Implementing Educational Innovation: Learning from the Classroom Interaction of Effective Bahasa Melayu Teachers in Malaysia

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ABSTRAK

Kertas ini melaporkan satu kajian pengajaran di bilik darjah selepas lima tahun pelaksanaan Kurikulum Bersepadu Sekolah Menengah (KBSM) di Malaysia. Kajian ini mengambil kira sebahagian amalan 12 guru Bahasa Melayu yang dikenal pasti berkesan mengajar pelajar berumur 12-13 tahun melalui cerapan sistematik. Berbeza dengan falsafah KBSM, guru-guru tersebut cenderung menggunakan strategi pengajaran tradisional seluruh kelas dan menguasai interaksi dalam bilik darjah. Hasil kajian ini mencadangkan perlunya mengambil kira pengetahuan profesional guru yang sedia ada serta kepercayaan mereka tentang gagasan amalan pengajaran yang baik dalam merancang dan melaksanakan program-program pendidikan guru dalam perkhidmatan.

ABSTRACT

This paper reports a study on classroom teaching techniques five years after the implementation of the Integrated Curriculum for Secondary Schools (KBSM) in Malaysia. Systematic observation was made of the classroom practices of 12 Bahasa Melayu teachers who were identified as effective in their teaching of 12-13 year-old pupils. Contrary to the philosophy of the KBSM, the teachers were inclined to use traditional whole-class teaching strategies and to dominate classroom interaction. The study concludes that there is a need to consider the existing teachers' professional knowledge and their beliefs about the notion of good practice when designing and implementing in-service teacher education programmes.

INTRODUCTION

Evidence suggests that the success of educational innovation in the classroom is associated with the 'teachers' (Fullan and Hargreaves 1992). However, with the increasing reality of imposed innovation in many countries (UNESCO 1986), teachers have, to some extent, been neglected and their participation in the development and dissemination of most planned educational change has been underestimated. Moreover, the lack of research in the developing countries dealing with the unique local situation tends to increase reliance on foreign educational concepts in the planning and implementation of such innovations. There

is a need to consider how teachers implement the innovation in their classroom teaching in such a situation (Knight and Smith 1989; Fullan 1991).

One example of recently planned educational innovation is the introduction of the Integrated Curriculum for Secondary Schools, better known by its Bahasa Melayu acronym KBSM. The implementation of the KBSM in 1988 was driven by the need to achieve the aims of the National Educational Philosophy (NEP) to not only equip individuals with the appropriate knowledge and skills, but also to produce responsible citizens with strong moral and ethical values.

Its implementation, claims the Ministry of Education (1990a), has had an effect not only on secondary school teachers and their classroom teaching, but also on their professional development. However, the most crucial and much publicized effect of the KBSM is said to be on the lives and professional development of existing secondary school teachers, especially from its recommendations on how to deliver the new curriculum in the classroom.

One such publication, a module of the National Educational Philosophy (Ministry of Education 1990a) which contains a guide of appropriate teaching and learning styles for the KBSM, made a claim that the effectiveness of teaching and learning in the secondary school classroom is dependent on the teaching and learning styles being practised by the teacher. Chapter 5 (p. 37-58) of the module suggested that teachers should use more pupil-centred rather than teacher-centred strategies. The module also recommended that effective teachers of the KBSM should:

- Improve the quality of her/his questions not only by emphasizing questions which require a low cognitive demand, such as memorization of the facts, but also questions which require a high cognitive demand such as reasoning,
- (2) Stimulate pupil's questions, not only questions directed to the teacher but also questions directed to fellow pupils, and
- (3) Reduce the amount of time of teacher talk, and subsequently increase the amount of pupil talk.

Good Practice and Teacher Effectiveness

Obviously, it is preferable for in-service programmes and materials to reflect good practice as identified by educational research. Good practice in teaching has always been associated with teacher effectiveness (Biddle and Dunkin 1987). An effective teacher should be one whose pupils have consistently made better than expected progress. She/he uses methods suited to the learning purpose, involving the strategic use of multiple teaching methods. This reflects general ambiguity about the nature of teaching itself and implies that empirical investigation is necessary both to describe embedded beliefs and practices characteristic of effective teaching and, hence, to illuminate the progress of curriculum implementation.

However, there has been little empirical investigation of the beliefs and practices of the KBSM teachers. Five years after its inception, little, if anything, is known about how the Bahasa Melayu secondary school teachers have implemented the KBSM in their classroom teaching. Do the teachers follow the prescriptions of the KBSM modules effectively? Did the teachers adjust their teaching, particularly the procedural knowledge, to fulfil the requirements of the KBSM? Were the teachers able to exhibit good practices in implementing the KBSM? The KBSM modules remain the most authoritative prescriptive documents for the Bahasa Melayu secondary school teachers.

Information about good practices in classroom teaching, especially from expert teachers (Tobin and Fraser 1991; Hyland 1993) is needed to inform us of the development and improvement of curricula and teaching, particularly for national curricula such as the KBSM. Good practice also might provide a model to be emulated by novices, input to be used to help less effective teachers to implement the KBSM, and it can also offer a resource for further curriculum reform (Knight and Smith 1989). This approach of seeking good practice is currently in the forefront of research on teacher effectiveness and effective teaching (Galton 1991; Knight 1991; Ornstein 1991; Cullingford 1995).

OBJECTIVE

The main objective of this study was to examine and describe the effective Bahasa Melayu teachers' methods through systematic classroom observation. It also considered the implications of the findings on curriculum reform and teacher education.

DESIGN

The study was carried out with the proposition that the dynamics of classroom teaching can be explained by eliciting information from close analysis of inter-relationships between three main classroom processes, teachers' perceptions, strategies and behaviour; pupils' perceptions, strategies and behaviour; and characteristics of the learning task and activities (Kyriacou 1986). The inter-relationships between these three domains can be seen by observing the classroom practice of teachers.

One method of identifying these interrelationships is to focus the study on classroom interaction, particularly teacher-pupil interaction and the quality of pupil involvement in this interaction, by concentrating on individual teachers and his/her pupils.

INSTRUMENT

The study employed a systematic observation system. One observation instrument sensitive to the concepts of progressive teaching and pupilcentredness was used by Galton, Simon and Croll (1980) in the ORACLE study of the English primary classroom. Examination of the instrument suggested that it allows the full range of teacher and pupil classroom activities to be observed and that it could provide a framework for examining aspects of teacher and pupil classroom activities within the context of the KBSM. The instrument was supplemented by a schedule focusing attention upon noble values. Pilot testing on 15 teaching lessons suggested that both Teacher and Pupil Records were robust enough to be used in Form One classes of Malaysian secondary schools, and practice confirmed this to be the case. In each lesson, the teacher was observed using the Teacher Record with 25 observation episodes of 25-second time-sampling units. Similarly, each target pupil was observed for six episodes using the Pupil Record which focuses on the pupil's activities and interactions.

SUBJECT

The criterion of an effective teacher as one whose pupils have consistently made better than expected progress could not be used due to a lack of assessment data from the KBSM and the lack of teachers who had taught the same pupils over a long period of time. Following Berliner (1986), the study employed the evaluative judgement of the education authorities to identify a sample of effective Bahasa Melayu teachers. This approach has cultural validity and is an important source of judgement about effectiveness, since the beliefs of people in authority have the power to perpetuate themselves. Furthermore, the nature of the study, which is concerned with the match and mismatch between the KBSM's demands and the teachers' concepts of effectiveness, could best be evaluated by observing the teachers who are considered by

the education authorities as effective by the KBSM's standards.

This study was carried out in 1992, five years after the KBSM was implemented. As KBSM was phased in, starting with Form One, attention was focused on Form One lessons, which have the best-developed KBSM practices. Concentrating on one group of pupils - 12 and 13-year-olds - controls effects that might be derived from pupil motivation. The Form One pupils have just finished their primary schooling whose curriculum also emphasized pupil-centred teaching and learning strategies. Its effectiveness is, however, worth another study. With six years' exposure to pupil-centred teaching, it might be assumed that Form One pupils are familiar with its activities and that the secondary school teachers can work to KBSM prescriptions without first needing to induct pupils into new ways of learning.

Since education in Malaysia is a centralized system, one district's educational administration was chosen. All teachers who teach the National Language, Bahasa Melayu - a KBSM core subject - in the district's 12 secondary schools were assessed by their respective principal, assistant principal and head of department. Each school authority was asked to nominate the most effective Form One Bahasa Melayu teacher, if any.

DATA COLLECTION AND ANALYSIS

Twelve teachers (five male and seven female) of Bahasa Melayu who were nominated as effective by those in authority were studied. Some schools could not nominate any teacher because there was no teacher who met the criteria. Other schools which had difficulty in selecting only one nominated two.

Six target pupils in each participating teacher's class were identified according to their achievement in the latest semester's examination result. These six pupils, two representatives for each group, were selected at random according to high achievers (score of 75% and above of total marks), medium achievers (score of 25-75% of total marks) and low achievers (score of less than 25% of total marks) in the results for each class. As far as possible, the selection included one girl and one boy in each pair. Although each teacher supplied the names of pupils in his/her class, together with their respective results and location in the class, the teacher was not informed about the selected

target pupils. There were 264 target pupils (126 male and 138 female), with a gender composition mean of 15.3 males and 16.8 females per lesson.

The data were gathered from 44 lessons of Form One teachers. The observation using the Teacher Record yielded a total of 1,100 observation episodes, with a total observation time of 458.33 minutes. The Pupil Record, focusing in each lesson on the six "target" pupils, yielded a total of 1,584 observation episodes with a total observation time of 660 minutes for 264 target pupils. A descriptive statistical analysis was employed. The initial step of analysis was to get frequencies and percentages of occurrences of all categories of the Teacher and Pupil Records (Croll 1980).

RESULTS

Teachers' Classroom Activities

The effective Bahasa Melayu teachers spent most of their classroom time (90.2% of all observations) interacting with their pupils (Table 1). The main form of the interaction was conversation (69.8% of all interactions). Silent interaction such as gesturing, demonstrating, marking and waiting occupied the rest (30.2%). Their conversation was mainly in the form of "statements", that is utterances which do not seek an answer (67.1% of all conversations) and of "questions", that is utterances which seek an answer (32.9%).

Further analysis of teachers' activity indicated that the major type of teachers' statements were related firstly, to "task supervision", that is statements which monitor and maintain the task activity (49.2% of all teacher statements), and secondly, to "task", that is statements associated with the theoretical, practical or observational content of a pupil's work (40.4% of all teacher statements). Only a small proportion of the teachers' statements were related to routine matters of classroom management (10.4%).

In contrast, most of the teachers' questions referred to the task, that is questions about the theoretical, practical or observational content of a pupil's work (54.1% of all teacher questions) rather than to the task supervision which covered questions which resulted in the pupil reflecting over whether or not she/he has finished her/his work and recalling the teacher's instructions about her/his task (41.1% of all teacher questions). Detailed analysis

TABLE 1
Teachers' activity in the classroom

	Percentage of all	Percentage in each major activity	
Activity	observations		
A. Making statements			
Task:	MUSTELLE IN		
1. Of facts	6.9	16.3	
2. Of ideas, problems	10.2	24.1	
Task supervision:			
3. Telling pupil	7.7	18.2	
what to do			
4. Praising work	9.0	21.3	
or effort			
5. Feedback on work	4.1	9.7	
or effort			
Routine:			
6. Routine information	1.5	3.5	
7. Routine feedback	0.3	0.7	
8. Critical control	0.5	1.2	
9. Of small talk	2.1	5.0	
Sub-total	42.3	100.0	
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B. Questioning			
Task:			
1. Of facts	1.2	5.8	
2. Closed questions	2.1	10.1	
3. Open questions	7.9	38.2	
Referring to task	8.5	41.1	
supervision			
Referring to routine	1.0	4.8	
matters			
Sub-total	20.7	100.0	
OEIE			
C. Other interactions	1111	THE STREET	
1. Gesturing	8.5	31.3	
2. Demonstrating	2.7	9.9	
3. Marking	6.0	22.1	
4. Waiting	3.2	11.8	
5. Reading	6.8	25.0	
Sub-total	27.2	100.0	
D. No teacher-pupil int	eraction		
011	0.2	2.1	
2. Totally distracted	8.8	91.6	
3. Out of room	0.6	6.3	
Sub-total	9.6	100.0	
Total	100.0		

indicated that the effective Bahasa Melayu teachers used more "open" questions which stimulated pupils' imagination and reasoning (38.2% of all teacher questions), than questions

associated with factual answers (15.9%). The high proportion of "open" questions is consistent with the enquiry and discovery learning strategies recommended by the KBSM.

Patterns of Teacher-Pupil Interactions

The results from the Teacher Record showed that most teacher-pupil interactions (70.5%) focused on pupils as members of the whole class (Table 2). Less than one-fifth (17.1%) of all interactions were directed to the pupils as members of a group and 12.4% to pupils working alone.

TABLE 2
Audiences of the teacher-to-pupil interactions in the effective Bahasa Melayu teachers' interactions

			Percentage based on total interactions	
Teacher interacts with:	Pupil Record ^a	Teacher Record	Pupil Record ^a	Teacher Record
Individual	1.6	11.2	64.0	12.4
Group	.8	15.5	32.0	17.1
Whole class	110	63.8	4.0	70.5
Total				
interactions	2.5	90.5		
No interactio	n 97.6	9.5		
Total	100.0	100.0	100.0	100.0

Note: *Includes only when there was a pupil-to-teacher conversation; i.e., excluded 35.9% of the pupils' silent interaction with the teacher on-task.

On the other hand, the Pupil Record indicated that pupils only interacted verbally with their teachers for about 2.5% of all observations. When the pupils did communicate, they interacted with the teachers mainly as individuals (64.0% of all pupil-teacher interaction). This implies that only a small amount of individual attention was given even by those teachers considered to be "effective" by the education authorities.

Detailed analysis of their activities showed that pupils worked alone most of the time (44.2% of all observations), mainly on the task (29.7%). At other times, they interacted with their teachers

(38.4%), mainly by observing and listening to the teachers' presentation (35.9%). Only 17.4% of observations show pupils interacting with their peers, mainly on the task (14.1% of all observations). This suggests that these teachers need to improve their pupil-centred strategy if they want to enhance their teaching parallel to prescriptions in the KBSM modules. If this is not happening, even by effective teachers, it is argued that the prescription on pupil-centred strategies in the modules is contested.

Tasks and Audiences of Interactions

The contents of teachers' conversations overwhelmingly (91.5%) related to the task and its associated supervision (Table 3). A distinction was made between "task" utterances (i.e. all teachers' utterances referring to the substantive content of the topic under study which contains a definite cognitive content) and "task supervision" (i.e. any utterances concerned with monitoring and maintaining the task activity which do not contain a substantial cognitive content in themselves). An important question, which is beyond the scope of the study, is how good were the tasks.

TABLE 3

Tasks and class audience of the effective Bahasa
Melayu teachers' conversations (Percentage of
questions and statements)

Task contents of the conversations	Percentage of all conversations	Percentage of class conversations
1. Task	44.9	49.4
2. Task supervision	46.6	41.5
3. Total (1 and 2)	91.5	90.9
4. Routine	8.5	9.1
5. Total (1, 2 and 4)	100.0	100.0
Task conversations		
6. Higher level	28.7	24.5
7. Lower level	16.2	15.4

Detailed analysis of the "task" conversations indicated that there were more higher order conversations (statements and questions which stimulated pupils' imagination and reasoning -28.7% of teacher conversations) than lower order conversations (statements and questions about

the factual information - 16.2% of teacher conversations). Both types of conversations were most common in whole class settings (85.4% of higher order and 95.1% of lower order task conversations).

Noble Values

The KBSM recommended that effective teachers should promote noble values. The results of these observations suggested that the teachers spent 4.1% of their time on such promotion (Table 4).

TABLE 4
Inculcation of the noble values in the effective Bahasa
Melavu teachers' interactions

Noble Value	Percentage of observations	Percentage of statements or questions	
1. Kindness	0.5	0.9	
2. Mutual respect	0.2	0.3	
3. Caring	2.4	3.7	
Physical and mental purity	0.2	0.3	
5. Honesty	0.1	0.1	
6. Co-operation	0.2	0.3	
7. Gratitude	0.4	0.6	
8. Rationality	0.1	0.1	
Total	4.1	6.3	

Of the 16 noble values specifically prescribed in the KBSM, only eight were observed in the effective Bahasa Melayu teachers' lessons. These values were "kindness", "mutual respect", "caring", "physical and mental purity", "honesty", "co-operation", "gratitude", and "rationality".

Classroom Organization

Most pupils sat in groups (95.8% of all observations), usually in pairs of the same gender (48.9%) (Table 5). However, it is well known that seating arrangements do not imply that the curriculum is geared to group learning. In 24.2% of cases, groups were of mixed gender.

Pupil Achievement and Tasks

The relationship between teacher attention and pupil 'achievement gathered from the Pupil

TABLE 5
Pupils' seating arrangements in the effective Bahasa
Melayu teachers' classrooms (Percentage of
observations)

Seating base	Percentage
Alone the Marchar Mercel and mort	atur 4.2 or
Pair, of the same gender	48.9
Pair, of the opposite gender	13.6
Several, of the same gender	22.7
Several, of the opposite gender	10.6
Total	100.0

Record indicated that there was no significant difference (χ^2 = 3.81, p > 0.05) in the distribution of the teacher-pupil interaction between the three groups of pupils. This may be related to the very small proportion of pupil-teacher conversations (2.5% of all observations). The high achievers received more attention as individuals (0.9% of all observations) whereas low achievers received more attention as members of a group (0.6% of all observations) (Table 6).

TABLE 6
Pupils' achievement, audience and tasks in the effective
Bahasa Melayu teachers' interactions (Percentage
of observations)

		Percentage		
Audience and task contents		High achievers	Medium achievers	
1.	All teacher-pupil	3.2		11.8
	interactions	1.1	0.5	0.9
	a. Individual interaction	0.9	0.4	0.3
	b. Interaction as group member		0.1 to	0.6
	c. Interaction as class member	0.1		dali ¹ yadı İndiğiler
	d. Teacher ignores pupil's attempt to initiate interaction		on). Thu of individ	igan mai Jacons Sendi ad
2.	Task-related contents:			
	a. Interaction on tas	k 1.1	0.4	0.9
	b. Interaction on routine	0.1	0.1	
	Number of cases	88	88	88

Pupils' Gender and Tasks

The data from the Teacher Record showed that there were highly significant differences in the attention given by the effective Bahasa Melayu teachers to pupils of different genders (χ^2 = 12.9, p < 0.01). The data from the Pupil Record indicated that girls received more than twice as much teacher attention than the boys (1.8 and 0.7% of observations respectively) (Table 7). Girls also received more attention than boys with regard to the tasks.

TABLE 7
Pupils' gender, audience and tasks in the effective
Bahasa Melayu teachers' interactions
(Percentage of observations)

hink samalsamas warmed file	THE PERSON NAMED IN		
	Percentage		
Audience and tasks	Boys	Girls	
1. All teacher-to-pupil interactions	0.7	1.8	
a. Individual interaction	0.5	1.1	
b. Interaction as group member	0.2	0.5	
c. Interaction as class member	rrestanu)	0.1	
d. Teacher ignores pupil's attempt to initiate interaction	has 9	0.1	
2. Task-related interactions:			
a. Interaction on task	0.6	1.7	
b. Interaction on routine	0.1	0.1	
Number of cases	132	132	

Further analysis of the results indicated that the teachers' gender had a significant association $(\chi^2 = 29.83, p < 0.05)$ with their interaction with boys and girls. On average, the male teachers were inclined to interact with the female pupils about two-and-half times more than the female teachers did.

CONCLUSIONS

What can we learn from the practices of effective Malaysian teachers of Bahasa Melayu? Five years after the implementation of the KBSM, the findings suggested that the teachers followed only some of the prescriptions of the KBSM, such as those with regard to the types of questions and maintaining the engagement of pupils on the task. However, there is little evidence, even from the practice of effective Bahasa Melayu teachers, that the teaching and learning processes underlying the KBSM curriculum of inculcating knowledge, skills and

values are being implemented; nor that the KBSM was considered as giving new status to the pupils as the key players, and the teacher as counsellor; let alone that the pupils were becoming an active factor, whereas the teacher was being the motivator and source of stimulus, a mover of teaching and learning, as claimed by the Ministry (Ministry of Education 1990a, 1990b).

Teachers had little involvement in the development and dissemination of educational innovations such as the KBSM. Their participation is mainly at the implementation stage. While their involvement at the earlier stage of innovation is reported to have some disadvantages (Fullan and Pomfret 1977), without it the genuine intention of the innovation will disperse along the drain of educational bureaucracy and the "new" content of such an innovation is subject to variations of interpretation before it reaches the teacher. As the implementation becomes more complicated, the more the innovation is opened to interpretation, and the more fragile is the business of innovation.

The early involvement of teachers is also necessary to inject current professional knowledge in the development of innovation, especially since the existing affected teachers have already developed their own sustainable approaches towards good practice which are hard to change. Quite often, any attempt to introduce educational change is seen as a disturbance. The unfamiliar "new" content of innovation might involve de-skilling of their existing practices (Vulliamy and Webb 1991). The failure to implement the innovation successfully has tremendous effect of "guilt and frustration at not being able to meet the standards" (Fullan and Hargreaves 1992, p. 6). Faced with the "unrealistic" innovation, they have to make an appropriate professional decision, often based on their beliefs about good practice in such a situation (Knight and Smith 1989).

Since the implementation of the KBSM is underway, how should we implement effectively a policy which is, in practice, being rejected and subverted? One might say that an alternative is to abandon the KBSM ideals and adopt a more limited set of goals based upon the more conservative, teacher-defined view of good practice. However, this is very unlikely, at least at

present, because not all elements of the KBSM are unusable. Another possibility is to improve the situation, especially through teacher development. As suggested by the Minister (Sulaiman 1991), teacher education must do a better job in identifying the kind of professional knowledge, skills and values necessary to prepare teachers to work in different contexts. There is certainly a need to consider the existing teachers' professional knowledge and their beliefs about the notion of good practice in the designing and implementation of in-service teacher education programmes.

As the best way to improve teaching practice lies not so much in trying to control teachers' behaviour as in helping them to control their own behaviour by becoming more aware of what they are doing (Elliot, in Day 1993), teachers' existing knowledge, beliefs and practice and the contexts in which they occur should be "scrutinized" and "supported". In-service teacher education should be designed, as suggested by Calderhead and Robson (1991), to cater for the various well-fixed images of teaching that teachers already have which affect what they get from their courses. This model of developing in-service teacher education is consistent with the idea of reflective practice (Schon 1983) and the idea of responsibility through partnership and coalition (Day 1993). 1990 also it is declared when the

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