kim & Maher, 2008). However, in cognitive psychology, this is considered as a quality for design activity that has the potential to produce creative artefacts through particular reasoning procedures (Visser, 2004). Cross and Dorst (1999) define creative design procedures as a sort of non-routine design activities which are capable to result in considerable events or unanticipated novel artefacts. Design process is therefore meant to be evaluated based on the level of its creativeness (Kan, 2008). However, creativity is multiaspect subject which is often defined by different mental processes which totally lead to the phase of creative insight and discovery (Finke et al., 1992). According to Finke et al. (1992), creativity comprises of various initiative stages through which mental representations of "pre-inventive structures" are formed, and that this stage is prior to an exploratory stage through which the creative ideas are generated.

Meanwhile, Cross and Dorst (1999) developed cognitive approaches to design creativity and posited that it is often formed through "co-evolution" of "problem" and "solution" spaces. In "co-evolutionary" design approach (Cross & Dorst, 1999), the design brief and design solutions are formed separately, while mutually affecting each other. In a co-evolutionary approach, iterative alterations in design requirements which are determined by evolution process of design artefact could significantly affect designer's insight into design problem and this would ultimately change design solution iteratively, until both design problem and design solution reach to a "saturation point".

"Situative-inventions" (Suwa et al., 2000) is a more advanced cognitive model for measuring design creativity. This model explains how designers could explore new significant parts of the design "solutions" when they introduce new requirements for design artefact by "situatively" developing design "problem" and going beyond the synthesis of solutions which only suit the given initial requirements. In this model, "unexpected-discoveries", however, are the keys for triggering situative-inventions and making design process creative (Suwa et al., 2000). Suwa et al. (2000) defined unexpected-discoveries as the cognitive activities which articulate tacit design semantic in an unanticipated way with aid of ill-defined visuospatial forms or external representations of the ideas formed in mind. Suwa et al. (2000) further ascertained that the formation of unexpected discoveries of visuospatial forms and situativeinventions of new design requirements are strongly related to each other. Suwa and Tversky (2001) took a constructive approach and posited "co-evolution" of new conceptual semantics and "perceptual discoveries" could also improve designers' understandings of external representations. This was aligned with Gero and Damski's (1997) earlier finding that constructive perceptions allow designers to change their focus and to understand design problem in a different way in which re-interpretation may be stimulated, so that designers could find the opportunity to be more creative.

Based on the above discussion, it could be concluded that design creativity is a subjective matter and it could not be realised by the designers who are not aware of all these intuitive procedures that take place in their minds. Therefore, this paper argues that the existing subjective methods that are often used in architectural schools of Malaysia may not be so effective for evaluating the performance of design curricula adapted. This is because the designers are not able to explain or self-report something that they exactly do not know about. In order to fill this gap, this paper proposes the use of cognitive methods in design studies which are capable to objectively discover the tacit parts of the design process. As suggested by Clayton et al. (1998), adapting such research methodologies could also be useful

for validating new design methodologies implemented in progressively developing architectural design schools in Malaysia. Next section provides a background literature review supporting design protocol analysis methodology (Cross *et al.*, 1996; Kan, 2008) for studying design process using cognitive constructs and measures.

PROTOCOL ANALYSIS RESEARCH METHODOLOGY

Due to a tendency towards the objective ways of studying designers' problem-solving processes, protocol analysis is becoming the emerging prevailing method for design studies (Kan, 2008). Kim and Maher (2008) advocated using this methodology for analysing and measuring designers' cognitive actions instead of using subjective self-reports such as questionnaires and comments. Cross *et al.* (1996, p. 1) advocated the use of protocol analysis methodology when they mentioned:

"Of all the empirical, observational research methods for the analysis of design activity, protocol analysis is one that has received the most use and attention in recent years. It has become regarded as the most likely method (perhaps the only method) to bring out into the open the somewhat mysterious cognitive abilities of designers."

Protocol analysis is a method for studying design thinking and it stands between hard sciences and social sciences (Cross, 2007).

According to Kan (2008), usually protocol analysis is used for identifying design activities, revealing cognitive models and knowledge structures of designer, and investigation of the perceptual aspects of sketching and designing. As a quantitative methodology, it is a new approach in design research. Akin (1998) acknowledged the design studies conducted by Eastman (1970) as the first formal protocol analysis study. In the mentioned study, using an information process model, Eastman (1970) studied what architects do when they design. This was the first model which defined design as a process of problem finding and alternative testing, rather than synthesis of structured solutions for the pre-defined problems (Akin, 1998). Later, Schön and Wiggins (1992) challenged Eastman's (1970) model when they described designing as a reflective conversation with material in which the basic structure is an interaction between designers and discovering. Nowadays, Schön and Wiggins' (1992) model is the basis of many protocol analysis studies (Kan, 2008). Relying on Schön and Wiggins' (1992) model current design protocol studies employ action analyses methods, e.g. depictions, hands movements, and looking actions, which provide a broad insight to the cognition of the physical actions involved during designing (Cross et al., 1996).

Strategy for Studying Protocol Data

According to van Someren *et al.* (1994), every formal design protocol analysis study should comprise of five main steps: 1) to conduct experiments, 2) to transcribe

protocols, 3) to parse process into the segments, 4) to encode the segments based on a valid coding scheme, and 5) to analyse and interpret the encoded protocols. However, based on the nature of the projects, there are some paradigms which can determine the detailed strategy that researchers should follow during their protocol analysis study.

In terms of the reporting method, recent protocol analysis studies could be classified into two main categories: 1) concurrent methods, and 2) retrospective methods. Verbal protocol methodology (Ericsson & Simon, 1993) was one of the first attempts which led to the invention of the concurrent protocol analysis (Cross et al., 1996). Ericsson and Simon (1993) relied on the use of verbal protocols as the quantitative data for studying thought process. In a latter study, van Someren et al. (1994) provided theoretical framework and practical guideline to study and model the designers' cognitive processes. As depicted in Fig.1, they assumed a simple human cognitive model to develop the validity of verbal reports. The arrows in the diagram represents different processes: perception (sensory to working memory), retrieval (long-term memory to working memory), construction (within working

memory), storage (working memory to longterm memory), and verbalisation (working memory to protocols).

After a few years, concurrent method was abandoned by many of the scholars because of its disadvantages (Kan, 2008). Kan (2008) described the disadvantages of concurrent reporting systems as: 1) slowing down the thinking process, 2) failing in reporting the whole thinking process when the participant stops verbalising or uses imagery only, 3) weakening the reasoning process for those participants who are not able to verbalise and reason at the same time, and 4) including some subjective elements in the coding system. As mentioned above, the alternative for the concurrent method was the retrospective reporting method with visual aids. Contrary to the concurrent method, in retrospective protocol analysis, designers are asked to remember their thoughts by using some visual aids, after they finish the design process. For this purpose, the whole process should be videotaped and thoroughly transcribed (Dorst & Dijkhuis, 1995; Foreman & Gillett, 1997; Schön, 1983).

The other classification of protocol studies is based on what the protocol study focuses on. In order to reflect the two

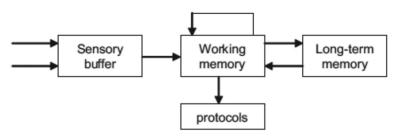


Fig.1: van Someren's memory model (van Someren et al., 1994)

different paradigms in design cognitive sciences, i.e., the information processing model (Eastman, 1970) and the reflection in action model (Schön & Wiggins, 1992), there are two types of protocol studies, namely, process-oriented and contentoriented protocol analysis (Dorst & Dijkhuis, 1995). The think-aloud or the concurrent protocol is usually used for process-oriented analysis in which the focus is on the process of information. Meanwhile, retrospective protocol is used for content-oriented analysis in which the cognitive content of designing is the focus. Since the conducted sample protocol analysis in this study focused on designers' cognitive activities, the content-oriented protocol analysis was selected as the data collection strategy for this research. Besides, the retrospective method of reporting was adapted since the use of concurrent methods is not suitable for collaborative works (Kan, 2008). During the sample conducted protocol study, the designers worked naturally while the entire process was recorded. After finishing the experiments, the designers were required to transcribe their sessions using the aid of the recorded media. Their transcriptions as well as the recorded media provided the research data for the subsequent coding process.

Unit of Analysis

The unit of analysis in design protocol analysis depends on the objectives and scope of studies (Kan, 2008). Kan (2008) explained that the unit of analysis could be individual participants (when studying design team working), sessions, episodes,

code categories, or even each segment or utterance. In the protocol analysis studies, segments are the smallest parts of design process which could not be divided into smaller subdivisions. Example of a segment is the act of designer while drawing a circle or looking at a part of a drawing. Moreover, a segment could be a mental thinking process as considering whether a design element suits into design requirements or not. Since this study focused on designers' cognitive and collaborative actions and the tested hypotheses relied on these actions, the study chose each design segment as one unit of analysis.

Strategy in Parsing Segments

Suwa et al. (1998) defined the process of parsing segments as dividing the entire design process into the smallest units. However, a segment should not necessarily comprise of a single code and it might contain several codes (Suwa et al., 1998). Based on the objectives and the scope of the study, researchers usually use two strategies in parsing the segments of the design process (Kan, 2008). The first strategy is segmenting the process depending on the occurrences of the processes. In this method, the purpose is to analyse the protocols in the frequencies of processes involved. Ericsson and Simon (1993) suggested some cues for segmentation, in which the cues are pauses in the process or conversation, changing in intonation, and the contours which correspond to the designers' information processing model. From a different perspective,

Dorst and Dijkhuis (1995) suggested using a fixed 15-second time-scale for segmentation. According to Kan (2008), the ease of processing data is the advantage of this method since it does not require any interpretation during the segmentation. However, Kan (2008) asserted that since this 15-second interval segmentation method might cut in the middle of a statement, it makes the coding procedures more difficult compared to those in the previous method. As such, this study selected the first method of segmentation which depends on sequence of the occurrences of the processes.

Coding Scheme

In design studies with protocol analysis, coding schemes are meant for defining different action categories which are needed for segmentation of the process and further analysis of data. There is a variety of developed coding schemes for design protocols. The types of coding schemes, which should be used in different studies, are dependent upon the purpose and the scope of that particular study. Gero and McNeill (1998) developed a comprehensive and multi-dimensional process-oriented coding scheme which considers design as a process. The first dimension of this coding scheme was concerned with the designers' navigation within the problem domain at different abstraction levels. The second dimension looked at the designer's design strategies. The third dimension was related to the designer's cognitions about function, human behaviour, and structure. This coding scheme, however, has no dimension that focuses on collaborative activities of the designers.

Of the most comprehensive and most referred content-oriented coding schemes is Suwa *et al.*'s (1998) coding scheme (for instance used in Bilda & Demirkan, 2003; Bilda *et al.*, 2006; Kim & Maher, 2008). They established their coding scheme based on the human cognitive process. Suwa *et al.* (1998) considered the content of the process semantically and categorised design actions into four categories: *1) physical actions*, *2) perceptual actions*, *3) functional actions*, and *4) conceptual actions*.

In Suwa et al.'s (1998) coding scheme, the physical action category corresponded to designers' sensory level. This category includes the categories of making depictions, examining previous depictions, and other physical actions. Perceptual action category comprised of designers' perceptions of the previous physical actions. Therefore, the coding scheme categorised perceptual activities as: attending to visual features, attending to spatial relations, and attending to the implicit spaces among the existing spaces. In functional action category, however, they related to design artefacts including issues of interaction, and psychological reactions of people with the artefact. In this coding scheme, the highest action category level—the conceptual action category—corresponded to the semantic activities consisting of categories such as making co-evolutions about previous (physical, perceptual, and functional) actions, set-up goal activities, and retrieving knowledge.

As such, Suwa et al. (2000) developed their initial coding scheme by adding some subcategories to perceptual and conceptual actions. They claimed that during a conceptual design process, not only designers synthesise solutions to satisfy the initially given requirements (problem-space), but also they invent new design issues to capture significant aspects of the original problem. Thereby, Suwa et al. (2000) asserted that designers need some vehicles for their mind to support their reasoning process. They defined these vehicles as "unexpected discoveries" and "situative inventions". In this model, unexpected discoveries happen when a designer perceives a new aspect of the design artefact, whilst situative invention is led by the mental synthesis of the perceived visual information. They further argued that unexpected discoveries would lead to changes on the current design artefact while situative inventions might give rise to the new requirements to be applied later.

Suwa et al. (2000) related unexpected discoveries to the act of finding new aspects of the developing solution-space, and situative inventions to the act of expanding the problem-space. They claimed that the continual perception and conception of the external representations are significant during a conceptual design process since perceptual interaction with one's own sketches serves as an impetus for pushing forward the co-evolution of the solution-space and the problem-space. Thus, in order to evaluate this continuality, they prioritised unexpected discoveries among all other

perceptual actions and situative inventions among all other conceptual actions.

Although this coding scheme was not originally designed to study collaborative design works, Kim and Maher (2008) added some new collaborative codes to this scheme. Their collaborative action category consisted of both cognitive synchronisation and gesture actions. In other words, the new format of this coding scheme was capable of capturing designers' collaborative conversations and gestures in order to measure the level of collaboration that they had during the design process.

As such, the coding scheme utilised in this study was adopted from the studies of Suwa et al. (1998, 2000), due to their reputation and also the similarity between their studies and this research. The study took the main five categories from Suwa et al.'s (1998, 2000) coding scheme and developed its multiplied sub-categories based on the preliminary observations of the designers' actions performed during the experiment. With respect to design collaboration, this study borrowed and adopted Kim and Maher's (2008) codes for collaborative activities. Finally, the proposed coding scheme categorised designers' spatial cognition into five different levels labelled as 'physical-actions', 'perceptual-actions', 'functional-actions', 'conceptual-actions', and 'collaborative-actions'.

Although no scholars had claimed that the developed coding scheme was the best possible answers for this kind of study, this coding scheme was capable to embrace all the cognitive codes that designers

Developed coding scheme for 5 action-categories and their sub-categories adopted from Suwa et al. (1998, 2000) and Kim and Maher (2008)

)	
Category			Index	Description
Physical		Ь		Directly related to the P-actions
	D-actions	Da	1	Depicting actions which create or deal with any visual external representation of design
	CreateNew	Dacn	New	To create a new design element or a symbol (drawing circles, lines, textures, arrows, etc)
	ModifyExisting	Dame	New	To edit the shape, size, texture etc of the depicted element
	CreateMask	Dacm	Old	To create a mask area for selecting something
	RelocateExisting	Dare	New	To change the location or the orientation of the depicted element
	CopyExisting	Dace	New	To duplicate an existing element (for digital work only)
	TracingExisting	Date	Old	To trace over the existing drawing
	RemoVeExisting	Dave	New	To remove an existing object or (for digital work only) to undo any command or to turn off
	L-actions	La	1	Look actions which include inspecting a previous depictions or any given information
	InspectBrief	Laib	Old	Referring to the design brief
	TurnonObject	Lato	Old	Turning on the invisible objects
	InspectScreen	Lais	Old	Looking at screen (for digital work only)
	Inspect-sHeet	Laih	Old	Looking at design sheet (for manual work only)
	Inspect3DModel	Lai3	Old	Looking at virtual or physical 3D model while rotating it
	M-actions	Ma		Other P-actions which can fall into the motor activities
	MovePen	Mamp	New	To move pen on the paper or board without drawing any thing
	MoveElement	Mame	New	To move an element in the space arbitrarily for finding new spatial relationship
	TouchModel	Matm	New	To touch either physical or virtual model to stimulate motor activities
	ThinkingGesture	Matg	New	Any arbitrarily gesture which motivates thinking about design
Perceptual		Pe		Actions related to the paying attention to the visuo-spatial features of designed elements
	P-visual	Pv	1	Discovery of visual features (geometrical or physical attributes) of the objects and the spaces

cont'd Table 1				
	NewVisual	Pnv	Unexp.D	New attention to a physical attributes of an existing object or a space (shape, size or texture)
	EditVisual	Pev	Other	Editing or overdrawing of an element to define a new physical attribute
	NewLocation	Pnl	Unexp.D	New attention to the location of an element or a space
	EditLocation	Pel	Other	Editing or overdrawing of the location of an element or a space to define a new physical attribute
	P-relation	Pr		Discovery of spatial or organisational relations among objects or spaces
	NewRelation	Pnr	Unexp.D	New attention to a spatial or organisational relations among objects or spaces
	EditRelation	Per	Other	Editing or overdrawing of a spatial or organisational relations among objects or spaces
	P-implicit	Pi		Discovery of implicit spaces existing in between objects or spaces
	NewImplicit	Pni	Unexp.D	Creating a new space or object in between the existing objects
	EditImplicit	Pei	Other	Editing the implicit space or object in between the existing objects by editing or relocating the objects
Functional		Ħ	ı	Associating visual or spatial attributes or relations of the elements or the spaces with meanings, etc
	F-interactions	Ŧ.		Interactions between designed elements or spaces and people
	NewInteractive	Fni	ı	Associating a interactive function with a just created element or space or a spatial relation
	ExistingInteractive	Fei	ı	Associating a interactive function with an existing element or space or a spatial relation
	ConsiderationInteractive	Fci	ı	Thinking of an interactive function to be implemented independently of visual features in the scene
	F-psychological	Fp	ı	People's psychophysical or psychological interactions with designed elements or spaces
	NewPsychological	Fnp	1	Associating a psychological function with a just created element or space or a spatial relation
	ExistingPsychological	Fep	1	Associating a psychological function with an existing element or space or a spatial relation
	ConsiderationPsychological	Fcp	1	Thinking of an psychological function to be implemented independently of visual features

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Conceptual		C		Cognitive actions which are not directly caused a visuo-spatial features
	Co-evolution	Ce		Preferential or aesthetical assessment of the P-actions or F-actions
				Abstracted issues out of particular situations in design representation which
	Set-up Goal activities	Cg	1	are general enough to be accepted via the design process thoroughly as a major design necessity
	GoalBrief	Cgb	Other	Goals based on the requirements of the design brief
	GoalExplicit	Cge	S-inv	Goals introduce by the explicit knowledge or previous cases
	GoalPast	Cgp	S-inv	Coming out through past goals
	GoalTacit	Cgt	S-inv	The goals that are not supported by explicit knowledge, given requirements, or previous goals
	GoalConflict	Chc	S-inv	Goals devised to overcome problems which are caused by previous goals
	GoalReapply	Cgr	Other	Goals to apply already introduced functions in the new situation
	GoalRepeateD	Cgd	Other	Goals repeated through segments
Collaborative		00		Cognitive synchronisation and gesture actions concerned with group design activities
	Cognitive synchronisation	cos		Cognitive synchronisation to support collaborative work
	Proposal	COcp		Proposing an idea of the problem or a new opinion
	Argument	COca		Supporting or arguing the proposed concept or opinion
	Question	COcq		Asking for a suggestion
	Resolution	COcr		Making a common decision
	Specification	cocs		Identifying existing elements or spaces
	Gesture actions	COCg		Gesture actions to support collaborative works
	TouchGesture	COCgt		Touch any part of sheet, physical model, or virtual model for explaining something
	DesignGesture	COgd		Any large hand movement above the design area for explanation
	PointGesture	COgp		Point to a part of the physical or virtual model or any part of the design for explanation
	ImitationGesture	COgde		To depict any symbol or visual attribute for explanation
	GeneralGesture	COgs		Any general hand movements accompanying speech

produced during the experiments, since it was redesigned and calibrated based on the observation of the design sessions of this study. Moreover, since the consequent coding scheme was quite objective and Suwa et al. (1998, 2000) and Kim and Maher's (2008) cognitive models provided clarity for explaining the designers' collective cognitive and collaborative actions, ease of developing hypotheses was the main advantage of the developed coding scheme. The details of the developed coding scheme as well as all action categories and subcategories are presented in Table 1.

Data Analysis Strategies in Design Protocol Analysis Studies

After segmentation and developing the coding scheme are done, the codes need to be assigned to every segment based on observation of the recorded videos and reviewing the transcribed media. Table 2 is an example of arbitrated data of one of the sessions of the sample design protocol analysis study which is reported in this paper. Analysing design protocols and interpretation starts only after assigning related codes to every segment.

The most common method for interpretation and analysis of both contentand process- oriented design protocols is using statistical methods (Kan, 2008). In particular, Kan (2008) categorised all protocol data and the coded segments into two groups: 1) the qualitative data or categorical (nominal) data, and 2) the quantitative data which concern the duration (time). Based on the distribution assumptions, Kan (2008) proposed two types of analysis for design protocols: 1) descriptive statistics, and 2) inferential statistics. Kan (2008) asserted that in protocol analysis studies the purpose of descriptive statistics is to provide a summary of the protocol data and to reveal how the designers spent their time throughout the process. This type of statistics is usually associated with charts and tables for presentation purposes. For instance, Kim and Maher (2008) used descriptive statistics to study the impact of one kind of tangible user interfaces (TUI) on designers' collaborative design behaviours.

Contrary to descriptive statistics, inferential statistics are used when scholars try to test hypotheses to verify a proposed

TABLE 2 Example of the arbitrated data in a design protocol analysis study

Seg	Transcript	P-action	Pe-action	FC-action	CS-action	Gesture
74	A: Why too long?	L.Screen	N.Visual	CoEvoluation	Argument	Design
75	M: this is for exhibition area.	None	None	N.Interactive	Explanation	Point
76	A: 1,2,3,4,5OK	L.Screen	N.Relation	GoalBrief	Argument	Point
77	M: Open exhibition. This is for gallery.	CreateNew	None	N.Interactive	Proposal	Point

model for designing. For instance, McNeill et al. (McNeill et al., 1998) used t-test to confirm their hypothesis that the design process moves from a design requirement, which is expressed in terms of function to a the given design description in terms of structure. In many cases, hypothesis-testing is also used to compare designers' cognitive and collaborative activities in different conditions (e.g. in Bilda et al., 2006; Kim & Maher, 2008; Menezes & Lawson, 2006). Chi-square test is another common tool used in the protocol analysis for hypothesis testing. Kan (2008) argued that this test could reveal if the frequency distribution of certain coding categories observed in a protocol is dependent on a particular theoretical distribution. This test is an inferential type of statistical analysis and could be employed for testing hypotheses regarding relationships among different variables and categories.

Correlation tests are other alternatives in testing hypothesis in design protocol analysis when people are trying to propose a new cognitive model for designers' behaviours. For instance, Kavakli and Gero (2002) used a correlation coefficient to obtain the structure of cognitive actions and compared them between expert and novice designers. Furthermore, in many cases (e.g. Bilda *et al.*, 2006; Rahimian *et al.*, 2011), variance analysis (ANOVA) was used to carry out testing and comparisons among different sets of protocol data to confirm their proposed hypothesis.

Similarly, this study relied on both descriptive and inferential statistics

to analyse and interpret the collected data. Graphs and charts were employed in descriptive statistics to explore the meaningful protocols of changes in designers' cognitive and collaborative actions when they transit from one design method to another. The inferential statistics were also employed for testing the assumed hypotheses. The study adopted both types of inferential tests for 'comparing mean value of variables' and also for 'testing the relationship between variables'. This will be discussed in the following sections, which will include how the adapted strategies for data analysis helped this study to interpret the findings and provided detailed information regarding designers' collective cognitive and collaborative activities.

Validation and Reliability of Protocol Analysis Studies

Clayton et al. (1998) argued that due to the high amount of elicited data through the experiment, such empirical research methods for testing the effectiveness of a design process inherently have high validity and reliability. In addition, they have some guidelines for maximising the validity and reliability of the experiment. They proposed complementing the evidence driven from theory and working models which can increase both validation and reliability of the results. In order to increase the validity of the findings they suggested repeating the experiment by employing multiple participants for at least three times. In terms of reliability, Clayton et al. (1998) suggested using paired sampled experiment method in

which the same participants perform in both types of the design sessions. Moreover, to controlling learning effect (i.e. performing better in the second trial due to experience learnt in the first trial) during the two sessions (Bilda & Demirkan, 2003), it was suggested to have two different design problems with similar complexity and type (Kim & Maher, 2008) and having at least one month time gap (Clayton et al., 1998) between each group's two sessions. In order to prevent any unexpected technical problem, it is strongly suggested by Clayton et al. (1998) to refine the experiment system and train the participants prior the commencement of the actual experiment. Finally, the consistency in changes in design process and spatial cognition across the design groups could be another evidence for the validation of the claims of every design protocol analysis study (Kim & Maher, 2008).

Sample of the Conducted Protocol Analysis Experiment

This section presents the sample conducted protocol analysis study to explain how an experiment could be designed in such researches in order to test the proposed new methods of designing through adapting quantitative research methodologies. The purpose of the conducted sample experiment was to compare the efficiency of the proposed Virtual Reality 3D Sketching medium with the traditional methods of pen and paper sketching. The experiment targeted testing the efficiency of the new medium in supporting both cognitive and collaborative aspects of architectural

design performed by novice designers. The conducted experiment was guided by van Someren et al.'s (1994) guidelines in designing the study in five steps: 1) conducting experiment, 2) transcribing protocols, 3) parsing the design process into segments, 4) developing coding scheme and encoding protocol, and 5) selecting strategies to analyse and interpret the encoded protocols.

Development of the Research Instrument

In order to compare the impacts of the proposed 3D sketching design medium on the designers' cognitive activities, the study proposed a simple traditional conceptual design package as the baseline system and a tangible VR-based digital design package as a 3D sketching environment. The experiment focused on designers' collective cognitive and collaborative activities when working on similar design tasks. Three pairs of 5th year architecture students experienced with the traditional design and CAD systems were selected as the participants of this experiment. Each pair was required to complete two design tasks when utilising traditional and 3D sketching design media sequentially. During the experiment, protocol analysis methodology was selected as a research and data acquisition method to explore the effects of the different media on designers' spatial cognition and collaboration.

The baseline traditional conceptual design package comprised of design pencils, pens, butter papers, and simple mock-up materials, e.g., polystyrene as well as drafting tables and chairs. The proposed VR based digital design package consisted of a tablet PC for providing the designers with preliminary design ideations interface and a desktop PC as a platform for the actual digital design process. Commercial software (i.e., Adobe PhotoshopTM) was installed on the tablet PC to facilitate the layering ability that was available in the traditional sketching system. Therefore, these designers were able to produce preliminary sketches directly on the screen of the tablet PC. The utilised desktop PC was attached to a Six-Degree-of-Freedom (6DF) SensAble haptic device in order to support force-feedback and vibration. The study used an evaluation version of ClayToolsTM (integrated with SensAble Haptic device) software as the basic environment for supporting designers' spatial reasoning and modelling activities. Details of both the systems are shown in Fig.2.

Design Tasks

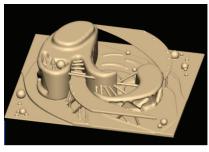
In order to test the effects of the interface on all aspects of the conceptual architectural design, the designers were required to perform in two comprehensive conceptual design sessions for full three hours each. Therefore, during these sessions, designers were asked to undergo all stages of conceptual design, including initial bubble diagramming, developing design idea, and preparing initial drawings. The goal of the first design task was to design a shopping centre with maximum 200000 square feet built up area. The goal of the second design task was to design a culture and art centre with maximum 150000 square feet built up area. In order to make the designers concentrated on design itself, rather than presentation, during both sessions they were required not to use more than one colour in rendering and mock-ups. Some of the examples of the results of the designs performed by the designers are shown in Fig.3.

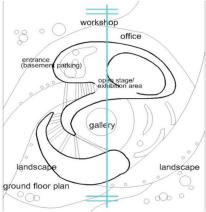
Experimental Set-ups: Traditional Session vs. 3D Sketching Session

The traditional sessions were held at a design studio whilst the 3D sketching sessions were held at an office which was being used as the VR lab during the experiment. In order to record all of the events during (both) design sessions, two digital cameras and one sound recorder were used. The purpose of the first camera was to record



Fig.2: Traditional (left) and 3D sketching (right) design settings







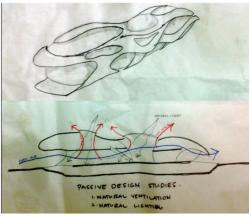


Fig.3: Sample 3D sketching (left) and traditional design (right) outcomes

all the drawings produced during the test. The other camera was set up to record the designers' design gestures and behaviours. Finally, the digital sound recorder was used to record the designers' collaborative conversations. The designers were asked to sit on one side of the table which was facing both cameras. Without interfering with the designers' thinking process, the experimenter was present at both design studio and VR Lab to prevent any technical problem. The explained settings are shown in Fig.4 and Fig.5.

DISCUSSION ON THE MICROSCOPIC ANALYSIS OF THE COLLECTED EMPIRICAL PROTOCOL DATA

In reporting the finding, such protocol analysis studies which relied on the observation of the designers' behaviours as well as the statistical analysis of the encoded design protocols, needed to employ both descriptive and inferential statistics for analysing and interpreting the collected data. In terms of descriptive statistics, graphs and charts could be used to explore the meaningful protocols of the changes in designers' cognitive and collaborative actions. When linked to the cognitive based theories of designing, significant facts regarding the designers'

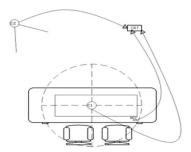
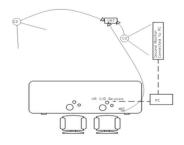


Fig. 4: Experimental set-up of the traditional sessions





a a

Fig.5: Experimental set-up of the 3D sketching sessions

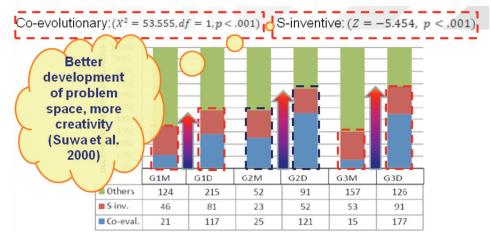


Fig. 6: Occurrence frequency percentage of the designers' co-evolutions (Co-evol.), situative-inventions (S-inv), and the other functional-conceptual (FC) during different design sessions

reasoning procedures were discovered. For instance, Fig.6 illustrates how descriptive data reporting methods were used in the conducted sample protocol analysis study. Fig.6 shows how the normalised bar charts

were associated with the seminal theories of design cognition in order to explain the differences in reasoning processes of designers during different phases of design when working with different media. The interpretation of such visual data mainly relies on the occurrence frequency of "situative-inventions" (Suwa et al., 2000) as well as "co-evolution" (Cross & Dorst, 1999) of problem and solution spaces.

Co-evolutionary design model is an approach to design problem-solving which was initially proposed by Maher et al. (1996). In this model, the design requirements and design artefacts are formed disjointedly while mutually affecting each other. Cross and Dorst (1999) further developed this model explained the model of design creativity as a "co-evolution" of problem and goal [solution] spaces. From a similar perspective, Suwa et al. (2000) discussed "solution-space" and "problem-space" as two interrelated qualities of the design artefact. They related the problem-space to the mental spatial requirements of the design artefact and solution-space to the physical representation of the defined problem-space on design interface. For instance, asking the

designers to provide shop lots in a shopping centre as a design brief requirement is a kind of defining the problem-space. However, when a designer draws a rectangle and calls that a 'shop lot', the designer brings the idea from problem-space into the solution-space.

Suwa et al. (2000) asserted that "situatedinvention" of new design requirements could be considered as a key for invention of a creative artefact, since introducing new constraints could help designers capture significant parts of the design problem and go beyond a basic synthesis of solutions which can only suit the initial requirements. They argued that occurrence of situative-inventions is interrelated with the occurrence of "unexpected-discoveries" which are the perceptual activities that could articulate tacit design semantics into visuospatial forms in an unanticipated way. Kim and Maher (2008) combined all these theories and ascertained that occurrence of multiple instances of situative-inventions

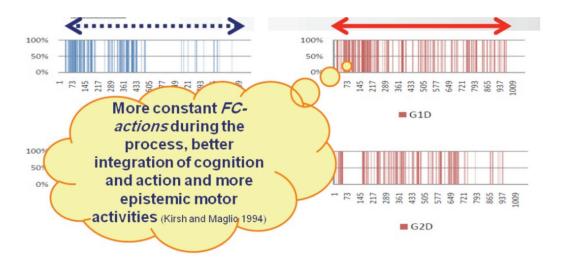


Fig.7: Occurrence frequency scatter bars of designers' functional-conceptual (FC)-actions during different design sessions

and co-evolution of re-interpretations in external representations could lead to more creativity. They also explained how this could introduce new variables for the revision of design ideas and the goal space of design. As could be seen in the coding scheme of this study, such research instruments are objective enough to help design researchers distinguish all these situative-inventions and co-evolutionary activities from normal design actions.

As another example, Fig.7 presents the way that the scatter bars of the occurrence of each type of cognitive activity during different processes were printed. In this example, the changes in the density of the bars in every stage of the process show the consistency and inconsistence of occurrence different design protocols of under different design circumstances. Again, when associated with the seminal theories, this type of analysis is very useful when the researchers aim to validate new theories about designers' cognitive protocols and effects of adopted different design processes or utilised media on cognitive designers' models. The interpretation of such visual information mainly relies on design cognition theories regarding epistemic or pragmatic motor activities (Kirsh & Maglio, 1994).

Fitzmaurice (1996) used definitions of epistemic or pragmatic actions to explain the value of motor activities which are observed in different design interfaces. In this definition, epistemic or pragmatic actions could reveal hidden information which is difficult for mankind to compute mentally.

Relying on this theory, Fitzmaurice (1996) asserted that external representations via design interfaces could help designers perform easier, faster and more reliable internal design reasoning. Kirsh (1995, p. 1) described a complementary epistemic activity as "any organising activity which recruits external elements to reduce cognitive loads. Typical organising activities include positioning, arranging the position and orientation of nearby objects, writing things down, manipulating counters, rulers or other artefacts that can encode the state of a process or simplify perception." Kirsh (1995) also conducted a basic "coin-counting" experiment to test the concepts of epistemic or pragmatic actions. Kirsh (1995) ascertained that epistemic actions where the participants were allowed to use their hands in counting the coins, improved the task quality in terms of completion on time and number of errors. Based on the finding of Kirsh (1995), Fitzmaurice (1996) categorised the benefits of epistemic activities for designers as: 1) decreasing the involvement of memory in mental computation (space complexity), 2) decreasing the number of mental computation steps (time complexity), and 3) decreasing the rate of mental computation error (unreliability).

CONCLUSION

This study was motivated by the issues associated with the emerging complicated global design problems. There are increasing needs for more objective research methodologies in assessing 'new' design

strategies, which can not be simply assessed by the conventional self-reporting subjective survey methods. This paper supports an increasing interest in using advanced design research methodologies for analysing the structures and processes of design cognition in order to describe designers' behaviours and performance. It has presented how "protocol analysis" can help researchers trace the efficiency of designers' activities during different stages of design process. Using the example of a conducted protocol analysis experiment, the paper explained why the use of quantitative design assessment methodologies is recommended to improve the researchers' understanding of design activities within design schools. The paper has also presented how conducted sample design protocol analysis study encoded design protocols then performed descriptive and inferential statistical analyses on the collected protocol data. The paper further explains how the results of the sample study provided opportunity to analyse designers' cognitive protocols at a microscopic level when relying on the seminal theories of design cognition field (e.g., Cross & Dorst, 1999; Gero & Kannengiesser, 2000; Kim & Maher, 2008; Kirsh, 1995; Kirsh & Maglio, 1994; Suwa et al., 2000; Suwa et al., 1998; Suwa & Tversky, 2001). In conclusion, taking into account the possibility of extracting valuable information about designers' thinking protocols (Clayton et al., 1998; Kan, 2008), this paper recommends the use of such quantitative research methodologies as a new paradigm in the evaluation of new design curricula adapted

in rapidly growing Malaysian design schools. With higher accuracy on insights into the cognitive aspects of existing and new design methodologies in Malaysian design schools, design researchers could utilise it as a stepping stone for leveraging research on teaching and learning in architectural design studios in Malaysian universities.

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Islam – Between Human Inspiration and Divine Revelation: A Counter Argument to the Notion of Cultural Vacuum by Albert Hourani

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ABSTRACT

Albert Hourani, the British-Lebanese historian of Islamic history, bases his theorisation of Islam, which he claims is not of divine revelation, largely on three factors that revolve around the questions of prophecy, scripture and culture. This article seeks to refute the said claim, arguing that Hourani's contentions are indefensible. With reference to prophecy, Hourani contends that it was impossible for God to communicate with a human being; rather He manifested himself in a human person, like He did with Jesus (peace be upon him). In the absence of a mediator, such an argument has as its proof of validity only the claim of the person so divinely-manifested. In the case of Muhammad (S.A.W), God sent Gabriel, His archangel, to convey His revelations, thereby making the Qur'an, God's words, concrete proof of Muhammad's prophethood. With reference to the question of scripture, this article argues that the fundamental characteristics of the Qur'an, its language and consistency of messages in the face of tumultuous surroundings belie the contention that it was an adaptation from other religions mainly Christianity and Judaism. As for the absence of a viable Arab culture which therefore made borrowings and adoptions inevitable, the article points out that there was an established culture characterised by diversity, differences, economic activities such as trade and the like, all of which render invalid the notion of a cultural vacuum. This article thus argues that Hourani's contentions

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are untenable. This article further asserts that any analysis of Islam should be based on its main and essential source, the Qur'an.

Keywords: The Qur'an, divine revelation, prophecy, scripture, culture, prophethood

INTRODUCTION

Islam in European Thought (Albert Hourani, 1991) by Albert Hourani is a collection of nine essays penned over several years and covered various aspects of Islam. However, of importance and interest to this article is Chapter 1 whose title gives the book its name. The longest chapter in the collection, it puts together views on Islam of several European scholars who preceded Hourani (1915 - 1993), ranging from among the earliest such as Edward Pococke (1604 -1691), Simon Ockley (1678 – 1720), George Sale (1697 - 1736), up to Ignaz Goldziher (1850 – 1921), H A R Gibb (1895 – 1971) and concluding with Hourani's (1915 -1993) own. Indeed, it is not pushing the point too far to suggest that Hourani's ideas constitute the culmination of the main thesis of what may be said as Western scholars' theorization of Islam. It is largely to this "theorization of Islam" and the questions it raises that this article seeks to address itself. Put simply, the thesis that underpins this theorisation of Islam is that, unlike Christianity and Judaism that are said to be related to divine scriptures and prophets, Islam is a humanly-inspired religion.

It is imperative at this juncture to stress that European scholars initiated the study of Islam, driven, as it were, by the fact that Islam had long settled on European soil and shaped its civilisation, as seen in Muslim Spain. This initiative served as counter-intellectualism or counter-influence to assert European self-identity that was felt to have undergone serious dilution after eight centuries of Muslim

rule in Spain. It thus saw as appropriate exploration of the Muslim world in various fields such as religion, culture, history and other areas that would yield the secrets of the Muslim world. Thus, Huart, Nicholson and Goldziher, who were among the early European scholars interested in Islam, became prominent scholars on Islam and were duly acknowledged by the West as experts in the field. Their works, regarded as classics, became reference sources and their worldview on Islam was institutionalized as a respectable academic field, as Ismail Ali Muhammad (2000) and Edward Said (1995) pointed out. Indeed, Said, sure and clear in his view of the institutionalization of Islamic scholarship, asserted that the study of Islam went beyond scholarly interest in that it was adopted by European Church institutions, and was later financed by European and American universities until Islam became the subject of interest throughout the West. Indeed, it could be said that interests in Islam developed into two grand ideas namely the establishing of a school of thought called orientalism on the one hand, and the setting up of learning institutions devoted to reinforcing the enterprise of theorising Islam, on the other.

It is against the background of a longstanding interest in the study of Islam that Hourani's ideas must be viewed and understood. As stated earlier, *Islam in European Thought* is an edited compilation of the author's previously published articles on the most conspicuous and dominant viewpoints of prominent European scholars, with Chapter One devoted to solidifying the

main thesis of Islam as a humanly-inspired religion, a thesis, it seems to suggest, that Hourani's own argument take to its logical conclusion. Concomitant with this, it is interesting to note that the last three chapters appear to somewhat soften the charge of Islam as an adaptation from Christianity and Judaism. This observation notwithstanding, it must be noted that the thrust of the three chapters can hardly be said to be antithetical to the traditional Western views on Islam. Rather, the chapters come across as an attempt to portray a more lenient stance towards Islam, a fact accomplished by focusing on the establishment of Islam itself, rather than its origin. Hourani, nonetheless, leaves unsolved the question of Western hostility towards Islam in that there is hardly any evidence of any attempt to go beyond the oft-repeated Western stance or to consider the Islamic perspective or references.

Hourani's survey of Western scholars' views on Islam such as those of Nicholson (1930), Huart (1966), Norris (1983) seem to lend credence to the argument of the presence of what may be termed as a cultural vacuum, a notion that in turn makes possible the preoccupation with the three crucial questions of prophecy, scripture and culture. Put in another way, Hourani's analysis emphasizes a strong underlying message of the existence of a cultural vacuum that paved the way for the coming of Islam, Muslim society and Islamic Scripture.

THE NOTION OF A CULTURAL VACUUM

Posited as the three principles that underlie Islam, Hourani elaborates on the ideas of the prophecy of Muhammed (S.A.W) as an inspired person, the religion of Islam as an adaptation, and the identification of the Arabs of the Arabian Peninsula as barbarians or primitive people. Referring to scholars of the pre-colonial period, Hourani evokes the views of Edward Peacock, Gorge Sale and Simon Ockley that Islam is either an adaptation of Christianity and Judaism, or the product of a genius who is inspired by the two religions that preceded it. These scholars opined that Muhammad was not "immediately inspired by God" (Hourani, 1991, p. 13)1 nor "an inspired prophet" (13) but was "a man of remarkable achievements" (13) in the "knowledge and wisdom of earlier times" apart from being "a man who brought about a moral reform" (13).

As for the post-colonial scholars, Hourani suggests that because they had more direct experiences with Islam, their attitude became more confrontational due to "the idea of opposition between Christianity and Islam by the new religious spirit of Evangelicalism" (17). Also, it became more critical, and deliberation of Islam became even more stringently located within the traditional analytical framework that perceived Islam as the enemy or threat to Christianity. To discredit Islam, the notion of Islam being developed by a genius

¹All subsequent references to Hourani are from this edition.

named Muhammad after being inspired by Christianity and Judaism was reinforced further. It was thus with much certainty that Hourani is able to summarise Maurice's view of Islam as follows, "It cannot be said that the whole content of Islam was taken from the Old and New Testaments: Muhammad must at least have been inspired by them" (21).

It must be stressed that Hourani's arguments are in large measure an extension of opinions inherited from European scholars who preceded him, rather than the result of a cross-cultural analysis and critical approach to the subject of Islam, a point borne out by the fact that his arguments and sources are confined to the inherited opinions only. These opinions are not tenable because firstly, they introduce as a valid assumption an untested frame of thinking in advance of an argument, and are therefore, at best, mere presumptions. Secondly, they are not representative because they do not consider nor examine the direct sources related to Islam. Whilst these Islamic sources are admittedly referred to, their inner layer or crux, which refers to Islam's fundamental conviction and teachings such as belief in the oneness of God, His miracles, the Islamic concept of faith, and the like, is put aside. It must be stressed that historically, the Islamic texts, namely the Qur'an, Hadith and the works of prominent Muslim scholars, were available in the West. This assertion is based on the fact that Muslim Spain became a centre of learning not only for Muslims but also non-Muslims of various European nationals. Also, the

Islamic texts were translated into various European languages. It can therefore be conclusively said that the texts were readily available to European scholars well before they became concerned with the *outer layers* of the texts, to which they confined their references.

Further, as suggested by Edward Said (1995), the opinions of European scholars interested in Islam largely revolved around tales of voyages that were one-sided and subject to limited individual experiences. Or, these were personal "experiences" of western scholars who had spent time in the Muslim world and were said to be interested in Islamic studies. These "experiences", as Said's studies imply, served as reinforcements or justifications for pre-conceived ideas about Islam set in place well in advance of any argument. Additionally, the "experiences" were restricted to "interesting" places such as concocted brothels which, historically, could hardly be openly accessible to the public. The same goes for the experiences of erotic sexual pleasures made possible by the expertise of the local people steeped in the so-called exotic art of love-making.

As mentioned earlier, in mapping European thoughts on Islam, Hourani sees his own arguments as final and conclusive. The notion of a cultural vacuum that makes possible the three critical interests in prophecy, scripture and culture, is advanced as defensible and sound, the result of serious reflection and deep thought by orientalists over a long period of time, with Hourani's own ideas being the logical conclusion to

this theorisation of Islam. The workability of this notion, it would appear, lies in what may be called the three ideas of the space of culture, the mobility of the people, and the span of time. It is to these three ideas that the article now turns its attention, in particular to call into doubt their soundness as well as the viability of the theorisation of Islam as an intellectual discourse as a whole.

THE NOTION OF A CULTURAL VACUUM: A REFUTATION

The three ideas of the space of culture, the mobility of the people, and the span of time are, in truth, an expansion of the three critical interests in the prophecy of Muhammad (S.A.W), the adaptation of the religion of Islam and the marginality or nothingness of the culture of the Arabs, all of which serve to cement the idea of Islam as a humanly-inspired religion.

With reference to the workability of the idea of the space of culture, it must be stressed that West Asia was characterised by diversity, fractions, aggressions, counteraggressions and battles that came about because of competition, marginalization and oppression, a fact mentioned in both the Bible and the Qur'an. Further, Hourani makes no mention of archaeological proofs of the existence of various cultures as proven by the Pyramids and the Sphinx in Egypt, and Petra ("Rock"), the famous stone structures carved into the rock, which lie on the slope of Mount Hor (Jordan). It is surprising that Hourani plays down Rome and its undeniable influence in West Asia, preferring instead to focus on Egypt and Persia. Indeed, Hourani seems deliberately to (79-83) steer his argument away from the above characteristics and facts, and in so doing successfully denies the vitality and vibrancy that mark West Asia. Instead, Hourani chooses to focus on a theory of cultural development proposed by Marshall Hodgson, whose use of the terms Oikoumene, citied agrarianate societies, Oxus and Axial Age, serve to iron out cultural differences thereby making the need for cultural identity and sense of belonging superfluous or irrelevant. In availing himself of Hodgson's said theory, Hourani was thus able to similarly ignore the diversity, fractions, battles and the like established by the Qur'an and the Bible, thereby denying the Arabs a viable culture.

Further, on referring to things related to Islam, Hourani tends to mention names only such as the Axial Age and the Mazdean tradition (82), but shies away from analysing them deeply especially in terms of their significance vis-a-vis his theorization of Islam. In addition, his analysis can be said to focus on the development of material culture, rather than spiritual or religious culture, as explicated in both the Bible and the Qur'an. This is truly surprising given the fact that Hourani's writings are concerted attempts to theorize Islam, which logically would call for giving due weight and attention to aspects of the religion proper and the religious culture that it spawns. These rebuttals throw into doubt the feasibility of the cultural angle of Hourani's argument.

With reference to the idea of the mobility of the people, its plausibility rests upon the portrayal of a time in pre-history where the world was dominated by ancient cultures while the rest of humanity, in particular the peninsular Arabs, existed sparingly on the margins of a culture. This portrayal is made possible by making mobility available to people with access to established cultures, at the same time as those without access to these established cultures were denied this mobility. The author suggests that through the course of time, the people with the benefit of mobility occupied the barren desert of Arabia, and later contributed to the formation of Islam. This picture is in stark contradiction to the account given by the Qur'an (106: 1-4) of the existence, besides the established cultures of Babylon, the pharaohs and so on, of a vibrant Arab culture that developed as a result of trade and barter. Indeed, it was this culture that succeeded in bridging the gap between the east and the west. This fact could not be denied, and was instrumental in making possible the development of a culture that was truly unique in that it partook and availed itself of the various strengths and richness of the many cultures with which it came into contact.

The plausibility of the idea of the span of time, which makes credible the notion of Islam as coming out of nothing but mere inspiration and the work of adaptation, hinges upon establishing the concept of prehistory as discussed above, where humanity's progress was monotonous. It must be pointed out that such an account

of history ironically denies the possibility of the existence of various cultural and religious backgrounds. At the same time, putting aside artefacts as evidence of ancient people occupying the area, the said history serves to erase differences or diversity evident, as recorded in the Qur'an and the Bible. In other words, Hourani's arguments deny the existence of the periods of time characterized by the differences of people in terms of colour, language and tradition, the existence of certain ways of communication, and perhaps more importantly, the existence of self-establishment, identity, nationhood, and so on. The fact that there were trades and battles shows that there were diversities, whose diversities were called culture because they served to establish selfassertion or self-identity. Thus, ironing out diversities, as Hourani's argument seems to suggest, calls into question his own notion of a cultural vacuum.

The workability of the three ideas is crucial for the purposes of bolstering Hourani's discussion of Islam. It serves to deny the existence of an entity related to Islam that is located outside the selectively defined culture. It is thus possible to argue that the Islamic prophecy is derived from human inspiration, competition, rehabilitation and the spirit of morality found in the unrecognised and far from the established culture of the Arabs. Apart from that, it makes it highly possible to say that Islam has benefitted from the previous religions of Christianity and Judaism as well as the pagans' idolatry. Specifically on Islamic culture, Hourani (83) seems to suggest that before the formation of the Islamic state, the institution of the caliphate, indeed, the establishment of Islamic civilization itself, Islam was characterized by the marginality of the identity, religion and culture of the people who occupied the barren sands of Arabia. Their existence was hardly known and they depended mostly on the strength of established people and cultures that were contemporaneous with them. Alternatively, they could be considered as a splinter or a fraction of the established people and cultures occupying Egypt, Syria and Persia then. These assertions, baseless at best, complete the theory that purports Prophet Muhammad (S.A.W) to be "inspired" by other religions or cultures. However, as shown above, the notion of a cultural vacuum leaves much to be desired and is far from tenable.

THE "HUMAN INSPIRATION" FACTOR

In addressing the question of Muhammad's prophecy, Hourani opines that no word of God was revealed to a person. Or, to put it differently, divine revelation in the sense of putting God's words into a human mouth, did not take place.

In understanding this argument, it bears repeating that Hourani reiterates the commonly-held Orientalists' position that the last Prophet was Jesus (peace be upon him) and not Muhammad (S.A.W). Hourani further emphasises that the divinity of religion is measured at the level of divine manifestation, and not at the level of divine revelation. In this regard, and as

far as Christianity is concerned, God only manifests or incarnates Himself in a human body, as happened to Jesus; there was no direct interaction between a human being such as Muhammad (S.A.W) and God. In other words, the meeting of God and a human being happened at the spiritual level or the level of the soul, and not at the level of communication. By implication, the certainty of prophecy is proven at the level of feeling. This is so because there was no medium of appointment as a prophet other than the feeling of the divine incarnation which the prophet himself felt. Thus, all prophecies including that which was related to Jesus (peace be upon him) are subject to qualm or doubt, and a prophet was not sure whether he was an appointed prophet from God or he just felt so.

As an extension to the above argument, prophecy itself is a human feeling or an interpretation of the supposed-prophet's inner feelings or his outward worldview. It has nothing to do with a scripture or scriptures that were supposed to be a divine revelation, or at least, an interpretation of God's commandments upon mankind. Thus, a religious scripture is a prophet's human experience, who feels that God has manifested Himself in his human body. The scripture is thus human writing, not God's exact words or the interpretation of His words. Set against this explanation, prophecy is thus nothing more than human words because there is no indication that divine commandment on a would-be prophet has taken place. Mere divine manifestation without any divine revelation cannot support a prophecy; thus, a prophet cannot proclaim that he is a messenger from God, and the messages in the religious scripture that he bears should not be propagated for fear that they do not represent the real messages from God.

By implication, too, there is no sure way of worshiping God in whatever form because the prophet is not divinely guided as to how to worship according to His pleasure. Thus, the concept of God to be worshiped or glorified is doubtful because the prophecy happens at the level of sense and falls short of the level of belief. In this regard, prophecy is an individual's guess or prediction and there is no absolute way of worshiping God. Thus, there is no divine scripture, and this puts the Bible, which is said to be of divine inspiration, in the same situation.

Contrary to the dubious concept of prophecy as explained above, Islam, on the other hand, categorically believes that Muhammmad's (S.A.W) prophethood is the result of divine revelation, a personal communication from God to Muhammmad (S.A.W) through the archangel Gabriel. The prophecy means a blessed gift, that is to say the Muslim prophet receives the divine words from God through His revelation; it is not affected through the manifestation of God or His incarnation, whose incarnation, as experienced by the individual prophet, is then translated into words that are later attributed to God. Therefore, the question of Islamic prophecy should be looked at from the vantage of divine revelation, that is, the Qur'an, not the allegation of the

divinity of the prophet as commonly held in Christianity.

The above counter-argument to the Western notion of Muhammad's (S.A.W.) prophecy places Islam as a part of the family of spiritual or religious cultures. It categorically states that Islam does not spring from human inspiration or ambition, and that Prophet Muhammad (S.A.W) was not a man inspired by the notions of divinity. Like Jesus (peace be upon him) and other prophets before him, Muhammad (S.A.W) was also a prophet. He did not learn prophecy or divination, nor did he produce the Our'an out of his ambition. Had he done so, his work would have been subjected to revisions or omissions due to mistakes or inexperience, all of which would have demeaned the Qur'an (4:82). On the contrary, the Qur'an stands as a proof of Muhammad's (S.A.W) prophethood, an appointed messenger of God.

THE DIVINE REVELATION FACTOR

Divine revelation is a factor that distinguishes Islam from Christianity, which is said to be based on divine manifestation or incarnation. This point needs to be understood as it is fundamental to the understanding of Islam's position, which is different from that of Christianity.

In regard to the above, divine revelation contrasts with human inspiration, as the two are in different domains. Human inspiration is related to human senses or capabilities such as experience and knowledge as well as with human society. These capabilities are identified with the

boundaries of time and place in that they are subject to change as dictated by time and place. They are also subject to trial and error due to circumstances that are beyond control and to inexperience in knowledge. Thus, any idea proposed by a religious reformist, for example, is not exempted from revamp or revision; it is not unlikely that a radical element within the reformist's society would revolt against part or the whole of his reformation agenda. Likewise, ideas written in scriptures are subject to constant review to suit the requirements of the community. Historically, this did not happen to the Qur'an as a divine revelation.

The Our'an's distinctiveness is characterised by its integrity which remained intact, unaffected by its surroundings which at times were tumultuous. It must be remembered that during the time of Muhammad's (S.A.W) prophethood, there were cultural and social instabilities in the form of battles between the two super powers then, Rome in the North and Persia in the East. Logically, the instabilities should have undermined the Qur'an's integrity and the consistency of its message. However, there is no historical record or evidence that suggests the Muslim Prophet had to revise the Qur'an to suit angered or disgruntled elements of society. That it remained intact throughout the span of twenty years, unaffected by its sometimes fractious surroundings, is testimony to its divine provenance.

Also related to the question of the Qur'an's divine provenance, a common view among the orientalists is that superstitions,

myths and biblical stories were randomly adapted in the Qur'an. Muslim scholars such as Ismail Ali Muhammad (2000), however, convincingly quashed this view based on the fundamental characteristics of the Qur'an such as its content, language style and the consistency of its messages, all of which, the author reiterates, are absent in the Bible. Of no less significance is the issue raised by Orientalists such as Gibb, R.A. Nicholson and others that Islam was shaped by other contemporary cultures and religions that surrounded the Arabs, subsequently shaping their minds. It is not to deny that there existed inter-racial exchanges between Arabs and non-Arabs before Islam. However, these exchanges were confined to trades rather than religious interactions on account of hostility between the Jews, Christians and the Arabs then. Inter-racial contacts were largely prompted by social needs or living necessities, rather than a desire to spread a religious belief or faith across ethnic boundaries.

It the same vein, it must be noted that in the Arab society then, lines were drawn between religions and cultures. The Jews stayed in the Jewish community in Medina, while the Christians were considered as a minority group among the Meccan Arab idolaters. It could hardly be said that cultural integration existed, allowing for the flow of ideas or philosophy to help inspire the Qur'an. Further, there were no stable religious scriptures on Christianity conspicuously present and within reach of the Arabs. This is supported by the fact that the Arabs then did not have their own

alphabets to facilitate translation works or the study of other religious texts for the purposes of adopting and adapting them for Islam. Thus, the claim that Islam was a hotchpotch job of various religious beliefs, customs, cultural practices, stories and myths is completely without basis.

TRANSCENDENCE AND UNIVERSALITY OF THE QUR'AN

Although geographically Muhammad (S.A.W) was very much limited to the Arab peninsular, the Qur'an nonetheless transcended the worldview of the Arabs then, and its messages were universal in nature. The transcendence of the Qur'an was proven, especially in the Quranic Meccan Chapters, when regional boundaries, associated with religious and cultural identities as well as norms, were surpassed. Likewise, its messages on social, economic, educational and political aspects are horizontally encompassing in that they are aimed at mankind in general, surpassing tribal and ethnic boundaries. For example, the message of the importance of reading for acquiring knowledge in the Chapter entitled *al-Alaq* is culturally and religiously all-embracing.

Also exemplified in the said Meccan Chapters is *unlimited supernatural knowledge* where the Qur'an transcends extant human knowledge and understanding of the universe, nature and the human body. Indeed, when human knowledge then was replete with unfounded, contradicting and ambiguous superstitions and myths common in various traditions and religions then,

the Qur'an traced deeply the origins of the universe, nature and the human body. Beyond human expectation, the Qur'an foretold the ending stages of the earth and universe. It also foretold the existence of various universes besides the universe to which this world belongs. It asserted that the human body was its own universe, characterized by complexity, systems, parallelism, sequence and coordination, which were not known to humans before. It preceded the era of science and technology and penetrated into worlds beyond the grasp of human senses and thinking. It explored unseen space and described it in a systematic way; it (55:33) foretold the penetrability of the space with great authority. It also penetrated into delicate spots of atoms (99:7-8), germs and organism (36: 36), oceanography (25:53) and other creatures. It described the origin, significance, as well as the process of recycling and preservation of water. Beyond that, and in great detail, it described life after this worldly existence, a subject other previous religions and traditions only briefly touched upon.

In contrast to the unlimited supernatural knowledge that the Qur'an displayed, human achievements in knowledge was confined to materials seen by the naked eye and human experiences that were limited. For example, the experiences of individual mobility or tribal migration in the desert, hardships and uncertainties in battles, recorded in traditional poetry, were regarded as a source of knowledge for the Arabs then. In the same vein, human knowledge was largely associated with

collective tradition, and was passed down from one generation to another without impetus or momentum for advancement. Examples of such traditional knowledge are *qiafah*, a traditional knowledge of tracking signs and traces in the desert of Arabia, Arab traditional medicine and Hellenistic logics. Such being the nature of human knowledge then, it was thus subject to frequent improvement, making present day achievement, for example, totally unthinkable to societies such as that in which Muhammad (S.A.W) received the Qur'anic revelation.

The universality of the Qur'an is upheld by the fact that the Qur'an's reach not only went beyond the boundary of normal Arab experiences of life, enterprise, worldview, communication, interaction and so on, but also various environments beyond the barren Arabian desert where the revelation took place. Examples would include addressing the question of transportation, in particular ships in the ocean which was totally unfamiliar to the desert Arabs, references to living things such as bees and their honey and cows, both of which did not exist in the Arab desert.

CONCLUSION

The main thesis that underpins Hourani's *Islam in European Thought* is one that is often repeated in the Western discourse on Islam. It revolves around the main allegation of Muhammad (S.A.W) as an inspired man whose ingenuity resulted in the Qur'an, an adaptation of the Christian and Jewish scriptures, a claim backed by

the so-called fact that the Arab society of Muhammad's (S.A.W) days was bereft of culture. Contrary to the allegation, which the article has shown to be baseless, Islam is of divine inspiration and is not an adaptation, reformation or revision. The varieties evident in the Qur'an are of its own interpretation in dealing with humankind, universe and other creatures. They do not represent the perspectives of other religions, beliefs or traditions. Hourani's thesis, like his orientalist predecessors before him, is based on perception, impression and pre-conceived notions about Islam. It ignores the fundamental crux of Islam itself. namely the depth, density and complexity of the Our'an as its main source and the exclusiveness of the prophecy of Prophet Muhammad (S.A.W).

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From a Maritime Kingdom to Modern Johore: An Evolution, Transformation and Metamorphosis of a Malay Kingdom

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ABSTRACT

This article attempts to explain the uniqueness in the history of Johore in terms of how the government has gone through and experienced a totally different history, as compared to other Malay states. This writing about Johore's history is divided into several stages of evolution, transformation and metamorphosis. Firstly, this paper will discuss the evolution and early history of Johore, which began before the year 1530. Secondly, this paper will explain the evolution and transformation of Johore's history from 1530 to 1640, followed by the third stage which will discuss the transformation in the history of Johore from 1641 to 1699. The discussion in the fourth stage revolves around the transformation of Johore's history from 1700 to 1720 and the fifth stage continues to discuss the transformation of Johore's history from 1721 to 1784. The sixth stage will discuss the transformation of Johore's history from 1785 to 1824, and lastly, the seventh stage will explain the metamorphosis in the history of Johore after 1825 until today. All these seven stages of development in the history of Johore, which involved the processes of evolution, transformation and metamorphosis, have shown the strength and competitiveness of the government in facing all kinds of challenges and how it has successfully maintained its heritage and identity as a Johore-Malay state for centuries.

Keywords: Johore, Riau, trade, Malays, Bugis

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INTRODUCTION

The sovereignty of Johore is among the oldest ones established in the history of the Malay kingdom. However, more studies and research still need to be carried out by scholars and historians. Through the

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long history of Johore, one can clearly see how the historical evolution of this Malay kingdom was formed. One can also witness how this Malay kingdom went through various phases of evolution, transformation and metamorphosis, which were so effective that they caused great changes in terms of the kingdom's territories and colonies, the ruling government, the ruling power and administration, as well as the underlying politics, economics and social history. The evolution, transformation and metamorphosis of this oldest Malay kingdom can also be clearly seen when the Johore kingdom was established. Furthermore, based on maritime kingdoms, such as Srivijaya and Melaka, Johore later moved towards a kingdom that depended entirely on development related to land and agricultural based activities. Notably, to date, Johore has now entered the last phase of its transformation, heading to its metamorphosis phase to become a Malay kingdom that depends on manufacturing, industry and trading activities.

The history of Johore begins with the early kingdom of Johore, which was located in the southern part of the Malaya Peninsular (Winstedt, 1992). The early history of the kingdom's origin was unclear, but the kingdoms of Johore-Pahang-Riau and Lingga were established after the fall of Melaka in 1511. The evolution occurred as a result of the combination of vast territories in southern Malaya Peninsular, which was then transformed into a kingdom consisting of only the state of Johore and her territories after its failure to defend Pahang-Riau

and Lingga as a part of her larger territory later in the 19th century. In terms of its geographical location, Johore is situated in an extremely strategic region. It is located in the middle of the trading route connecting the East and the West. Johore, as with the old kingdoms of Srivijaya and Melaka, had successfully exploited her strategic location to strengthen her sovereignty as a Malay kingdom. In fact, one can say that the winding history of Johore was determined by her very strategic geographical location. Therefore, the evolution, transformation and metamorphosis of the Johore kingdom were deeply influenced by the geographical factor. The location at the southern tip of the Malaya Peninsular, between the busy shipping lanes in the world, brought desirable progress and development to the kingdom, which relied on trade, shipping and maritime activities. Thus, the evolution, transformation and metamorphosis in the history of Johore showed how it started and underwent various changes. However, Johore still place emphasis on its mastery of trading activities and used its strategic location to emerge as a successful and strong kingdom.

THE FIRST PHASE OF EVOLUTION IN THE PRE-1530 HISTORY OF JOHORE

Although there are many records and archaeological findings about the early history of Johore before 1530, there are still many unanswered mysteries and questions regarding the evolution, existence and development of the early history of

the kingdom. Johore, in its early history, was known as Ujung Medini or Ujung Tanah, which refers to the territories located on the southern part of the Malaya Peninsular including Johore, Muar, Pahang and Tumasik. It was also associated with a kingdom called Wurawari, which means "clear water" in old Javanese texts (Winstedt, 1992). An inscription in the year 1006, which was written in Sanskrit and old Javanese documents, stated that the City of Wurawari was plundered by a Javanese king. A more detailed study is needed because Johore in its early history was also known as the kingdom of Ganggayu, which was an old Johore kingdom established in Kota Batu Hitam located on the upstream of the Johor River, which has yet to be studied thoroughly. The old kingdom of Johore was also known as Klang Kio by the Siamese, which means the City of Gems, while the ruler was called Raja Chulan. Raja Chulan was reported as a king who had a significant power over a vast territories and regions in the east. These facts have long been known by scholars, but the question here is, why are there no studies and research done to unveil the old history of Johore? Even until today, our question regarding the early kingdoms of Johore, such as Ujong Medini, Ujong Tanah, Wurawari, Kota Batu Hitam and Klang Kio, still remains unanswered.

Judging from the development of the early history and early settlements of Johore, it is obvious that the history of Johore focused more on the eastern part of the state, which centred at Johore's river basins and river banks. Many settlements and developments in Johore's early history were centred in the eastern part of Johore along the Johor River, which has a deep and wide river mouth that can be used as a trading route to reach the inland regions. The river basins of Johore mentioned above are considered as, "The Lost Frontier of the Malay Civilization" that has yet to be studied in detail by any scholars. If the first phase of history and evolution of the Johore kingdom was centred at the Johore river basin, the following phases had also shown a similar situation where governments were centred along the Johor River. Names of ancient cities listed in the history, such as Kota Kara, Makam Tauhid, Bukit Seluyut, Kota Tinggi, Bintan, Riau, Sayong, Johor Lama, Kopak, Pasir Raja, Pekan Tua, Batu Sawar and Seluyut, still need to be studied in order to explain the historical strength of the Johore Malay civilization.

The early kingdom of Johore depended on trade and maritime activities. Oceans and rivers were important aspects of transportation and trading activities. Its strategic location also made Johore the focus of traders sailing between the East and West. Furthermore, the monsoon wind also played an important role in making traders navigating across the Strait of Melaka to stop at ports under the jurisdiction and territory of the kingdom. Although the first phase in the early history of Johore was still unclear, the Johor River functioned as a very crucial area in the history and early evolution of the kingdom.

THE SECOND PHASE 1530-1640: EVOLUTION AND TRANSFORMATION OF A MALAY KINGDOM

In general, scholars often refer to the year 1530 as the founding year of the new kingdom of Johore. This is because the pre-1530 history of Johore was still unclear since not many studies have been done on this. Therefore, for the time being, before we find a reliable research regarding the matter, we will have to accept the date as the founding date of the government. If that is the case, the kingdom of Johore had been founded more than 480 years. The new kingdom of Johore was founded by Sultan Alauddin Riayat Shah after the fall of Melaka. It experienced an evolution and its transformation had a huge impact in the history of Malaysia.

The period between 1530 and 1640 (110 years) was a very challenging period in the establishment of the Johore kingdom. The 110-year challenge can be clearly seen in the history of Johore recorded along the Johor River. The establishment of the kingdom from Kota Kara to Kota Tinggi clearly portrayed the strength and determination of the kingdom in facing various challenges in order to maintain and strengthen its position. The 110-year period of evolution and transformation of the government was very important for the survival of the next government. The initial challenges between 1530 to 1600 were tough due to the occurrence of wars as well as various external threats, such as attempts to destroy the kingdom by external powers (Andaya,

1975). However, the competitiveness and strength of the ruler and kingdom enabled it to overcome those threats. The history on the cruelty of wars, destructions, as well as the loss of lives and properties in the river basins of Johor River has also been written. This was also the place where history was made on how the Sultan and the government of Johore had successfully defended their honour and kingdom from being destroyed by the Portuguese and Aceh.

The role played by the Laksamana family was evident, while the Bendahara family had been set aside because this era was an era of wars and chaos which required military strength to defend the newly established kingdom. Thus, Laksamana Paduka Raja had played an important role to ensure the sovereignty of the government, to restore and enhance the kingdom's economic strength, as well as to increase the volume of trade, which was seen as the pulse to the kingdom (Andaya, 1975). This situation was very different from the tradition where the Bendahara family played a major role in the kingdom. As a result, an internal conflict occurred when emphasis was given to the role played by the Laksamana in certain matters. There were no other states in the Malay history that showed such efforts in establishing a government by facing various kinds of enormous challenges except for the kingdom of Johore. Its challenging evolution had led to the maturity in terms of the government's spirit and thinking to stand firm in defending and protecting the heritage of Malay civilization.

THE TRANSFORMATION OF A MALAY KINGDOM DURING THE PERIOD 1641-1699

By the 17th century, great changes had taken place in the balance of power in the Malay world, especially in the Strait of Melaka. The presence of Dutch had changed the entire structure of the existing balance of power. At the same time, the decline of Aceh also brought great impact to the future development and success of Johore. Meanwhile, the Portuguese were also forced to face new challenges with the emergence of the Dutch fleet and the strength of their traders, who established the Dutch East India Company in the early 17th century. The establishment of the Dutch East India Company had not only caused great changes to the world trade patterns, but it also challenged the sovereignty and the power of the Portuguese and Spanish. This opportunity was taken and fully utilized by the kingdom of Johore, which led to the signing of an agreement that created a new environment in the Strait of Melaka that contributed to the success of Johore's transformation.

Along the 16th century, the Strait of Melaka was haunted by wars which brought the sense of insecurity to traders and seafarers. The strategic trading route through the Strait of Melaka also experienced an era of declination after the fall of Melaka in 1511. There were ongoing wars between the Portuguese in Melaka, Aceh and Johore. These three powers had fought nine wars in the Johor River, Melaka and Aceh. As a result, the war years of 1512, 1518, 1520,

1521, 1523, 1524, 1526, 1536 and 1587 had affected the trade and living environment in the Strait of Melaka (Andaya, 1975). The presence of the Dutch in the early 17th century and the establishment of the Dutch East India Company with large funds also created a new chapter in the Malay world.

The unique thing about the history of Johore is that, it is not only made up by the history of the Malay world. In fact, it can also be linked with the global history connecting the East and the West as the major player in the early globalization of the world. The Malaya Peninsular, the Strait of Melaka and the strategic geographical location of Johore, which was located at the crossroad of world's leading sailing route between the East and the West, had become important for international trade during that time since they were able to utilize the advantages they had through their geopolitical position (Nordin Hussin, 2008). The Strait of Melaka was situated in the centre of the heritage of Malay civilization (Nordin Hussin, 2005). It played a major role in connecting the busy trading route between the Indian Ocean and the Far East. The strategic importance of this waterway connecting the East and the West had long been known and dominated by the Malays who lived in the Malaya Peninsular and the Sumatera (Nordin Hussin, 2011). These were the places where the Malay civilization which based on the maritime world was founded and developed. The presence of the Dutch in the region had made the objectives of the European powers become apparent through their efforts to turn their dreams and beliefs into reality. This was because they realized that whoever dominated and controlled the Strait of Melaka would be the one who would control the wealth from the trading activities that flowed through it (Nordin Hussin, 2012).

The early history about the success of the Dutch in dominating the world trade and expanding their influences in Asia began with the establishment of the Dutch East India Company (VOC) in 1602. The establishment of VOC by merging several small companies with capital worth millions of gulden and shareholders from major cities in Netherlands such as Amsterdam, Rotterdam, Enquizen, Delft and Leiden, as well as wealthy merchants had strengthened the company's capability to explore the extremely profitable trade in the Malay world, Far East, Asia and Africa (Nordin Hussin, 2008). This success turned VOC into the only chartered trading company and also a very profitable one. After the establishment of VOC, many major port cities in Asia were dominated by the Dutch. For instance, Batavia in 1619 fell under the control of VOC and was then turned into the main administrative centre of the company in Asia. The mid 17th century was the peak period for the Dutch's activities in Asia, where many ports formerly owned by the Portuguese fell under the control of VOC.

The presence and influence of the Dutch in the Malay world were deeply felt by the Malay governments in the region. Before the Dutch successfully gained control over Melaka, Batavia, Ambon and Makassar, VOC had already been very active in the trade monopoly in its attempt to break the Portuguese domination in the Malay world (Nordin Hussin, 2008). The company also tried to cultivate trading relationships with the Malay governments in the region, especially with Johore. This was intended to boycott and prevent the Portuguese from controlling tin and Indian cotton trade, which were extremely profitable. Without the close friendship with the Malay government of Johore, it would not be easy for the Dutch to achieve their goal to eliminate the Portuguese from the Malay world and eventually gain full control over the lucrative trade in the region.

This was a period of time that reflected how the European power dealt with the local power from the Malay world and had together successfully formed a peaceful era. The relationship between VOC and Johore emphasized trading relations and friendship, which were forged to further promote trade between the two. Their success in prioritizing the common interests in commerce and their newly developed friendship had led to the re-emergence of the Strait of Melaka as an important area for intra-Asian trade growth between the East and the West, with the government of Johore in Riau as its facilitator.

The presence of Dutch in the Strait of Melaka in the early 17th century, especially with the arrival of Admiral Jacob Heemskerck in 1602 to the kingdom of Johore in Batu Sawar, started a new era where friendship was cultivated between the Dutch and the government of Johore (Andaya, 1975). This was because both

parties shared a common interest - that was to expel the Portuguese from the Strait of Melaka and to revitalize the commercial economy that had been severely damaged by the endless wars.

The Dutch East India Company (VOC) would not be able to achieve its ambition to eliminate the Portuguese from the Strait without the help from Johore. Similarly, Johore also needed a reliable partner to create a peaceful environment and promote trade and economic developments which were severely affected by the wars. Without the cooperation with the Dutch, Johore's goal would be difficult to achieve as well. Thus, the policy of smart partnership between the two powers created a new history in the Strait of Melaka, where the cooperation between the two had brought peace to the Strait for another 184 years.

Through the cooperation, Johore once again rose to glory with the assistance of the Dutch. This close relationship between the two powers lasted until 1784 when their cooperation deteriorated due to Raja Haji's ambition to conquer Melaka, caused by a small incident (Reinout Vos, 1993). It was not a wise decision by Raja Haji to declare war with the Dutch because of the hijack of the Betsy ship. Raja Haji who did not understand the close historical ties cultivated since 1640 between the Dutch and the kingdom of Johore eventually destroyed the cooperation between the two, as well as the port of Riau that had been the economic life line to Johore. The unwritten agreement between the Johore kingdom

and the Dutch also led to the recovery of the Strait of Melaka and the Malay world from the era of wars and brought growth and development to the region through intra-Asian trade between the East and the West. Unfortunately, this bond was destroyed by Raja Haji's unwise ambition who thought he had the ability and capability to defeat the Dutch. Without a good understanding of the history and friendship bond that had been established for over hundred years, Raja Haji destroyed the bond between the two powers and also Riau as the major trading centre in the Malay world.

The truth was the friendship between the Dutch and Johore benefited the kingdom of Johore in so many ways. For instance, it helped develop the port of Riau which was the main trading centre in Southeast Asia that had challenged both Melaka and Batavia. It also provided great opportunities for officers and the Orang Kayas in the kingdom of Johore to get involved in trading activities in the Strait of Melaka without any restrictions from the Dutch. This cooperation improved the economic conditions of Johore and turned the port of Riau into a favourable port for merchants from Europe, India, China and the Malay world without restrictions from the Dutch. This certainly resulted in intense competition with the port of Melaka. In addition, the monopoly policy of the Dutch was not implemented on Johore's traders and port. The economy of Johore was growing rapidly without restrictions and had reached its peak period in the history of world trade.

THE PROBLEMATIC YEARS OF 1700-1720

The Johore kingdom experienced an era with tragic challenges in its transformation history by the 18th century. The assassination of its last Sultan from Melaka and Srivijaya descendants in 1699 had destroyed the atmosphere strengthened by Laksamana Paduka Raja. These challenges that occurred in the early 18th century tested the concept of sovereignty. The 20 years of long conflict ended the era of Sultanate and replaced it with the era of the Bendahara's rule. There was also a civil disorder and infighting over the throne, and the civil war eventually led to Bugis interference into the palace.

This was a huge challenge to the concept of sovereignty and also the conflicts between the Malays and the Bugis. The failure of efforts done by the Malays to expel the Bugis had led to a new dimension in the history of Johore, whereby the unification of two Malay groups which were the Malays and the Bugis to rule Johore. Although these evolution and transformation were difficult to be accepted by majority of the elites and the Malay rulers, they were unable to go against the tide of change that occurred during that period. Thus, the 20 years of problems had brought huge impacts and challenges to the transformation and history of Johore.

YEARS OF SUCCESS: 1720-1784

Having experienced the trial transformation in terms of the ruling of the government between the two Malay groups, one may say that the period from 1720 to 1784 was the new era for the kingdom of Johore. The Malay civilization that had been the basis of the government since the glorious era of Melaka and Srivijaya continued to stand strong and sustain. The only difference was the existing trading strength, developed by the Malays, was further strengthened by the presence of the Bugis. All this while, the important class of merchants was made up of the Malay merchants who dominated the intra-Asian trade in the Malay world. However, the presence of Bugis from Sulawesi to the Strait of Melaka got more prominent by the early 17th century. These Bugis merchants were known for their expertise in sailing through the Sulu Sea, South China Sea, Java Sea, and also the Strait of Melaka, which were an extremely profitable trading network.

Their presence can also be traced up to the northern part of the Malaya Peninsular and the government of Ayuthaya in Siam. Many ports in the Malay world had also become the stopping point for the Bugis traders. Just like the Malay traders who had successfully dominated the intra-Asian trade, the Bugis traders had also managed to do the same. Therefore, these two groups of traders were those who had successfully controlled and dominated the trade in the Malay world. The trading index in Melaka, when it was ruled by the Dutch, had shown how dynamic the Malay and Bugis traders were (Nordin Hussin, 2008, 2005, 2011, 2012). This index clearly showed that the Malay traders played the most important role, followed by the Bugis traders, as compared to other traders from Asia and Europe.

With the introduction of a new post that had previously never existed in the Malay supremacy from Srivijaya and Melaka, the Bugis introduced a new post called Yang Dipertuan Muda in the government of Johore. Yang Dipertuan Muda had the power far beyond the Sultan of Johore and the power had been fully utilized by the Bugis so that they could be absorbed more easily into the Malay governmental system. They also introduced the adat tiga hujung, which they absorbed successfully into the palace and Malay government. The transformation from a pure Malay supremacy to Malay-Bugis supremacy was successful although there were intense oppositions from the Malays led by Sultan Mansur Shah from Terengganu, who spent his time and reigned in Johore to eliminate the Bugis supremacy. His efforts, however, ended in failure.

Hence, Riau developed into an important port from 1722 to 1784 and succeeded in controlling the trade that flowed through the Strait of Melaka by fully exploiting the geopolitical strength and strategic location of Johore to make it a major trading centre in the Malay world. Although Johore succeeded in its dramatic transformation by turning Riau as the major trading centre and at the same time competed with Melaka and Batavia dominated by the Dutch, the friendship cultivated since 1600 was still intact and had in fact became the platform for Johore to thrive without being challenged by the Dutch in Melaka and Batavia. In addition, the free trade established by the kingdom of Johore which was the backbone of its economy also increased its strength. This free trade policy was totally the opposite of the Dutch's strict monopoly trade policy implemented in the Strait of Melaka. However, Johore continued to grow without being challenged by the Dutch.

The friendship forged between the Dutch and the kingdom of Johore was challenged by the Bugis who dominated the administration of Johore at that time. The Bugis, particularly Raja Haji who was the Yang Dipertuan Muda of Johore neglected the spirit of friendship forged between Johore and the Dutch for over 184 years. The relationships between both powers were nurtured and never challenged; however, Raja Haji made his personal political moves without taking Johore's history into considerations. Due to his greed and unwise political calculations, Riau fell under the control of the Dutch in 1784 and this led to an era of darkness to the history of the kingdom. As a result, the defeat of Johore to the Dutch in 1784 had divided the kingdom, which had gone through its evolution and transformation since the 16th century. Thus, in late 18th century, the Johore kingdom went through a critical transformation where only the inner strength, political changes that took place in Europe and Asia, as well as the new balance of power in the Malay world could save it.

DIFFICULTIES AND CHALLENGES: 1720-1784

In this phase of history, Johore had a time of great difficulties and challenges after its defeat to the Dutch in 1784. This is

also the phase less studied and examined by historians. In general, the political environment in the world and Malay world had gone through great changes in the last few years of the 18th century and by early 19th century. One can also notice the weaknesses of the Dutch as a major power that controlled the world trade in this period of time. The age of Pax Netherlandica which controlled the globalization of world trade was heading towards its age of decline. At the same time, the rise of France in Europe as well as the conquest of Napoleon on European countries also led to the fall of the Netherlands to France and the destruction of the Dutch East India Company (VOC). Furthermore, the strength of its marine fleet had led to the rise of British to dominate the weaknesses left by the Dutch. As a result, the power to control the world trade had changed in favour of the British. This situation also presented new challenges to the political atmosphere and trade in the Malay world. The decline of the Dutch had created a power vacuum in the Malay world. This opportunity was fully utilized by the British. Starting from the late 18th century, the British brought new challenges to the Dutch and also the local authority in the Malay world.

Due to this changing environment, Johore had experienced an era full with difficulties and challenges, as well as transformation for the second time. However, this phase of its history differed from the one that occurred between 1700 and 1720. Previously, difficulties faced by the kingdom of Johore only involved

internal problems and conflicts of the kingdom without involving the world's major powers or external powers outside the Malay world. However, in the second phase of its transformation, the kingdom of Johore was forced to face great challenges in its sovereignty and also as the major trading power in the Malay world. The challenges faced by its sovereignty can be traced after the government's defeat in war against the Dutch, which destroyed its capital city and the main trading centre of Riau. Fortunately, the political environment in that critical situation during that time happened to be in favour of the Johore kingdom. The decline of the Dutch and the destruction of its East India Company (VOC) provided a lifeline to the sovereignty of Johore. Meanwhile, the attempt of the British EIC to present itself in the Strait of Melaka was stopped by the Dutch. This had a great impact on the sovereignty and power of Johore although the destruction of the government occurred in 1784.

British competition and intervention in the Strait of Melaka and the Malay world, the power struggle of the European powers on the world stage, as well as the strategic policy change by the VOC brought a lasting impact on the history of Johore. In addition, the dispute between the kingdom of Johore and the Dutch, as well as the Bugis domination in the palace and the Malay elites had also impacted upon the kingdom of Johore. After the fall of Riau in 1784, there were ongoing efforts made by the Dutch to implement their colonial policy on Riau. This was due to the strategic

location of Riau and its strength as an important port in the East. Therefore, one can notice that the Dutch were attempting to put Riau under the world trade network by trying to eliminate the Bugis presence in the Strait of Melaka. However, these efforts failed without the cooperation from Sultan Mahmud and also the oppositions from the local authority. This eventually led to a situation where the kingdom of Johore attempted to regain control over Riau in 1787 although its attempt did not succeed. This led to the destruction of the Malay and Bugis supremacy where they were forced to leave Riau and move to some other areas in the kingdom.

Thus, this period of transition provided the kingdom of Johore with the time to reassemble its efforts and strength to go through its next era of transformation to re-emerge as the major Malay power in the Strait of Melaka. This phase that started from 1874 until 1824 was an extremely challenging era to the sovereignty of Johore and had witnessed the destruction of a huge territory of the government of Johore-Pahang-Riau and Lingga (Keng, 2008; Trocki, 1979). This transformation was also a very painful era due to the internal conflicts of the royal family and the division of Johore's empire, which had permanently split Johore into two territories dominated by the Dutch and the British, respectively.

TRANSFORMATION AND METAMORPHOSIS OF A MODERN JOHORE

By the 20th century, a complete transformation had occurred and reached

the stage of metamorphosis regarding the establishment of the kingdom of Johore that was once a Malay maritime state, which was then evolved into a modern Johore that sets its focus in the field of agriculture, industry and trade. Attention was once upon a time only set on the ports, while development on land was neglected. However, this situation has completely changed in this phase of transformation and metamorphosis of a modern Johore. This quick change made by the government and the ruler of Johore has enabled us to see a new horizon in trading activities, world demand, as well as rapid change in world economy. As the main player in world economy in the early days, it was not surprising how the government of Johore was able to change its course quickly to meet the needs and demands of world economy (Sinclair, 1967; Trocki, 1979, 1976). In the 17th century, goods demanded by the world economy were items such as pepper, clothes from India, tin, bird nest, as well as sea and forest products. In the early 19th century and 20th century, however, the goods demanded by the world economy had shifted to items such as gambier, rubber, timber and palm oil. Thus, the agrarian economy to meet the needs of world economy could be developed in the state of Johore.

Therefore, the evolution, transformation and metamorphosis of Johore were evident when the new Johore led by Sultan Abu Bakar had successfully drove Johore to a new era, and his success was then continued by his successors. If the other states had tin to drive their economic development, Johore, on the other hand, had made land

and agricultural activities as its economic strength. Its success was envied by the British, who with every effort tried to gain control over Johore. However, Johore continued to grow with the establishment of Port of Tanjung Pelepas and the Iskandar Johore region situated in the extremely strategic route in the world. Hence, Johore reached its metamorphosis and emerged as a progressive government.

The winding progress, however, required high resistance ability from Johore obtained through evolution, transformation and metamorphosis as long as 480 years. Today, research opportunities available should be given serious attention in order for our future generations to understand the history of Johore, which is full with obstacles. The government's strength and high resistance had enabled it to remain as a strong and stable government. Therefore, studies on the cities and ports of Johore, such as the history of Kota Kara, Makam Tauhid, Bukit Seluyut, Kota Tinggi, Bintan, Riau, Sayong, Johor Lama, Kopak, Pasir Raja, Pekan Tua, Batu Sawar and Selunyut, should be carried out to strengthen the heritage of Johore so that it will not be devoured by time. Similarly, research on the river basin of the Johor River as a Malay historical heritage site should also be carried out. This is because it is the frontier of Malay historical heritage regarding the rise of the government of Johore and how the Malays successfully established their own government and shaped their commercialbased economy, which enabled them to dominate trading activities in the region

by successfully utilizing Johore's strategic geographic location to serve the purpose.

CONCLUSION

The history of Johore had experienced eras and phases of evolution, transformation and metamorphosis from a maritime government to a modern government of Johore. The government of Johore had gone through these three challenging phases with strength and managed to maintain its identity as a maritime government based on trading activities that was the backbone for its economic strength. This strength had been strengthened by the progress in the field of agriculture and industry, as well as the development of the Iskandar region and the Port of Tanjung Pelepas, which played a similar role like the port of Riau as the major port in Asia and the driver of Johore's economy.

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Singapore's Economic Development, 1961-1965

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ABSTRACT

In 1961, Singapore launched her first Development Plan with the main purpose to bring rapid economic growth to the small island. Singapore also needed to generate a large scale economy to satisfy its own domestic needs as well as the needs of the global market. The merger with Persekutuan Tanah Melayu (PTM) or the Malayan Federation enabled her to gain access to plenty of natural resources available in Malaya and also guaranteed Singapore a reliable source of water needed for its industrial activities. The confrontation that had occurred between Indonesia and Malaysia, combined with internal political problems, fastened Singapore's wish to merge with the Malayan Federation. This study revealed that Singapore had always wanted a peaceful environment and quick conflict resolution in order to ensure the development and prosperity of the state. As a small state, Singapore had no choice but to be wise and careful in handling issues related to its sovereignty and in conducting relations with its neighbouring countries. In conclusion, Singapore has always worked hard to overcome any obstacle to its economic development and handle conflicts with its neighbouring countries with care to ensure its national interests and survival in the Southeast Asia region.

Keywords: National development, economic growth, political competition and political recognition

INTRODUCTION

After PAP (People's Action Party) came into power in July 1959, the leader of Singapore launched the 1961-1964 Development

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Plan. In order to achieve the objective of the plan, Singapore brought up the plan to merge with the Federation of Malaya. The merger with the Malayan Federation would enable Singapore to conquer a large domestic market. This was important because Singapore realised that its entrepot policy would not be able to generate a large scale economy needed, and in fact,

the policy would actually limit the growth and development of the country itself.² This article explains the relationships between Singapore and its neighbouring countries, the British Government, as well as the influence of the socialist Front and its importance in the context of economic development and the ruling power.

BACKGROUND OF SINGAPORE

Since the time of British occupation in Singapore in 1819, both Singapore and Malaya have been regarded as one single entity or sole unit for Britain³ in terms of trading relations and political cooperation.⁴ Tunku Abdul Rahman (Tunku) never denied the importance⁵ of Singapore to the Federation of Malaya, especially in terms of historical connections,⁶ relations between both governments, industries and socio-cultural linkages, as well as economic relations that would lead to broader cooperation between both countries.⁷

The economic advantage in the Malay states had encouraged and fastened the pace of growth and development of Singapore. Thus, Singapore proposed that Malaya should focus more on agriculture programme, alongside with conservation and replanting programme, in order to guarantee a continuous supply of these products to Singapore. On the other hand, the World Bank had recommended Singapore to focus more in its industrial policies.⁸ As a result, Singapore tried it best to take part in all kinds of industries, including iron and steel industry. The country hoped to be the largest iron and steel distributor in

Southeast Asia [Indonesia (3.1%), Malaysia (1.5%), Thailand (1.1%), Burma (0.8%), and Philippines (2.1%)]. Japan and India were the largest distributors in Asia with 59.7% and 18.1%, respectively, while other distributor countries contributed below 3.3% of iron and steel. Even so, the amount was not enough to meet the world demand. Hence, Singapore attempted to boost the 'entrepot trade' activity to 'entrepot industrial' activity when a Common Market or Joint Market was agreed by all.

To achieve that vision, Financial Minister of Singapore, Goh Keng Swee supported the plan for Singapore to merge with the Federation of Malaya to overcome the problems that Singapore had been facing, especially the problem of water supply needed by Singapore to run its industrial activities. Nonetheless, the need for a long-term water supply was not a new issue to Singapore. Therefore, the water supply factor was one of the main reasons why Singapore wanted to merge with the Malayan Federation apart from the need for more raw material supply that was also crucial to run multiple industries in the country.

THE NEED FOR WATER SUPPLY

Indeed, the need to secure water supply to Singapore had long been realized by the British, particularly for public and military consumptions. Water Treaties to ensure water supply for Singapore were signed in the year of 1858 and 1956 between the state of Johor and the British (City Council of Singapore). However, these treaties

did not guarantee adequate water supply to Singapore in the long run due to the rapid population growth and the economic activities on the island.

Meanwhile, the demand for water had increased from 32.6 million gallons in 1950 to 50.1 million gallons in 1955.9 By 1955, Singapore faced a crisis where it almost ran out of water supply until 1960.¹⁰ To overcome the problem, Singapore took several steps to increase its water supply, which cost it as much as 8 million pounds.11 A proposal to increase normal and emergency water supply was also planned for the sake of the future.12 Following the implementation of the 1961-1964 Singapore Development Plan and the 1967 Industry Plan, the demand for water increased 20 million gallons per day. As much as S\$67.1 million was spent to get new water supply from the state of Johor. To make this project successful, the needs for communication system, ports, water and electrical generator, due to the increasing demand in the electricity as well as gas and water supply, increased rapidly to meet the needs of foreign investments in Singapore.

THE NEED OF FOREIGN INVESTMENT

Singapore started to boost its industrial development after the completion of various infrastructures since early 1960s. Thus, the Chairman of the Inter-governmental Committee of the Malayan Federation, Lord Lansdowne recommended Singapore to join the formation of Malaysia so that a Common Market could be established.¹³ The World

Bank Mission or IBRD reported that the investments increased after the formation of Malaysia as it was supported by a well-developed banking system and strong currency. This phenomenon convinced the Singapore Economic Development Board (EDB) to play its role in the financial sector. Singapore believed that the problem of unemployment would also be solved if the value of investment successfully reached S\$1,000 million to S\$1,200 million for the period of more than 10 years.

However, Singapore's move to accelerate the growth of its industrial sector could be seen as a rushing step. Many of the country's policies were criticized by the Socialist Front, including the monetary policy, citizenship issue, security issue and also the issue of the local autonomy. For the government of Singapore, a country could only achieved rapid overall growth and development through the development of the industrial sector, as shown by the achievement of some countries such as Japan, the United States of America and European countries. On the other hand, in the opinion of the World Bank Mission, Singapore was actually trying to negotiate the steps needed towards its merger with the Malayan Federation.

NEGOTIATION AND STEPS TOWARDS THE MERGER

The proposal for a merger between Singapore and the Federation of Malaya was raised by the Deputy Prime Minister of Singapore, Toh Chin Chye and Prime Minister Lee Kuan Yew (Lee) in 1955. In addition, Toh also brought up issues such as the problem of unemployment, the lack of natural resources and the need for continuous water supply, particularly for the industrial activities of the country.

In the memorandum about the merger, Singapore explained that its desire to merge with the Federation of Malaya was based on ethnicity ties and common historical, culture, economic and political background between the two governments.14 These relations and ties grew even closer two years after Malaya achieved its independence from the British on 31st August, 1957. Lee hoped that the merger would also lead Singapore to achieve its own independence that was soon become a reality in 1963. London Talks were held between 20th-22nd November, 1961 and the Joint Statement by the British Government and the Government of Malayan Federation was distributed on 23rd November about the proposal to create the Federation of Malaysia that consisted of the Malayan Federation, Sabah, Sarawak and Singapore.

However, the idea was opposed by the Socialist Front, which claimed that the merger itself was a consolidation for Tunku's own political objectives. ¹⁵ To deny this claim, Lee issued a White Paper on 23rd August 1961 upon the agreement between Singapore and the Federation of Malaya to merge. The White Paper also outlined the constitution, executive, legislation, administration, financial as well as the local autonomy under the control of Singapore. The opposition doubted on how Singapore could share power in terms of income

distribution and expenditure on education that varied between the Government of Malayan Federation and Singapore.

According to the merger plan, the Federal Government of Malaysia would control over the economy of Singapore. The Federal Government also had an exclusive jurisdiction over currency, banking, foreign exchange, capital issue, public loan, trade, business, industry, shipping, communication and transportation. Furthermore, the Federal Government also had the right to collect all types of taxes, including Income Tax and Excise Duty. These conditions became the main concerns of the people in Singapore and Borneo who feared for Malays' domination. Therefore, Lee had always wanted the citizens of Singapore to have political awareness for the future of the island.

Mean while, the Chairman of the Socialist Front, Lee Siew Choh agreed on the merger proposal that was proposed on 29th August 1961, with the condition that Singapore would be fully integrated into the Federal Government of Malaysia like Penang, Melaka and other Malay states as one of the states in Malaysia. In the statement of Lim Chin Siong as the Secretary-General of the Socialist Front on 17th September 1961, Lim said that Singapore should not be seen and treated differently with other states in Malaysia and demanded that Singapore should be given priority and other advantages like the rest of the states. Lim's statement obviously increased the popularity of the Socialist Front. PAP estimated that the Socialist

Front would be able to dominate a larger part of the Federation, as well as the fields of education and labour according to the party's relevancy after the merger. In terms of moral, however, population support for the Socialist Front would definitely affect the integrity of PAP.

Even so, Lee was not afraid of the opposition from the left wing in the party since Lim Chin Siong was the only leader that was loud enough in going against the PAP. Lee then informed the British officials in London that he wanted to prevent these left wing party members from going against the decision to merge with the Federation of Malaya. Lee also said that he did not want these people to create disturbance before a decision about the merger could be reached.¹⁶ Two weeks later, the British organized a programme to prevent and expose the tactics of the Socialist Front as proposed by its Special Branch in Singapore. Lim Chin Siong was then shortlisted by the authority of Singapore for arrest. This measure subsequently decreased Lim's influence in the trade union. According to a report, the Special Branch in Singapore did not pass all the work to eliminate communist elements in Singapore solely to the Federal Government. Singapore was also involved in the efforts to eliminate communist elements, but it chose to put the responsibility in the hand of the Federal Government so that its involvement would not be seen as a conspiracy. In Lee's conversation to the Acting Commission in the U.K, Lee gave the assurance that Britain supported the idea to arrest Lim Chin

Siong after the referendum and before the merger. Hence, the arrest of Lim after the referendum would give Lee the confidence that majority of the citizens of Singapore supported the merger. In addition, he also made justification that the arrest of Lim did not lead to any form of resistance from the people based on the wish of the majority of the poll.

Two years after joining Malaysia, Lee then told Harold Wilson that the Common Market had yet to be established.¹⁷ This had previously raised criticism from the Socialist Front during a debate in the Legislative Council in 1962 upon PAP's move in wanting to merge with the Federation of Malaysia.¹⁸ In fact, it was difficult to establish the Common Market as a result of the confrontation policy practiced by Indonesia towards Malaysia. Besides, Singapore suffered from huge losses when many of its industries were moved to Malaysia. Singapore claimed that the Federal Government of Malaysia was trying to gain total control over Singapore's income and also the structure of customs and excise duties, although the right to do so was actually subjected to the jurisdiction of Singapore. Malaysia, however, did not agree with Singapore because Kuala Lumpur did not want the export duty to be excluded for foreign products. This means that any imported products ranged outside of Malaysia's Common Market would be subjected to import tariffs.

Even Lansdowne's statement did not give any benefit to Singapore. The main purpose behind his statement was to help and save British traders and their entrepot trade in Singapore.¹⁹ At that time, Britain was still practising a profitable approach for British investors and traders, such as by maintaining lands belonging to the British Company in Singapore. For the Singaporean authority, on the other hand, these lands which had been leased to the British Company could be used for the implementation of the 1961-1964 Development Plan.

THE ISSUE OF BRITISH-OWNED LAND IN SINGAPORE

In the efforts to implement Singapore's development plan, lands had become a key element in determining the effectiveness of such plan. One example of these strategically located British-owned lands in Singapore is the British Naval Base. The British realized that their interests in Singapore must be continued by maintaining their position in the Naval Base as well as a few other locations that they owned on that island.

In addition, British also feared that lands of its hold in Singapore would fall into the hand of the Singaporean authority after Malaysia Day, which was after the formation of the Federation of Malaysia on 16th September 1963. Therefore, it was clear that the British had tried its best to make sure that the U.K Services had rights over these lands according to Para (2) Annex.²⁰ In a meeting with the Federal Government of Malaysia, British openly stated their readiness to acquire lands in Singapore based on the current market value of lands on the island in case Singapore

would want those lands back. Singaporean authority, however, refused to sell lands as wide as 25 ¼ acres in Pasir Panjang that worth £11,406 based on the current market value at that time.²¹ This was because Singapore had planned to develop phase B of a hydroelectric project in that particular area to generate electricity for its industrial projects.

To enable Singapore to get back those lands, the authority drafted the Land Acquisition Ordinance (LAO), so that any step taken by them would not be considered as trespassing. J.D. Higham from the Colonies Office (who replaced Golds, A. A. to chair CRO meeting) then stated that the main objective for the British, i.e. to maintain their hold on the British bases in Singapore, was way more important compared to selling the lands at market value. Through his statement, Britain realised the importance for the British bases to remain in Singapore for the sake of their interests in the region, particularly in the matter of defence. Nonetheless, Singapore continued to urge Britain to hand over the British-owned lands because this issue might be used by the Socialist Front to strengthen its position.

Lee wanted the British to hand over 14 acres of land to be used by the War Department as a shooting field, even though hundreds of acres of land were handed over by the British to the authority of Singapore prior to this. Lee then continued to urge the British to hand over another 1/10 of land that they owned with the reason that if the British did not do so, it would that

he himself had failed to carry out the trust and will of the citizens of Singapore. On the other hand, the British hoped that with the lands that they owned and held in Singapore, it would help to guarantee British's properties on the island, including their defence equipment and military quarters in Woodlands, telecommunication station in Jurong, military wireless presenter station in Chip Bee, Holland Road and few other locations.

By law, lands owned by the U.K Services should be returned to Singapore as the land owner after the separation, as understood by Singapore. Nevertheless, the British still made an attempt to maintain the status of the land so that the ownership of these lands would not be transferred to Singapore. To solve this problem, a discussion was held between the representatives of the Commonwealth (CRO) and Singapore's authority. During the negotiation, Singapore informed Cook from the Colonies Office that the Property Tax Ordinance would be implemented to impose tax on the military services and also property tax as high as 100%.

In the above discussion, it is clear see that the land issue had become a very important one to Singapore. With its small size and limited lands, Singapore needed lands owned by the British Company on that island to be returned to the Singaporean authority in order to carry out various development projects on that island. Therefore, it is obvious that Singapore was willing to do whatever it took to re-acquire these British-owned lands, either through legislation process or by force. In order

to enable the British to maintain its status land owner and to prevent Singapore from re-acquire these lands, however, the British had used multiple tricks. For instance, they had stopped Singapore from implementing the suggested Property Tax Ordinance using the immunity policy of the Crown before Malaysia Day, even though they were aware of the fact that property tax collection should remain under the rights and responsibility of Singapore.²²

British also tried to explain the confusion related to this particular issue before Singapore joined the Federation of Malaysia on 31st August, 1963. During the negotiation of the 1957 Agreement with Malaya, Singapore was given semiindependence status instead of the colonial status. However, the island was technically still under the British auspices. Thus, its constitution was enshrined with the Government of U.K, which was one of the characteristics of a protectorate state where a draft of 'Services' Lands Board Ordinance 1959 was outlined in the constitution itself. The ordinance gave SLB rights to own, hold and release lands in Singapore. According to the ordinance, there were two categories of lands. The first category referred to the land purchased by Singapore itself without using the U.K's funds, while the second category referred to Singapore Crown Land which was owned by the U.K Services without any charge as long as it could be owned. Hence, the lands of the British army, air force and navy that were located outside of the British Naval Base fell under the first category.

Under the amendments of the constitution, all the lands including those belonging to the Crown in Singapore that fell into the second category still remained unchanged, but the first category which was subjected to 999 years lease should be submitted to the SLB. After the government of Malaysia took over these lands, the SLB was given only 30 years lease. According to the basic principle of this matter, when the land was no longer needed, the British forces should hand back not only the lands to Singapore, but also the facilities or the buildings that had been constructed including the construction cost if the government of Singapore needed the land back to be developed. If the land was not needed by the Government of Singapore, it would then be sold in the open market and payment would be made to SLB as a corporate body that legally represented the British Government in Singapore.

Therefore, on Malaysia Day, based on the Defence Treaty between U.K and the Federation of Malaya signed in 1957, Services Lands Board Ordinance had the rights over matters related to properties in Singapore. On Malaysia Day, Singapore merged with the Malayan Federation on 31st August 1963 under the 1963 Malaysia Act. It is clearly stated under Section 79 that all lands in Singapore would be put under the power and jurisdiction of the Federal Land Commission (without any charges) immediately after Malaysia Day. The Federal Government, on behalf of Singapore, then agreed to lease the lands to SLB on terms and conditions that were fixed

by the government. Through the agreement, the Federal Land Commission officially replaced SLB and took over the lands owned by that particular body.

The Federal Government also agreed to lease lands to the U.K representative in Singapore for defence purposes for a period not more than 30 years. In the meantime, the status of lands owned by the Crown remained unchanged, unless the Federal Government (on behalf of Singapore) leased these lands in accordance to sections 75 and 76. On 9th July 1963, a treaty was signed between the Government of Malaysia and the Government of U.K. In that treaty, all the lands owned by Land Services were explained and described in Annex F, which was derived from Article VI dated 9th July 1963 between the Government of U.K, the Federation of Malaya, North Borneo, Sarawak and Singapore. The preamble of Annex F stated that the 1957 Defence Treaty between U.K. and Malaya was actually referring to the lands and buildings owned by SLB. This showed that the Ministry of Defence in U.K still wanted to retain their land ownership in Singapore.

To manage this issue, the British tried its best to address the issue wisely and carefully since they had been facing a wise politician like Lee. The British also realised that Lee had a firm stand about law and would always think of the political advantages in any negotiation. Thus, the British made an attempt to make amendments in legislation. This indicated that the British had tried to amend Annex G so that Lee would not have absolute power to determine the status quo

in the matter of land holdings in Singapore. The new version of Annex G could be seen as a step taken by the British to ensure Britain's interests in Singapore. The British government would prevent Singapore to make any reference regarding land holdings in the future in the process of reacquiring the British-owned lands by referring to MDA 1957 Article IV. According to Article IV, the Federation of Malaya was permitted by the Government of U.K to 'own, maintain and use the bases and all the facilities in the Federation in accordance to Annex 2 and Annex 4. Meanwhile, Annex IV stated that the policy of the Malayan Federation did not allow any foreign country or Commonwealth to own any land in the Federation except for diplomatic purposes. Therefore, if the Government of U.K wanted to own a land in the Federation, the authority of the Federation of Malaya would pass a law and register it in the name of Public Trust that held the trust for the U.K Services.

According to the 1963 Malaysia Act concerning the rights on lands in Singapore, Section 79 clearly stated that 'the Federal Land Commission will replace SLB'. This showed that the freehold rights still remained in the hand of Singapore even though it had merged with the Malayan Federation to form the Federation of Malaysia. Hence, it could be said that the 999 years lease is not void with the 1963 Malaysia Act and lease could still be given to the British forces for a period of 30 years based on the Treaty of 1957.

This matter nonetheless raised doubts in Lee regarding the status of lands owned by SLB that were still held by the British Government. As a result, Lee urged SLB to return its 12 acres land to Singapore because it is very useful for development and has a high value. However, the Lands Directorate Far East in Singapore stressed that SLB was still a legal and valid body in the republic. He also tried to highlight the fact that the 999 years lease to SLB as the legal owner of these lands was acknowledged by Singapore before SLB was replaced by the Federal Land Commission of Malaysia which then decided to give 30 years lease to the U.K. Services Lands Board in accordance with the 1963 Malaysia Act, section 79.23 Therefore, any property transaction in Malaysia would be carried out under the U.K Services Land Board, including the lands in Singapore after it became a part of Malaysia. This matter was opposed by the SLB, which referred to two original terms and conditions about land ownership in Singapore prior to Malaysia Day. They even wanted to bring the matter to court to maintain the 999 years lease. Their claim, however, was denied by Singapore which had its own interests on those lands due to the limited land areas and a dense population. Hence, lands can be considered as productive assets to Singapore. In addition, these lands could also be used as agriculture area, shipyard and even a ship repairing centre because the area was suitable for building large ships. Recognizing the importance of these lands, Lee wanted all the lands to be maintained under the jurisdiction of Singapore, as stated in paragraph 2 of Annex G, so that any development project in the future could be planned.

It seemed that the British had their own hidden agenda before the concept of federation or merger was established, i.e. to ensure protection of their interests in Singapore. Therefore, Lee was suspicious about the question to what extent the concept of federation could benefit Singapore without sacrificing its sovereignty. This is because Kuala Lumpur sees the merger scheme from a different perspective. In particular, Kuala Lumpur sees the merger scheme in the context of political survival of the Malay people and Malay supremacy. For Malaysia, the Federal Government does not only have a direct authority over all member states in the federation, but also has a full control over the citizens and lands under the authority of the government.

In the early stage, the merger was seen as not favourable for the Federal Government. Kuala Lumpur did not see the merger as a benefit to the country but would indeed create an imbalance racial composition for the newly born federation. Tunku was fully aware that the merger would reduce the trust of the Malay people and UMNO towards him. Therefore, he wanted to include Sabah and Sarawak in the federation for their importance in ensuring the political survival of the Malays even though his idea did not make sense because the people in Borneo are from different ethnic groups. Eventually, Kuala Lumpur decided the follow the British's original scheme to include Malaya, Singapore, Sabah and Sarawak into the federation, as proposed by Tunku. For Kuala Lumpur, the formation of the Federation of Malaysia would act as the

core of the Malay politics and responsible for internal security, international relations as well as defence, whereas Singapore would have the same status and role like the other member states of Malaysia in the federation. However, Singapore would be given power in the field of education and labour, along with other autonomies, but its role was limited. Therefore, Lee's action in equalizing his position with the Prime Minister certainly did not make sense since the heads of the other states in the Federation of Malaysia like Sabah, Sarawak, Penang and Malacca only held the title of Chief Minister.

On the contrary to Kuala Lumpur, Lee foresaw that this merger scheme would bring benefits to Singapore in terms of economic survival and also territorial integrity. As compared to 11 other member states of the Federation, Singapore relatively had greater autonomy in terms of political autonomy. This could be seen from the fact that Singapore had the rights to handle some of their own matters, such as education and labours, as well as other autonomies.²⁴ More importantly, the merger also provided Singapore with a status as a nation, and it was then eligible to maintain that status in the international arena. Furthermore, by joining the Federation of Malaysia, Singapore would gain access to the international financial reserves and could now be accepted as a member of IBRD or IMF in order to implement the Domestic Development Plan. In addition, with the new status, Singapore would be qualified to conduct relations with any countries in the

world according to the international law as a part of the Federation of Malaysia, and could therefore expand its diplomatic relations with other countries since it is qualified to be a legal member of IBRD and IMF. To achieve these, Lee openly claimed that 'the merger will increase economic development and standard of living of the people of Singapore'.25 The economic development factor enabled PAP to gain wide support from the people against the Socialist Front. Therefore, in the effort to promote industrial development, facilities such as ports, transportation, communication, mobility, business, and efficient financial rules would certainly contribute to the base of the national development. That was the reason why the British had always tried to convince Singapore that independence would be achieved through the merger between Singapore and the Malayan Federation. This was because Singapore's entry into the Federation would enable Singapore to achieve independence automatically. As an independent entity, Singapore would gain a broader administration power as compared to its previous status and would therefore be respected and recognized internationally.

The Socialist Front did not agree with the merger if the internal security of Singapore was to be controlled by the Federal Government. This was due to Tunku's statement that he would take stern actions against the threat of communism and the left wings. Thus, Lee tried to get financial assistance from the British Government to establish the Second Infantry Battalion Regiment in Singapore. According

to Lee, the establishment of a security force was needed before the day of the merger to avoid any undesired event.26 Lee hoped that the Federal Government of Malaysia would be able to ensure Singapore's security from the threat of the Socialist Front which also threatened the interests of the Federal Government.²⁷ In the opinion of the Socialist Front, the merger would only bring benefits and political gains to PAP. They claimed the merger plan was a creation of the West in order to contain the communist threat. However, the claim was denied by the British saying that it was not a block that would go against China and Indonesia.²⁸ Even though PAP successfully outshined the opposition in the 1959 election, its overall power was yet to be enough.

Through the merger, Singapore hoped to gain a greater autonomy and strengthen Lee's political influence and position to face the challenges from the Socialist Front. Hence, it is clear that Lee had tried his best to convince the Federal Government that the communist threat in Singapore²⁹ would also threaten the politics in Malaya. If this happened, the communist threat had the potential to change the economic structure and also the political system of both the regions involved. This led to the arrest of a number of leaders from the Socialist Front in February 1963 before the merger which directly reduced the influence from the left wing. Then, Tunku told the public that Malaya had successfully eliminated the communist threat, but he was still worried about the increasing communist influences in Singapore, Sabah, Sarawak and Brunei. Tunku also mentioned that the same pattern of communist exploitation was taking place in those areas. On the other hand, in order to gain the Malays' support for PAP, Lee stressed that the idea of democratic socialism of PAP was not a communist ideology as understood by most people. In addition, to attract the attention of the leaders in Malaya, Lee promised to improve the living standard of the Malays equally with the non-Malays. It was clear that Lee was being very careful about taking care of the feelings of the Malays as well as the Federal Government before the merger, and he was seen to be willing to accept a few of the terms and conditions of the merger.

Among these terms and conditions were, Singapore had to be prepared to accept only 15 seats in the Federal Parliament in return to achieve a greater autonomy, while the state of Borneo will get 40 seats in the Parliament even though the population in Sabah and Sarawak was only 1.5 million as compared to 1.7 million for Singapore alone. Secondly, Singapore must be prepared to put the power over matters such as defence, foreign affairs and domestic affairs under the British control. Thirdly, Singapore had agreed to provide the ration of 60:40 of its income for the development in Borneo. This means that according to the terms of the merger, Singapore had to surrender 40% of its total income for federal services and to provide S\$50 million of loan for the period of 15-20 years to develop Borneo.³⁰

The Federal Government explained that the reason why such a huge fund was needed for Borneo's development was because wealthy states held the responsibility to assist poorer states. This showed that Singapore was no longer confident about the establishment of a Common Market as stated in the documents submitted by Tunku to Lee.³¹ It is important to note that the failure to establish a Common Market as wanted by Singapore was the main reason why Singapore chose to separate itself from the Federation of Malaysia.

SINGAPORE'S SEPARATION FROM MALAYSIA

After its separation from Malaysia, Singapore still hoped to conduct a close and smooth relation with its neighbouring countries in the international arena. Tunku had also ensured the Prime Minister of Britain, Harold Wilson, that the separation of Singapore would not change the relationship between Singapore and Malaysia³² even though the separation had impacted upon the economy of both countries. News about the separation had actually offered some moral and economic benefits to Indonesia. After the separation, Lee recognized the importance of the Singapore-Malaysia relationships. According to Lee, the growth and prosperity of Malaysia were crucial for the survival of Singapore and viceversa.³³ In reality, however, in reality, Lee did not show any commitment towards his statement after the separation, such as in the matter of defence. This could be seen when Lee refused to conduct any form of defence cooperation with Malaysia in the era of confrontation.34 Lee's action was totally against the spirit of friendship although the confrontation was not yet over. Besides, other defence agreements (such as maintaining Malaysian battalion in Singapore after the separation) had created suspicion in Lee even though the exercise of military exchange was agreed by both countries.³⁵ Tun Razak then explained that rapid military exchanges would affect the capability of the Singaporean authority to act efficiently.

Therefore, the Malaysian forces still remained in the base in Woodlands when Singapore's forces that were serving in the border of Borneo were sent back to Singapore. The Treaty of 9th August 1965 gave rights to Malaysia to assist in Singapore's external defence, while Singapore would provide the facilities needed for Malaysia's external defence. There was also a secret agreement between the two countries whereby Singapore could ask for the assistance of the Malaysian Military Forces for its internal security,³⁶ but Singapore was not confident that the Malaysian Military Forces could perform their duty effectively.

According to this agreement, Malaysia would continue to deploy its troops in Singapore, while Singapore provided one of its battalion in Borneo to assist Malaysia against the confrontation launched by Indonesia. Both countries also agreed that when the Singaporean battalion in Borneo return to Singapore, the Malaysia Forces will withdraw its troops from Singapore and hand over the military barracks for the Singaporean battalion. However, Malaysia's decision to maintain its troops in Woodlands

was questioned by Singapore. When the Singaporean battalion returned to Singapore, a racial riot occurred on 1st February 1966 due to the government's failure to deal with the Chinese and Malays recruits in the military forces of Singapore. When the British Secretary of Defence, Dennis Healey visited Singapore on 4th February, Lee told Healey that he was unable to maintain the law and security in Singapore. Lee continued by asking Healey whether or not the British Forces could be deployed in Singapore to ensure the security of the republic. Sadly, Britain was unable to meet Lee's requirement. Lee feared of the risk of racial riot if the peacekeeping task was given to Malaysia. Lee was not confident that the Malaysian Forces would be able to carry out their duty effectively because there was a possibility that the Malaysian Forces would sympathise the Malays. For Lee, the presence of the British Force would defuse the situation.³⁷ Furthermore, Lee was also worried that Malaysia would use its strength as the Fifth Column to overthrow him. On 4th February, Malaysia announced that it would not withdraw its troops from Singapore in accordance with the terms in the Separation Treaty. Based on that statement, Singapore was concerned about its security, especially after the racial riot that erupted on the 1st February 1966 because it was not confident with the ability of the Malaysian Forces. Due to this prejudice, the economic cooperation and defence agreement between Singapore and Malaysia found a dead end.³⁸ Thus, the withdrawal of that British Forces starting July 1967 brought economic and political implications³⁹ even though there was a security guarantee. This meant that the British would assist Malaysia including Sabah, Sarawak and Singapore⁴⁰ in terms of their defence. Even so, Singapore would still have to think about the problem of regional security after the withdrawal of the British troops from the region.

In terms of economy, the withdrawal of the British troops could be seen as a loss of economic source for the citizens of Singapore. Thus, Singapore hoped that its relations with Indonesia could be recovered⁴¹ since it had economic interests in that country. Nevertheless, Singapore's attempt to gain recognition from Indonesia invited condemnation from Malaysia. Singapore's rationale behind its decision was that if Malaysia stopped its rubber export to Singapore, the country would then have to secure and revive its rubber supply from Indonesia which had been cut off since the confrontation.⁴²

In fact, Singapore was actually under the pressure of Indonesia which forbade the American troops from using Singapore's bases. In addition, the Government of Singapore also faced pressure from the Chinese merchants in Singapore. Since Singapore's separation with Malaysia, the merchants in Singapore had expressed their concerns about the drop in the price of pepper by hoping that the Singapore's relation with Indonesia would eventually restore the price. Thus, the economic conditions in Singapore were uncertain since August 1965. This was caused by the tendency of the Singaporean businessmen

and merchants who had transferred about S\$1 million from their bank account in Singapore to Hong Kong. Moreover, the shipping companies in Singapore also started to sell their cargoes to countries with stable currencies and opened their accounts in Hong Kong or Japan.⁴³ Meanwhile, the Australian Government also tried to persuade Malaysia to be sympathetic about the economic problems of Singapore⁴⁴ and to stop its military action to block Singapore from trading activities.

Therefore, it was clear that Singapore had no other choice but to continue its trading activities with Indonesia. Tunku warned Singapore that Malaysia would attack Indonesian ships if Singapore insisted to continue its relation with Indonesia. According to Tunku, the Royal Malaysian Navy had the right to do so under the Defence Treaty. According to Head, however, Malaysia's action to enter the Singaporean waters was not legal and would therefore have implications on Britain. Due to the pressure from Indonesia, Lee issued an order that directed the British forces to leave their bases within 24 hours. This was because as long as Singapore allowed the British forces to stay on the island, Indonesia would have reason to continue its confrontation against Malaysia. Nevertheless, Singapore's action was contrary to its own wish for the presence of the British forces in Singapore for economic and security reasons.

In Tunku's opinion, Indonesia's decision to recognize Singapore was wrong and inappropriate since the confrontation was yet to come to an end. Thus, Tunku

condemned Indonesia for continuing its confrontation against Malaysia at that time. Meanwhile, Tun Razak had also warned Singapore that Malaysia would strongly oppose any move taken by Singapore that intended to restore its trading relations with Indonesia. According to Malaysia, Indonesia-Singapore relations would enable the Indonesian merchants to enter the territory of Singapore freely. This was apparently not something that Malaysia had wanted because of the confrontation and Indonesian entry into Singapore could actually threaten the security of Malaysia. Britain, New Zealand and Australia were worried that Malaysia might take offensive steps towards Singapore.45 For Malaysia, Indonesia's recognition for Singapore should be simultaneous with its recognition to the Federation of Malaysia. 46 On the other hand, Indonesia claimed that Malaysia's protest had made the confrontation even more difficult to end.47 Dr. Toh was also concerned about Singapore's safety if Malaysia decided to make an alliance with Indonesia or been tamed by Indonesia⁴⁸ or led to the establishment of an archipelago alliance⁴⁹ through the negotiation.

Toh's statement was based on the statement of the Foreign Minister of Indonesia, Adam Malik, about his guarantee of the security level in the region that was not so convincing in the opinion of Singapore. Prior to this, Adam Malik and the Foreign Minister of Malaysia, Ghazali Shafie, had held a meeting in Bangkok to tackle the issue of confrontation in Borneo. Adam Malik had told Tunku that he would

never ever support a confrontation towards Sabah and Sarawak. In fact, he wished to see both Sabah and Sarawak to stay with the Federation of Malaysia because he was afraid that Malaysia would fall in the hand of the Chinese.⁵⁰ This was because of the fact that the population of Chinese in Malaysia which was higher than the natives. His statement had created fear among the Chinese in Malaysia about their status and position in the country.

In a meeting with the British Foreign Secretary in Bangkok, Michael Stewart, Adam Malik expressed his intention to restore Indonesia's relations with its neighbouring countries. Indonesia was worried about the country's economic condition as well as the communist influence in the country.⁵¹ According to the Secretary of State of the United States of America, Dean Rusk, if Indonesia followed the right path and direction, countries in the region would be united as before since some efforts were already taken place in the area with the establishment of Maphilindo and ASA. For this reason, Indonesia decided to restore its relation with Singapore and trading relations with other nations in the region that had been stopped during the confrontation.

SINGAPORE'S RELATION WITH INDONESIA

The Singapore-Indonesia relation was established based on the trading relations between the two ever since the British colonial era and the time of the Dutch dominance. Apart from getting its raw material supply from Malaysia, Singapore

also acquired its alternative raw material supply from the merchants who commuted from Riau and Sumatera to Singapore. Although the trading value for both Indonesia and Singapore had increased, the dark market activities through the Straits of Melaka and the Straits of Singapore continued to occur. For this reason, the Consulate of Indonesia issued a list of merchants who were involved in the dark market activities and accused Singapore of abetting in such activities.52 Sumatera's long-term trading relations with Singapore were stopped due to the political development in Indonesia. The State Attorney of Indonesia, Suprapto, said that 1/3 of Indonesia's annual rubber production worth Rs2 million (£65,000)⁵³ was smuggled from Indonesia to Singapore and Malaya. This smuggling activity resulted in a huge loss of income and foreign exchange for Indonesia.

In addition, the communist influence in Indonesia also posed a threat to the political condition in Singapore. Lee informed Maudling that the Communist Party of Indonesia (PKI) would soon dominate Indonesia because the party had strengthened its position⁵⁴ as the largest communist party in Southeast Asia and the third largest in the world. PKI claimed that it had around 2 million members. There was a tendency of Indonesia to opt for communism due to Sukarno's relation with CCP, whereby CCP had supported Sukarno in his efforts to deal with rebellions in Padang, West Sumatera and Sukarno's tendency to side PKI.55 Lee was worried that this communist influence would bring political and economic implications to Singapore because it would definitely encourage the left wings to spread their influence in Singapore.

The increasing communist influence under PKI had brought concerns from the U.S and Australia⁵⁶ because it had the potential to threaten their interests in Indonesia.⁵⁷ Thus, both the U.S and Australia started to urge Britain to maintain its troops and bases in Singapore since U.S. was still facing problems in Vietnam at that moment. Australia hoped that the British bases in Singapore would act as the front defence for the country. Hence, the British decided to maintain its military bases in Singapore if Indonesia did not end its confrontation towards Malaysia. Tunku also welcomed the U.S presence in the region so that there would not be a power vacuum to be filled by the communists. Lee was relieved about the British's decision to maintain its military bases in Singapore because this would certainly provide jobs and source income to Singaporeans, especially in the service sector.

However, when Singapore attempted to re-establish its trading relations with Indonesia through barter trade, Lee changed his mind by asking the British forces to leave their base in Singapore. This was because Indonesia had expressed its intention to continue its confrontation policy against the Western neo-colonialism policy if the foreign troops continued to show their presence in the region.⁵⁸

Lee's existence during the era of turbulent in the region had actually saved

the West. In fact, Lee had always wanted to build Singapore based on the image of the West and wanted Singapore to be the Western ally. This was influenced by his background as a Chinese Diaspora. According to Lee, the Southeast Asia region needed support from the West for development, business opportunity and to ensure the survival of the Chinese Diaspora in Singapore. Therefore, Lee had tried to save his political career and also the Western interests in Singapore. The emergence of China as a new power in the international system was seen as a new threat and challenge to the Western powers. Thus, in this case, Singapore's location had become very important to the West.

Furthermore, Singapore was also concerned about the Indonesia-Malaysia rivalry which was caused by the issues pertaining to the formation of the Federation of Malaysia. Due to this reason, Indonesia had deployed its troops in Riau Islands near to Singapore. Singapore was afraid that Indonesia might take the same move as what it once did to West Irian.⁵⁹ Hence, a merger between Singapore and the Malayan Federation was seen as a safe way to avoid Indonesia's offensive move when President Sukarno launched a subversive campaign and boycott the economy of Malaysia in 1963. As a result, all trades between Indonesia and Malaysia were cut off by November and this surely had a negative impact on Singapore as a free port. 60 In addition, the trading relation between Indonesia and Singapore was also cut off. All these while, exporters and importers of rubber were concentrated in Singapore. Due to Indonesia-Malaysia rivalry, however, the port of Pontianak in West Kalimantan to Labuhanbilik in North Sumatera was no longer operating as a transit port for the exporters as usual. As a result, the profit gain by these rubber exporters had dramatically dropped due to the rise in cost. The whole entrepot sector also suffered from this situation whereby the economy of Singapore dropped about 0.5% in 1963 and 24% in 1964.

However, the confrontation had more negative effects on Indonesia as compared to Singapore, especially to those Indonesian military officers who were involved in the trading activities. Indonesian Foreign Minister, Adam Malik, then explained that these officers did not get any income since the trading activities had ceased since August 1964.⁶¹ The Indonesian military officers involved then urged Indonesia to restore its relations with Singapore because the smuggling activities had affected their source of income.62 Adam Malik also said that the trade with Singapore was crucial for Indonesia but Foreign Minister of Malaysia, Ghazali Shafie, still strongly held his stand since the confrontation launched by Indonesia was yet to be ended.⁶³ Based on the report from Jakarta to the State Foreign Office, Indonesia's 'recognition' on Singapore would not weaken the confrontation policy launched by Indonesia, but would indeed accelerate their victory.⁶⁴ Therefore, Lee's decision to allow the Indonesian Mission to Singapore had further angered Tunku.65

Following these developments, Lee urged the Chinese in Singapore to reduce their Chinese sentiment. Furthermore, the transfer of ruling power in Indonesia to anti-communist Suharto and the open opposition by the Muslim population could have negatively affected the Chinese in Singapore in particular, and the Southeast Asian region in general. In addition, Britain and the United State of America were both pro-Suharto. This could be seen when Britain took a softer approach in advising Suharto to implement the policy of good neighbour for the benefit of the region.

CONCLUSION

In order to handle and overcome both internal and regional issues, leaders of Singapore had placed priority to the issues which would restraint the national development of the country. Thus, since 1961-1964, the Government of Singapore has paid attention to certain aspects such as development and foreign relations to ensure the economic growth of Singapore for the coming decades. Since Singapore's separation from Malaysia, its pursuit of national development has shown an encouraging progress. Problems and issues involving bilateral relations were handled wisely and Lee has always urged Singaporeans to focus on their efforts to develop the country. This is an important message to the people of Singapore to bring development and growth to the country.

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Investment Behaviour of Engineers towards Mutual Funds: An Analysis of Gender Differences

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ABSTRACT

There has been theoretical as well as applied evidence about gender differences in investment behaviour and investor perceptions. The present study investigates the important factors for choice of mutual funds and critically analyses the satisfaction level for various mutual fund schemes. Mutual fund is a retail product designed to target small investors, salaried people and others who are intimidated by the mysteries of stock market but like to reap the benefits of stock market investing. At the retail level, investors are unique and a highly heterogeneous group and their fund/scheme selections also widely differ. The study favours Asset Management Companies for designing suitable products to meet the changing financial needs of the investors. Thus, examination of a sample of 200 (83 females and 117 males) investor engineer respondents discerned the differences in the choice of mutual funds and its likely implications on future investment for male and female engineer investors. A higher level of awareness and satisfaction among the male respondents was observed in the study. The results of the study will have some useful implications for the engineers in selecting investment products and for Asset Management Companies for their product designing and marketing.

Keywords: Mutual fund, asset management companies, mutual fund schemes, shares, investors, investment avenues, gender differences

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INTRODUCTION

The mutual fund is a vehicle that enables millions of small and large savers spread across the country as well as internationally to participate in and derive the benefits of the capital market growth. It is an alternative vehicle of intermediation between the suppliers and users of investible resources (Tripathy, 2006). It is a special type of institutional device or an investment vehicle through which the investors pool their savings which are to be invested under the guidance of a team of experts in a wide variety of portfolios of corporate securities in such a way, so as to minimise risk, while ensuring safety and steady return on investment. It forms an important part of the capital market, providing the benefits of a diversified portfolio and expert fund management to a large number, particularly small investors (Tripathy, 1996).

The capital market's development depends on the willingness of the investing public to invest in capital market instruments. Such willingness of investors, in turn, depends on their satisfactory past investment experience. There was a relatively high level of satisfaction with respect to investment in equity shares (SEBINCAER, 2000; Gupta et al., 2001; Gupta, 2005). The satisfaction level was reported low with regards to investment in mutual funds (SEBI-NCAER, 2000; Singh & Vanita, 2002; Singh, 2003; Gupta et al., 2001; Gupta, 2005). The highest unsatisfactory investment experience was found for private-sector bonds (Gupta et al., 2001; Gupta, 2005). The household investors' selection of investments is based on their judgment about the overall suitability of each investment avenue. A comparison of the responses of all available studies shows a similar pattern; the safety considerations dominated the overall suitability criterion

(SEBINCAER, 2000; Gupta & Choudhury, 2001; Gupta *et al.*, 2001; Singh, 2003; Gupta, 2005).

Market penetration achieved by mutual funds was found to be much lower than equity shares for all age classes (Gupta *et al.*, 2001; Singh, 2003). The service class showed inclination to invest in equity shares (SEBI-NCAER, 2000; Mittal & Vyas, 2008). The incident of investing in real estate and bullion has been the highest among business class (Mittal & Vyas, 2008). Verma (2008) found that mutual funds were popular amongst professionals, students and self employed. Retirees showed risk aversion by not investing in mutual funds and/or in equity shares (Verma, 2008).

In recent years, the financial world has seen a dramatic increase in the number of women in professional investment positions such as institutional investment positions and security analysts (Graham et al., 2002). Psychological research demonstrates that in areas such as financial decision making, women have different outlook and preferences than men (Schumell, 1996). Several studies have confirmed that differences in confidence are greatest for tasks perceived to be in the masculine domain (Deaux & Emswiller, 1974; Lenney, 1977; Beyer & Bowden, 1997). Men are inclined to feel more competent than women do in financial matters (Prince, 1993). Barber and Odean (2001) also concluded that in areas related to finance, men exhibit more confidence than women. Women tend to be less confident in their ability to make the right financial decisions (Schumell,

1996). In fact, a number of studies have shown that the economic well-being and financial behaviours of men and women differ significantly. Women hold lower levels of wealth and have significantly lower earnings than men. In addition, men hold more of their retirement savings in risky assets (Bajtelsmit & Bernasek, 1996).

With regard to mutual funds, both female and male investors are expected to have lower levels of investment in this avenue with increasing age. Female investors tend to display less confidence in their investment decisions and hence have lower satisfaction levels (Davar & Gill, 2007). Lewellen et al. (1977) reported that men spend more time and money on security analysis, rely less on their brokers, make more transactions, believe that returns are more highly predictable, and anticipate higher possible returns than do women. In all these ways, men behave more like overconfident investors than women. Barber and Odean (2001) reported that women hold slightly, but not dramatically smaller, common stock portfolios.

The risk differences in the common stock portfolios held by men and women are not surprising. There is considerable evidence that men and women have different attitudes toward risk. Karabenick and Addy (1979), as well as Zinkhan and Karande (1991) observed that men have riskier preferences than women. Certain studies have found that women invest their financial resources more conservatively and are more risk averse than men (Bajtelsmit *et al.*,

1996; Bajtelsmit & Van Derhei, 1997; Hinz et al., 1997; Embrey & Fox, 1997; Grable, 2000; Hallahan et al., 2004; Faff et al. 2008; Neelakantan, 2010; Fisher, 2010). A number of studies have found that the investment and retirement saving behaviours of women and men differ (Bajtelsmit et al., 1996; Bajtelsmit & VanDerhei, 1997; Embrey & Fox, 1997; Hinz et al., 1997). A number of researchers have studied differences in income, poverty, and asset accumulation by gender (see Blau & Kahn, 1997; O'Neill, 2003), but only a few researchers have examined the differences in general gender saving behaviours (Sunden & Surrette, 1998). Therefore, the present study is an attempt to study gender differences in respect to the factors affecting the choice of mutual funds and satisfaction experienced by investing in different avenues.

MATERIALS AND METHODS

Objectives of the Study

The objectives of the study are:

- To compare the differences in satisfaction regarding investment in different avenues between female and male investors; and
- To analyse the factors affecting the choice of mutual funds by the male and female investors.

Hypotheses

Keeping in view the objectives of the study, an attempt was made to test the following hypotheses:

- H1: There are differences in satisfaction regarding investment in different investment avenues between male and female respondents.
- H2: There is a significant gender difference in the factors affecting the choice of mutual funds

Research Methodology

Pre-structured questionnaire developed by the researchers after reviewing some previous work (see Sultana, 2010; Davar & Gill, 2009; Al-Tamimi & Hussein, 2005; Singh & Chander, 2004; Singh & Vanita, 2002; Gupta et al., 2001; SEBI-NCEAR, Investor Survey, 2000) was used to determine the perceptions of the engineer respondents regarding mutual funds. The examination of a sample of 200 (83 females and 117 males) investor engineer respondents discerned the differences in the choice of mutual funds. In terms of geographical location, the scope of the current study was restricted to Shimla. It is fairly well-known from the available facets of the residents of Shimla that only certain segments of the population are of direct interest for the present study. As such, the focus for collection of data was on the subjectively but relevant segments of the population. The responses were measured using a six-point scale constructed on the basis of Likert scale anchored by 'Extremely Satisfactory' (1), Reasonably Satisfactory (2), Moderately Satisfactory (3), Unsatisfactory (4), Extremely Satisfactory (5) and Can't Say/Not Applicable (6). The scale was also used to measure the scale ranging from 'Extremely Important' (1)

to Can't Say/Not Applicable (6). Research hypotheses have been tested by invoking one-way analysis of variance (ANOVA). The ANOVA procedure shows statistical differences between female and male investors at 0.05 level of significance.

RESULTS AND DISCUSSION

Preference of Investment in Shares

It can be concluded from Table 1 that 75.49% of the male respondents and 27.55% of the female respondents preferred investing in mutual fund schemes, followed by 26.47% of the male respondents and 4.08% of the female respondents preferred investing in secondary market equity shares, and 25.49% of the male respondents preferred investing directly in initial public offerings of equity shares, whereas no female respondent preferred investing in initial public offerings of equity shares. It could be concluded from analysis of the table that comparatively, the male respondents preferred investing directly in equity shares and also through mutual fund schemes, whereas the females were rather reluctant to invest in shares.

TABLE 1
Preference for Investment in Shares

Schemes	Male	Female
Only Through Mutual Fund Schemes	75.49	27.55
Directly in Equity shares-IPO's	25.49	0
Directly in Equity shares- secondary	26.47	4.08

Note: Figures are in percentages

Level of the Respondents' Satisfaction for Different Investment Avenues

The respondents' satisfaction level for investment in different avenues is shown in Table 2. The results confirm the statistical difference between male and female respondents for the satisfaction after the investment. The results obtained indicated that the male investors enjoyed more satisfaction by investing in different avenues as compared to their female counterparts. Analysis of the table also reveals that investors are not satisfied after investing in a large majority of investment options. Further analysis of the table demonstrates that the male investors were moderately satisfied after investing in shares (M=3.40), but feeling unsatisfied after investing in the mutual fund income schemes (M= 4.16), tax saving mutual fund schemes (M=4.63), mutual fund indexed schemes (M= 4.74), mutual fund growth schemes (M=4.81) and government bonds (M=4.84). In particular, the male investors were found to be highly unsatisfied after investing in equity linked saving schemes (M= 5.46), mutual fund balanced schemes (M= 5.60), money market mutual funds (M= 5.86), industry specific mutual fund schemes (M= 5.92), mutual fund sectoral schemes (M=5.92) and Giltedged funds (M = 5.95).

Meanwhile, the female investors were shown to be unsatisfied after investing in the mutual fund income schemes (M= 4.0), shares (M= 4.08), tax saving mutual funds (M= 4.30), equity linked saving schemes (M= 4.33), mutual fund income schemes (M= 4.49), government bonds (M= 4.71),

mutual fund indexed schemes (M=4.79) and industry specific mutual fund schemes (M= 4.88). These female investors were highly unsatisfied after investing in the mutual fund balanced schemes (M= 5.18), gilt-edged funds (M= 5.77), money market mutual funds (M= 5.81), mutual fund sectoral schemes (M=5.84) and company debentures (M=5.97). The satisfaction level among the male and female respondents was found to be significantly varied for their investments in shares (F= 8.16; p< 0.05), mutual fund growth schemes (F=8.006; p<0.05), equity linked saving schemes (F=21.76; p< 0.05) and industry specific mutual fund schemes (F= 23.41; p< 0.05). Thus, the following hypothesis:

H1: There are differences in satisfaction regarding investment in different investment avenues between the male and female respondents may be accepted.

Investors' Views Regarding Returns Vis-a-Vis Time Duration

Ippolito (1992) says that fund/scheme selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds. Goetzman (1997) states that there is evidence indicating that investor psychology affect fund/scheme selection and switching. From Table 3, it is observed that both the genders have similar views for the statement that equity shares give higher returns than fixed income investments vis-à-vis time duration. The

TABLE 2
Respondents' level of satisfaction after investing in different investment avenues

Variable	Mean			SD	F Statistics	Sig
	Male	Female	Male	Female	r statistics	Sig.
Shares	3.40	4.08	1.66	1.66	8.16	.005*
Mutual Fund Growth Scheme	4.81	4.00	1.77	2.13	8.006	.005*
Mutual Fund Income scheme	4.16	4.49	2.05	1.95	1.300	.256
Mutual Fund Balanced Scheme	5.60	5.18	0.94	1.66	4.193	.042*
Money Market/Liquid Mutual Fund	5.86	5.81	0.69	0.71	0.298	.586
GILT-edged	5.95	5.77	0.34	0.92	2.695	.102
ELSS	5.46	4.33	1.29	1.93	21.76	*000
Tax Saving Mutual Fund Scheme	4.63	4.30	2.02	2.06	1.26	.262
Industry Specific Mutual Fund Schemes	5.92	4.88	0.48	1.91	23.41	.000*
Mutual Fund Index Schemes	4.74	4.79	1.82	1.85	0.033	.857
Mutual Fund Sectoral Schemes	5.92	5.84	0.46	0.77	0.757	.392
Government Bond	4.84	4.71	1.90	2.03	0.194	.660
Company Debentures	5.83	5.97	0.89	0.27	2.63	.106

^{*} The differences are significant at 5 percent level

TABLE 3 Investors' views for the belief that equity shares give higher returns than fixed income investments vis-à-vis time duration

Variables]	Mean	F Statistics	Significance	
	Male	Female	1 Statistics		
Short term	1.72	1.53	3.19	0.07	
Medium term	1.99	1.86	1.26	0.27	
Long term	1.91	1.93	0.05	0.82	

^{*} The differences are significant at 5 percent level

mean values for the male (M= 1.72) (M= 1.99) (M= 1.91) and female respondents (M=1.53) (M=1.86) (M=1.93) signified that the respondents agreed to the view that fixed income securities give them higher returns

than equity shares irrespective of the time period, reflecting the risk aversion of the respondents.

TABLE 4 Factors affecting choice of mutual funds

Variable	Mean		SD		- F Statistics	Sig.
	Male	Female	Male	Female	- I Statistics	Sig.
Strong possibility of capital appreciation	2.52	2.55	1.22	1.20	0.019	.890
Better annual dividend income	3.11	2.45	1.31	0.99	14.54	*000
Your previous experience as a client	3.62	2.40	1.70	1.30	29.81	.000*
Friends suggestion	3.81	3.79	1.04	1.19	.011	.196
Agent's recommendations	2.82	2.65	1.17	0.90	1.21	.271
Advertising	3.21	2.68	1.53	1.02	7.42	.007*
General reputation and popularity	2.60	1.98	1.50	0.96	10.86	.001*
Schemes suiting your needs	3.91	4.22	1.99	1.94	1.22	.269

^{*} The differences are significant at 5 percent level

Respondents' Perceptions of the Factors Affecting the Choice of Mutual Funds

Table 4 demonstrates the mean difference analysis of factors affecting choice of mutual funds with respect to gender. The respondents rated a large number of factors as important while making choice of mutual funds. It is inferred that the male respondents rated strong possibility of capital appreciation (M=2.52) as the most important factor, followed by general reputation and popularity (M= 2.60) and agents' recommendations (M= 2.82). The male respondents rated the following factors, better annual dividend (M= 3.11), advertising (M= 3.21), past experience (M=3.62), friends suggestions (M=3.81)and schemes suiting needs (M= 3.91), as not so important factors while making the choice of mutual funds. On the contrary, the female respondents rated general reputation and popularity (M= 1.98) as very important factors, followed by previous experience as

a client (M= 2.40), better annual dividend income (M= 2.45), strong possibility of capital appreciation (M= 2.55), agents recommendations (M=2.65) and advertising (M= 2.68). However, friends' suggestions (M= 3.79) and schemes suiting needs (M= 4.22) were rated as unimportant by the female respondents. Based on a further analysis of the table, it can be said that the following factors, past experience as a client (F=29.81; p<0.05), better annual dividend income (F = 14.54; p<0.05), general reputation and popularity (F=10.86; p<0.05) and advertising (F= 7.42; p<0.05) affecting the choice of mutual funds, were found to be significantly different between both the genders. Thus, the following hypothesis:

H2: There is a significant gender difference in the factors affecting choice of mutual funds may be accepted.

CONCLUSION

The present study was an attempt done to understand the perceptions of mutual fund investors in relation to schemes preference and selection. In this study, an attempt to analyse the satisfaction level was carried out based on the respondents' perceptions.

Therefore, the study is relevant and timely, given the increasing importance of female investors. In brief, the main highlights of the study are:

- Male investors enjoy more satisfaction by investing in different avenues as compared to their female counterparts.
- There is a consensus between the genders regarding satisfaction in money market mutual funds, indexed mutual funds and government bonds.
- A significant difference was observed for the satisfaction from investments in shares, mutual fund growth schemes, mutual fund balanced schemes, equity-linked saving schemes and industry specific mutual fund schemes, which are perceived to be more risky investments. The female respondents are more risk averse as a response of a large majority of them for these investments was inclined towards can't say/not applicable response.
- Examination of the means between the two genders revealed that investors' selection is based on their judgement about the overall suitability of investment avenues as both have inclined their

responses for a large majority of almost all the factors affecting the choice of mutual funds towards importance scale. However, they differ significantly for the factors such as better annual dividend income, previous experience as a client, advertising and general reputation and popularity. The study also acknowledges that the female respondents based their choice of investment largely on the factors like previous experiences and publicity.

The results of the study have some significant implications to the investors and asset management companies of mutual funds. In particular, mutual fund industry should recognise the wisdom of targeting female investors as a separate market segment. In addition, any future research could replicate this study with a larger sample and wider coverage.

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Intelligence, Emotional and Spiritual Quotient as Elements of Effective Leadership

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ABSTRACT

The key elements of effective leadership are intelligence, emotional intelligence and spiritual intelligence. The present paper traces the early conceptualization of intelligence as an analytical ability to effective leadership and the current proposal of models of leader's mind that combines traditional analytical ability with emotional intelligence and spiritual intelligence. There are a number of psychological theories and research which have tried to apply a combination of intelligence, emotional intelligence and spiritual intelligence to successful leadership. While going through the various research, it was found that integration of IQ, EQ, and SQ allows leaders to thrive on uncertainty, deals creatively with rapid change, and realizes the full potential of those who lead or work with them. The results suggest that we think with our intelligence, along with our emotions, as well as our bodies (EQ) and spirits, our values, our hopes, our unifying sense of meaning and values (SQ). Spiritual intelligence is about having a direction in life, and being able to heal ourselves of all the resentments. It is thinking of us as an expression of a higher reality.

Keywords: Leadership, intelligence, emotional intelligence, spiritual intelligence, analytical ability, and creativity

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INTRODUCTION

No subject in psychology has provoked more intense public controversy than the study of human intelligence. From its beginnings, research on how and why people differ in overall mental ability has fallen prey to political and social agendas that obscure or distort even the most well-

established scientific findings. As Sternberg (2000) is fond of saying, "looked at it one way, everyone knows what intelligence is; looked at it the other way, no one does." For these and other reasons, public understanding of intelligence falls far short of public concern about it. Sternberg (1988) thought in threes when he posited a theory of the triarchic mind based on his definition of intelligence as a kind of mental self-management - the mental management of one's life in a constructive, purposive way. According to Sternberg, intelligence as mental management consists of three basic elements: (1) environmental adaptation; (2) environmental selection which occurs when an environment is unsatisfactory or attempts at adaptation may be dysfunctional; and (3) environmental shaping. Sometimes neither adaptation nor selection is the preferred course of action. In these cases, Sternberg argues, one might consider environmental shaping which is called for when an individual's attempts to adapt have failed or when it is impractical or undesirable to select a new environment. Whereas adaptation involves fitting oneself to the environment, and shaping involves fitting the environment to oneself.

What this means is that there is no single set of behaviours that is intelligent for everyone; people react to their environments in different ways. Nevertheless, what does appear to be common among successful people is the ability to capitalize on their strengths and compensate for their weaknesses. Successful leaders and followers are not only able to adapt well

to their environment but to also modify this environment in order to increase the fit between the setting they find themselves in and their adaptive skills (Sternberg, 1988). The practice of thinking in threes by offering a tripartite classification of the leader's mind that builds on early conceptualizations of analytic intelligence extends the current debate over emotional intelligence manifested in the regulation of emotions, and includes additional non-analytic intelligences, namely spiritual intelligence. It is suggested that analytical intelligence (IQ), emotional intelligence (EQ), and spiritual intelligence (SQ) combine with cognitive and metacognitive constructs such as sense making, transformation and change to determine the leader's effectiveness.

Early Conceptualizations and Definitions of Intelligence

Perhaps the most famous or infamous definition of intelligence, depending on one's point of view, was proposed by Boring (1923) who suggested that intelligence is what intelligence tests measure. However, this operational definition was the end of the line for understanding intelligence. On the contrary, he saw it as "a narrow definition, but a point of departure for a rigorous discussion ... until further scientific discussion allows us to extend it". Since then, the definitions of intelligence have captured convergent and divergent themes and several foci were prominent in the ensuing years. For example, the issue of one versus many – is intelligence one thing or is it manifold - is evident in discussions of a general factor on which other intelligences such as practical or social intelligence converge as opposed to the existence of distinctive intelligences such as emotional intelligence. Some scholars have defined intelligence quite narrowly in terms of biological or cognitive elements, whereas others included a broader array of elements, including motivation and personality. The issue of breadth, like that of one versus many, in many ways remains unresolved (Sternberg, 2000).

The conceptualization of intelligence as a single cognitive ability has had a long history that can be traced back to Sir Francis Galton's pioneering studies of historical creators, leaders and celebrities published in 1869 in Hereditary Genius. Fifty years later, Charles Spearman (1927) proposed the idea of a general intelligence or "g" factor as the single dimension of cognitive ability. Embedded in this work was the notion that a person's intellectual potential is a fixed, genetically determined trait which can be measured early in life and it determines an individual's success later in life. For many years, psychologists have devoted much effort to isolating 'g' from other aspects of cognitive ability, thereby revolutionizing research on general intelligence. It allows investigators to show that the predictive value of mental tests derived almost exclusively from this general factor rather than from the more specific aptitudes measured by intelligence tests. The evidence, summarized by Carroll (1993), puts g at the apex with more specific aptitudes arranged at successively lower

levels. These so-called group factors, such as verbal ability, mathematical reasoning, spatial visualization, and memory, are just below g; below these are the skills that are more dependent on knowledge and experience, such as the practices of a particular profession.

The main objective of these efforts was the development of a large number of standardized instruments, with which to assess inter individual differences in cognitive functioning. In the 20th century, the intelligence quotient (IQ) test eventually became the dominant determinant in decisions involving school admission or job selection. Although mental tests are often designed to measure specific domains of cognition such as verbal fluency, mathematical skills, spatial visualization or memory, people who do well on one kind of test tend to do well on the others. This overlap suggests that all such tests measure some global elements of intellectual ability as well as specific cognitive skills.

IQ and Leadership

Leadership researchers have long been interested in the relationship between intelligence commonly measured by IQ tests and various leadership outcomes such follower satisfaction, group performance or leadership effectiveness. Reviews of the literature on the traits of effective leaders have reinforced the importance of intelligence to leadership (House & Aditya, 1997). Work on the relationship between IQ and leadership effectiveness or success has been conducted for over 100 years, with

much of the scientific research on the role of intelligence in leadership dated back to the 1920s and 1930s. This research suggested that intelligence does indeed contribute to leadership. For example, leaders were found to be more intelligent than their followers, and intelligence is consistently correlated with perceptions of leadership (see Bass, 1990).

By taking together, effective leadership requires a certain level of general intelligence; however, highly intelligent leaders are not necessarily more effective. In fact, this same body of studies also showed that large discrepancies between the intelligence of leaders and followers mitigated against the exercise of effective leadership. However, these early studies did not take into account that intelligent behaviour occurs in a social context that includes expectations, demands, and a history of prior experience (Glynn, 1996). Many intelligence experts (Kihlstrom & Cantor, 2000) have faith in that intelligence is context specific. Contexualists (e.g., Sternberg, 1988) indicate that in order to understand intelligence, we need to spot that human adaptation often takes the form of selecting or transforming the environment in which we live. This has resulted in more divergent approaches to intelligence beyond the cognitive or psychometric perspective, which characterized earlier conceptualizations found in IQ theory. Because intelligence is defined relative to a particular context, researchers have shifted the focus from the emphasis on individual traits to broader frameworks,

which acknowledge that intelligence is not only embedded in individuals but in organizational contexts as well.

Gardner's (1993) signifies a more sustainable conceptualization of human intelligence compared to definitions of intelligence as a single factor. Most leadership theorists agree that multiple intelligences play a part in leadership and organizational effectiveness. Bass (2002), for example, asserts that multiple intelligences contribute to transformational leadership. More specifically, the author suggested that cognitive intelligence is linked to the intellectual stimulation; one of the four is of transformational leadership.

EMOTIONAL INTELLIGENCE

Emotional intelligence (EI) has been popularized by Golman's (1995) book Emotional Intelligence. EI refers to an individual's ability to understand and accurately interpret his or her own emotions as well as those of others. It is a relatively new construct intended to complement the traditional view of intelligence by emphasizing the emotional, personal, and social contributions to intelligent behaviour (Gardner, 1983; Mayer & Salovey, 1993). The key difference between analytical and emotional intelligence is that emotional intelligence involves the integration of emotion with thought, enabling one to understand what others are feeling, while analytical intelligence involves the integration, organization, and ordering of thoughts. The EI construct was first discussed by Salovey and Mayer (1990) and had its roots in Gardner's concepts of intra- and interpersonal intelligences, and in Thorndike's concept of social intelligence.

Golman (1995) asserts that EI accounts for success at home, at school, and at work and goes on to say that EI will confer "an advantage in any domain in life, whether in romance and intimate relationships or picking up the unspoken rules that govern success in organizational politics" (Goleman, 1995).

This is a very tall order which is not quite congruent with the existing research base. For instance, Goleman (1995) referred to a study of Bell Laboratory engineers, in which the top performers were equivalent in IQ to other engineers. The key difference, the author claims, is that top performers are more emotionally intelligent than their peers. Unfortunately, the engineers were not tested for EI using one of the several measures used in EI research. Likewise, despite its popularity, many EI measures have received surprisingly little scientific support (Davies et al., 1998). Critics point to a series of studies conducted by Davies et al. (1998) who administered emotional intelligence, personality and cognitive measures to students and military personnel. These authors found a high correlation between all three batteries of tests, suggesting that EI is an aspect of personality rather than a separate intelligence.

EI measures can distinguish between people who truly understand their emotions from those who get lost in them. Often great leaders move followers through emotions and establish a deep emotional connection with those they lead. Their level of understanding of their own emotions allows them to create and nurture resonant relationships with their followers. Unfortunately, in much of the popular literature on EI, the significance of the claims is obscured by rhetoric (e.g., Hein, 1997), which encourages the emerging view that EI is more important than IQ.

Mayer and Salovey (1997) treat EI as "thinking with a heart". According to Mayer's four-branch model (Mayer *et al.*, 1999), EI is defined as the ability to perceive emotions, access and generate emotions so as to clarify thoughts, understand emotions and process emotional knowledge, and regulate emotions reflectively to promote emotional and intellectual growth.

The authors offered two EI models. The first model represents an ability approach to EI (Mayer et al., 1999), which is conceived as the ability to solve emotional problems and focuses on the interplay of emotion and intelligence as traditionally defined. Mayer and his associates (2003) clarified the cognitive component in EI by stating that "emotional intelligence involves problem solving with and about emotions. The current research suggests that the mental ability models of EI can be described as a standard intelligence and empirically meet the criteria for a standard intelligence (Mayer et al., 1999). More specifically, according to Sternberg (1985), three criteria are needed for an intelligence to exist, i.e. it should: (1) reflect behaviour in the real world, (2) be purposive or directed toward goals, and (3) involve either adaptation to the environment (fluid intelligence) or

the automation of high-level cognitive processes (crystallized intelligence). Based on this definition and what we know about the construct to date, EI fits to the definition of a traditional intelligence.

The second model, known as the *mixed* model (Bar-On, 1997; Goleman, 1995), defines EI as a mixture of abilities and other personality dispositions and traits. This model is substantially different from the ability model. As Mayer and Salovey (1993 & 1997) argue, although these personality characteristics may be important elements in EI, they are better addressed directly and as distinct from emotional intelligence. While emotions have gravitationally been thought of as disruptive to one's ability to solve problems, the model by Mayer et al. suggests that emotions can and do provide additional richness and clarity to problem solving and decision making processes. Thus, according to Mayer et al., the mixed model incorporates a wide range of personality variables as opposed to Mayer and Salovey's earlier model, which offers a cognitive definition of EI.

Davies et al. (1998), in their comprehensive review of EI measures that existed at the time, found that most EI instruments generally "exhibited low reliability and indicated a lack of convergent validity." Further, factor analyses demonstrated that nearly all of the self-report measures that had satisfactory reliabilities loaded on well-known personality factors (e.g., extraversion, agreeableness). Their final conclusion was that, after taking into account general intelligence and personality,

"little remains of emotional intelligence that is unique and psychometrically sound".

The ability and mixed models of EI have generated assessment devices that are based upon self-report; yield self-and other perceptions of EI attributes rather than an estimate of a person's actual emotional ability. The Multi-factor Emotional Intelligence Scale (MEIS) (Mayer et al., 1999), for example, is a performance measure of EI (i.e., ability based) that demonstrated moderate correlations with one measure of general intelligence and small correlations with measures of the Big Five personality factors. However, serious problems with scoring, reliability, and validity have been reported. Roberts et al. (2001) in their assessment of the MEIS pointed out that even the modest validity coefficients found for EI may not be maintained if personality and ability are statistically controlled. One of their conclusions was that "it remains to be seen whether EI, like the canals of Mars, is the product of the tendency of even expert observers to see, in complex data, patterns that do not exist (Roberts et al., 2001).

Emotional Intelligence and Leadership

A number of studies have reported positive relationships between EI and various measures of leadership (Sosik & Megerian, 1999; Gardner & Stough, 2002). Early research on emergent leaders suggests that they are skilled in taking in and understanding emotional information. This research revealed that emergent team leaders were socially perceptive and uniquely

able to identify and understand unstated team needs (Chowdhry & Newcomb, 1952). The popularity of EI would suggest that emotionally intelligent leaders bring important competencies to the leadership role that enhances their leadership effectiveness. And indeed, several studies have provided support for the relationship between EI and leadership outcomes. For example, Goleman et al. (2002) established the link between emotional intelligence and leadership and described this link between emotional intelligence and leadership as primal because: (1) leaders throughout history served as emotional guides, and (2) creating positive outcomes remains the most important responsibility of leaders. Resonant leaders (i.e., leaders with deep emotional connections to followers) generate positive feelings in followers that enhance collective performance, use leadership styles that are visionary, rely on coaching instead of coercion, build harmony and value input and participation.

Nevertheless, the claim that EI is the key to effective leadership continues to rest on somewhat shaky foundations. Some definitions of EI beg the question why EI cannot simply be seen as general intelligence directed at emotional phenomena. And, if it can, do we really need to treat it as a separate entity? A definite link between EI and leadership performance cannot be established since there is no consensus about the existence or definition of EI. Even more troubling is the fact that many of the primal leadership competencies identified by Goleman *et al.* 2002) seem to fall outside

of intelligence. Transparency or integrity is a character trait demonstrated through consistent behaviour, not a psychological ability as advocates claim. Moreover, the "everything but IQ" approach to emotionally intelligent leadership makes it nearly impossible to disprove the assertion that 80-90% of a leader's success rests upon her or his emotional ability. If EI is everything but cognitive intelligence, then it seems logical to assume that El skills and abilities beyond IQ contribute more to a leader's success than mental ability. Self-confidence, integrity, inspirational leadership, persuasion, collaboration, and interpersonal communication all appear to be more important to leaders than cognitive ability alone.

These conceptual and logical difficulties do not mean that leadership scholars and practitioners should abandon EI. Emotional characteristics have long occupied a central place in leadership studies and are experiencing a revival in the current literature (Ashforth & Humphrey, 1995). Feelings play an important role in such leadership tasks as motivating followers, decision-making, developing interpersonal relationships and shaping culture (George, 2000). Some practitioners and researchers alike view organizations as emotional, not rational arenas. Some feminist organizations like The Body Shop make the expression and acknowledgment of emotion a central value (Martin, Knopoff & Beckman, 1996). These various strands attest to the important role emotions play in organizations and leadership.

SPIRITUAL INTELLIGENCE

Covey (1994) talks about the spiritual renaissance in the business world, the World Bank launched the Spiritual Unfoldment Society, Zohar and Marshall (2000) created the concept of spiritual intelligence, Vail (1998) sees spirituality as a requisite of visionary leadership and Hawley (1993) stated that spirituality is at the very core and base of leadership.

As a result, tapping the human soul at work has become a flourishing business. The burgeoning interest in spirituality is reflected in a flood of books, foundation of journals, and the proliferation of conferences, workshops and seminars on the topic. Business periodicals are filled with articles heralding both a renewed interest in religion and the growing emphasis on spirituality in the workplace. Religious radio stations have quadrupled over the past 25 years, while religious television shows have increased fourfold in the 1980s (Cash & Gray, 2000). Conlin (1999) concluded "a spiritual revival is sweeping across corporate America as executives of all stripes are mixing mysticism into their management, importing into office corridors the lessons usually doled out in churches, temples, and mosques". Leadership researchers, practitioners, and educators are participating in the dialogue and bring a diversity of approaches and viewpoints to the discussion. Thus, spirituality is beginning to be recognized as being important in the overall development of a leader since spiritually anchored leadership can add value to the organization by helping workers and managers to align

personal and organizational values around their understanding of spirituality.

Recently, Zohar and Marshall (2000) proposed that in addition to IQ and EQ, there is another type of intelligence the authors called spiritual intelligence measured as SQ. The authors define SQ as the intelligence, with which we address and solve problems of meaning and argue it is the transformative power of SQ that sets it apart from EQ. Like Goleman, Zohar and Marshall also made some interesting claims. For example, they asserted that SQ is the intelligence with which we heal ourselves and with which we make ourselves whole. Further, these authors propose that IQ and EQ are subsidiary to and supported by SQ and that SQ is the highest intelligence. Other scholars have formulated conceptualizations of SQ as well. Spiritual intelligence refers to one's ability to ask ultimate questions about God, the meaning of life, and to experience the connections about individuals on earth, and the relationships between individuals and the world. Emmons defines spiritual intelligence (SI) as the degree to which a person has the mental and emotional properties that lead to see an overall, guiding purpose, see mid- and short-term tasks which are sub-goals that are connected to a higher purpose, and sustain behaviours in order to serve them (cited in Wolman, 2001).

Three prominent frameworks of SI have recently been proposed (see Zohar & Marshall, 2000; Wolman, 2001). According to these authors, SI becomes a form of "hyper thinking giving rise to "meaning-giving, contextualizing, and transformative"

intelligence (Zohar & Marshall, 2000). Within the Zohar and Marshall's framework, SI is a "way of knowing, a way of being, that utterly transforms our understanding and our lives, offering a "foundation for effective functioning of both IQ [mental] and EQ [emotional]". Zohar and Marshall's framework consists of distinct categories of human activity, each providing a path to increased SI: duty, nurturing, knowledge, personal transformation, brotherhood, and servant leadership.

Working more in the tradition of research on analytic intelligence and the work of Mayer, Salovey and their associates, Emmons postulated that there are at least five core abilities that define spiritual intelligence, which are conceptualized in adaptive, cognitive motivational terms, and, as such, may underlie a variety of problem solving skills relevant to everyday life situations. These core abilities are:

- 1. The capacity to transcend the physical and material; themes of transcendence figure prominently in definitions of spirituality (e.g., Piedmont, 1999).
- 2. The ability to enter into heightened states of consciousness.
- 3. The ability to invest in everyday activities, events, and relationships, with a sense of the sacred; i.e. the ability to sanctify everyday experience. For example, when work is seen as a calling or parenting as a sacred responsibility, it is likely to be approached differently then when viewed in purely secular terms.

- 4. The ability to utilize spiritual resources to solve problems in living.
- 5. The capacity to engage in virtuous behaviour or be virtuous (to show forgiveness, express gratitude, be humble, and display compassion).

These virtues are included under the rubric of SQ because of the salience of these concepts in virtually all major religious traditions. For example, gratefulness is a highly prized disposition in Jewish, Christian, Muslim, Buddhist, and Hindu thought (Paloutzin *et al.*, 2003). SI is what allows people to be sensitive to transcendent realities and perceive sacredness in everyday objects, places, relationships, and roles. It is the flexible use of spiritual information applied to solving real-life problems and thus has relevance for understanding manifestations of spirituality in workplace settings.

It has been known for quite some time that individual prone to epileptic seizures in the temporal lobes of the brain report a much greater than usual tendency to have profound spiritual experiences. Likewise, in controlled laboratory settings, 'spiritual experiences' (reported as having a sense of light, forms of elation or high degree of being) have been created by artificially stimulating the temporal lobes. Similarly, the alteration of religious-mystical experiences in certain brain disorders has been cited as additional evidence for the existence of spiritual capabilities (Saver & Rabin, 1997).

As noted earlier, according to Mayer (2000), three stringent criteria must be met

for a candidate intelligence to be judged a true intelligence. First, intelligence must reflect mental performance rather than just preferred ways of behaving. Presently, we cannot judge SQ on this criterion since we only have one measure of spiritual abilities. Additional measures are needed to establish convergent and divergent validities of the SI construct. Second, the intelligence should define a set of abilities that are moderately inter-correlated with one another. Third, the intelligence develops with age and experience, from childhood to adulthood. In support of the second and third criteria, it has been argued that spiritual capacities are highly interdependent and the development of one fosters the other and that spiritual capacities are age-related (Weibust & Thomas, 1994). In order to validate this criterion, longitudinal studies of SI that trace its development over the lifespan are needed.

Mayer (2000) expressed his concern with the possible conflation of spirituality (or spiritual consciousness) with spiritual intelligence and for good reason. If spiritual intelligence were nothing more than spirituality, then nothing would be gained by invoking the language of intelligence. Emmons defines spiritual intelligence as the adaptive use of spiritual information to facilitate everyday problem solving and goal attainment. Spirituality, on the other hand, is a broader, more encompassing construct that has as its focus a search for the sacred. Spiritual intelligence is a largely positive, adaptive construct whereas spirituality may be positive or negative depending on how it is expressed in particular contexts.

Finally, Mayer (2000) questioned the spiritual abilities Emmons conceptualized as virtues - to show forgiveness, express gratitude, be humble, display compassion. According to Mayer, they belong in a domain of personality and are fundamentally different from cognitive competencies and abilities. The virtues can be practiced; they are skill-like competencies or capacities that can be strengthened and cultivated. They are spiritual in that they are viewed as highly prized possessions in all of the major religions of the world. Retaining them in a model of spiritual intelligence results in what Mayer et al. (1999) have characterized as a mixed model of intelligence, where mental abilities, dispositions and traits are included in a compound collection of ingredients.

Cowan (2005) suggested that emerging frameworks of SI provide substantive leverage points for developing legitimate connections to organizational effectiveness and leadership development. Although none of these authors grounds their frameworks in a leadership and organizational context, Emmons' framework (1999) is arguably the most inclusive of dimensions that imply linkages to leadership. While Emmons defines core components of SI, it remains the task of organizational scholars to translate these ideas into organizational contexts and leadership competencies. The works of Zohar and Marshall (2000) and Wolman (2001) offer useful insights for enriching and refining leadership connections, but neither provides a full array of leadershiprelevant dimensions as does Emmons'.

The discussions so far point to the fact that each one of quotients, IQ, EQ, and SQ, is essential for leadership. In order to be a leader, an individual will probably need to develop all three quotients as shown in Fig.1 below.

A leader may require appropriate quotient at different stages because the assigned task may require a higher level of IQ. As the leader moves up the ladder, emotional skills become critical as success at the middle levels calls for cross-functional coordination and getting the cooperation and support of people who are not under the direct control. The senior level positions will require more of SQ in addition to having high levels of IQ and EQ, as the job requires creative insights (vision) and concerns for ethical, environmental and larger issues.

The three (IQ, EQ, and SQ) core competencies which spell out the knowledge abilities desired for leadership and make a difference in various dimensions of the operating environment are defined, identified and developed by the Singapore Armed Forces-Officer Cadet School (SAF-OCS). By using a progressive and structured approach towards leadership development, SAF- OCS has achieved a proven track record in producing capable and resilient officers. SAF-OCS leadership development framework (Chan & Lew, 2005) displays the systematic and process-driven approach. Hence, it becomes very important for a leader to integrate IQ, EQ, and SQ competencies (Yurdakul et al., 2008), which create a ripple effect and improve our society at large. Effective leadership certainly requires IQ, but it also requires EQ and the spiritual dimension of life and work (SQ) (Gill, 2004). The key idea behind is that people need to have meaning and value in their life and work, such as doing something that makes a positive difference to other people's well-being. Meaning and value depend very much on the beliefs and values that



Fig.1: Integrative Framework

underlie our motives, which in turn drive our behaviour (Gill, 2004). Thus, a leader should always attempt a holistic approach where his/her body, mind and soul should be involved in the task.

CONCLUSION

Although research on integration of IQ, EQ and SQ for leadership remains vibrant and diverse, the relationship of these constructs to leadership effectiveness remains an important agenda for leadership research. Scholars have continued to divide and subdivide intelligence in many ways and attempt to reduce EQ and SQ to a set of cognitive abilities and capacities. In the mind of the public, some of these concepts (particularly EQ) have become popularized and marketed over the past few years so that they barely resemble the original formulation. Nevertheless, these have resulted in the current groundswell of interest in predicting leadership outcomes from measures of EQ and spirituality. Since in the model (SAF-OCS framework, 2005) EQ and SQ discussed here, cognition, affect, motivation, personality, and morality mix the interrelationships between these constructs remain a contested terrain. While some cognition (and therefore intelligence) is present in all mental life, research on multimodal intelligences may be better served by a search for a different super ordinate construct. As individuals create mental models of their reality that integrate spirituality, emotions, cognitions and the meaning they ascribe to these constructs that transcend immediate experiences, they

search for a more integrative, synthetic understanding of themselves as leaders and followers.

The leaders whose mission is to train their followers mentally, emotionally, and spiritually have to particularly learn to integrate their IQ, EQ, and SQ in the first place. From this perspective, primarily leaders should train themselves in these three intelligence types as much as possible and use them all effectively in conjunction with each other. This process should be strategically planned, managed and evaluated in order to accomplish this; in fact, it is a prerequisite to supply the needed training courses to leaders, not only on analytical skills but also on EQ and SQ literacy. All the three types of intelligence need to be cultivated and mastered in an overall leadership context. Leadership that exhibits a balance of IQ, EQ and SQ is qualitatively different from one that gets by based on IQ alone.

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Instilling Creativity, Critical Thinking and Values for Holistic Development through Humanities and Liberal Arts Courses among Engineering Students

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ABSTRACT

Education gives us not only a platform to succeed, but also the knowledge to polish our social conduct, character, independent thinking and self respect; its greatest gift in fact, is the set of values it imparts to all of us. Education, the continuous learning experience, makes us learn from people and situations, success and failures, leaders and followers and then getting groomed to be the person one aspires to be. The actual aim of education is to teach how to think than what to think. Thus, education not only acts as a means to get a job for earning our livelihood but also helps us lead a life of values. If education makes the learners mechanical and materialistic in their approach, it surely fails to inculcate human values. Education will have little meaning if it fails to train us to apprehend the eternal values, to appreciate the supreme human virtues and the simple decencies of life. However, presently, there is a popularly held belief in the world of education that social studies and humanities are non-essential segments of the curriculum. The students who study science and technical subjects have better job prospects and hence, better fortune as compared to those who opt for humanities and liberal arts courses. Besides, it is also assumed that the students who undertake liberal arts courses are intellectual and academically diligent. The present paper focuses on the relevance of humanities and liberal arts courses if done by the engineering students. It also discusses how the humanities courses focus on fostering value based education so as to develop learning outlook, strong character and analytical attitude.

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INTRODUCTION

Merely to cultivate technical capacity without understanding what is true freedom leads to destruction, to greater wars; and that is actually what is happening in the world.

(Krishnamurti, 1953).

The need to move beyond the boundaries of education that is not restricted to learning only the technical information gets substantiated by the above quoted statement of Krishnamurthy. With its formative effect on the mind, character, and physical ability of an individual, education helps society transmit its accumulated knowledge, skills, and values from one generation to another. Learners are exposed to a way of life which does not restrict itself to materialistic pleasures, or self-centred activities, but embraces the understanding of correct action, as well as the depth and beauty of relationships. Fundamentally, education aims to help the individual become the right kind of citizen and thus a true human being. Education should invariably lead to inner transformation and liberation of the human being which eventually helps in the transformation of the society. Opposing parochialism and narrowness in approach, a truly educated person accepts openness and imbibes inclusivity. The shift in focus of present day education geared more towards providing jobs rather than values or inner transformation seems to obfuscate the very aim of it. Since education plays an important role in this field, the drift of governments across the world towards the

vocational courses hinges on the hope that these subjects will provide the much-needed boost to their recession-hit economies.

On the basis of the recently released cut-off list of Delhi University, the Central Board of Secondary Education (CBSE) is forced to plan a revision of the question paper design at Plus 2 (Class XII) level to make it more subjective. CBSE Chairman, Vineet Joshi said the maddening cut-offs were a matter of great concern and it was time for serious introspection on this front (Tandon, A., 2011). Mechanical education and staff examination systems are making the students robots, scarcely trained to think on their own. Like robots and computers, regurgitating the programmed information, students happen to perform or give the 100 % output with least chances of error. Merely to stuff the child with a lot of information, making him pass examinations, is the most unintelligent form of education. Despite this level of perfection in modern education, world's problems like population explosion, gender parity, terrorism, ecological imbalance, etc. keep staring at mankind. In spite of all the technological and scientific developments education neither meets with society's aspirations, nor helps people face the fundamental challenges of living. Well-focused educational insights may make the most profound learning possible by eventually providing us with solutions to our everyday societal issues, needs and aspirations. Thus, it is high time to think of fostering values and nurturing creativity through our curriculum which cannot be achieved solely through technical, medical or finance related courses/streams. This can happen only when humanities and liberal arts courses are made an essential part of curriculum. The senate 156 of Birla Institute of Technology and Science, Pilani, which was passed on 17 July 2011, has made the provision which binds a student to do three Humanities, or Languages or Liberal Arts courses for obtaining their engineering or science degree, a step taken to help students develop their personality holistically.¹

METHODOLOGY

The present paper is a qualitative analysis which focuses on the relevance of humanities and liberal arts courses when done by the engineering students. It also discusses how the humanities courses focus on developing learning outlook, strong character and analytical attitude. On the basis of the literature survey, the study focuses on various aspects like approach towards humanities, creativity, critical thinking, value-based education, and need of the hour.

APPROACH TOWARDS HUMANITIES COURSES

Extensive commercialization of higher education and a greater emphasis on vocational and pre-career university courses have resulted in expansion and popularity of accounting, law, economics, finance, engineering, and applied sciences. Most of the humanities disciplines, in one way or

another, have become poor stepchildren. To add to this, higher education in these disciplines is considered as a system of private investment for monetary benefits which has resulted in the deterioration in quality education and loss of value based education. Consequently, the liberal arts and humanities education does not get its due recognition and importance. It, therefore, has been unnecessarily relegated in recent years. Ironically, the need for better communication skills, positive attitude, well-groomed personality, etc. has drastically increased.

As Einstein wrote, it is not so very important for a person to learn facts, he does not really need a college for that, he can learn them from books, the value of an education in a liberal arts college is not learning of many facts but the training of the mind to think something that cannot be learned from textbooks. And in my book, those are unanswerable arguments for upholding both the arts and the sciences while breaking down the walls between them (A.S.L. & Associates, n.d.).

Recently, many countries have introduced funding cuts in the discipline of arts and humanities at universities, which has an adverse effect on these disciplines in the long run. Some universities are finding it difficult to run their departments smoothly due to the lack of adequate funds. Moreover, an increased demand for graduates, who are 'industry-ready' not associated with an arts and humanities graduate, led to the popularization of the

¹Unpublished *minutes of senate 156* of Birla Institute of Technology and Science, Pilani which was passed on 17 July 2011

notion that humanities and liberal arts disciplines are not good choices for career. However, the complementary part of the truth remains unattended.

The focus on an interdisciplinary education for arts and humanities or engineering or science students adds value to the course and provides well-rounded education. Students are encouraged to engage in research and get involved in 'experiential' learning to get an edge. Talking about the importance of humanities courses, Christopher Manfredi, McGill's Dean of the Faculty of Arts, says, "We strive to ensure our students acquire a broadly based yet thorough understanding of their academic subjects by encouraging innovative interdisciplinary programs with strength in core disciplines. This enhances those very important critical and creative thinking skills." (Manfredi, n.d.)

CREATIVITY

Humanities, which includes linguistics, philosophy, religion, cultural studies, history, the study of arts, music, and literature, is a broad field encompassing numerous liberal arts disciplines; most of these disciplines are devoted to examining some form of human interaction, reasoning or behaviour. Harry R. Garvin and John D. Kirkland in their book entitled, "New Dimensions in the Humanities and Social Sciences acknowledge, "Although the general public is not aware of it, there is at present tremendous intellectual ferment in the Humanities and Social Sciences" (Harry & Kirkland, 1977, pp.9).

Humanities is not rigid in its approach; the problems given to students and the probable solutions by the students tend to be myriad but surprisingly equally related to the core essentiality of the topic. Fundamentals of the courses adhere to the prescribed parameters but the reasoning applied or the relevance measured remains multidimensional which encourages and challenges the students to explore further. Open ended references and solutions ignite the curiosity of the students to get to know the relationship among the arguments, opinions or justifications. "Rather than relevance, the humanities scholar is waiting to be convinced of worth. The humanities scholar constantly asks during research, is this item worthy of repatriation? Repatriation implies critical, creative judgment" (Plum & Smalley, 1994, pp.161).

Highlighting the importance of creativity, Feldhusen and Goh maintain that it is a parallel construct to intelligence, but it differs from intelligence as it is not restricted to cognitive or intellectual functioning or behavior. Instead, it is concerned with a complex mix of motivational conditions, personality factors, environmental conditions, chance factors, and even products" (Feldhusen & Goh, 1995). In order to facilitate the right kind of environment, attitude and approach, the liberal arts courses provide an apt platform and training to its students.

Creativity gives rise to the "production of novel ideas that are useful and appropriate to the situation (Amabile, 1983; Mumford & Gustafson, 1988, as quoted in Kelly,

have come up with a creative process which "consists of 1) preparation, 2) opportunity, 3) divergence or the generation of options, 4) incubation, and 5) convergence or the selection of options" (Kelly, 2000). All the four preparatory steps can be easily instilled through these important courses.

2000). Leonard and Swap and many others

The arts and humanities courses inculcate creative thinking which is indispensable to explore creative and analytical techniques for generating fresh ideas and possibilities and select appropriate solution or take an implementable decision.

VALUE-BASED EDUCATION

Value-based education is a three-fold development, i.e., physical, mental and character of any individual of any gender and age. It is vouchsafed that though physical and mental well-being are important, they are a menace without the third because they get nurtured by character. Value-based education is a tool which provides us not only with a profession which we can pursue but also a purpose in life. The purpose of our life is undoubtedly to know oneself and be ourselves. We cannot do it unless we learn to identify ourselves with all that lives.

Education is too often viewed as the exit route to a better lifestyle rather than the beginning of a lifelong journey. Hence, today's values have become words, mired in controversy, embraced and reviled, and shockingly, anybody hardly knows how to use them, without turning them into slogans. Referring to the various aspects of life that human beings are concerned with, Mahatma

Gandhi attempted to sensitize people so as to ward off the major structural and collective sins. These are:

- 1. Politics without principles.
- 2. Wealth without work.
- 3. Pleasure without conscience.
- 4. Knowledge without character.
- 5. Commerce without morality.
- 6. Worship without sacrifice.
- 7. Science and technology without humanity.

(Aman Foundation, n.d.)

Gandhiji's opinion that a person cannot do right in one area while trying to do wrong in another substantiates that life is an indivisible whole. Success today, on the contrary, gets defined by the power of the wealth that one holds. Consequently, all the symbols, ranging from who occupies the best office, to the size of the pay cheque, luxury car, the Rolex watch, exist side by side with corruption, mind dulling drugs, divorces, abortions, suicides, etc.

We need to build a society that cherishes the pursuit of knowledge because knowledge is better than ignorance; a society whose culture is lived and breathed by its citizens because living and breathing is better than sitting in a mausoleum. Delese Wear and Joseph Zarconi talked about the relevance of higher education and society help the view that a society in which, as if it were the high table of some college where science, technology and the arts sit side by side and talking, learning something new about

themselves and each other are in process; a society in which the riches that higher education has to offer, cultural as well as vocational, escape from the campus and get themselves out into the workplace and into the streets. The sort of society that I want to live in, the sort of society I hope you want to live in too. The sort of society our policy makers and government and in the higher education sector owe it to all of us to preserve, to promote and to protect (Wear & Zacroni, 2006).

While defining value based education, Mullan has aptly held the view that value based education has expanded from the medieval foundation of education to a greater range of human talent involving inclusive number of human beings, holding on to the dream that perhaps someday everybody might be liberated by an education that stands in the service of human freedom (Deirdre, 2001).

Hence, the objective of education in a country like India, which has a glorious heritage and can boast of diversity in geography, culture, values and beliefs very rarely seen in this wide world, should be to educate a student about the value system which is indispensable to live a successful life. There has been a lapse in our value system which the educational institutes should inculcate in a student that is why there are increased incidences of teenage pregnancies, MMS scandals, student prostitution and academic pressure related suicides. In a new required capstone course for medical students, students at the Northeastern Ohio Universities College of Medicine were asked to reflect on their relationships with patients, their colleagues, themselves and their families, and the communities they serve, using the humanities, particularly narrative domains, as the primary vehicles for such reflection. The resource persons, Delese and Joseph Zarconi in their final report, stated that indeed professionalism is common parlance everywhere, at all levels. To the extent that we have had the opportunity to use the humanities to encourage meaningful reflection among our students upon the work they will pursue in service to the suffering, we believe that these domains can be consequential to professionalism inquiry.¹³

CRITICAL THINKING

Arts and humanities graduates interest the employers more, as they have the necessary transferable skills which make them adaptable to a wide range of job profiles in numerous sectors. These disciplines empower students with critical thinking buttressing sharper skills in communication, problem-solving, analysis, writing, presentation, critical thinking and negotiation which are much valued by the wider spectrum of employers. Focusing on the wider relevance of these soft courses Dr Parshia Lee-Stecum, Associate Dean (Teaching & Learning) Faculty of Arts, The University of Melbourne, admits that the arts and humanities degree "fosters both creative and analytical acumen, encourages independent research and problem-solving [which are the] flexible skills that employers most value" (Lee-Stecum, n.d.). These soft courses prepare the students for personal and professional challenges; though majority of students see college as a *proving ground* rather than a training ground.

Other observation that is made regarding the job suitability in the corporate is that most English Literature graduates need not necessarily memorize everything about English Literature for their work. Similarly, most Physics graduates cannot meet with professional expectations merely on the basis of Physics. Again in purely economic terms, it does not matter whether they have heard of the second law of thermodynamics or not. What matters the most is the ability to think critically and analytically. Employers seek those candidates who have the ability to work with people, to know when to lead and when to follow, and communicate clearly. Richard Lambert, the Director General of the CBI (UK) feels: "One of the great pluses of our universities is that we have a strong and diverse system. Some want to make your brain hurt and in others, there is a specific focus on skills. We think that soft skills are an important part of education, not necessarily for everybody,but most people need to be able to get up in the morning (Paton, 2008).

Hence, critical thinking is an important element for all professional fields and academic disciplines. Within the framework of scientific inquiry, the process of critical thinking involves the careful acquisition and multiple interpretation of information and multiple applications. The concepts and principles of critical thinking can be applied to any context or case but only by reflecting

upon its varied dimensions and nature of the application required.

What was valued was the way of thinking, the critical approach and the questioning spirit. There is a need to be broad enough to acknowledge and accept our world of thought and expression in art, science and technology which must be open to each other to make the most of each of them. And this is such an important phase for critical and independent thinking. "This is especially the case in the humanities, where interpretation, evaluation, judgment are particularly important" (Harpham, 2011, pp.133).

It is believed and evidenced that physicists and philosophers learn alike, and we need a good number of people with an inclination for critical thinking, a distinguishing feature of excellence in any academic subject.

NEED OF THE HOUR

In the field of undergraduate teaching, the arts and humanities, undoubtedly, play the critical role for the overall rise in higher education participation. Over the last five years for which we have figures, the number of new entrants to arts and humanities degree courses has risen by no less than 18%. Another important facet is the income earned from overseas students in the arts and humanities. In UK, there are about 80,000 students in Arts and Humanities and they make a direct contribution to about £1.3bn a year to its economy. Davis Lammy, while speaking on value of higher education, stated that funding for the Arts

and Humanities Research Council which was set up five years ago, has risen by 35%, and during the academic year just finished, HEFCE's Quality Related Research Grant attributed to the arts and humanities rose by 86% (Lammy, 2010).

Arts and humanities and their place in liberal arts education are not based mainly on their economic value or what prospects they can offer to graduates, although both are substantial. The main importance of the liberal arts approach lies in the fact that it is by its very essence democratic. It cannot exist without debate, contradiction, difference and the acceptance of difference, just as a healthy democratic society cannot exist without the same. It follows that the liberal arts are by their very essence pluralistic and, they both reflect and help to shape our modern society and that is why the arts and humanities are an essential component of the higher education.

Robert Whelan, the Director of Civitas, wrote recently in the Daily Telegraph, "At the heart of a liberal education is the notion that human beings are capable of moving from barbarism to civilisation by using their intellectual and moral capacities" (Whelan, 2009), an idea which ought to unite scientists and literary intellectuals alike. Robert Whelan further added that arguments like those for a liberal approach to learning were one of the main things that prompted him to share his views. Students who enrol in liberal arts courses as "electives" and which are unnecessary for their chosen disciplines view that

the inclusion of these courses in the curricula of various degree programmes has, however, proven valuable. That approximately forty percent of the Fortune 500 CEOs in 2000 matriculated from liberal arts colleges and/or obtained degrees in the liberal arts (Durden, 2001) underscores the potency of the field and its relevance in technical disciplines (William, n.d.).

So keeping subjects strong individually helps to ensure that they can make their full contribution in a wider context; in terms of both research and teaching, the influence of the arts and humanities extends well beyond their narrow subject boundaries that the concepts of interdisciplinary and multidisciplinary are not just about research and its applications; it applies also to individual student's experience of higher education. Even for the most careerorientated undergraduate, the university experience is far more than studying one or two subjects up to a given level. Therefore, there is a need to redesign and broaden the undergraduate curriculum to a greater or lesser extent. "Whatever we do and whatever we find out, we must make our beginning from what we are, and surely the relevance and importance of the Humanities in the present day is that they can make us better able to approach the great tasks that lie before us. It is well for us to take our eyes off what is astronomically distant, or infinitesimally small, and look at man, and see what we can do about his place at the centre of things" (Davies, 1979, pp.4).

It is interesting to note that some of

the universities have fared stunningly well in employers' preferences—even in the arts and humanities subjects. QS' arts and humanities rankings² survey of universities across the world took six arts and humanities subjects into consideration: Philosophy, Modern Languages, Geography and Area Studies, English Literature and Language, Linguistics and History.

In a 2003 study, the National Association of Colleges and Employers (NACE) found that employers rated communication skills most desirable when considering candidates for employment and no other courses than humanities and languages can equip the students with the kind of essential professional soft skills (National Association of Colleges and Employers, 2003).

A survey which was conducted by the US Census Bureau in 1994 also ascertained the qualities that were considered important in their decision to hire new professionals. For this, 3000 employers across the US were questioned (given below are the results of the survey on the scale of 1 through 5, with 1 being not important and 5 very important) and the most important which they considered was attitude and the next communication skills³. Thus, the two major qualities desired for recruitment, namely, attitude building and communication skills, can be inculcated only through Languages and Humanities courses.

Factor	Rank
Attitude	4.6
Communication skills	4,2
Previous work experience	4.0
Recommendation from current employer	3.4
Recommendation from previous employer	3.4
Industry-based credentials certifying Skills	3,2
Years of schooling completed	2.9
Scores on tests administered as part of interview	2.5
Academic performance (grades)	2.5
Experience or reputation of Applicant's school	2.4
Teacher's recommendation	2.1

Source: US Census Bureau 1994

Fig.1: Important Qualities Needed for Hiring a Professional

Even the Mildwest College Placement Association conducted a study to determine what skills and qualities employers look for in hiring. The results were revealing. The most important skill was oral communication (83%), which was ranked as very important and the third most important skill was the ability to build interpersonal relationships, whereby 74% ranked it very important (Ehringer & Munroe, 1984).

The arts and humanities courses inculcate creative thinking which is indispensable to explore creative and analytical techniques for generating fresh ideas and possibilities and select appropriate solution or take an implementable decision.

In many respects, universities are the ideal place for multidisciplinary learning; on that basis, we should seek new ways to encourage dialogue and interchange among disciplines. The efforts by these universities to regularly upgrade the curriculum, to provide an interdisciplinary approach and ample exposure to practical situations,

² http://www.topuniversities.com/wur-comment/2011-qs-world-university-rankings%C2%AE-subject-arts-and-humanities

³ US Census Bureau, 1994.

have paid well. It has led to the arts and humanities disciplines staying relevant in fast-changing times, as well as giving them a new lease of life by making them more practical.

To sum up, education, the learning process which provides students with the basics to understand knowledge in general, nurtures that side of personality that enables students to envisage the broader perspective of life. Any set or system of education that fosters analytical intelligence at the cost of human values is not worth it. Academic institutes with consistent efforts and a focused approach can help students attain the level where they can not only take care of themselves but also take the societal welfare to the next level. An analytical mind, trained for excellence does not meet with the standards and expectations of society, if it lacks values. A mechanical and methodical approach to the implementation of education violets its sanctity by refusing it to above beyond and expand itself. Lack of creativity, absence of values, and want of adaptability signal the immediate need to take precautionary preventive measures to sustain and glorify the very essence of education.

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Soft Skills for Successful Career

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ABSTRACT

Indian academia adds close to 3.5 million graduates and post-graduates every year; on the face of it, this does not seem to be a major challenge. However, a large number of these young professionals are not adequately equipped to face the highly competitive and very demanding corporate world of today. Most of their focus in the technology domain remains limited to working as a one-man army producing what they read, with little emphasis on application and creativity. Thus, there is a need to polish their skills with respect to disciplines like documentation, systematic processes and all round excellence. These problems are the symptoms of a lack of proper imparting of soft skills in aspiring students. This paper was written to articulate the importance of soft skills for successful career. 'Soft skills' is an abstract concept, which is, in fact, a compendium of several components like attitude, abilities, habits and practices that are combined adeptly to maximize one's work effectiveness. They are much more than just a set of good habits or key abilities. Soft skills are about integrating the right proportion of these components into formidable skills and eventually transforming those skills into competencies.

Keywords: Permeates, annotations, impeccable, crumble, arsenal, paradigm

INTRODUCTION

A recent report by a global research firm has indicated that the Indian IT industry is targeting multifold growth in exports in the

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next couple of years. There is an estimated demand of 8, 50,000 IT professionals and 1.4 million IT personnel. Since Indian academia adds close to 3.5 million graduates and post-graduates every year, on the face of it, this does not seem to be a major challenge. However, a large number of these young professionals are not adequately equipped to face the highly competitive and challenging environment of the corporate

world. Most of their focus remains limited to working as a one man army reproducing what they read, with little emphasis on application and creativity. This makes it difficult for them to survive in the world. There is a need to cultivate and polish their skills with respect to disciplines for their all round development.

Industry in general demands two special skills in every professional. One of these skills is the technical knowledge and the ability to grasp requirements and specifications. The other one is the soft skills. The first one is used to perform the required verification duties at work and the second one helps in planning an approach to solve the impending issues or problems. The bottom line is that a good professional will have a blend of both technical and soft skills. Having a proper balance of hard and soft skills is one way to level the playing field when competing against hundreds of other applicants in a complex job market. Soft skills complement hard skills, which are the technical requirement for a job. Hard skills tend to be specific to a certain type of task or activity, while soft skills are broadly applicable. It is often said that hard skills will get you an interview but you need soft skills to get the job.

Whether you are the CEO, pumping your company or simply a potential recruit, you will be asked to generate your vision and often, you will be judged on it. Vision is the ability to project in the future. Vision is your perception of the future. It is a careful projection of today's world into tomorrow. Vision starts with today and sequentially

progresses to the final, 'target' scene in the future. Vision is not an empty rhetoric. It is something that can be implemented. It is not just a wish. It is an action plan. While vision is about things that are fuzzy, distant and often pertaining to the 'big picture', soft skills called 'personal accountability' deal with issues that are more transparent and immediate. Personal accountability is about how deeply you are committed to your job. It is about being thoroughly knowledgeable in all aspects of your domain, so that you can solve problems expertly, without twiddling your thumb or expecting someone else to do it for you. It is about how much you love your job and enjoy doing it. It is about how much you identify with your team and look out for it, instead of quickly blaming others for the things going wrong. It is about accepting your role and responsibilities at work, without making any excuse. It is about looking inwards for directions, rather than waiting for your manager's instructions on everything. It is about completing a job perfectly, without any loose ends. Given that so much, excellence is expected out of all of us these days, this is indeed a very vital part that you will need to excel in your job and become a shining star of your organization.

SIGNIFICANCE OF SOFT SKILLS

Soft skills complement hard skills and make one's efforts much more effective. The corporate world also puts tremendous emphasis on soft skills. Not just that, it looks out and recruits people with exceptional soft skills from among the pool of technically skilled people. Within its own workforce,

an organization always gives importance to employees with excellent soft skills. The best part about mastering them is that the application of these skills is not limited to one's profession, but their scope reaches all aspects of life. Technical skills may teach one how to meet the expectations of the job, but soft skills teach one to succeed and to exceed expectations.

Soft skills play a vital role for professional success; they help one to excel in the workplace and their importance cannot be denied in this age of competition. Excellent soft skills in this highly competitive corporate world will help us to stand out in a milieu of routine job seekers with mediocre skills and talent. Soft skills are now recognized as a key to make business more profitable and better place to work. Companies are not just assessing their current staff on the basis of their business skills but also assessing them on a whole host of soft skill competencies around and how well they relate and communicate to others. In this context, and according to Indian Business Research Centre (IBRC), the skills in highest demand through 2014 in contrast to technical skills include persuasion, negotiation, complex problem solving, time management and decision making.

The concepts of soft skills and professionalism have percolated down to other spheres as well-beyond the campuses of the corporate world. It is now considered a good idea to inculcate a measure of soft skills into anyone's skill-set, as a way of charging him or her with skills for life and as a lesson in civics.

MEASURING SOFT SKILLS

Measuring these soft skills is not an easy task. In the most progressive companies, however, managers are looking for people's ability to communicate clearly and openly, and to listen and respond empathetically. They also want them to have equally good writing skills so that their correspondence does not undo all the good work their faceto-face communication creates. Good soft skills also include the ability of people to balance the commercial needs of their company with the individual needs of their staff. Being flexible and able to adapt to the changing needs of an organization also qualify as soft skills, as do being able to collaborate with others and influence situations through lateral and more creative thinking. The ability to deal with differences, multiculturalism and diversity is needed more than ever. Very few companies are untouched by the ever widening influence of other culture and excellent soft skills facilitate better communication and people's ability to manage differences effectively.

Soft skills have a lot to do with career opportunities. Soft skills refer to abilities that make people better employees and open doors to opportunities, which are not directly related to the subject matter of their jobs. In simpler language, soft skills refer to a person's ability to relate to others, to get him organized, to communicate in written, spoken or other forms, to conduct research or gather information about various topics as assigned and so forth. A person's soft skill is an important part of his individual contribution to the success of an

organization. Particularly the organizations dealing with customers face-to-face are more successful if they train their staff to use these skills. Soft skills are increasingly sought out by employers in addition to standard qualifications.

Soft skills are the personal traits and skills that employers state are the most important when selecting employees for jobs of any type for example safety, courtesy, honesty, reliability, team skills, flexibility, eye contact, cooperation, adaptability, writing skills, follow rules, self directed, good attitude, dependability, self supervising, personal energy, good attendance, work experience, good work history, motivational skills, interpersonal skills, valuing education, common sense, listening skill, commitment, communication skills and social graces. The soft skills you gain will equip you to excel in your personal life. It is a continuous learning process. In some parts of the world like in USA and Australia, soft skills are also known as world skills. If you are familiar with these skills you will be in a position to guide your boss towards success, i.e., working together for a common goal as a team.

As an illustration, the changing business scenario today has resulted in specific soft skills assuming importance as shown in table 1.

Effective communication skills are very important for our professional, personal success regardless of what business we are in. The purpose of communication is to get your message across to others clearly and unambiguously and the communication becomes successful when both the sender and the receiver understand the same information as a result of the communication. A study by the Centre for Creative Leadership (CCL) in June 2009 confirms the importance of strong communication skills in the development of effective leadership. Although leaders who were most effective during organizational transitions were skilled communicators able and willing to articulate the rationale for change and good listeners but more than half the survey respondents reported that the leaders in their own organizations were not able to clearly communicate rationale for change due to poor communication skills. This study highlights the importance of communication skills.

In the last few decades in India, there

TABLE 1 List of soft skills

Business Paradigms in Engineering Services	Soft Skills demanded by these Paradigms
Project Management	Team work
Knowledge Management	Written English, writing skills
Integrated product teams (IPT)	Spoken English, verbal communication
Quality systems and processes	Mindset, attitude, attention to details, assertiveness, integrity
Global project teams	Business etiquettes, cultural sensitivity
Rapid changes in business and technology	Stress management
Innovation	Open, inquisitive mind, creativity

has been a mushrooming of demand for well rounded employees, i.e., people who are not only technically savvy, but also those who have the complementary soft skills. This spurt in demand is essentially due to a large increase in corporate employment opportunities. These increased opportunities arise due to new foreign based multinational corporations setting up business in India, existing multinational companies that are expanding their operations in India and the emergence of modern Indian companies, especially in the Information Technology and IT enabled service sectors. India's splash entry into an increasingly globalized world commerce meant that for continuous growth, there must be a steady supply of highly skilled workers to satisfy the needs of industries. While India's technical schools and colleges have done a great job of imparting world class technical training, concepts like soft skills training is also provided to the students. It has been highlighted by a Job Outlook 2009 survey conducted by the National Association of Colleges and Employers (NAE), the top characteristics looked for in new hires by 276 employer respondents were all soft skills: communication ability, a strong work ethic, initiative, interpersonal skills and team work. Thus, for 'advantage India' to work and for India to be competitive in the world arena, several educators and employment consultants have suggested that we redouble our efforts in educating our college students and young professionals in the basic of soft skills. We believe that already giant steps are being taken to achieve a high

degree of 'soft skills literacy' through formal and informal channels.

So, what are soft skills? Soft skills are those skills which are required for an individual to relate to and survive and succeed in his or her environment. Whether you work in IT industry or manufacturing industry, whether you work in a family business or a multinational corporation, soft skills are those skills that are absolutely essential for success. Soft skills are somewhat like survival instincts wherein people get fine-tuned and adapt to their environment. Soft skills are essential irrespective of which profession we are in. These skills are an indispensable addition to anyone who wants to improve his/her employability. As it has been mentioned in Computerworld's survey made in 2010 IT are increasingly looking for staff who demonstrate a broad range of soft skills in addition to their technical abilities. Survey respondents said writing and public speaking are two of the most important soft skills they look for when hiring new employees. Thus, soft skills are about being able to apply the right language at the right time and at the right place. But, there is much, much more to them. The business environment has changed significantly over the past decade or so largely due to the advent of the internet and the convergence of computing and communication.

In most businesses today, work almost flows across geographies. If you take the example of the manufacturing industry, raw materials may come from India, assembling can take place in Taiwan; the finished goods may be transported to and sold in the US. An employee in Australia may enter his expense report into a central system, and this may get processed by a BPO outfit in India and the payment may be made through an American bank. This cross-border workflow has necessitated increased communication and has placed additional demands on soft skills. One may have to interact with many people from different cultures. Both the quantity and diversity of interactions have increased substantially. This brings about several additional challenges.

CHALLENGES

First is the linguistic challenge. An individual should be able to articulate his or her thoughts so as to cross the language barrier. Even between India and the USA where one can argue that English is the common language, the usage and conventions used are different. A second challenge is the cultural challenge. As we said earlier, soft skills transcend communication. The diversity of cultures in different countries has necessitated that people adapt themselves to the cultures of each of these countries. When interacting with people from more than one country, this quick adaptation becomes a serious challenge. A third challenge, perhaps where the effect of technology is highest, is the proliferation of the different media of communication and collaboration. Communication and collaboration today have to be effectively done through various means like e-mail, chat, video conference, phone calls as well as face-to-face meetings.

The first step would be to know the final

picture your entire team or organization is aiming for. That will give you important information as to what type of picture it is. Then, use these facts to arrive at a plan of how you will distribute the work among the team members. All of them are working towards a common goal. Do not become self-centred while working to achieve group goal. Everyone relates to the environment, succeeds in the environment and helps others succeed in the environment. When the team members do not see the big picture, there is no clear division of labour. This may result in a lot of efforts focused towards 'local optimization', while compromising a 'global optimization'.

When you see the big picture and understand your role in creating the big picture and take pride in it, you will be automatically filled with a lot of passion and motivation. This motivation will surely act as fuel for you to feel good about yourself and you will be able to display better self confidence and thus relate to the environment better. The result of this passion is that you will always strive for excellence and nothing but the best.

Our present day work culture is predicated upon working efficiently in groups and most of us have been indoctrinated into these concepts even before we started our careers. The conventional wisdom is that the group's well being is far more important than your individual well being and you should surrender your individual identity at the gates of your organization and performs only as a member of your team. Your individual performance will

be whitewashed by the larger performance of the group. Never lose an opportunity to learn from more experienced colleagues. It is your responsibility to seek feedback and work on improvement. Once you start being an integral part of the team and start cherishing and living the team goals, your own stature and importance will grow in the organization. You will find that you will start enjoying being in the team and soon you will start appreciating the fact that it takes different types of people to achieve the shared team vision.

Diversity awareness is not an easy skill to acquire and hone. To begin with, you need to have an aptitude for cross cultural experience and then, you should equip yourself with the mindset and the knowledge to pursue international dealings. You may be able to use this skill partially in your job, but supplementing it with self learning and professional training can greatly enhance your job performance.

In this super charged climate, only the fittest survive and if you are not constantly aware of the changing environment around you and able to adapt and change as necessary-you will find yourself slowly dropping out of the race. Learning ability is another important soft skill. It comprises having a spirit of inquiry, an air of inquisitiveness and not having reservations about learning from any source.

Time management is a matter of attitude, reinforced by strict discipline. You have to realize that there is not an unlimited supply of time, even though it may seem like there is always a tomorrow. All of us have to

realize that we should not let time pass us by, but rather, actively divide our workdays into time slots and allocate them appropriately to different tasks and carry out this plan perfectly. Time is precious and you should treat it exactly like you would treat money or anything that you only have a limited supply of. When we talk about time management, it is not the time that we actually manage. We manage ourselves, our tasks, so that we make the most of our time.

Good attitude is a behavioural skill. which cannot be taught. However, it can be developed through continuous training. It represents the reactive nature of the individual and is about looking at things with the right perspective. You must be ready to solve problems pro-actively and create win-win situations. We must be able to take ownership, i.e., the responsibility for our actions and to lead from the front without calling it quits at the most critical moment. The more valuable employee is one who can grow and learn as the business changes. Soft skills are as important as hard skills to an employer looking to hireregardless of industry or job type.

Your professionalism should be impeccable even in the face of a brewing disaster. Any way you act, you should not compromise your professionalism. Even if things are crumbling around you, you should play with professional pride until the last whistle is blown. Like professional athletes who give their much clichéd 110 percent effort in all the games-not just in the games they are winning-you too, should be duty bound and perform in your job at

the highest level. So, keep those reports, documentations and testing coming till the bitter end.

VISION

We spend a good part of our lives at work. We even derive our identities through our jobs. We get all sorts of rewards and recognition through work; and, for many of us, this is probably the only path to success available in life. We should not be afraid to use every tool in our arsenal to achieve this. We collectively refer to this arsenal as the soft skill, 'work to succeed'. Hard work starts with vision, but it does not end there. As an old saying goes, 'the vision must be followed by the venture'. It is not enough to stare up the steps-we must step up the stairs. Hard work is not just about the number of hours you put in, but also what you get accomplished at the end of the day. It is not so much about how busy you are, but why you are busy. The bee is praised. The mosquito is swatted. When people are not successful, they blame it on luck, without introspecting whether they have given the devil its due and worked hard. It is useful to realize that the only way to overcome hard luck is by hard work.

When we send a message as a part of communication, it can reach the receiver in more than one way: through the words we use, through the voice we use and through the body language. Imagine you are writing a letter to a person A, talking to a person B over phone and meeting a person C face-to-face and trying to convey the same message in all the three cases. Who do you think

would receive the message most clearly? In all likelihood, it is person C. In 1971, a research published by Albert Mehrabian showed that:

- Words account for 7 percent
- Tone of voice accounts for 38 percent
- Body language accounts for 55 percent of the message

Body language is the most potent vehicle of communication. It is absolutely essential to hone the skills in harnessing this vehicle. Body language supersedes everything else-your words, slides and even voice. Different elements of body language work in unison-a positive improvement in one constituent usually has ripple positive influence on others. To start with, we may not have all the constituents functioning at the same level of effectiveness, but realizing the positive energy among these constituents, build upon your greatest strengths to fine tune what may not be so well developed. Your voice dictates who you are. People associate a lot of significance with your voice. People judge you by your voice. They come to conclusions about your confidence level, your well being, your energy levels and your sincerity by just judging your voice. In fact, whenever we are asked to act according to our conscience, we are told to listen to the inner voice. Our voice is a powerful instrument in communication that can make the delivered message more convincing and more appealing for the audience and could display your passion in what you are communicating. The good news is that a musical voice is not really an essential criterion for a good vocal channel. Even better news is that you can develop a good voice by cultivating certain practices and habits. In fact, voice is just one aspect of good vocal channel. There are certain important constituents of a good voice channel. These are:

- Pronunciation and articulation
- Emphasis
- Pace
- Pitch
- Volume
- Pause

Soft skills define an engineer's approach towards work and life and in most cases define stress that is more individual specific. The best part about mastering it is that the application of these skills is not limited to one's profession, but their scope reaches beyond. Soft skills teach one to succeed and to exceed expectations. There are situations that we come across during our day-today work life as a design or verification engineer in which one person performs better than the others just on the basis of soft skills - be it winning an argument with someone on the basis of his/her communication or finding multiple task effectively because of superior organizational abilities.

Our reactions in a complex setting vary widely with situations, emotions, time, belief, knowledge and expertise. Therefore, the quality of a job done by an engineer is directly proportional to his/her psychological maturity and profoundness required, adopted and developed with age

and experience. Soft skills get developed and matured in the course of time.

CONCLUSION

Recent challenges of globalization are proving that the weightage for technical excellence towards overall effectiveness has reduced making way for newer skills like the knowledge of interacting with trans-national cultures, business etiquettes, expected and acceptable behaviour in new geographies, handling telecoms, graphic communication including use of annotations with pictures. Traditional soft skills continue to be relevant and these include adaptability, open mindedness, problem solving, decision making, communication skills, self learning, empathy, team work, knowledge discovery, motivation, attitude and a spirit of enquiry.

Everyone has some form of soft skills. They just need to look at areas in their personal life where they get on with others, feel confident in the way they interact, can solve problem, and are good at encouraging. The best news to all is that soft skills can be developed on an on-going basis through proper training, insightful reading, observation and of course practice, practice, practice.

The importance of soft skills is not only in the beginning of one's career but the same permeates throughout the professional life. As one starts progressing in career, the importance of soft skills keeps on increasing with increase in public dealing and an increased interaction with the clients and peer colleagues. Research in many fields, such as sales and marketing,

software development, engineering and law, has shown that to be successful in the workplace, knowledge alone is not enough. Soft skills are needed to deal with the external world and to work in a collaborative manner. Thus, we must ingrain soft skills into our professionals by catching them young, so that it will enable them to hit the road running when they get into the professions. We should continually reinforce these skills at all levels, till they become a habit for them.

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A Pragmatic Study of Intercultural Communication in Kiran Desai

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ABSTRACT

The present study of intercultural communication in literary discourse attempts to foreground the relevance of the study of Indian Diasporic literary texts by analyzing intercultural communication as represented in *Hullabaloo in the Guava Orchard* and *The Inheritance of Loss* by Kiran Desai. Desai is an Indian Diasporic writer who introduces words from the Indian languages in particular contexts, and predicates culture specific differences to convey her meaning to the reader. The study aims at providing a contextual framework to the field of literary discourse based upon the tools for analysis of Intercultural Communication enunciated by Allwood (1985).

Keywords: Literary discourse, diasporic literature, intercultural communication, patterns of thought, patterns of behaviour, patterns of artifact, imprints in nature and cultural presupposition

INTRODUCTION

As is well known in today's world, all societies are multicultural in nature and everyone lives within a global village. Culture, which encompasses a particular social group's accepted beliefs and behaviours, has been defined in many

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ways. The classic definition most useful in this discussion is one derived from anthropology: Culture is "a way of life of a group of people...the stereotyped patterns of learning behavior, which are handed down from one generation to the next through means of language and imitation" (Barnouw, 1963, p. 4). Similarly, a modern definition is that culture is "the shared ways in which groups of people understand and interpret the world" (Trompenaars & Woolliams, 2003, p. 53).

An increase in international business, caused by more efficient transportation and advanced communication technology, has led to an increased need for effective intercultural communication, often referred to as global communication. Effective intercultural communication assists in eliminating communication obstacles like language barriers from international business which allows workers from different cultures to work together as a group. It can be achieved through learning about other cultures and implementing communication strategies such as reflective listening and being open-minded. The need for a successful intercultural communication can be found in all aspects of a business, from internal communication to marketing and advertising. Additionally, poor translations in marketing and advertising can lead to poor sales internationally. Ineffectual intercultural communication can lead to accidentally offending another individual; the consequences for such an accident can range from an embarrassing moment to the collapse of an entire business deal. Hence, the understanding of diverse cultures is imperative in order to survive in the present world. The present study of intercultural communication in literary discourse attempts to foreground the relevance of the study of Indian Diasporic literary texts by analyzing intercultural communication as represented in Hullabaloo in the Guava Orchard and The Inheritance of Loss by Kiran Desai. Desai is an Indian Diasporic writer who introduces words from the Indian languages in particular contexts, and predicates culture

specific differences to convey her meaning to the readers.

Hullabaloo in the Guava Orchard is the story of the Chawla family of Shahkot comprising Mr. Chawla, his mother Ammaji, his wife Kulfi, their son Sampath (who is the protagonist) and daughter, Pinky. The entire family is eccentric. For instance, Kulfi has an undefined longing which she fulfils by consuming large quantities of food and roaming aimlessly. Mr. Chawla is a gogetter who, instead of caring for his son, thinks solely of his status. He capitalizes on Sampath's fleeing to the guava orchard and turns it into a religious act. It is a captivating book about what happens in an Indian small town when an ordinary post office clerk does the unexpected, and how the town reacts in equally unexpected ways. The portrayal makes living in India, an entertaining event. For the reader who is unfamiliar with India, Desai provides a context to facilitate understanding. Her characters are detailed and well thought out; their flaws and their eccentricities are portrayed vividly and with clarity. In particular, characters such as Kulfi and her son, Sampath Chawla, provide an excellent medium through which to see the world of Shahkot.

Inheritance of Loss by Kiran Desai takes place largely in West Bengal's Himalayan region, near Nepal and Bhutan, inhabited by people of many ethnicities. The story revolves around the main character Sai, an orphan living with her grandfather, a retired judge, in the Himalayan city of Kalimpong. The judge's household is assisted by a cook, whose son Biju goes to the United States and

struggles to make it there. Desai explores complicated questions of assimilation, class, race, nationalism and family with humour. She exposes difficult and sometimes ugly truths about human nature in a political and complicated world where history stays with us, while not rendering the characters themselves as simplistic villains or virtuous heroes. In both the novels, Kiran Desai's language is rich and nuanced. This is largely a result of the fact that she uses words from the Indian languages to describe and refer to typically Indian food items, as well as certain specific terms used in India to address people who are older as well as terms of endearment used for one's offspring or for those who are younger. The words and phrases from the Indian languages that she uses are culture specific and go a long way in conveying certain aspects of the culture to the readers.

The study aims at providing a contextual framework for the study of literary discourse based upon the tools for analysis of Intercultural Communication enunciated by Allwood (1985). Although intercultural patterns of discourse are almost inevitably reflected in both spoken and written languages, the focus of this paper is entirely on literary discourse. The study also draws on the Interactive Intercultural Approach postulated by Michael Clyne (1994, p. 3), who examines the discourse of people of different cultural and linguistic backgrounds who interact either in a lingua franca or in one of the interlocutor's languages. As aptly pointed out by Bennet in "Intercultural Communication: A Current

Perspective (1998, p. 2)", Intercultural Communication is the communication between the people of different cultures which cannot allow the easy assumption of similarity. By definition, cultures are different in their languages, behaviour patterns, and values. Hence, an attempt to use one's self as a predictor of shared assumptions and responses to messages are unlikely to work because cultures embody such variety in patterns of perception and behaviour. Therefore, approaches to communication in cross-cultural situations must guard against inappropriate assumptions of similarity and encourage the consideration of difference. Thus, it is clear that Intercultural Communication foregrounds cultural difference. Moreover, according to intercultural researchers the cultural presuppositions of an author and his/her reader will always be parts of available discourses in society. 'Cultural presuppositions' (Ping, 1999, p. 133) refers to knowledge, experience, feelings and opinions we have towards categories of people that we do not regard as members of the cultural communities that we identify ourselves with. 'Cultural presuppositions' is a factor which helps in creating awareness in the author about the reader who is outside his/her own social/cultural community and characterizes the choice of language and content in the literary text. Thus, while the authors' understanding is constructed on the basis of discourses in society, cultural presuppositions govern their actual use of discourses in a globalized society.

As an area of study, Intercultural

Communication developed in the 1980s. Its emergence can be traced to scholars such as A. Wierzbicka, C. Goddard, D. Tannen, D. Schifrin, etc. The basic tenet of intercultural communication is best explained in the following manner:

"In different societies and different communities, people speak differently; these differences in the ways of speaking are profound and systematic, they reflect different cultural values, or at least different hierarchies of values; different ways of speaking, different communicative styles, can be explained and made sense of in terms of independently established different cultural values and cultural priorities" (Wierzbicka, 1991, p. 69).

Drawing upon this observation by Wierzbicka, this paper contends that a literary text written by a contemporary Indian English Diasporic author, who is associated with the interactivity of language and culture during the creation of her literary texts, can be viewed as an example of Intercultural Communication.

In most intercultural analyses of discourse, it is necessary to ascertain both the cultural assumptions being made, the context within which they are made and the value that is attached to the assumptions. These cultural assumptions become important when discussing works created by authors like Kiran Desai, a Diasporic Indian who is a multilingual with equal facility in Gujarati, Hindi and English. Diasporic writing, as has been pointed out by several scholars such as Jasbir Jain, occupies

a significant position between cultures and countries. It generates and defines positions as it constructs a new identity which negotiates boundaries of cultures and languages. Consequently, they are both "bi/ multi-cultural" and "bi/multilingual," with great adaptability to more than one cultural frame, having internalized these cultural frames through language competence. Such writers can completely shift their cultural frame of reference as well as language without much conscious effort as they have retained the ability to function in their own cultures/languages, simultaneously adding the ability to operate effectively in other cultures/languages. Thus, authors like Kiran Desai live on the margins of two societies, both geographically and culturally, and this leads to their having an equal facility in two or more languages, a factor which invariably impacts on their creative output. Further, readers of Diasporic literature belong to the writer's country of birth as well as the adopted country. This perception is borne out by Vijay Mishra's observation on Diasporic literature:

'Postcolonial theory has drawn its source texts as well as its cultural dynamism from diasporic archives. Most of the claims about the need for a vigorous postcolonial intervention into the project of modernity, however, have taken the form of interventions from the diaspora within the West or from what I have called the new Indian diaspora of the border. This diaspora has been seen as a powerful source for diasporic discourses of disarticulation

(abandonment, displacement, dispersion, etc.) as well as the 'site' for the rearticulation of an intercultural formation....' (Vijay Mishra, 1996, p. 426).

As has been observed by several scholars, there is a deep connection between culture and language insofar as cultural groups are invariably characterized by distinct languages with subcultures often having dialects within a language. In this context, Sapir aptly states: "Language has a setting. The people that speak it belong to a race (or a number of races), that is, to a group which is set off by physical characteristics from other groups. Again, language does not exist apart from culture, that is, from the socially inherited assemblage of practices and beliefs that determines the texture of our lives' (1921, Web). Further, a language cannot exist in a vacuum. It has to perform some functions – be it in spoken or written discourse. This function is closely connected to the speaker's or writer's experiences as well as the context in which the discourse is produced. Thus, context and culture become inseparable from the use of language, which is a unique symbol system that denotes what a culture deems important in its world, i.e., some words exist in some languages and not in other languages, reflecting the fact that different cultures symbolize their worlds differently. In order to identify and discuss the key parameters in intercultural communication in a literary text – this study largely follows the analysis presented in Allwood (1985, pp. 1-2), where he distinguished four primary cultural

dimensions namely: Patterns of thought, Patterns of behaviour, Patterns of artifacts, and Imprints in nature, which he states are the foundation of all human activity in a society. According to Allwood (1985, pp. 1-2), these patterns are one way of expressing culture and may be correlated with human activities in the following manner, "all human activities involve the first two dimensions. Most activities involve the third dimension and ecologically important activities also involve the fourth." The reason behind using the patterns identified by Allwood for the analysis in this study is that they capture the essence of the relationship that exists between culture and language which in turn helps in understanding the nature of the intercultural communication portrayed in the literary texts under discussion. This paper applies these cultural dimensions and predicates a model of intercultural communication in literary discourse. Thus, the analysis has at its core the ability to explicate the language usage in creative writing wherein there is code mixing between English and Indian languages such as Hindi and Gujarati. This explanation is further facilitated by using the assumptions of Intercultural Communication which contends that language usage is governed by cultural factors. This paper further argues that the factors identified by spoken discourse research in relation to intercultural communication in general may be used to discuss strategies that an author adopts in order to engage in successful intercultural communication in a literary text.

In the following examples from *Hulabaloo in the Guava Orchard* and *The Inheritance of Loss*, the four dimensions enunciated by Allwood (1985) are applied to identify the culture specific nuances which are being mediated through the language used by the author in the two novels being discussed

A. Patterns of Thought – According to Allwood, Patterns of Thought refer to the common ways of thinking, where thinking includes factual beliefs, values, norms, and emotional attitudes. In the context of this paper, the pattern is applied to human relations as reflected in the manner of addressing, which in turn is based on cultural beliefs and emotional attitudes.

In the following examples from Hullabaloo in the Guava Orchard and The Inheritance of Loss the inclusion of Hindi terms of endearment and manner of addressing others, intermixed with English enables the author to vividly portray the culture, where an elder person like the mother or the father or someone of the same age addresses the offspring or he or she addresses an older person related or unrelated using such words which may or may not be used for affection. These examples wherein an elderly lady is referred to as Ammaji (Hullabaloo in the Guava Orchard) or a father calling his son Biju beta (The Inheritance of Loss) enable the author to portray the customs prevalent in India where people are addressed according to their varying relations with each other and constitutes intercultural communication

in the text. These terms are used in the day-to-day interaction of people and are governed by the social and cultural beliefs and emotional attitudes. In The Inheritance of Loss, for example, "Biju beta," he wrote, "you have been fortunate enough to get there, please do something for the others...." (TIL, 95), the Judge's cook has a son Biju who has gone to the USA to earn his livelihood and become 'rich' following the path of Eldorado or the true American dream with plenty being the order of things. The other aspect of this path, which becomes apparent while living this dream, is that opportunity too is a discriminating master; so Biju instead of running his own restaurant due to the lack of a work permit can only do odd jobs in restaurants illegally. Biju, with whatever money he gets, sends his father gifts. So, his father is totally unaware of the situation thinking that his son has settled abroad and can help those unfortunates who are left behind. The use of the term beta in this example conveys to the reader a father's pride in his son and his trust in his abilities.

- 1. "Leaving Kulfi and the new baby, he and Ammaji ran to the window to investigate, and discovered that far from being the end of things it was more like the beginnings." (HGO, 11) ""Stupid monkey, maji,"...." (HGO, 86)
- 2. "Loudly. Can't hear you, huzoor. Say it louder." (T I L, 7) "Bhai, dekho aisa hai..."he would begin to lecture them. (T I L, 95) "Biju beta," he wrote, "you have been fortunate enough to get there, please

do something for the others...." (T I L, 95)

B. The second pattern described by Allwood is Patterns of Behavior, which encompasses common ways of behaving, ways of speaking, and ways of conducting commerce and industry, where the behaviour, can be intentional/unintentional, aware/ unaware or individual/interactive. In this paper, the pattern is applied to common ways of behaving like speaking, to the ways of preparing food, where the characters convey their cultural background with the help of language, and style of cooking, intentionally or unintentionally.

In the following extracts from the two novels, the author's use of Indian words for a variety of food items like 'parathas with radish' and the phrase, 'Tikka masala, tandoori grill, navrattan vegetable curry, dal makhni', represents the culture specific difference very vividly and in turn, acts as a tool for intercultural communication. The pattern of behaviour also has expressions such as 'Haiii', 'Humara kya hoga, hai hai, humara kya hoga', which capture the essence of intercultural communication and describe in detail the common ways of behaving, such as speaking, cooking, where that behavior can be intentional/unintentional. aware/unaware or individual/interactive. "I could make you aloo bhaji, 'she said,' 'if the parathas will not be enough' (HGO, 25)" is an example from Hullaballoo in the Guava Orchard wherein Kulfi's mother-in-law and the grandmother of Sampath is enquiring

about his choice of food which not only shows her concern for her grandson but also the use of the Hindi words such as aloo bhaji or parathas helps us to understand the middle class setting of the novel. The other example is from The Inheritance of Loss, "And not enough salt," they said of the pakoras" (TIL, 7), where 'they' refers to the members of the Gorkha Liberation Army who enter the house of Sai and her grandfather, the judge, without invitation and force the cook to make pakoras, an Indian snack, instead of their usual menu of muffins and tea. This change from muffins to pakoras and the comment about the lack of salt in the pakoras foregrounds the cultural and social chasm between the local inhabitants of Kalimpong and the judge's family, an important sub-theme of the novel.

- 3. 'I could make you aloo bhaji,' she said,' 'if the parathas will not be enough' (HGO, 25)
 "'Haiiii. What did you do?' shouted the family when Sampath returned home, jobless, sober and soaked to the skin." (HGO, 41)
- 4. "And not enough salt," they said of the pakoras" (TIL, 7)
 'The cook broke into a loud lament: "Humara kya hoga, hai hai, humara kya hoga," he let his voice fly. "Hai, hai, what will become of us?"" (TIL, 8)
 'Tikka masala, tandoori grill, navrattan vegetable curry, dal makhni, ppadum.' (TIL, 145)
- C. Patterns of artifacts are what according to Allwood refer to common ways

of manufacturing and using material things, from pens to houses (artifact = artificial object), where artifacts include dwellings, tools, machines or media. The artifactual dimension of culture is usually given special attention in museums. Examples of this pattern are references to dwellings such as such as 'haveli', and a special kind of market named 'haat', in The Inheritance of Loss. "Into the top families of Gujarat. Ahmedabad. Or was it Baroda? Huge haveli like a palace" (TIL, 56) is a reference to the cook visualizing the judge's affluent and culturally rich past which he thinks is in consonance with his present taste in food and style of living. However, as the reader soon realizes, the cook is mistaken. The author, with the help of this example, ironically comments on the judge and shows how like this misrepresentation, the judge's entire life is in reality a sham and is built around a false sense of grandeur and need to gain prestige in the society.

In the other example from *The Inheritance of Loss, "It was haat day in Kalimpong and a festive crowd thronged to the market in a high pitch of excitement, everyone in their best clothes" (TIL, 83); haat is described in detail where the cook shops for his grocery and narrates his son's success in the USA and plans and wishes for his marriage. The haat is an important place for socializing in rural areas and since time immemorial has provided a platform for forging relationships.*

- 5. "Into the top families of Gujarat. Ahmedabad. Or was it Baroda? Huge haveli like a palace" (TIL, 56)
 - "It was haat day in alimpong and a festive crowd thronged to the market in a high pitch of excitement, everyone in their best clothes" (TIL, 83)
- D. Imprints in nature The last of Allwood's patterns can be defined as the long lasting imprints left by a group in the natural surroundings, where such imprints include agriculture, roads or intact/ruined human habitations. It is possible to extend Allwood's concept to include religio-cultural perceptions, as well as popular culture. The following examples are evidence of the long lasting imprints left by a group in the natural surroundings, where such imprints include Bollywood songs like 'O, yeh ladki zara si deewani lagti hai....', "Mera joota hai japani..." and "Bombay se aaya mera dost---Oi", a part of the culture of the country as well as time specific constructs like 'purdah' representing a particular period in time. In fact, these extracts used by the author give us a basic understanding about the middle class culture portrayed in the novel. The Bollywood song extracts in the novel are sung by illegal Indian immigrants such as Biju and Saeed Saeed who work as waiters in various restaurants in the USA. They not only reflect the Indian culture but are also an expression of nostalgia and a mark of brotherhood in an alien land. O, yeh

ladki zara si deewani lagti hai....' is sung by Biju to cheer himself up and "Mera joota hai japani..." and "Bombay se aaya mera dost---Oi", are sung by Saeed Saeed from Zanzibar who becomes a friend of Biju in that lonely world. The songs and the act of singing help to create a bond between Biju and Saeed Saeed who are both expatriates in a foreign land.

Jemubhai Patel, the judge treats his wife Pinky with contempt and hatred. The word *purdah* refers to a social custom which was widely prevalent in India and still prevails in some sections of the society wherein the women are made to wear a veil and segregated from the male members of the society and not allowed free interaction. In the novel, the judge not only keeps his wife in physical seclusion and has her locked up in the house, but also by complete lack of interaction with her, he maintains a *purdah* of emotions which in the end kills her.

- 6. "O, yeh ladki zara si deewani lagti hai...." (TIL, 51)
 - "Mera joota hai japani..." and "Bombay se aaya mera dost---Oi!" (TIL, 53)
 - "...Where is your wife, Mr. Patel? None of that purdah business, I hope?" (TIL, 171)

The above examples from both the novels under discussion highlight the fact that the author incorporates the words and phrases from Hindi, which include lexical terms for endearment and addressing others, food and different ways of speaking, in order to vividly depict and portray the communities which her characters represent. This is a consequence of the fact that the cultural presupposition about the various cultural dimensions internalized by the author is reflected in the characters that she creates and the communities she portrays in the text. Further, when a particular activity within the text lastingly combines several of these patterns, one usually says that the activity has become institutionalized and that it is thus a social institution that the author plans to describe in a text. This provides the context for its interpretation which she intends her readers to identify and consider, and which includes not just a linguistic description, but also cultural and historical information, further supporting the contention of the paper that fictional works are also vehicles of intercultural communication.

As discussed above, an intercultural perspective offers more than an effective way to analyze interaction and facilitate the use of code mixing in a literary text. The intercultural communication as represented in a literary text envisions a reality which will support the simultaneous existence of unity and diversity, of cooperation and competition in the global village, and of consensus and creative conflict in multicultural societies. In this vision, different voices of the characters can be heard both in their uniqueness and in synergistic harmony. While there are many paths which can converge into this understanding, the focus brought by the author through her creation rests on individuals and relationships. She strives to

bring culture into individual consciousness and in so doing bring consciousness to accept on the creation of intercultural relationships. Although the challenges of representing an increasingly diverse world in a literary text are great, the benefits are even greater. This multilingual communication through which relationships with people from different cultures are forged, can lead to a multitude of benefits, including improving communities, increased local, national, and international exchange of ideas.

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Future Technocrats Perception on Dissemination of Technology

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ABSTRACT

Technology is paving the way for us, but who is paving the way for the technology - future technocrats. The initiation into the scientific arena was a small step for man but a giant leap for mankind. The arrival of science has altered the life of man and also enriched him with the knowledge that technology can empower man but he must learn to use it for the good of humanity. With the advent of technology that world has shrunk and come closer. The myriad forms of the technology, which are evidently adopted by the individuals in their day-to-day lives, express the need for its further development and dissemination. Mobile technology, internet technology and DTH have become a way of our lives and future technocrats quintessentially need to come up with ways to develop it for the overall growth of our country. The future technocrat is synonymous with the future of technology and hence their role cannot be doubted in this scenario. The objective of this study was to identify and assess the perception of young technocrats on technology use and its dissemination. It is expected that the findings will throw light on the roles of technocrats for designing and developing technologies which are aimed at larger societal welfare. The study will also help in improvising the present curriculum of technical colleges by bridging the gap between humanity and technology dissemination. Our study may also impact the current and future government policies related to the above mentioned issues.

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INTRODUCTION

India is a land of dichotomies. Teeming with a population of over a billion, it has a diverse blend of people inhabiting urban parts and rural parts - literate and illiterate - speaking a wide assortment of languages belonging to varying age-groups.

However, what has coalesced everyone and penetrated even to the grass root level besides spreading in the metropolitans are the technologies like Internet Technology, Direct to home service (DTH), Mobile technology, to name a few. With the advent of new technologies, the world is becoming a better place to live in. With each passing day new technology is being introduced by the researchers, which in one way or the other improves our day to day lives. It remains to be seen how, the demarcations in the society at large, rural or urban has led to spreading of technologies. The government policies, the company strategies and the need for development demands that the technological use infiltrates to the rural areas as much as it persists in the urban settings. Particularly, so as divide exists in the Indian society such as literacy divide and prominent digital divide. However, while one-third of the population of the country stands illiterate, not something to boast about, but still this has not encumbered the people from adopting technologies in their lives. The urge to advance to certain extent overpowered all shortcomings.

An integrated approach is therefore required to design, develop and disseminate technologies irrespective of age groups, income level or geographical areas. The onus of this falls on the government via policies and programmes; private sector to develop and design low cost and easily adapted technologies; academic bodies to provide education and environment conducive for the same. However without a doubt, the primary drivers to usher this

phenomenon would be the youth who are the primary users and have a greater role to disseminate these technologies.

Considering the present scenario, where India's population comprises 70% of people below the age-group of 40. The young blood presence and their urgent need to progress evidently need to be well-versed with use of modern technologies. Incorporation of various forms of technologies will eventually make their lives convenient and ensure the fast pace of their lives as desired.

The objective of this research is to make an empirical examination of the perception of future technocrats in the dissemination of the present day technologies. Future technocrats constitute students studying in engineering colleges or the freshly employed technocrats. The following sectors present the theoretical framework, and the methodology, followed with the findings and conclusions.

PRESENT DAY TECHNOLOGIES AND THEIR DISSEMINATION

Direct to Home (DTH)

DTH stands for Direct-To-Home television; it provides the television viewers the opportunities to access and view plethora of channels without any hassle and also connect the viewers directly with the broadcasting source through the individual dish. Students throughout the country can benefit from the educational programmes, thus, providing quality access to education by every student.

It was in 1996 that the DTH services were first proposed in India; however, on

the grounds of national security issues, the service had failed to get the approval. It was in year 2000 that DTH was allowed to enter the Indian market. Today, India is poised to become the world's largest DTH satellite pay TV market (Screen Digest). Growing popularity of the DTH services is an interesting development in the Indian television industry. In addition, the government's slack in the laws has resulted in a plethora of DTH service providers flooding the markets and wooing the customers with attractive schemes. Apart from Reliance Big TV, Tata Sky, Airtel and Dish TV that enjoy a major share of the market, there are a wide variety of other providers as well. The number of DTH subscribers across India is reported to be over 21 million, as of March 2010. The growth in terms of the number of subscribers continues to be significant and is expected to be of the order of 21% on Compounded Annual Growth Rate (CAGR) basis for the period 2009-2014. Thus, DTH services

assume the status of one of the preferred distribution platform for TV channels, along with the cable TV distribution services (Sarma, 2010).

Beside Doordarshan, the market includes other DTH operators like Bharti Airtel, Dish TV, Reliance Communications, Sun Direct, Tata Sky, and the latest entrant, Videocon.

The rising level of foreign investments in India, as well the investments by the private sector, has given an impetus to the DTH industry. A revelation in the industry is the far reaching access of DTH across various cities and towns. For example, rural DTH penetration is three times higher than in urban areas, with digital TV penetration rate of 34% in the rural areas as compared to 12% in the urban areas (Ernst & Young, 2009).

At present, hundreds of options are available in DTH. The number of companies providing these services has exploded in the recent past and people are getting

INDIAN DTH MARKET AS ON FIRST QUARTER OF 2010

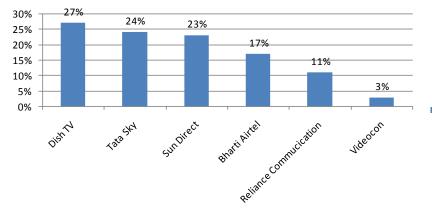


Fig. 1: Dataxis Intelligence (2010)

accustomed to the services. The antenna required is much smaller, the city will have fewer wires from one building to another and one has the flexibility of moving without changing or searching for new cable operators.

INTERNET TECHNOLOGY

Internet is a repository of invaluable information, housing it from all over the world. Its discovery has paved the way to a lot of major developments in our country such as spreading of education to the remote areas, job opportunities, health awareness, etc. The capabilities brought forth by it seem endless and are consistently increasing in a developing country like ours. In the year 1995, VSNL (Videsh Sanchar Nigam Limited) was launched. The growth in the industry has been stupendous and the leap

from 1G to 3G services has benefitted the masses

For the first four years of the launch of internet in India, VSNL was the sole provider of the Internet Services in the Country. The broadband usage in India in the first year grew at a rate of 20% per month (ISPAI, Internet Service Providers Association of India). Most users were able to access high speed internet because of the policies of ICT, especially when the Broadband policy was announced in 1995.

Private operators were allowed to enter Indian markets when the Government of India ended the monopoly of VSNL in the month of November 1998 (Internet World Stats). The policies of ISP (Internet Service provider), like no license fee and freedom to set own tariffs and international gateways, encouraged many companies to

INTERNET USAGE AND POPULATION STATISTICS CHART

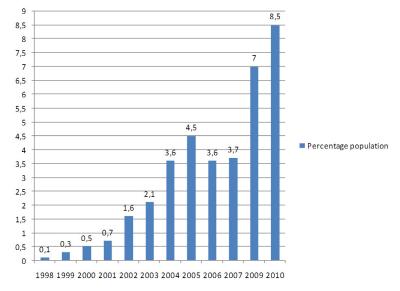


Fig.2: International Telecommunication Union, ITU (1998-03), Internet Mobile Association of India, IAMAI (2006), Internet World Stats, IWS (2007, 2010), Computer Industry Almanac Inc., CI Almanac (2004-05)

invest in the venture. This also means that the monopoly of the government is over now and the services provided by the ISP's have improved.

The total number of internet users is expected to a whopping 2.2 billion worldwide by the year 2013 and at the same time, India is expected to have the third largest online population, with China and the US taking the first two spots, respectively (PTI, 2009).

In the rural India, however, only three per cent of all Indians will be active Internet users by the end of this year (IAMAI, 2009). The low figure came despite an expected doubling in the number of rural users, i.e. from 12.1 million in December 2010 to 24 million in December 2011.

MOBILE TECHNOLOGY

The mobile industry is the world's fastest growing industry. The pace at which it has grown in the past few years is commendable. The population of the country has provided the industry a unique platform for its accretion. The government has a substantial role to play in the development. The reforms have drastically changed the scenario of telecom in the country. While GSM (Global System for Mobile) technology rules the roost, CDMA (Code Division Multiple Access) has also claimed a fair share of the market.

The mobile technology has acted as a tool to educate and gain knowledge, as well as spreading viewpoints and communicate with the rest of the world. In a country like India, which is home to many religions and cultures, mobile technology has successfully ameliorated the task of maintaining the task of unity among our diversified population.

In the 1970s, the first generation of mobile networks (i.e. 1G) was introduced. 1G device was comparatively less heavy and expensive as compared to other devices that came prior to it. In the early 1990s, the 2G phones deploying GSM technology were introduced. GSM uses digital modulation to improve voice quality but the network offered limited data service. As demand drove uptake of cell phones, 2G carriers continued to improve transmission quality and coverage. The 2G carriers also started offering additional services, such as paging, faxes, text messages and voicemail. The 3G revolution allows mobile telephone customers to use audio, graphics and video applications. Over 3G, it is now possible to watch streaming video and to engage in video telephony, although such activities are severely constrained by network bottlenecks and over-usage. The 4G services were developed with the aim to provide transmission rates up to 20 Mbps while simultaneously accommodating Quality of Service (QoS) features. QoS will allow you and your telephone carrier to prioritize traffic according to the type of application using your bandwidth and adjust between your different telephones needs at a moment's notice. Hence, because of such developments in this field, the mobile technology has become such a voracious growing technology.

The mobile technology is growing all over the world; however, the rate at which

it is growing in the developing economies is very high as compared to that of the developed ones (World Resources Institute). It has been found that as incomes across the developing-world rise, household spending on mobile phones also grows faster than the spending on anything else like energy (World Resources Institute). The reason why the mobile technology has become valuable to the people in the developing or underdeveloped world is that they are providing access to telecommunications for the very first time, rather than just being portable adjuncts to existing fixed-line phones, as in the rich world (The Economist, 2009). In 2000, the developing countries accounted for about 25% of the world's 700 million mobile users. In 2009, this share rose to over 4 billion (World Bank, ITU). With saturation reaching in the developed world, the developing world would account for most of the growth in the coming years. The total is poised to reach 6 billion by 2013, with about half of these new users in China and India alone (GSMA, 2009).

The success story of mobile technology in India is no different. In fact, India has now become the second largest telecom market in the world, with 706.4 million subscribers as of August 31, 2010, and these are estimated to reach approximately 1 billion by 2014 (IBEF, 2011). For more than a decade, the sector has witnessed a steady addition in wireless subscribers. India's subscribers grow around 15-20 million every month, making it the world's fastest growing wireless market. The key trends in the wireless segment are shown in Fig.4.

As is the case in the developed countries, the urban market of our country has however started coming to a saturation level. Hence, the growth prospects have now shifted from the urban to the rural areas (see Fig.3). The subscriber base in the rural market improved

TELE-DENSITY TRENDS IN THE URBAN AND RURAL MARKET BETWEEN JUNE 2009 AND JUNE 2010 (PER CENT)

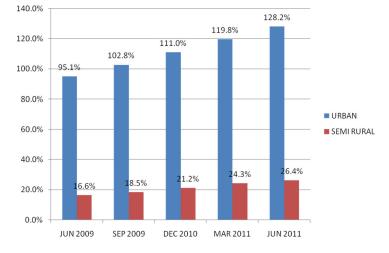


Fig.3: Telecom Regulatory Authority of India, TRAI (2010); Ernst & Young (2008)

significantly in 2009–2010, with the rural tele-density at 26.4 percent as of June 2010, and is going to account to nearly half of the total subscriber base, thereby, fuelling the sector growth.

METHODICAL FRAMEWORK

The primary objective of the study was to explore the perception of the young technocrats on the dissemination of the present day popular technologies – DTH, internet Technology, Mobile Technology. It also endeavoured to evaluate the differences in the perception on the bases of gender, native place (i.e., urban vs. semi rural) and occupation (i.e., future technocrats vs. current professionals). Based on the framework, the following hypotheses were postulated.

RESEARCH HYPOTHESES

- H1: The perception on technology dissemination differs between the three technologies viz. DTH, Internet and Mobile technology.
- H2: The perception on technology dissemination differs between the male and female technocrats
- H3: The perception on technology dissemination differ between:
 - a. natives of urban and rural areas.
 - b. professionals and students (would-be technocrats).

For the purpose of this study, a structured questionnaire was used via web based survey. The questionnaire consisted of items related to the *perception* on technology dissemination on a 5 point Likert scale, with (5) indicating strongly agree and

GROWTH OF MOBILE SUBSCRIPTIONS

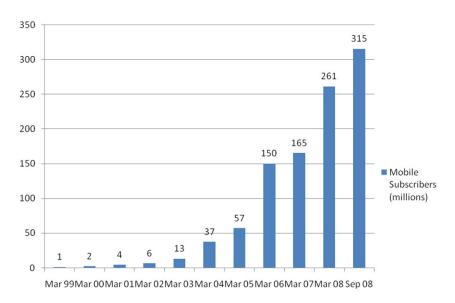


Fig.4: Vodafone policy paper (2009)

(1) indicating strongly disagree. The questionnaire also measured descriptive data such as age, gender, native place and occupation.

SAMPLE

The data for the study were gathered from a web survey using the snowball sampling technique. The resultant sample consisted of the profile as listed in Table 1.

TABLE 1 Sample Profile

Sample Size	102
Male	63 (61.2 %)
Female	39 (37.9%)
Urban	55.3 %
Rural	42.7%
Professional	35%
Student	64 %

MEASURES

Literature survey revealed a non–existence of scale that specifically measures the perception towards technology dissemination. Therefore in this study, multi-item scale was designed to measure: a) perception on dissemination of DTH; b) perception on dissemination of internet; and c) perception on dissemination of mobile technology.

The scale items included statements such as technology reaching the masses, impact of technology and behaviour, exposure to opportunities, compatibility with the current infrastructure, etc.

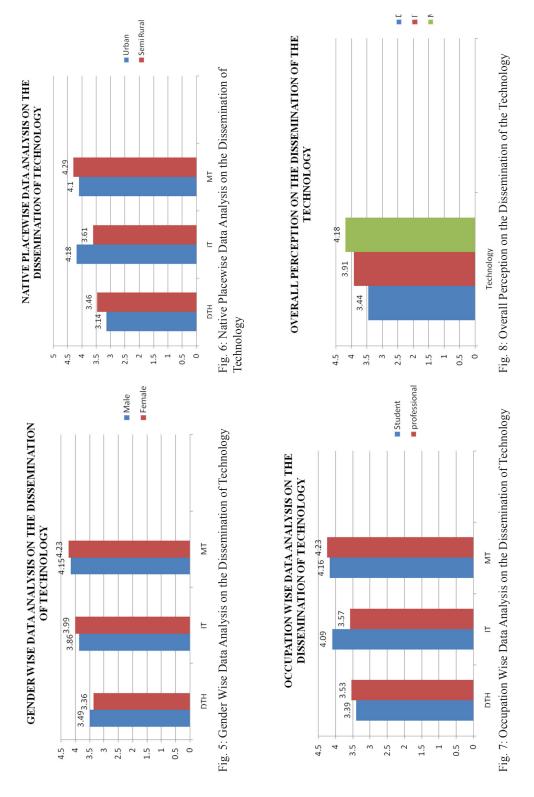
In order to assess the reliability of the scale, co-efficient alpha values were computed for the three scales. The Cronbach alpha values were 0.78, 0.91, 0.67 for DTH, Internet and Mobile technology respectively which deemed the scale as reliable (Nunnaly, 1978).

FINDINGS

The data analysis of the representation sample suggests that the youth perceives the mobile technology as the most avidly disseminated technology (Mean = 4.81; Standard deviation = 0.51), followed by internet technology (Mean = 3.91; standard deviation = 0.86), and the DTH technology (Mean=3.44; Standard Deviation=0.69).

A repeated measure i.e. one—way ANOVA was also employed to examine H1. The test revealed that there were statistically significant differences in the perception on the technology dissemination for the different technologies, with F(1,101) = 35.62; p = .000. Meanwhile, a moderate effect was repeated (partial eta – squared = 0.261), and LSD comparisons revealed that all four means were significantly different from each other (see Fig.5).

MANOVA was used to compare the mean scores of the male and female respondents for their perceptions on the technology dissemination for the three technologies. However, H2 did not find support in this examination. The Pillai's trace = 0.987 F (1,101) =0.704, p=0.552. This implies that the perception on technology



dissemination is similar for the male and female respondents.

In order to test the hypotheses – H3 (a) and H3 (b), the two ways ANOVA were carried with demographic variables – occupation and native place as independent variable and the perceptions on technology dissemination as dependent variable. The results can be seen in Table 2.

The results suggest that the urban and semi-rural respondents had different perceptions on the proliferation of internet technologies, whereby the urban respondents felt a higher degree of proliferation than the semi rural respondents, thus, supporting H3(a). Meanwhile, H1, H2, and H3(b) do not find any statistical support in this investigation.

CONCLUSION

Technology can be a great leveller to bridge socio-economic gaps in the society, particularly in low income cost areas. Easily adaptable technologies can bring changes in the progress and prosperity of the nation at large. Therefore, design, development, and dissemination of technology need careful consideration.

This study focused on the perceptions of the future technocrats, vis-a-vis dissemination of three present day technologies—internet technology, mobile technology and DTH. Given the fact that growth is the primary driver to usher changes, it was pertinent to study their perceptions on the same. The findings from the study suggest that future technocrats perceived the 3 technologies to be fairly

disseminated; particularly so for the mobile technologies, followed by the internet technologies and DTH. These perceptions however seemed to be farfetched and away from the reality. As had been discovered in the earlier sections, these technologies need a faster acceleration and proliferation across various segments in the society. Further examination of gender related differences on perceptions found that young male and female technocrats have a similar perception on dissemination of these technologies. This uniformity in the perception across males and females eliminates the need to sensitize on the issues related to technologies dissemination.

It was a particular area of enquiry to examine the role of demographic variables such as occupation and native place on the perception for technology. The findings indicate no significant gaps in the perception between the technical students and technical professionals across the three technologies. On contrary to the expectation, urban and semi-rural respondents too had a similar perception, except for internet technologies. In this case, the urban respondents perceived a higher level of dissemination than their rural counterparts.

The findings are consistent with the earlier preposition suggested earlier which envisaged a greater role for government agencies, private sector participants and academic institutions, to holistically educate and train them and put greater emphasis to sensitize them on proactively designing and developing technologies for society's welfare. Given the fact that India is

developing and the economy is growing, this growth can be accelerated with the constant use and dissemination of the existing technology and the ushering in newer forms.

The government of India, with a vision of dissemination of Internet, Mobile technology and DTH, has framed policies for the population that have no access to technologies. CAPART (council for advancement of people's action and rural technology) was founded in the year 1986, with the aim to promote innovative rural technologies, especially for the disadvantaged sections of the society. CAPART supports projects under the Advancement of Rural Technologies (ARTS) scheme. The government is assisting NGOs (non-governmental organizations) to set up demonstration and training centres and upgrade the skills of village youths, artisans, women and other target groups for their effective participations in dissemination programmes. Most of the NGOs need technical assistance and guidance in terms of the choice of suitable technologies, adaptation to field conditions, and appropriate methodologies for transfer, including training and involvement of beneficiaries. This need is envisaged to be met by the Technology Resource Centres (TRCs). TRCs are designed to test technologies suitable for the specific geographical area, make modifications wherever necessary, and initiate the process of transfer of viable technologies through demonstration, training and manufacture (CAPART, 2012).

Apart from the policies, which are already being implemented, the government can frame policies for inter–firm cooperation, Standardization of technologies, personnel exchange and the support of R&D personnel, as well as technical assistance and consultancy (Shapira & Rosenfeld, 1996).

In the light of the findings from the study, policy makers such as state agencies should particularly focus on the internet, mobile technology and DTH. To a certain extent, these technologies can accelerate its dissemination.

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Integrating Humanities and Liberal Arts in Engineering Curriculum: Need, Experiences and New Directions

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ABSTRACT

Engineering curriculum in India, by and large, focuses only on imparting education in the respective technical domain. While such a system has been producing reasonably competitive technocrats, it has not reflected much upon the concept of producing wellrounded engineers. An integration of different streams of knowledge- especially liberal arts, humanities and social sciences - in the engineering curriculum would add this missing dimension. Further, the changing contours of an engineer's profession have made it necessary for one to broaden one's outlook and to be able to connect with the rest of the disciplines. Educators world over have started recognising the importance of creativity and critical thinking which are an integral part of liberal arts, humanities and social sciences. In the western context, there has been a greater emphasis on including these courses in the engineering curriculum. In the Indian context, very few institutes have made some niche efforts in including humanities components in their course package. And often, courses in communication, technical writing, principles of management etc. are counted as the only components in humanities. It is very rare for Tech schools to either have open electives or compulsory credits in humanities. This article discusses how important it is for us academics in India to look beyond imparting mere technical education and to include courses in the areas of liberal arts, humanities and social sciences. Further, it looks at how courses in creative areas that integrate science and technology with liberal arts need to be designed and offered. The article draws from the authors' experience of formulating and teaching such courses.

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INTRODUCTION

Engineering curriculum in India, by and large, focuses mainly on imparting education in the respective technical domain. While such a system has been producing reasonably competitive technocrats, it has not reflected much upon the concept of producing well-rounded engineers. An integration of different streams of knowledge- especially liberal arts, humanities and social sciences in the engineering curriculum would add this missing dimension. Further, the changing contours of an engineer's profession has made it necessary for one to broaden one's outlook and to be able to connect with the rest of the disciplines. Educators world over have started recognising the importance of creativity and critical thinking which are very much integral part of liberal arts, humanities and social sciences. They have expressed the view that engineering education is not merely about producing an assembly line of technically trained personnel, but is also about creating engineers who are sensetised to the finer aspects of life, have humanitarian considerations and possess a global consciousness. In the international scene there is a greater awareness in this respect. Engineering curriculum in many renowned universities across the world already have humanities, liberal arts and social sciences component. Further, when administered, components such as these have been found to have broadened the students' outlook, nurture critical thinking and creativity. A student who undergoes such holistic education is able to look beyond and does not remain confined to a single stream

of knowledge. Such students are said to be better prepared to face manifold challenges. As noted by Samuel C. Florman in his book Engineering and the Liberal Arts, a liberal education enlarges intellectual capacity, develops mental agility, improves our ability to think (Florman, 1968).

In the Indian context, it is very rare for Tech schools to include humanities in their course package. Very few institutions have made some niche efforts in this. While institutions like IITs have a few compulsory credits, some other institutions have open electives in humanities and other related areas. However, in most cases, courses in communication, technical writings, principles of management, etc., constitute the bulk of humanities components. While in the last ten years or so, Indian educators and policy makers have realised the need to re-look at our engineering curriculum, we are yet to see any significant step in this direction. The 2008 National Knowledge Commission Report of Working Group on Engineering Education identifies how humanities can play a central role in character building of engineers. The report recognises the growing need to integrate humanities courses in engineering education.

This article discusses how important it is for us academics in India to look beyond imparting mere technical education and include courses in the areas of liberal arts, humanities and social sciences. It also looks at a new dimension of offering courses in creative areas that integrate science and technology with liberal arts. The article draws from one of the author's experience

of teaching elective courses in the area of Short Film and Video Production and Critical Analysis of Literature and Cinema (CALC). It also draws conclusions from the results of a survey conducted by her on the students of the course CALC over a period of two semesters.

INTERNATIONAL AND NATIONAL STATUS

In various American and European universities, the engineering curriculum is designed in such a way that a student is exposed to various 'freshman' courses in humanities in the very first year of education. They also provide a pool of electives in humanities including liberal arts from which a student must choose a few to complete course requirements. The concept of integrating humanities into engineering education goes back to the early 1940's. Carnegie Mellon University's effort in this direction is a pioneering one.

Strong arguments were put forth by Samuel C. Florman (1968) in favour of including liberal education for engineers in his book Engineering and the Liberal Arts: 'a liberal education enlarges intellectual capacity, develops mental agility, improves our ability to think' (O'Neal & Ben, 1990). He quotes Lewis Mumford who warned that a concentration on pure technical training defeats even its immediate purpose by depriving original minds of the stimulus and enrichment of wider interests and activities: "plainly the self-sufficiency of the specialist's world is a prisoner's illusion. It is time to open the gates" (Mumford,

1964, p. 22, as cited Florman, 1968, p. 4). Florman effectively substantiates his stand for inclusion of liberal education in engineering curriculum by terming liberal education as a tool which not only improves a student's intellectual competence but also develops those qualities of character and personality which make for leadership and successful careers. Further, he validates that it enriches an engineer's personal life with new knowledge and insight, with a keener appreciation of beauty and thus can also elevate the standards of an engineer's profession and help him gain an increased esteem in the society.

More recent recommendations from Accreditation Board for Engineering and Technology (ABET), the recognized U.S. accreditor of college and university programmes in applied science, computing, engineering, and technology also highlights the relevance of such courses in the contemporary scenario: "the humanities and social sciences must be planned to reflect a rationale or fulfill an objective appropriate to the engineering profession and course work in the humanities and social sciences must be an integral part of the engineering program" (quoted in O'Neal, 1990).

It is worth noting that one of the top most ranked engineering institute of the world, Massachusetts Institute of Technology (MIT) has evolved very engaging interactions with humanities and it offers a humanities programme of considerable depth while allowing for continued serious commitment to a scientific or engineering interest. Many institutions in

the United States of America have realized that the current trend towards complex, highly integrated systems and global markets calls for future engineers who are more broadly educated, more flexible and more sensitive to the non-technical concerns. Williams (2002) advocates the integration of engineering education with general education. In her book 'Retooling: A Historian Confronts Technological Change', she writes, "The convergence of technological and liberal-arts education is a deep, long-term and irreversible trend. Students need to be prepared for life in a world where technological, scientific, humanistic, and social issues are all mixed together...only a hybrid educational environment will prepare engineering students for handling technoscientific life in a hybrid world." (Charyton & Merrill, 2009) A similar view is expressed by the Liberal studies division of the American Society for Engineering Education publication, 'White Paper on Liberal Studies in Education' (cited in Williams, 2002), "study in nontechnical disciplines also gives students a better understanding of the society in which their technical products will be used' and 'it helps students develop the character, understandings and skills needed to formulate, analyze and solve technological problems in a thoughtful and responsible way, within the context of society's structures and mores" (Charyton & Merrill, 2009). The idea is further explored by C. Judson King in the article 'Let Engineer's go to College'. He argues that the challenges that engineers will face in the 21st

century will require them to broaden their outlooks, have more flexible career options, and work closely and effectively with people of quite different backgrounds. Engineering education, instead of focusing narrowly on technical skills, needs to develop a more comprehensive understanding of what they will do as their careers open up. Engineers are to take a greater variety of courses in their college years (King, 2006).

The above discussion makes it clear that the need for having meaningful integration of humanities and liberal arts in general is widely recognized in the global context. However, the issue of including those courses with high creative quotient still needs to be explored. The inclusion of such courses that nurture creativity in engineering students is not very common. Of the little literature available regarding this, the article 'Assessing General Creativity and Creative Engineering' by Charyton and Merrill in the April, 2009 issue of the Journal of Engineering Education makes a strong case for such inclusions. The article notes that many engineering programs appreciate and value creativity, but few offer courses that teach about creativity. They further add that a growing interest in the need and utilization of creativity in engineering design is evident, "more recently, creativity has received greater attention as a necessity, rather than an accessory in engineering design" (2009). The authors quote Ishii and Miwa who put forth their view that creativity education is critical in engineering education as well as general education and including stimulating activities can encourage creativity and innovation. They further note that learning through meta-cognition and self reflective activities address creativity in education (Ishii & Miwa, 2005, as quoted in Charyton & Merill). Chensheng Wang (2007) in his article 'On the inspiration of Creative Thinking for Engineering Students' argues that creativity is the soul of design; and in education, to foster the creativity of engineering students with design major is the pivot points leading to the success of teaching. Charyton and Merrill conclude that skills that foster innovation, such as creativity, should be a component of the curriculum so that students can practice and develop these skills.

Engineering education in India for long has been inward looking. However, some efforts have gone into examining the suitability of engineering curriculula across Indian universities. It is more than ten years that Department of Education, Ministry of Human Resource Development, Government of India compiled and reviewed 50 years of Indian Education from 1947-1997. This report, in its section on the role of various departments, recognized the need to define the objectives of the humanities and social science programmes in technological institutions. It further suggested that the objectives of these programmes may be looked upon from the perspective of the requirements of the training of an engineer, the role of liberal education in the all-sided development of the learner's personality. Further, the report highlighted that these programmes should contribute by fulfilling the requirements of

the training of an engineer as an engineer by playing an important role in the all-sided development of the learner's personality and by strengthening an engineer's national outlook. This report thus emphasizes the development of social sciences in the special milieu of technological institutions of higher learning.

Recently, National Knowledge Commission report of working group on engineering education too discusses how central a role Humanities can play in character building of engineers. The report recommended that undergraduate engineering curriculum should have 10% credit for humanities and social sciences. One of its recommendations goes, "The current curriculum should be modified to provide flexibility, interdisciplinarity and choices of electives" (NKC Report on Engineering Education, 2008).

Prof. R. Natarajan, an academician and the former director of AICTE, in his editorial 'An Indian Perspective on Engineering Education Reform' for the Journal of Engineering Education emphasizes that the output requirements of 21st century engineers include the pursuit of life-long learning, ability to acquire knowledge from neighbouring disciplines, ability to work in teams, creativity and innovation, integrative skills, international outlook etc. (Natarajan, 2008).

HUMANITIES' INTERACTION WITH OTHER DISCIPLINES

In this era of multi-disciplinary approaches and converging technologies, no discipline can afford to flourish in isolation. It requires one to be exposed to various knowledge systems as the boundaries between different disciplines overlap and converge at an unprecedented pace.

Apart from the conventional areas in humanities, newer opportunities have opened up in areas like digital arts, media arts, digital humanities, television, new media, etc. that require collaborations in art, music, technology, computer science, designing, architecture and so on. The booming entertainment industry across the globe, the world of digital films, animation, and construction of virtual reality necessitate meaningful dialogue between technocrats and artists. At present, art and technology integration and collaboration is resulting in hybrid art forms with mass utility and appeal. Digital media-art practice is one specific example. It can be considered a hybrid art form with distinctive roots in a number of historically separate knowledge bases (Legrady, 2006).

While there are a good number of innovators engaged in such integrations and hybridizations, there have not been many efforts to study the whole process involved in it. Today, there is a worldwide community of innovators engaged in convergence of art, technology and science, yet, there seems to be very little discourse about the process of doing interdisciplinary work (Pearce, 2003).

In such a scenario engineering institutions become ideal incubators for new directions in such interdisciplinary work as they already have a critical mass of technically sound students. An engineer's

interaction with humanities and liberal arts will not only nurture their creative and critical faculties, but would also leave the pedagogy of liberal education enriched.

DRAWING FROM OUR EXPERIENCES

We at the Departments of Languages and Humanistic Studies at BITS, Pilani, have been offering elective courses in various areas of humanities, social science and liberal arts for more than four decades now. Apart from a number of courses in the areas of traditional humanities and liberal arts, in the recent years, we have introduced courses like also ha The freedom to offer newer electives in one's area, university has always encouraged its faculty to offer different courses. One of the elective courses is Critical Analysis of Literature and Cinema, which is being taught by the first author (since January 2004) for the students of engineering and sciences makes an interesting case study. The course has grown in number, in the interest from a class of merely 4 in the first semester of its offering to the present where we run it full house. Over the semesters, we have increased the number of seats available and this semester. the upper cap has been put at 60.

In the following section, a survey that was conducted last year on a sample of 30 students to find out the feedback of students at the end of the semester will be discussed. The questionnaire covered areas of students' satisfaction, fulfilling of objectives, course plan, methodology, evaluation scheme, relevance of contents

included, etc. The questionaire included six questions that were very specific to the relevance of offering such courses in Tech. Schools. The responses to these set of questions substantiate how right we are in recognising the role of humanities in engineering education.

One of the questions asked the students to fill in the reasons for taking up the course even if it is not compulsory to do it. The responses to it bordered around the idea of exploring a non-technical course. Some viewed it as an opportunity to learn new perspectives, some as a break from technical courses, and a few as an avenue to meet like-minded people.

The pie chart shows the responses of the students to the question if the course enhanced their critical thinking ability and if yes, in what way. Of the thirty respondents, 28 said 'yes' and only one of the students felt there was a slight difference as he/she understood more aspects. One student left this question unanswered. Also, the many responses indicated that the course broadened their insights. One response said 'it makes a difference to one's emotional quotient'.

Similar responses were given to the question, 'Is it was important to have courses like CALC in a technological institute. If yes, why?'. Ninety seven percent of the respondents said 'yes' and one did not respond. They further validated their views with responses like 'very important', 'tremendously important', 'Technocrats are also human beings' and so on. They felt such courses enabled 'holistic

well-rounded development', tap creative potential, developed different sensibilities, rejuvenated by providing a change or by giving a diversion. Meanwhile, a few felt they are inspiring and stimulating to one's artistic side. One response read this, 'art combined with technology can do miracles for filmmakers.'

On the question, 'Do you think the skills you acquired/knowledge you gained in this course are going to be useful in future?,' surprisingly 87% of them said 'yes, definitely'. Three of them said they could not say for sure, one said 'he/she did not think from that angle' and one did not respond to this particular question.

When asked, 'Do you think courses like CALC make any value-addition and enhance one's quality of life in any way? If yes, mention how', 25 respondents (83%) gave a 'definite yes' for an answer. One of the respondent said 'broadly no, but could influence the way we look at people', four of them did not respond to this question. One response stood out which said it 'makes one think beyond the inane technology and science. Makes one talk to himself. Makes one introspect which Science and Technology utterly fails to'.

Although this particular study used only a small sample, it could draw one's attention to the relevance of the courses in humanities and liberal arts in technical education. The study is ongoing and at the end of this semester I will have more data from students who have done the course. While it has to be kept in mind that this is a response only to one of the courses taught at BITS, Pilani

and that it cannot be generalized for all, the fact remains that a course well-designed and well-delivered makes a huge difference to the students in an engineering and science student.

FUTURE DIRECTIONS

While a few engineering institutions already have included courses in humanities, social sciences and liberal arts in their curriculum, a few steps would make such engagements more fruitful. It is important to understand that as educators, we have to make a few choices.

To have the humanities and liberal arts departments supporting other departments. Overall, inclusion of courses in engineering will enhance the quality of engineers in a big way, make them socially and culturally aware and enhance their critical and creative thinking. However, to have a dynamic department with its faculty engaged in serious pursuits is important. They also need to have an environment that supports research and teaching in their own areas of expertise.

To have departments that are fashioned in the traditional way. These departments are engaged in their own domain, looking inward while they offer a few courses for the whole population. In such a scenario, while we may have strong individual departments, we may not be tapping the potential of drawing from the existing strength and technical expertise.

To have cross departmental engagements where students and teachers of different discipline interact, teach, learn and take

projects that require expertise of people from different knowledge domains. This seems to be a win-win approach for all who are engaged in such engagements.

The last option is not worked upon in our institutions though it has a lot of merit about it. Collaborations between departments will enhance the teaching, learning and research involvement as ideally strong departments that not only look inward but also outward will be able to think of newer approaches and solutions to the complex problems of our times. In one of my discussions with a faculty colleague from another department, the point of engaging with areas like Exact Humanities, Computational Linguistics/Humanities came up. These areas are situated at the interphase between humanities and exact sciences and hence cross departmental collaborations are the only ways in which these disciplines can be studied and taught. Research/ teaching collaborations between faculty resources from Languages, Mathematics, Computer Science, Fine Arts, etc., would result in newer directions in such a scenario.

CONCLUSION

The aforesaid observations and recommendations indicate the need for new approaches while designing engineering curriculums. The importance of having a holistic engineering education that includes exposure to different subjects of humanities like social and behavioral sciences, economics, liberal arts, philosophy, psychology, etc. is being understood. However, in the Indian context,

not many efforts have been made for such integration. As mentioned earlier, the inclusion of humanities courses have so far been mainly targeting at making engineers better communicators and better managers. Most of the institutions and universities have very few humanities faculty and they are involved in teaching basic courses in professional communication, functional English, principles of management, report writing, etc. In this context, the concept of introducing elective courses in humanities is tried out only in a few institutions. Even in such institutions, there have not been enough efforts to tap the interdisciplinary potential of emerging areas in humanities, to think of ways to integrate creative areas into the engineering curriculum. Courses in the area of digital film, animation, media content design, creative writing, photography, music, and other performing arts, use of technology in creating art, etc., hold a great deal of potential and add newer dimensions to the topic of discussion.

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A Study on the Benefit of Integrating Technology with Management: Does it Essentially Nurture Holistic Development?

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ABSTRACT

With the revolution in the prototype in which organizations function, the need of the hour is to prepare the future technocrats accordingly. Technical knowledge, along with knowledge in domains like Soft Skills, Leadership, Entrepreneurship, Conflict Management, Economics, Financial Management and Strategic Management, leads to a better progression of the students. An added advantage, these subjects help students to understand the organization as a whole and help them adapt their behaviours in the corporate sector accordingly. This paper aims to study whether or not the students actually benefit from these subjects.

Keywords: Soft skills, leadership, entrepreneurship, conflict management, economics, financial management and strategic management

INTRODUCTION

Today's organizations increasingly feel the need to anticipate and respond to dramatic and unpredictable changes in the competitive environment. With the emergence of the knowledge economy, human capital (as opposed to financial and physical assets)

has become the key to securing advantages in the marketplace that persist over time.

To develop and mobilize people and other assets in the organization, people need to be aware of their surrounding and other aspects of the organization, apart from their own work. No longer can organizations be effective if the top "does the thinking" and the rest of the organization "does the work." Everyone needs to be aware of not just the technical aspects of work but the management perspective as well.

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LITERATURE REVIEW

Soft Skills

Soft skills are a sociological term that refers to the collection of personality traits, social refinement, self-esteem communication, language, personal habits and optimism that influence one's behaviour with the other people. Soft skills complement hard skills which are the occupational requirements of a job (in terms of technical skills).

When referring to an organization's success, an individual's contribution is very important, particularly those who deal with customers directly. For the same reason, the individuals need to have good soft skills. Screening or training for personal habits or traits such as dependability and conscientiousness can yield significant returns on investment for an organization and the growth of a student in terms of work. For this reason, soft skills are increasingly sought out by employers in addition to standard qualifications (Paajanen, 1992).

Importance for Students

In the long term in organizations, soft skills hold an equal importance as technical skills. Over the last two decades, it has also been increasingly observed that better relationships are built between IT and other business units within the enterprise, when professions have requisite behavioural competencies in the form of soft skills. These competencies include creative problem solving, communication skills, conflict resolution and negotiation, team building, influencing skills and selling skills out of the many others.

Studies by Stanford Research Institute and the Carnegie Mellon Foundation among Fortune 500 CEOs found that 75% of long-term job success depended upon people skills and only 25% on technical skills. For effective performance at the workplace, companies need their employees to have not only domain knowledge, technical and analytical skills, but also the skills to deal with the external world of clients, customers, vendors, the government and public, and to work in a collaborative manner with their colleagues (Soft Skill India, 2010).

India, being a developing nation, has seen a tremendous growth of MNC's in the past decade. Therefore, it has become essential to promote people at a faster rate in order to meet the current needs. At the same time, they find that the candidates do not have the necessary skills to make the transition from a technical or functional specialist to a team leader, supervisor or manager. Companies in the IT, BPO, KPO, Biotech, and Pharmaceuticals industries have found that their people need soft skills to work effectively in cross-functional or project teams, local teams or global teams (Soft Skill India, 2010).

LEADERSHIP AND MANAGEMENT SKILLS

Leadership has been described as the "process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task." Alan Keith of Genentech states that, "Leadership is ultimately about creating a way for people to contribute to making

something extraordinary happen" (Cosmo Learning, n.d.).

Importance for Students

Leadership and management skills are important in all walks of life. There are leaders everywhere; we have sports leaders, business leaders, spiritual leaders and leaders even in our social circle. At any place where there are groups or teams, leaders are found concentrating a group's energies towards the completion of a goal. Leadership and management skills can be learned through formal education or through experiences in life.

When an individual practices leadership and management at workplace, only then he can understand and appreciate the effort it takes to have everyone work together. When in a team, all need to work together, irrespective of the different personalities, likes, motivation and choices. A good leader is able to bring together everyone so that the team is successful in anything they attempt. This is very important for an organizational environment.

For any organizational success, it is important to have good leaders who give direction to the workforce. Providing time to time training will ensure sharpening of skills of executives. This can also be incorporated through teaching at graduate level so that the students are motivated and able to use what they have learned to lead others towards success. This will help them develop skills at an early age and give them an opportunity to practice these skills when in an organization working in teams. Leadership and management courses help

teach students to think quickly on their feet and to be ready for anything.

Leadership is about building teams and communicating so that everyone works together. The importance of leadership is a key ingredient to successful businesses and championship teams. Teams that have this synergy tend to be the ones on top.

ENTERPRENURSHIP

Entrepreneurship is a key driver of our economy. Wealth and a high majority of jobs are created by small businesses started by entrepreneurially minded individuals, many of whom go on to create big businesses. People, who are exposed to entrepreneurship frequently, express that they have more opportunity to exercise creative freedom, higher self esteem, and an overall greater sense of control over their own lives. As a result, many experienced business people, political leaders, economists, and educators believe that fostering a robust entrepreneurial culture will maximize individual and collective economic and social success on a local, national, and global scale (National Content Standards for Entrepreneurship Education, n.d.). It is with this in mind that the entrepreneurial courses are run for students with technical education, i.e. to prepare the youth to succeed in an entrepreneurial economy.

Entrepreneurship, when taken up as a part of formal education, enables individuals to explore opportunities to start and manage their own businesses. At graduate level, students can learn how to build appropriate and challenging objectives.

Importance for Students

With post liberalization, entrepreneurship has become one of the most important aspects of our economy. Understanding this fact, the students explore options for themselves in place of staying with an organization for long. For this, they need to develop skills that will facilitate such ideas and recognizing the opportunities of formal education is a must.

Since entrepreneurship is relatively new to engineering curriculum, it has yet to become a legitimate academic field of study. Entrepreneurs have long been seen as self-taught, self-made individualists. The perception dates from the days of men like Carnegie, Edison, and others, who had little formal schooling. However, great entrepreneurs of the past did not really learn or do it all themselves. Today, the learning communities and networks are mostly found in and around college campuses (Cone, n.d.). Students understand and gain knowledge in the following domains through formal education:

- Acquire basic financial concepts
- Use opportunity recognition/problem solving skills
- Explore ethics issues
- Experience entrepreneurship across the curriculum
- Encourage risk-taking and learning from failure
- Learn to identify and recognize opportunities
- Become an educated, empowered consumer

- Embrace diversity/socialization skills
- Demonstrate conflict resolution/ negotiation/sales-marketing/persuasion skills
- Learn how entrepreneurs can give back
- Learn how to make money
- Recognize the contributions of entrepreneurs (they started small)
- Translate problems into opportunities
- Apply principles of human relations management
- Changes in personal and career attitudes including
 - ° Self-worth
 - ° Ability to control one's own life
 - ° Self awareness
 - Self management/personality responsibility
 - ° Transfer of learning
 - ° Motivation
 - ° Teamwork
 - ° Interpersonal communications
 - Problem solving
 - ° Creativity

As can be seen, entrepreneurship education can positively impact a student at all levels in a wide number of contexts. This reflects positively on the importance of entrepreneurship education on students. In fact, "Entrepreneurs are not 'born'....rather, they 'become' through the experiences of their lives" (Professor Albert Shapiro, Ohio State University).

CONFLICT MANAGEMENT

Conflict management involves implementing strategies that will help people in an organization to minimize conflicts within teams which increases cohesiveness, although it does not eliminate all conflicts. The aim of conflict management is to enhance learning and group outcomes (effectiveness or performance in organizational setting).

Importance for Students

For students who intend to join organizations, it is very essential for them to have an understanding of conflict management and conflict resolution so that they can work well in teams.

FINANCIAL MANAGEMENT

Budgeting is one of the most important things in life you should learn that many institutes never teach. However, it is important to be successful in life. Budgeting is a way for you to live within your means and meet your future goals. A brief definition of budgeting is to set aside funds for saving, spending, and future goals. Budgeting means tracking where your money goes, so you still have some at the end of the month and do not live on pay check to pay check (Anderson, 2005, March).

Importance for Students

A budget helps students to set goals for their money and makes sure they spend within their means. If students make a budget and stick to it, they can use it to finance their dreams.

ECONOMICS

'Arthashastra' of Kautilya was used during 'Gurukul' system. Then, the morality in economics was stressed more. In the present context, economic growth has been tremendous. The growth is seen by quantity of consumption, where items are used and thrown fast. Each and every subject is viewed from its economical angle because one always likes subjects which fetch more money in one's future life.

Importance for Students

Economics as a subject has both practical and economic value. It should occupy an important position in education and curriculum becomes an integral part of education system. Below are the reasons that are important for a student to have knowledge about economics (Jashodhara, 2009, October 25).

- 1. Helpful in teaching economic problem
- Means of livelihood
- 3. Helpful to enrich practical knowledge
- 4. Enrichment of knowledge
- 5. Knowledge of other countries
- 6. Help to bring about practical activity
- 7. Help for maintaining democratic setup
- 8. Help to Develop Liberal Economic Attitude
- 9. International Outlook
- 10. Capabilities of Using Natural Resources Properly
- 11. Economic Interdependence

STRATEGIC MANAGEMENT

Strategic management is a field that deals with the major intended and emergent initiatives taken by general managers on behalf of owners, involving utilization of resources, to enhance the performance of firms in their external environments (Nag et al., 2007). It involves specifying the organization's mission, vision and objectives, developing policies and plans, often in terms of projects and programmes, which are designed to achieve these objectives, and then allocating resources to implement the policies and plans, projects and programmes.

Importance for Students

An understanding of this subject will help students reason the activities and changes happening in the organization. Therefore, it is very important for students to understand this concept while working for organizations.

METHODOLOGY

Sampling Technique

The sampling technique used for this research is a simple random sampling and snowball sampling.

Population

The population for the study consisted of engineering students who have graduated and are now working with some organizations.

Sample Size

This study utilized a sample size of 250 students, out of which, a total of 183 responses were collected. The analysis to the survey was done on the basis of those responses.

Research Instrument

A questionnaire was posted on social networking sites and also mailed personally to students who had completed engineering in various streams. The sample was taken from different institutes. A reminder to fill in the questionnaire was given 3 times at an interval of 2 weeks.

RESULTS

The results were compiled on the basis of the questions indicated below. The number of the respondents was calculated in terms of percentage on the 4-point scale, i.e. Agree, Agree to some extent, Disagree, and No response.

The respondents had from work experience of 1 year to 10 years.

The industries where the respondents are now employed were asked in order to gain an insight of their fields (Fig.1).

The respondents were asked whether studying management subjects had given them an advantage over their colleagues working at the same position in organizations. To this question, 73% respondents agreed to the statement, 2% disagreed and 24% agreed to some extent. Therefore, a majority of the respondents feel that having a formal education of the management subjects at graduate level has

Industry Academia IT Contruction Self Employed Manufacturing

Fig.1: The industries where the respondents are now employed

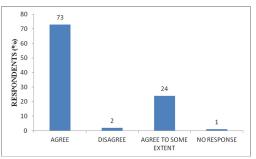


Fig. 2: Whether studying management subjects had given them an advantage over their colleagues working at the same position in organizations

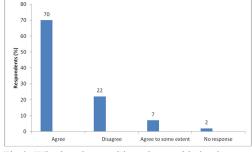


Fig.3: Whether these subjects have added value to their education

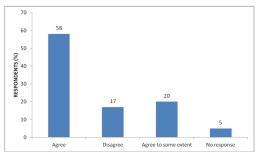


Fig.4: The relevance of these subjects in adapting and understanding the structure and working of an organization

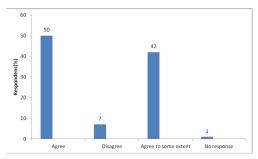


Fig.5: These subjects provided them with adequate skills for facing the challenges in the corporate world

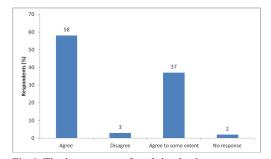


Fig.6: The importance of studying basic management subjects along with the core course

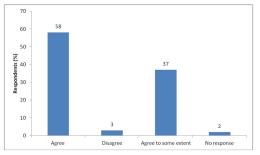


Fig. 7: Studying management subjects at the graduate level has aided in improving their overall personality

helped them to gain an advantage over other employees at workplace (Fig. 2).

Similarly, 70% of the respondents feel that these subjects have added value to their education, but 22% respondents disagreed with this statement and 7% respondents agreed to some extent (Fig.3).

When asked about the relevance of these subjects in adapting and understanding the structure and working of an organization, 58% of the respondents agreed to it. On the contrary, 17% of the respondents feel that these subjects have no significance in their understanding of the functioning of the organizations and 20% respondents agreed to some extent (Fig.4).

Meanwhile, 50% of the respondents agreed to the observation that these subjects provided them with adequate skills for facing the challenges in the corporate world, followed by 42% of those who agreed to some extent, and 7% who totally disagreed with this observation (Fig.5).

When questioned on the importance of studying basic management subjects along with the core course, 58% of the respondents agreed with the importance of these subjects. Only 3% disagreed to it and 37% agreed to it to some extent (Fig.6).

Similarly, 73% of the respondents felt that studying management subjects at the graduate level has aided in improving their overall personality, while 24% of them agreed to some extent, and only 2% disagreed with the observation (Fig.7).

CONCLUSION

Majority of the students indicate their support to the importance of management subjects in their profession and personal development. For this reason, it is thus vital for the future technocrats to have the necessary knowledge about the management aspect in order to understand their working environment.

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Journal of Social Sciences and Humanities

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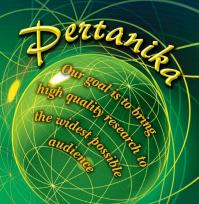
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