

SOCIAL SCIENCES & HUMANITIES

Journal homepage: http://www.pertanika.upm.edu.my/

Teachers' Perceptions of Entrepreneurial Persuasive Communication Skills Among Primary School Learners: A Needs Analysis

Ma Fei Fan¹, Norlidah Alias^{1,2*} and Dorothy DeWitt¹

¹Department of Curriculum and Instructional Technology, Faculty of Education, Universiti Malaya, 50603 Kuala Lumpur, Malaysia

²The Hub of Curriculum and Instructional Technologies Development (CiTED), Faculty of Education, Universiti Malaya, 50603 Kuala Lumpur, Malaysia

ABSTRACT

Entrepreneurship is needed for sustainable economic development. However, entrepreneurship education seems to be focused on higher education, and there is a lack of studies at the primary school level. There seems to be a positive relationship between communication skills and entrepreneurial intention, so teaching persuasive communication entrepreneurship at primary schools should be considered. However, the components of entrepreneurship in the current primary school curriculum are unknown. Hence, this study investigates the need for entrepreneurial persuasive communication (EPC) elements in primary schools in Malaysia from the practitioners' perspective. The data was collected through semi-structured interviews with five experienced teachers in English and Design and Technology and content analysis of curriculum documents issued by the Ministry of Education. The data was analyzed through thematic analysis. The findings of this study reveal the components of EPC in the current curriculum, elements of EPC that need to be addressed and teachers' daily practice in implementing the current curriculum. The study also suggested a more systematic program or module for learning the EPC skills to address learners' lack of exposure to these skills.

Keywords: Entrepreneurship, needs analysis, persuasive communication

ARTICLE INFO

Article history: Received: 12 October 2023 Accepted: 29 November 2024 Published: 30 April 2025

DOI: https://doi.org/10.47836/pjssh.33.2.01

E-mail addresses: mafeifan l 127@gmail.com (Ma Fei Fan) drnorlidah@um.edu.my (Norlidah Alias) dorothy@um.edu.my (Dorothy DeWitt) * Corresponding author

INTRODUCTION

Entrepreneurship education is traditionally perceived as providing learners with skills to set up new businesses (Rahim et al., 2015). As a result of the changes in Malaysian society due to the globalized economy, efforts to develop entrepreneurship are considered an investment to ensure the

country's sustainable economic development (S. Z. Ahmad & Buchanan, 2015). In line with this, equipping young people with entrepreneurial skills to be self-employed seems imperative, as it is difficult for the ever-increasing number of fresh graduates to secure employment in the job market (Rasiah et al., 2019). Hassan et al. (2020) asserted that an entrepreneurial attitude can be formed by having entrepreneurship education at all levels of education.

Looking at how entrepreneurship education has been implemented worldwide, Fellnhofer (2019) indicated that most entrepreneurship education studies were skewed toward higher education contexts, implying a lack of research in the primary school context. Talukder et al. (2024) further corroborated this finding, highlighting the literature's predominant emphasis on higher education despite noting the importance of entrepreneurship education in other contexts, such as elementary, secondary and vocational education. Furthermore, studies such as those conducted by Garrido-Yserte et al. (2020) and Yalap et al. (2020) showed a positive relationship between communication skills and entrepreneurial intention. Nevertheless, those studies did not investigate how communication skills for entrepreneurship can be taught, especially in primary school education.

In the context of Malaysian primary schools, entrepreneurship is not taught as a standalone subject. Following the Malaysia Education Blueprint 2013–2025 aspiration, entrepreneurship is taught as a

cross-curricular element (CCE) embedded in other subjects (Ministry of Education Malaysia, 2016). do Paço and Palinhas (2011) advocated that entrepreneurship education should start at a young age. S. Z. Ahmad (2013) also suggested that the earlier entrepreneurial skills are taught, the earlier children will acquire skills needed for self-employment and job creation. Introducing entrepreneurship education at a young age may provide benefits as it may prepare young learners for the emerging economy and increase the chances of successful and sustainable entrepreneurship in the future (Studdard et al., 2013). As there is a concern about the implementation of entrepreneurship as a cross-curricular element in the Malaysian primary school curriculum (Abd Hamid, 2013; Mahmud et al., 2022), this study seeks to explore whether there is a need to introduce EPC skills for primary school learners by answering the following research questions:

- 1. What are the components of entrepreneurial persuasive communication in the current curriculum according to the perspective of the practitioners?
- 2. What elements of entrepreneurial persuasive communication are needed according to the perspective of the practitioners?

The EntreComp Framework

This study employs the EntreComp Framework proposed by Bacigalupo et al. (2016), a well-established theoretical framework in entrepreneurship education. It contains finer descriptions of skills according to each area. The framework is also considered comprehensive as it has been reviewed by many stakeholders (Bacigalupo et al., 2016). Besides this, the EntreComp model helps schools promote the learning of entrepreneurial competencies by providing a globally accepted framework and definition of entrepreneurship (McCallum et al., 2018).

In the EntreComp framework, all the listed skills are described in the proficiency progression form, from the foundation level to the expert level, which provides a reference for developing entrepreneurial competencies. The progression of entrepreneurial learning is based on two principles: (1) developing independence and responsibility in acting upon ideas for value creation, and (2) developing the ability to make value from simple and predictable situations to complex and dynamic environments (Czyzewska & Mroczek, 2020). Categories of skills for each area are represented in Table 1.

The first area of skills, Ideas and Opportunities focuses on developing ideas and identifying opportunities for entrepreneurial pursuits. It consists of five competencies: (1) spotting opportunities, (2) creativity, (3) vision, (4) valuing ideas and (5) ethical and sustainable thinking. Spotting opportunities entails identifying opportunities for value-creating using one's imagination and abilities; creativity is defined as developing creative and purposeful ideas, which entails developing solutions to challenges, discovering and trying out

innovative approaches and synergizing knowledge and resources to attain desirable effects; *vision* is defined as the ability to work towards the vision of the future, *valuing ideas* is the competence of using ideas and opportunities to the best advantage, whereas *ethical and sustainable thinking* is the ability to evaluate the consequences and impact of ideas, opportunities and actions (Bacigalupo et al., 2016).

The second area of skills, Resources, deals with the ability to manipulate intrapersonal, interpersonal and external capital. Self-awareness and self-efficacy are the competence related to one's ability to believe in oneself in taking control of events despite risk, hindrances and momentary failures; motivation and perseverance means staying focused, determined, patient,

Table 1
The EntreComp framework

Area	Skills	
Ideas and	Spotting Opportunities	
Opportunities		
	Creativity	
	Vision	
	Valuing ideas	
	Ethical and sustainable thinking	
Resources	Self-awareness and self-efficacy	
	Motivation and perseverance	
	Mobilizing resources	
	Financial and economic literacy	
	Mobilizing others	
Into Action	Taking the initiative	
	Planning and management	
	Coping with uncertainty,	
	ambiguity and risk	
	Working with others	
	Learning through experience	

resilient and trying to achieve goals; mobilizing resources refers to gathering and managing the resources one needs; financial and economic literacy, which deals with financial know-how, encompasses skills such as estimating the cost, planning and evaluating financial decisions and managing financing; mobilizing others means to motivate, enthuse and get others to be on board (Bacigalupo et al., 2016).

The third area of skills, Into Action, governs skills related to initiating processes, organizing, decision-making, collaborating and learning from experience. Taking the initiative is the ability to go for the opportunities that ones have; planning and management is the competence of prioritizing, organizing and following up the action plans that one has devised; coping with uncertainty, ambiguity and risk is related to the skill of making decisions in uncertain, ambiguous and risky situations as well as handling them in prompt and flexible manners; working with others includes skills such as working in collaboration to develop ideas, networking, resolving dissensions and taking competitions positively; learning through experience is related to how someone uses the initiatives for value creation, other people as well as success and failure as learning opportunities (Bacigalupo et al., 2016).

The EntreComp framework was devised through a stringent methodology. It went through a 12-step mixed-method development process that involved approximately 200 stakeholders during the consultation process (Bacigalupo

et al., 2016). Therefore, the identified competencies in this framework have considerable reliability.

Of the 15 main skills listed in the Entrecomp framework, 'mobilizing others' is selected as it has the strongest relevance to communication skills. According to Bacigalupo et al. (2016), the skill of 'mobilizing others' consists of subskills such as (1) inspiring and getting inspired, (2) persuading, (3) communicating effectively, and (4) using media effectively. Further elaboration of these subskills with their eight levels of progress, as well as the suggestions for their application, are tabulated in Table 2.

The framework contains the progressive development of entrepreneurship skills that can be applied to all age groups. Thus, it has been used to map pupils' development levels regarding their acquisition of entrepreneurship skills. This framework has been used in European countries as a reference point for a common understanding of entrepreneurial competencies for goal setting and evaluation (Raţiu et al., 2023). The usefulness of this framework is also highlighted in a bibliometric study conducted by Sánchez-Hernández and Maldonado-Briegas (2023). However, the same study pointed out that previous studies were mostly done in economics and sustainable regional studies instead of education, indicating the research gap within the educational departments.

In the current state, there are several studies on entrepreneurship education conducted in the Malaysian context (e.g., Avramenko & Begum, 2018; R. Hussain &

 Table 2

 Subskills in mobilizing others according to levels

	Inspire and Get Inspired Persuade	Persuade	Communicate Effectively	Use Media Effectively	Application of Skills
Level 1 (Foundation)	I demonstrate a passion for challenges.		I am able to communicate my ideas to other people.	I can give instances of inspirational communication campaigns.	List examples of successful communication campaigns that learners encounter daily with support. Share ideas on everyday issues and propose solutions
Level 2 (Foundation)	I involve myself actively in value-creation activities.	I can convince others by giving a diverse range of arguments.	I can use different methods to communicate my team's ideas.	I can elaborate on how different media can be applied to communicate with audiences in different ways.	with guidance. Planned and delivered group presentations using different media.
Level 3 (Intermediate)	I do not feel demotivated due to difficulties.	I can convince others by giving evidence for my arguments.	I can communicate imaginative design solutions.	I can use different methods to deliver ideas of value creation.	Create prototypes and present them using different methods.
Level 4 (Intermediate)	I can be a good example when I lead.	I can enthuse others by connecting to their emotions	I can communicate my own or my team's ideas to people from different backgrounds.	I can apply media in an appropriate manner, which shows my awareness of the audience and purpose.	Lead a team project and present the project using different media.
Level 5 (Advanced)	I can obtain an endorsement to support my value-creation ideas.	I can present my pitch effectively in front of prospective funders.	I can communicate the vision of my own or my team's endeavor that enthuses and inspires external supporters.	I can change people's opinions on my value-creation activity using a planned social media approach.	Lead a team project that involves external parties and use social media to gain support.
Level 6 (Advanced)	I can be an inspiration to others despite challenging situations.	I can deal with resistance from people whose innovation and value will influence the creation of ideas.	I can create narratives and situations that inspire, motivate and move people.	I can plan a social media campaign to enthuse people to join my value-creation activity.	Lead a project that involves a certain level of risk and gain support from external parties using social media.

_	•
nic	2
HUO	3
	3
	1
٩)
c	5
σ	3

	Inspire and Get Inspired Persuade	Persuade	Communicate Effectively Use Media Effectively	Use Media Effectively	Application of Skills
Level 7	I can keep the	I can create a call to	I can participate in	I can devise a	Lead a project that assumes
(Expert)	momentum with my	action to encourage	constructive conversations communication strategy to	communication strategy to	a certain level of risk and
	collaborators when	stakeholders to	with the targeted	move people in regard to my	gains support from external
	involved in a challenging collaborate.	collaborate.	community.	activity of value creation.	parties using social media
	situation.				over a certain period
Level 8	I can form coalitions to	I can get support for	I can communicate with	I can maintain and get more	Lead a project that assumes
(Expert)	materialize ideas into	value-creating ideas	all relevant stakeholders	support for my vision.	a certain level of risk and
	action.	by negotiating with	so that they take		gains support from external
		others.	responsibility and action		parties using social media
			on a value-creating		with sustainable
			opportunity.		plans.

Othman, 2013; Ibrahim et al., 2015; Jaafar & Aziz, 2008; Nasrudin & Othman, 2012; Teoh & Chong, 2014; Yaman et al., 2014). However, these studies focused on adult learners or learners in tertiary education. There seems to be a lack of studies on entrepreneurship education targeting young learners. Mobilizing others, which is one of the key competencies in the EntreComp framework related to persuasion (McCallum et al., 2018), along with other competencies, has not been fully implemented in European countries (Seikkula-Leino et al., 2021). A study conducted by Seikkula-Leino et al. (2021), which involved 348 respondents consisting of policymakers, educators and stakeholders from 47 countries, showed that they have mostly used EntreComp in their work to mobilize others, which shows the importance of this competence. A study by Gorenc et al. (2023), which evaluated a nine-month elementary entrepreneurship education program in the European context, showed no significant improvement in skills related to mobilizing others, which begs the question of how competence can be better developed among young learners.

Communication skills are important for developing entrepreneurship skills. Similar to the intention of the present study, Mohamad and Idrus (2019) investigated the implementation of the written entrepreneurial communication course conducted in vocational colleges in Malaysia and found that writing business plans is a crucial element. A case study by I. S. Ahmad and Khan (2023) highlighted the importance of English language skills

in entrepreneurship courses. These studies further illustrate the importance of teaching communication skills in entrepreneurship courses. Nevertheless, little is known about teaching entrepreneurial persuasive communication (EPC) skills in the context of Malaysian primary schools in the current literature.

Considering the importance of EPC skills and the research gap, this study would like to explore the current status of EPC teaching in the context of Malaysian primary schools.

Persuasive Communication Skills in Entrepreneurship

Among all the communication skills in entrepreneurship, persuasion is one of the most important skills relevant to the success of entrepreneurs (Baron & Markman, 2000; Ray, 1993). It is the ability to convince people to participate in a business, purchase a product/service, fund, or establish an alliance with the venture (Brush, 2008). Based on the EntrepComp framework, communication and persuasive skills are subsumed in 'Mobilizing Others' in the area of 'Resources.' The skill of 'Mobilizing Others' is described as impelling and inspiring pertinent stakeholders, obtaining the support needed to attain valuable results and showing effectual communication, persuasion, negotiation and leadership (Bacigalupo et al., 2016). The study by Kim and Tay (1993) showed that persuasion communication is important to recruit members and sell products. To promote entrepreneurship, programs and courses are

created and classified as distinctive study areas requiring special writing needs (Spartz & Weber, 2015).

METHODS

Participants

Five teachers teaching English and Design and Technology were selected for the needs analysis interviews. These teachers were chosen as these subjects cover entrepreneurial and communication skills. For instance, entrepreneurship is taught as a cross-curricular element in the two listed subjects (Abd Hamid, 2013). For English, communication skills are taught modularly, focusing on listening, speaking, reading and writing skills. For Design and Technology, communication skills are taught as pupils carry out a project and present their products. The five teachers were selected for a semistructured interview session to explore their opinions about the skills that need to be taught in the module. The sampling method used was purposive sampling, as the participants were selected based on the following criteria:

- Experience in teaching either English or Design and Technology for more than 5 years
- 2. Option to major in the selected subject.
- Having at least a bachelor's degree in education.
- The respective district or state education office should highlight a panel head for the selected subject or someone active in subject-related activities.

Criteria 1–3 were based on the studies by Abd Aziz (2011) and Awang et al. (2016), who selected their participants based on their years of experience and specialization. Criterion 4 is included for this study following the study conducted by Avramides et al. (2015), which included the heads of department in their study. Including heads of panels would provide useful insights as they had experience managing curriculum affairs for the subjects. The teacher selection criteria were also in line with the "experienced teachers" criteria mentioned in Palmer et al. (2005), which consists of years of experience, social recognition/nomination, and professional/ social group membership.

The researcher selected participants from different school types to ensure that the findings in this part of the study can be applied to a wider context. The Malaysian primary school system has three major schools: National School, National-type School (Chinese) and National-type School (Tamil). Teachers from these types of schools were selected to obtain rounded perspectives from different cultural backgrounds. Table 3 illustrates the profiles of the selected teachers who participated in the interviews.

Data Collection

In the present study, data was collected based on two methods: (1) interview and (2) document analysis. The interview process was conducted following the aspects mentioned by Bolderston (2012): (1) participant selection, (2) preparation

Table 3
Profiles of selected teachers

Teacher code	District	School type	Subject	Gender	Years of experience	Major
T_BI1	Kuala Langat	National type (Tamil)	English	Female	14	English
T_BI2	Gombak	National	English	Female	9	English
T_BI3	Petaling Perdana	National	English	Female	9	English
T_D&T1	Klang	National type (Chinese)	D&T	Male	7	Math
T_D&T2	Klang	National type (Chinese)	D&T	Female	14	English

of the interview protocol, (3) interviewer's roles during the interview, (4) designing interview questions, (5) determining the timing, (6) the preamble and (7) managing the interview process. By focusing on these aspects, the researcher can ensure that data can be collected stringently.

Five sessions of semi-structured interviews, spanning thirty minutes to one hour and thirty minutes, were conducted following the questions presented in Appendix 1. In addition to the listed questions in Appendix 1, the researcher also posted follow-up questions to elicit more detailed responses from the interviewees.

The duration of the interviews is considered ample for data analysis, following the duration of semi-structured interviews suggested by DiCicco-Bloom and Crabtree (2006). In their paper, DiCicco-Bloom and Crabtree mentioned that in general practice, semi-structured interviews are conducted only once for each participant and can last between half an hour and more than a few hours. The time range of the interview sessions in the present study fulfilled the requirement as

Table 4

Duration of interview sessions

Interview Session	Duration
T_BI1	1:09:13
T_BI2	1:29:38
T_BI3	1:27:08
T_D&T1	0:30:08
T_D&T2	0:59:15

stated in DiCicco-Bloom and Crabtree's study. Table 4 shows the duration of each interview session.

The data from the interview were then analyzed using thematic analysis using Atlas-ti 8. The researcher created 386 codes for analysis by coding the data. Each transcript was created with codes between 40 and 111. The codes were created based on their relevance to the research questions and the focus of this study.

The Official Documents

Besides analyzing the interview transcripts, the researchers also collected official documents from the Ministry of Education. Analyzing these documents would provide a greater understanding of the current curriculum, the current education trend and the common pedagogical practices in the nation. The analyzed documents include are included in Table 5.

The DSKPs are the standard-based curriculum and assessment documents containing the content and learning standards that pupils need to achieve by the end of the academic year. The Malaysia Education Blueprint 2013-2025 is the document that sets out the targets that our national education needs to be achieved from the preschool to the post-secondary level. The Roadmap 2015-2025 is a tenyear English language education plan for all levels of education in Malaysia. The SKPMG2 Standard 4 evaluation form is used in lesson observations. Analyzing these documents serves as a step of triangulation. By comparing the official documents with the interviewees' responses, we can better understand how EPC has been taught and emphasized in the current education system. The official documents were also analyzed through thematic analysis using Atlas-ti 8.

Table 5 Official documents used in data analysis

Document Number of Codes DSKP English Year 6 12 DSKP English Year 5 9 DSKP English Year 4 10 DSKP RBT Year 6 20 DSKP RBT Year 5 16 DSKP RBT Year 4 21 Malaysia Education Blueprint 2013–2025 12 English Language Education Reform in Malaysia: The Roadmap 2015–2025 9 SKPMG2 Standard 4 Evaluation Form 7

RESULTS

Existing Entrepreneurship and Persuasive Communication Skills

This discussion will start by answering Research Question 1: What are the components of entrepreneurial persuasive communication in the current curriculum according to the perspective of the practitioners?

From the interview with the teachers, the researchers identified some existing entrepreneurship and persuasive communication skills among primary school pupils. This is further supported by the information obtained from the official MOE documents, which prove that the skills should have been exposed to the learners at their age. If the pupils possess these skills, it is indicative of the skills being incorporated into the curriculum in some way or pupils having some kind of exposure in their daily lives.

Assessing Values and Practicality

From the interview sessions, the researchers discovered that some teachers believe that their pupils have a certain level of ability

to assess the value and the practicality of products. According to T_D&T2, this component is actually covered in Design and Technology.

Er... I would say, the basic part, they know how to differentiate, rather differentiate the practicality of, let's say, a product, like let's say we are doing a role-play a model car or to sell something, okay, which is something that they are familiar with, okay, at least they know how to differentiate whether it is worth buying or whether it is practical or not. I think that is part of entrepreneurship skills, right? (T_D&T2)

In the current curriculum of Design and Technology of Year 4, pupils are exposed to the skills of assessing sketches of products that they made and making amendments after the evaluation (Ministry of Education Malaysia, 2018b). The same skill can also be applied to assess the quality of ideas that can create values and improve those ideas to suit the needs of others. The same set of skills is also found among primary school learners in Mexico, in which, in their entrepreneurship subprogram, the learners are to calculate the cost of their production and evaluate the viability of their business plans (Cárcamo-Solís et al., 2017).

Basic Reasoning

The teachers also mentioned that their pupils have a basic level of reasoning, even though maybe only a small number of them have this skill:

I think persuasive skills probably reason out at a basic level should be okay. I think my students do have it, but I can't say the majority. (T_BI2)

Furthermore, T_BI2 also highlighted the limitations of such reasoning skills among the students:

If we talk about something that is not close to their hearts, it could be a bit difficult for them to come up with their reasoning skills, I mean, their reasonings. Also, it would mean that instead of encouraging them to talk, it would actually hinder them from talking. (T_BI2)

The response shows that students' reasoning skills are limited to topics that they are familiar with. It is difficult for students to extend their reasoning ability to issues that they are not interested in.

The analysis of the official documents showed that pupils have already been exposed to basic reasoning skills as early as Year 3. In the English language curriculum, pupils are taught to express basic opinions with reasons, give reasons for their predictions in Year 4 (Ministry of Education Malaysia, 2018a), and give reasons for the advice given in Year 6 (Ministry of Education Malaysia, 2022). The findings from a review study conducted by Vo and Csapó (2022) also corroborate the findings here. In their study, they found that children can perform inductive reasoning tasks. With the advent of technology, children gradually evolve their reasoning skills from paperbased to technology-based. From that, it is

assumed that pupils can cope with tasks that require basic reasoning skills.

Buying and Selling (Economic Knowledge)

According to the teachers, primary school pupils know about buying and selling. They are taught matters about money in mathematics. Pupils also obtained their experience of buying and selling from places like the school canteen and the bookstore:

Um, if we talk about the basic buying and selling knowledge, my kids have it because of their interaction in the canteen and the bookstore. If we talk about money matters, I think my kids have it. Thanks to mathematics. And I think we do have a discussion on money. (T_BI2)

In Design and Technology, pupils are exposed to the skill of calculating costs for projects, food and packaging in Year 4 (Ministry of Education Malaysia, 2018b). In addition, a study by Bucior and Bucior (2019) focusing on primary school pupils in Poland revealed that most pupils in their research had a basic understanding of economic terms such as money, inflation, and price. Basic economic knowledge would help learners imagine how actual selling and buying happen in real-life situations and help them be financial-savvy persuaders.

Designing and Planning

Pupils in the upper primary level have to study Design and Technology for one hour per week. According to T_D&T1, pupils

are exposed to skills such as designing and planning the making of products following systematic steps.

I think so, yes, I think so. Because we have the subject RBT, as you mentioned, just now, design and technology may be where pupils can learn about entrepreneurship through this subject. There are a lot of skills involved in this subject really, not only designing things but also teaching people how to make or invent things and design things and products, including sketching ideas, forming financial planners, producing the product and learning how to promote your product. (T D&T1)

From the teacher's feedback, pupils are taught skills that help them design and plan products relevant to the concept of entrepreneurship in this study. If the skills are nurtured and well-acted upon, pupils can convert their ideas into something of financial, cultural or social value to others.

The standard-based document for Design and Technology for Year 4 also shows the steps that pupils have to follow in designing and planning a project. The process entails generating ideas, sketching designs, evaluating sketches, improving designs, calculating costs, producing products and presenting projects using different media (Ministry of Education Malaysia, 2018b). These well-defined steps can also guide the researcher in designing tasks that target pupils' EPC skills. This set of skills is similar to design thinking skills, comprised of ongoing experimentation,

sketching, prototyping, testing, and trying out concepts and ideas (Dam & Siang, 2021). A study by Gennari et al. (2021) in Italy showed that children could reflect on their design process. The evidence shows that primary school learners may be able to design and plan for their projects following defined steps with guidance.

Teamwork

As the Ministry of Education advocates 21st-century learning in schools, group work has been an activity that engages students with learning and, at the same time, promotes their social skills. From the feedback given by one of the teachers, pupils have acquired the skill of teamwork through the various group activities that are conducted with the pupils:

I think they have teamwork. Okay, teamwork. Because most of the time, I will give them group activities and leadership skills. I think these two are the skills that they have, but I don't think they have financial skills yet because of their lack of experience and lack of the use of money in real life. (T D&T1)

Nevertheless, from the response, pupils have the skills of working in groups and leading others, acquired through group activities. However, it is not clear whether pupils in Malaysia can work and communicate entrepreneurially in groups, which such a potential can be further explored in this study. A study conducted by Axelsson et al. (2015), which focused on the Swedish preschool context, showed

that cooperative and enterprising skills are practiced in schools. If these skills have already been practiced at the preschool level, there should be no problem that they will be practiced at the primary school level.

Looking at the learning standards in the standard-based documents in English and Design and Technology, it is unclear that collaborative skills are listed. However, in the SKPMG2 Standard 4 lesson observation form, one criterion is that pupils should work cooperatively as active learners. Thus, if school teachers know the evaluation criteria, their pupils should be familiar with conducting collaborative activities.

Elements of Entrepreneurial Persuasive Communication Skills Needed

This discussion will answer the second research question: What elements of entrepreneurial persuasive communication are needed according to the perspective of the practitioners?

From the analysis of the interview transcripts, official documents and literature, the EPC-related skills that primary school learners need to improve on include knowledge of entrepreneurship, extended use of persuasion, pricing items, creativity, English language skills, reasoning and justifying products, online marketing, understanding the target group, empathy, confidence and courage, as well as risk-taking and perseverance.

Knowledge of Entrepreneurship

According to the teachers, pupils do not have enough knowledge to think

entrepreneurially. The researcher could see that pupils need to be equipped with knowledge to think like entrepreneurs.

From my point of view, okay, from what I can get from the students' feedback, I don't think they have enough knowledge to think that way. They are not really exposed to all this, actually. All right, and then what they focus on might not have something to do with entrepreneurship. (T_D&T2)

The teacher's statement highlights the importance of entrepreneurial knowledge. The existing literature suggests that entrepreneurial knowledge relates to entrepreneurial intention (T. Hussain et al., 2021). If pupils lack ample knowledge of entrepreneurship, they may not intend to be entrepreneurs.

From the analysis of the standard documents of both subjects, there is no learning standard stating entrepreneurship explicitly as the content, even though practicing basic entrepreneurship is stated as one of the aims of the Design and Technology curriculum (Ministry of Education Malaysia, 2021). Even though entrepreneurial characters are important in completing tasks in design and technology, the current curriculum lacks emphasis on explicit knowledge of entrepreneurship.

Rosa et al. (1996), as mentioned in Johansen and Schanke (2013), characterized approaches to learning entrepreneurship as (1) education about entrepreneurship, (2) education for entrepreneurship and (3) education through entrepreneurship. From

the analysis in the context of Malaysia, learning entrepreneurship at the primary school level is based on education through an entrepreneurship approach, in which students learn the entrepreneurial process by completing various tasks given by teachers. The same case is also similar to studies conducted in other countries, such as the studies conducted by Bisanz et al. (2019) in Austria, Weicht et al. (2020) in three European countries, and Zupan et al. (2018) in Slovenia. In their cases, entrepreneurship is learned by completing projects or challenges facilitated by different teaching methodologies. To improve pupils' explicit knowledge of entrepreneurship, they may also need to learn entrepreneurship through other approaches following studies such as T. Hussain et al. (2021), Karyaningsih (2020), Scuotto and Morellato (2013), which showed that entrepreneurial knowledge plays an important role to determine ones' entrepreneurial intention.

Extended Use of Persuasion

The teachers' responses revealed that pupils have some basic persuasive skills that they use daily. However, their persuasive skills are only limited to their interests. According to the teachers, the pupils cannot persuade others about general things they are not particularly keen on.

Okay, persuasive communication skills for that child... Okay, I would say that if a child they would like to have, okay, I'll put it this way: if the children want for their good things or they can persuade, even you also they can persuade they can persuade their parents they can persuade the teachers because why? They want that particular thing. Okay? If let's say the things that they wanted, for example, for their own good, they could persuade, but for the general thing, they could not. (T_BI3)

From the statement given by T_BI3, we can observe the gap in persuasion skills possessed by the pupils. Pupils can only persuade on a limited scope of topics. From the statement given by T_BI3, pupils can only be persuaded to obtain what they want. However, in the case of entrepreneurship, this kind of persuasion may not be working to persuade others; they may need to let others know why they should accept what is offered to them. Given this, pupils need to expand their persuasive skills. They need to be trained on how to persuade for various entrepreneurship-related topics.

In the Roadmap 2015–2025, for primary school level, pupils are expected to only use English language in basic and ordinary tasks (Ministry of Education Malaysia, 2015); in Design and Technology, persuasion skills may only be used when pupils have to present their products, such as learning standards 'making simple documentation about the process of making the product and do presentations using a variety of media' (Ministry of Education Malaysia, 2022). In this case, pupils may not be exposed to the technique of persuading people, especially in an entrepreneurial manner, as the curriculum of both subjects offers few opportunities for pupils to experiment with it. In line with this finding, a study by Lonigro et al. (2017) also suggested that school interventions promoting the development of more sophisticated persuasive strategies (e.g., compromising, giving guarantees, and bargaining) can foster healthier social relationships and aid in conflict resolutions.

Pricing Items

To equip pupils with entrepreneurial skills, some teachers opined that pupils need to know how to estimate the value of products. The excerpt below shows how one of the teachers commented on the need for this skill:

And then they make posters and promote their products; I find it very interesting because they all enjoy and can learn because many hike up the price of the item without any market survey or proper consideration. So, from there, the teacher can actually tell them how they can improve that part. Okay, this was based on my experience in school when I first came to [school's name mentioned]. (T D&T2)

From the response given by T_DT2, the teacher mentioned the problem of overpricing when the pupils tried to promote their products. Poor pricing may impair entrepreneurs' profit-making as it can affect the performance of enterprises, especially nascent ones (Flatten et al., 2014).

However, in the Design and Technology curriculum, pupils need to learn about calculating the cost for designs and packing in Year 4 (Ministry of Education Malaysia, 2018b), the cost of materials in Year 5 (Ministry of Education Malaysia, 2019) and prepare a list of equipment, materials, cost estimation and working schedule for a project in Year 6 (Ministry of Education Malaysia, 2021). From this, we can see a gap between the ideal in the curriculum and the actual situation among primary school pupils. It may be due to pupils' lack of practical experience in purchasing materials for projects or items that are not closely related to their daily lives. A study by Sawatzki and Goos (2018) showed that twothirds of their primary school participants could compute the cost and the break-even price of their sold items. However, only about one-third of their participants were about to determine a sale price that made a profit. Therefore, pupils may need to improve their pricing capability to make a profit.

Creativity

In the opinion of one of the respondents, the pupils cannot think creatively due to a "spoon-feeding" culture. This kind of culture hinders pupils from thinking creatively, and therefore, they cannot think entrepreneurially.

And then, when you don't give them room for creativity, they will come up exactly how you want them to do. Because they don't have creativity. (T_BI3)

Communicating or using language creatively is a high-level skill for primary school pupils. In the six performance levels

in English speaking skills, pupils can obtain performance level six, which is the highest band in the assessment if they can describe personality and plans or events creatively using suitable statements; in performance level five, which is the second highest band, pupils are only required to describe personality and plans or events using suitable statements with some relevant details (Ministry of Education Malaysia, 2022). It shows that creativity is regarded as a higher-level skill in the primary school curriculum and poses some challenges for pupils to master it. This finding is similar to the finding of Sarwat et al. (2021), who discovered that the lack of creative ideas was one of the Pakistani primary school learners' writing problems. One of the factors behind the writing problem is learners' lack of opportunities for free writing. Therefore, learners should be given more platforms and opportunities to express their creative ideas to promote creativity.

English Language Skills

According to the teachers, pupils' persuasive skills are considerably compromised when it comes to persuading in English, which is not their first language.

So, when it comes to persuading people, I think they will have a problem in persuading people in the English language because they can persuade people in Malay and Tamil, but when it comes to English, persuading people overseas... they actually lack that. (T BI1)

The response reveals that pupils need to overcome their language barrier to be persuasive to a wider audience. Hence, their English communication skills also need to be improved.

According to the Roadmap 2015-2025, a baseline study of the Malaysian University English Test (MUET) showed that students could not identify relevant and irrelevant information, infer, rephrase or synthesize information. Many students were also reported to be hesitant to speak English and lacked the words to express and elaborate on their thoughts and ideas. Their ideas were often confined to contexts of their immediate interests, and students lacked knowledge of general topics and current affairs. Many candidates could not write grammatically and lacked awareness of writing in different registers (Ministry of Education Malaysia, 2015). If this situation even happens at the tertiary level, it could be even worse in the primary school context. According to Nasir and Aziz (2020), in English as a second language (ESL), mastering productive skills such as writing and speaking is a common problem learners face. Something must be done from earlier education to equip learners with the language proficiency to help them in their higher education and future careers.

Reasoning and Justifying Products

The interview sessions also revealed pupils' inability to reason and justify their products. The excerpt below shows a teacher's response to pupils' ability in reasoning and justifying:

Hmm, I still find them quite childish in a way, okay, or the way they think when we ask them how they want to sell a product, like the recent project, the model car ask them, okay, why do people design a car and then what is the purpose? Well, not many of them can answer that. Hmm. So, let's say you were to ask me whether they can think in an entrepreneurial manner. I am not so sure. (T_D&T2)

The teacher's response demonstrates that reasoning and justifying differ from designing and planning. Even if the pupils can develop their products, others may not understand them; hence, they cannot persuade others if they have to sell their products to others.

Looking at the standard-based documents of Design and Technology, the skill of reasoning is not clearly stated in the documents, even though in Year 6, pupils have to state the products that they intend to produce based on the situation as well as evaluate and improve the sketch of their products (Ministry of Education Malaysia, 2021). Despite the stipulation in the standard document, how learners can be prompted and guided to use reasoning skills is unclear. This part of the skill is similar to the explanation and reasoning skill, one of the critical thinking skills in studies conducted by Gelerstein et al. (2016) and Suryanti et al. (2018). In Suryanti et al.'s (2018) study, which focused on Grade 5 (typically age 10–11) pupils, the pupils demonstrated a low level of explanation skills prior to their intervention. As there is also an observed deficiency in the local context, an intervention may need to be proposed to equip learners with this skill.

Online Marketing

Given the rise of e-commerce and its development, which makes it more convenient for consumers, selling things online seems to be an important skill in Industry 4.0.

Because entrepreneurship, like I've men... like, like I've mentioned earlier, it's it grows, it doesn't just only us physically being in, in a mall or a restaurant, or it doesn't just stop in Shopee. There are a lot of other apps that could actually promote entrepreneurship. In fact, social media, TikTok, and Instagram can actually help students. I mean, maybe students trying to start their little business would start with Instagram or TikTok to promote their stuff. That could be a skill, too, to persuade people through Instagram and other media to buy their products. (T BI2)

The teacher's response suggests that young entrepreneurs can use various social media platforms to promote their products.

Using media effectively is one of the subskills of 'Mobilizing Others' in the EntreComp framework. The skill mentioned by the teacher reflected this subskill's Level 3 performance (intermediate level), in which learners can use several methods, including social media, to communicate value-creating ideas effectively. In Muñoz-Repiso et al.'s (2020) study conducted in Spain, skills such as content sharing and content creation are part of assessing digital competence in compulsory education. It shows the importance of this skill not only in the local context but also in the global context.

Understanding the Target Group

To persuade effectively, young entrepreneurs need to understand who they are persuading and apply different strategies to reach different types of consumers. The importance of knowing the consumers' needs is also mentioned by one of the teachers during the interview:

So first, they need to know the needs and how to persuade them based on the needs. At the same time, they will have to know the background of their customers and where they come from. How you persuade customers in this area differs from how you persuade customers in a different area. (T_BI1)

The response shows that people from different demographic groups may need to be persuaded differently. Therefore, a persuader should understand who they are persuading before devising their plan.

The response given by the teacher also corresponded with the foundational level learning outcome of 'Mobilizing Others' in the EntreComp framework, in which learners should be able to talk about how different target groups can be reached by using different modes of media (Bacigalupo

et al., 2016). Learners should be allowed to examine and compose different writing genres to enhance audience awareness (Taylor, 2021) and role reversal (Liu et al., 2021) to improve audience awareness. The studies by Liu et al. (2021) and Taylor (2021) showed the lack of audience awareness among students in the higher education setting before their intervention, which may imply that the lack of skill can even be more apparent in the primary school context. The triangulation of different data sources shows that understanding the audience is a fundamental skill to be acquired before progressing to more sophisticated persuasive communication skills.

Empathy

In connection with the idea of understanding the target audience, one of the teachers involved also holds the opinion that young entrepreneurs need to have empathy to be considerate persuaders:

And also pupils because they are too young, I think they need awareness, awareness of what other people feel or what other people think we can't just keep on persuading others, like, keep on giving our ideas without thinking of other people's feelings. (T_D&T1)

From the response, we can see that if persuaders intend to connect with their target audience emotionally, empathy seems to be an important skill they need to master. It would be less effective if persuaders focus only on the content of

their persuasion without considering their audience's emotions and needs.

In the standard-based documents for both English and Design and Technology. empathy is described as one of the qualities of 'caring,' which is one of the characteristics of pupils' profile in the 21st century. In the profile description, caring pupils can demonstrate understanding, compassion, and admiration for the wants and emotions of others (Ministry of Education Malaysia, 2021, 2022). These characteristics are analogous to empathy, an important skill one needs to master to understand other people better. Furthermore, Novak (2022), who researched the topic of digital empathy in the context of Croatia, found that digital empathy is not wholly realized in the education system. Digital empathy is important as it is a digital emotional intelligence that helps build a good relationship with others using digital media.

Confidence and Courage

In accordance with one of the teachers, a persuasive entrepreneur needs to be confident:

They need to have it, but they don't have the courage—actually, they don't believe in themselves. Whatever things they do, they need to believe in themselves. (T_BI3)

According to the teacher, pupils may not succeed in their entrepreneurial pursuits if they lack confidence or courage. Nevertheless, many Malaysian primary school learners lack self-confidence in communicating in English due to their fear in class, shyness and anxiety (Nijat et al., 2019). Therefore, self-confidence needs to be nurtured so pupils can face the challenges of the 21st century.

Risk-taking and Perseverance

Another important skill that young entrepreneurs need is the ability to take risks and persevere despite hardship. The extract below shows the feedback from one of the teachers in the interview:

Their business skills are definitely number one, and they are ready to take risks. Ready to take the risk number two, don't easily break. Yes, you can have ups and downs in your business. But one day you crush down, don't think that is the end of your life. Stand up again. Yes, try again every day. So, these two things I tell you are the basic things. Try to take the risk at the same time. If you have a crash, don't worry; stand up for the next day. Don't break down. (T_BI3)

From the response given by T_BI3, entrepreneurs should be mentally prepared to take risks and strong enough to persist in their efforts despite difficulties. These skills will help entrepreneurs to keep their business going and achieve success.

However, risk-taking quality is not mentioned anywhere in the selected official documents. A potential reason for this is that reckless and extreme risk-taking behavior might cause potential damage to the risk-takers and society (Roulet, 2015). Nevertheless, a study by Duell and Steinberg (2021) shows that positive risk-taking offers developmental benefits such as gaining new skills, having a sense of identity and benefitting from exciting opportunities. Thus, providing young learners with the opportunities to assume risks can be beneficial for them in acquiring essential entrepreneurial qualities and persuasive communication skills.

A summary of the findings in this needs analysis study is presented in Table 6.

Table 6 summarizes the literature and relevant documents related to the research findings. As some of the literature was from other countries, a more detailed investigation needs to be done

to assess the necessity of those skills to be taught in local primary schools and how they can be taught. Thus, the researchers suggest the involvement of experts from related fields (entrepreneurship and persuasive communication) in future investigations. Nevertheless, the findings in this study can contribute to reducing the gap in the current literature as research in the primary school context and the Malaysian setting is lacking.

DISCUSSION

The findings indicate that teachers know some entrepreneurial persuasive communication elements practiced in the current Malaysian primary school curriculum. The curriculum documents list being an effective communicator and team player in the 21st-century profiles (Ministry of Education Malaysia, 2021,

Table 6
Summary of findings

Research Question	Elements/Components of EPC	Supportive Evidence
Components of entrepreneurial	Assessing Values and Practicality	Cárcamo-Solís et al. (2017), Ministry of Education Malaysia (2018b)
persuasive communication	Basic Reasoning	Ministry of Education Malaysia (2018a, 2022), Vo & Csapó (2022)
in the current curriculum	Buying and Selling (Economic Knowledge)	Bucior & Bucior (2019), Ministry of Education Malaysia (2018b)
	Designing and Planning	Dam & Siang (2021), Gennari et al. (2021), Ministry of Education Malaysia (2018b)
	Teamwork	Axelsson et al. (2015), SKPMG2 Standard 4 lesson observation form
Elements of entrepreneurial persuasive communication	Knowledge of Entrepreneurship	Bisanz et al. (2019), T. Hussain et al. (2021), Karyaningsih (2020), Ministry of Education Malaysia (2021), Scuotto & Morellato (2013), Weicht et al. (2020), Zupan et al. (2018)
needed	Extended Use of Persuasion	Lonigro et al. (2017), Ministry of Education Malaysia (2015, 2021)
	Pricing Items	Sawatzki & Goos (2018)
	Creativity	Sarwat et al. (2021)
	English Language Skills	Ministry of Education Malaysia (2015), Nasir & Aziz (2020)
	Reasoning and Justifying Products	Gelerstein et al (2016), Suryanti et al. (2018)
	Online Marketing	Muñoz-Repiso et al. (2020)
	Understanding the Target Group	Taylor (2021), Liu et al. (2021)
	Empathy	Novak (2022)
	Confidence and Courage	Nijat et al. (2019)
	Risk-Taking and Perseverance	Duell & Steinberg (2021), Roulet (2015)

2022). This stipulation highlights the importance of communication skills and teamwork in the national curriculum agenda, and practitioners must be aware of them. Elements such as assessing values and practicality, buying and selling, and designing and planning are present in the current curriculum as stipulated in the syllabus for Design and Technology (Ministry of Education, 2018b, 2019, 2021), which implies learners' exposure to these elements in the current curriculum.

The current English syllabus teaches learners to give reasons as they practice speaking and writing skills (Ministry of Education Malaysia, 2018a, 2020, 2022). However, elements such as knowledge of entrepreneurship, extended use of persuasion, pricing items, creativity, reasoning and justifying products, online marketing, understanding the target group, empathy, risk-taking and perseverance need to be enhanced in the current curriculum as they are not sufficiently introduced.

It is suggested that in primary schools, learners' EPC skills are most likely at the foundation level to relate the findings of this study to the levels of 'mobilizing others' in the EntreComp framework (Table 2). The findings of this study further confirmed the importance of the EntreComp framework in mapping out the entrepreneurship skills of learners according to their developmental stage and as a source of reference to develop those skills.

In the EntreComp framework, entrepreneurial competence is understood as a set of knowledge, skills and attitudes (Bacigalupo et al., 2016). Having entrepreneurial knowledge is essential as it is perceived as a non-material resource according to the EntreComp framework; extended use of persuasion, which is closely related to 'mobilizing others' in the EntreComp framework, plays a vital role in gaining support from important stakeholders in an entrepreneurial pursuit; pricing items is related to financial and economic literacy which help entrepreneurs to sustain their value-creating pursuits; creativity, as a competence also listed in the EntreComp framework, plays a crucial role in developing value-creating ideas that serve as solutions to existing problems; reasoning and justifying products is part of ethical and sustainable thinking which entrepreneurs can evaluate the impact of their products in their niche market and environment; also related to 'mobilizing others,' online marketing helps entrepreneurs to gain and maintain support by using different media; understanding target group, which

is related 'spotting opportunities', allows entrepreneurs to identify the needs that have not been fulfilled; empathy, a skill of 'working with others' is the foundation of managing relationships with end users; risk- taking and perseverance are the key of 'coping with uncertainty, ambiguity and risk' entail coping with adverse situations strategically while minimizing risks by assessing them (Bacigalupo et al., 2016). By referencing the findings with the EntreComp framework, we can further confirm the importance of those elements from a global perspective. However, they have not been fully materialized in the current curriculum.

Despite not being listed in the EntreComp framework, English language skills are important in developing primary school EPC skills. The lack of English language skills is a problem in national primary education (Nasir & Aziz, 2020). Nevertheless, English language skills are important as they help develop entrepreneurship skills (I. S. Ahmad & Khan, 2023) and should not be neglected in entrepreneurship education. Thus, this study expands the current understanding of the EntreComp framework by highlighting the importance of English language skills in complementing entrepreneurship skills.

Regarding the theoretical implications, the needs analysis expands our understanding of EPC skills, particularly the 'Mobilizing Others' sub-skill in the EntreComp framework. While 'Mobilizing Others' focuses on inspiring, persuading, communicating effectively, using media, and applying skills, the analysis highlights

additional skills like empathy, creativity, confidence, courage, risk-taking, and perseverance. This broadens the scope of EPC skills to include practical and affective aspects.

In terms of practical implications, entrepreneurship and EPC skills should be integrated into the curriculum as essential cross-curricular elements alongside co-curricular activities. Curriculum developers need to prioritize these skills and ensure they are taught in various contexts. Additionally, in-service and pre-service teacher training should focus on helping educators from all subjects effectively incorporate EPC skills into their lessons.

This study has some limitations. While it highlights the need to teach EPC (Entrepreneurship, Problem-solving, and Communication) skills in primary schools, it does not provide details on how to implement this. Also, since the study was conducted in Malaysia, the findings may not apply to other settings.

Further research should focus on teaching EPC skills by seeking input from entrepreneurship, communication, and education experts. Their insights could help create a clearer plan for teaching these skills, better-preparing learners for future opportunities in entrepreneurship.

CONCLUSION

To conclude, it is observed that in the current curriculum, students were exposed to skills such as assessing values and practicality, reasoning, buying and selling, designing and planning, and teamwork at a basic

level. However, primary schoolers need knowledge of entrepreneurship, the way to use persuasion in various topics, pricing items, thinking and communicating thoughts, online marketing, understanding their target group, and empathy. By highlighting the existing skills and the needed skills, the findings in this study add more details of the persuasive communication elements in the EntreComp Framework, specifically in the subskills of 'Mobilizing Others.' Regarding the implication of educational practice, the needs analysis findings suggested the introduction of an entrepreneurial persuasive communication module so that learners can learn EPC skills more systematically. Nevertheless, the introduction of the module should be context-specific as the needs analysis was conducted in the context of Malaysian primary schools. The effectiveness of the module also depends on its development and implementation. The findings of this study can fill a significant gap in the current literature, particularly in the context of primary schools in Malaysia, where research is lacking. Additionally, they call for further investigation into how the skills can be taught so that learners can benefit from the module and apply those skills in their future careers.

ACKNOWLEDGEMENT

The authors sincerely thank all the participants who took part in the interviews for their valuable insights and experiences. As a self-funded study, the authors deeply appreciate the time and effort contributed by everyone involved.

REFERENCES

- Abd Aziz, M. S. (2011). Assessment practices of high school teachers in Malaysia. *English Language Assesssment*. Academia. https://www.academia.edu/6690687/Assessment_Practices_of_High_School_Teachers_in_Malaysia
- Abd Hamid, M. (2013). Entrepreneurship education:
 The implementation in Year 1 primary school
 curriculum in Malaysia. A case study of one
 district in East Peninsular Malaysia [Doctoral
 thesis, The University of York]. White Rose
 eTheses Online. https://etheses.whiterose.ac.uk/
 id/eprint/6141/
- Ahmad, I. S., & Khan, Z. J. Y. (2023). English language skills and becoming a global entrepreneur: Lessons for entrepreneurship education. *International Journal of Learning, Teaching and Educational Research*, 22(6), 195-211. https://doi.org/10.26803/ijlter.22.6.11
- Ahmad, S. Z. (2013). The need for inclusion of entrepreneurship education in Malaysia lower and higher learning institutions. *Education* + *Training*, 55(2), 191-203. https://doi.org/10.1108/00400911311304823
- Ahmad, S. Z., & Buchanan, R. F. (2015). Entrepreneurship education in Malaysian universities. *Tertiary Education and Management, 21*(4), 349-366. https://doi.org/1 0.1080/13583883.2015.1106577
- Avramenko, A., & Begum, M. (2018). Reflections on practice-centred curricula in teaching entrepreneurship in Malaysia. *International Journal of Management Applied Research*, *5*(3), 135-152. https://doi.org/10.18646/2056.53.18-010
- Avramides, K., Hunter, J., Oliver, M., & Luckin, R. (2015). A method for teacher inquiry in cross-curricular projects: Lessons from a case study. British Journal of Educational Technology, 46(2: Special Issue), 249-264. https://doi.org/10.1111/bjet.12233

- Awang, S., Ahmad, S., Alias, N., & DeWitt, D. (2016).

 Design of an instructional module on Basic Life
 Support for homeschooled children. *Cogent Education, 3*(1), Article 1188439. https://doi.or
 g/10.1080/2331186X.2016.1188439
- Axelsson, K., Hägglund, S., & Sandberg, A. (2015). Entrepreneurial learning in education: Preschool as a take-off for the entrepreneurial self. *Journal of Education and Training*, 2(2), 40-58. https://doi.org/10.5296/jet.v2i2.7350
- Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016). EntreComp: The entrepreneurship competence framework (Publication number EUR 27939 EN). European Commission. https://doi.org/10.2791/593884
- Baron, R. A., & Markman, G. D. (2000). Beyond social capital: How social skills can enhance entrepreneurs' success. *Academy of Management Executive*, *14*(1), 106-116. https://doi.org/10.5465/ame.2000.2909843
- Bisanz, A., Hueber, S., Lindner, J., & Jambor, E. (2019). Social entrepreneurship education in primary school: Empowering each child with the YouthStart entrepreneurial challenges programme *Discourse and Communication for Sustainable Education*, 10(2), 142-156. https://doi.org/10.2478/dcse-2019-0024
- Bolderston, A. (2012). Conducting a research interview. *Journal of Medical Imaging and Radiation Sciences*, 43(1), 66-76. https://doi.org/10.1016/j.jmir.2011.12.002
- Brush, C. G. (2008). Pioneering strategies for entrepreneurial success. *Business Horizons*, 51(1), 21-27. https://doi.org/10.1016/j. bushor.2007.09.001
- Bucior, M., & Bucior, G. (2019). Economic knowledge among primary school students – An example of two polish schools in the Gdańsk region. In L. Gómez-Chova, A. L. Martínez, & I. C. Torres (Eds.), 11th International Conference on Education and New Learning Technologies (pp.

- 7185-7191). IATED Digital Library. https://doi.org/10.21125/edulearn.2019.1716
- Cárcamo-Solís, M. d. L., Arroyo-López, M. d. P., Alvarez-Castañón, L. d. C., & García-López, E. (2017). Developing entrepreneurship in primary schools. The Mexican experience of "My first enterprise: Entrepreneurship by playing". *Teaching and Teacher Education, 64*, 291-304. https://doi.org/10.1016/j.tate.2017.02.013
- Czyzewska, M., & Mroczek, T. (2020). Data mining in entrepreneurial competencies diagnosis. *Education Sciences*, 10(8), Article 196. https://doi.org/10.3390/educsci10080196
- Dam, R. F., & Siang, T. Y. (2021, December 3). What is design thinking and why is it so popular? Interaction Design Foundation IxDF. https://www.interaction-design.org/literature/article/what-is-design-thinking-and-why-is-it-so-popular
- DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education*, 40(4), 314-321.
- do Paço, A., & Palinhas, M. J. (2011). Teaching entrepreneurship to children: A case study. *Journal of Vocational Education & Training*, 63(4), 593-608. https://doi.org/10.1080/13636 820.2011.609317
- Duell, N., & Steinberg, L. (2021). Adolescents take positive risks, too. *Developmental Review*, 62, Article 100984. https://doi.org/10.1016/j. dr.2021.100984
- Fellnhofer, K. (2019). Toward a taxonomy of entrepreneurship education research literature: A bibliometric mapping and visualization. *Educational Research Review*, 27, 28-55. https://doi.org/10.1016/j.edurev.2018.10.002
- Flatten, T. C., Engelen, A., Möller, T., & Brettel, M. (2014). How entrepreneurial firms profit from pricing capabilities: An examination of technology-based ventures. *Entrepreneurship*

- *Theory and Practice, 39*(5), 1111-1136. https://doi.org/10.1111/etap.12098
- Garrido-Yserte, R., Crecente-Romero, F., & Gallo-Rivera, M.-T. (2020). The relationship between capacities and entrepreneurial intention in secondary school students. *Economic Research-Ekonomska Istraživanja*, 33(1), 2322-2341. https://doi.org/10.1080/1331677X.2019.1697328
- Gelerstein, D., de Río, R., Nussbaum, M., Chiuminatto, P., & López, X. (2016). Designing and implementing a test for measuring critical thinking in primary school. *Thinking Skills and Creativity*, 20, 40-49. https://doi.org/10.1016/j.tsc.2016.02.002
- Gennari, R., Matera, M., Melonio, A., Rizvi, M., & Roumelioti, E. (2021). Reflection and awareness in the design process: Children ideating, programming and prototyping smart objects. *Multimedia Tools and Applications*, 80(26), 34909-34932. https://doi.org/10.1007/s11042-020-09927-x
- Gorenc, J., Gomezel, A. S., Kitić, Ž., & Zupan, B. (2023). The effect of primary school entrepreneurship education programs on the evolution of pupils' human capital assets. *Economic and Business Review, 25*(4), 182-201. https://doi.org/10.15458/2335-4216.1326
- Hassan, H., Sade, A., & Rahman, M. (2020). Shaping entrepreneurial intention among youngsters in Malaysia. *Journal of Humanities and Applied Social Sciences*, 2(3), 235-251. https://doi. org/10.1108/JHASS-02-2020-0029
- Hussain, R., & Othman, N. (2013). Entrepreneurship module in community colleges Malaysia. *International Journal of Trade, Economics and Finance*, 4(6), 425-429. https://doi.org/10.7763/ IJTEF.2013.V4.330
- Hussain, T., Zia-Ur-Rehman, M., & Abbas, S. (2021). Role of entrepreneurial knowledge and personal attitude in developing entrepreneurial intentions

- in business graduates: A case of Pakistan. *Journal of Global Entrepreneurship Research*, 11, 439-449. https://doi.org/10.1007/s40497-021-00283-0
- Ibrahim, W. N. A., Bakar, A. R., Asimiran, S., Mohamed, S., & Zakaria, N. S. (2015). Impact of entrepreneurship education on the entrepreneurial intentions of students in technical and vocational education and training institutions (TVET) in Malaysia. *International Education Studies*, 8(12), 141-156. https://doi.org/10.5539/ies.v8n12p141
- Jaafar, M., & Aziz, A. R. A. (2008). Entrepreneurship education in developing country: Exploration on its necessity in the construction programme. *Journal of Engineering, Design* and Technology, 6(2), 178-189. https://doi. org/10.1108/17260530810891306
- Johansen, V., & Schanke, T. (2013). Entrepreneurship education in secondary education and training. Scandinavian Journal of Educational Research, 57(4), 357-368. https://doi.org/10.1080/003138 31.2012.656280
- Karyaningsih, R. P. D. (2020). Does entrepreneurial knowledge influence vocational students' intention? Lessons from Indonesia. *Entrepreneurial Business and Economics Review*, 8(4), 138-155. https://doi.org/10.15678/EBER.2020.080408
- Kim, T. B., & Tay, R. S. T. (1993). Persuasive communication and Singapore entrepreneurs. *Journal of Small Business & Entrepreneurship*, 10(3), 77-90. https://doi.org/10.1080/08276331 .1993.10600430
- Liu, T.-L., Yang, Y.-F., & Hong, Y.-C. (2021). Raising students' audience awareness for oral presentation through online role-reversal. *System*, 99, Article 102510. https://doi.org/10.1016/j. system.2021.102510
- Lonigro, A., Baiocco, R., Baumgartner, E., & Laghi, F. (2017). Theory of mind, affective empathy, and persuasive strategies in school-aged children.

- 26(6), Article e2022. https://doi.org/10.1002/icd.2022
- Mahmud, M. S., Maat, S. M., Rosli, R., Sulaiman, N. A., & Mohamed, S. B. (2022). The application of entrepreneurial elements in Mathematics teaching: Challenges for primary school mathematics teachers. *Frontiers in Psychology*, 13, Article 753561. https://doi.org/10.3389/fpsyg.2022.753561
- McCallum, E., Weicht, R., McMullan, L., & Price, A. (2018). EntreComp into Action Get inspired, make it happen: A user guide to the European Entrepreneurship Competence Framework (M. Bacigalupo & W. O'keeffe, Eds.; Publication number EUR 29105 EN). European Commission. https://doi.org/10.2760/574864
- Ministry of Education Malaysia. (2015). English

 Language Education Reform in Malaysia: The

 Roadmap 2015-2025. http://eltc.moe.edu.my/
 roadmap/The%20Roadmap%202015-2025.pdf
- Ministry of Education Malaysia. (2016). Buku Penerangan Kurikulum Standard Sekolah Rendah (Semakan 2017) [Curriculum Standard Explanation Book for Primary School (Revised 2017)]. http://bpk.moe.gov.my/index.php/terbitan-bpk/buku-penerangan-kurikulum?download=1715:buku-penerangan-kssr-semakan-2017
- Ministry of Education Malaysia. (2018a). Kurikulum Standard Sekolah Rendah: Bahasa Inggeris Sekolah Jenis Kebangsaan Dokumen Standard Kurikulum dan Pentaksiran Tahun 4 [Standard Curriculum for Primary Schools: English Language (National-Type Schools) Year 4 Curriculum and Assessment Standard Document]. http://bpk.moe.gov.my/index.php/terbitan-bpk/kurikulum-sekolah-rendah/category/335-dskptahun-4?download=4481:dskp-kssr-semakan-2017-bahasa-inggeris-sjk-tahun-4
- Ministry of Education Malaysia. (2018b). Kurikulum Standard Sekolah Rendah: Reka Bentuk dan

- Teknologi Dokumen Standard Kurikulum dan Pentaksiran Tahun 4 [Standard Curriculum for Primary Schools: Year 4 Design and Technology Curriculum and Assessment Standard Document] http://bpk.moe.gov.my/index.php/terbitan-bpk/kurikulum-sekolah-rendah/category/335-dskptahun-4?download=2881:dskp-kssr-semakan-2017-reka-bentuk-dan-teknologi-tahun-4
- Ministry of Education Malaysia. (2019). Kurikulum Standard Sekolah Rendah: Reka Bentuk dan Teknologi Dokumen Standard Kurikulum dan Pentaksiran Tahun 5 [Standard Curriculum for Primary Schools: Year 5 Design and Technology Curriculum and Assessment Standard Document]. http://bpk.moe.gov.my/index.php/terbitan-bpk/kurikulum-sekolah-rendah/category/392-dskptahun-5?download=4495:dskp-kssr-semakan-2017-reka-bentuk-teknologi-tahun-5
- Ministry of Education Malaysia. (2020). Kurikulum Standard Sekolah Rendah: Bahasa Inggeris Sekolah Jenis Kebangsaan Dokumen Standard Kurikulum dan Pentaksiran Tahun 5 [Standard Curriculum for Primary Schools: English Language (National-Type Schools) Year 5 Curriculum and Assessment Standard Document]. http://bpk.moe.gov.my/index.php/terbitan-bpk/kurikulum-sekolah-rendah/category/392-dskptahun-5?download=3753:dskp-kssr-semakan-2017-bahasa-inggeris-sjk-tahun-5
- Ministry of Education Malaysia. (2021). Kurikulum Standard Sekolah Rendah: Reka Bentuk dan Teknologi Dokumen Standard Kurikulum dan Pentaksiran Tahun 6 [Standard Curriculum for Primary Schools: Year 6 Design and Technology Curriculum and Assessment Standard Document] http://bpk.moe.gov.my/index.php/terbitan-bpk/kurikulum-sekolah-rendah/category/524-dskptahun-6?download=4697:dskp-kssr-semakan-2017-reka-bentuk-dan-teknologi-tahun-6
- Ministry of Education Malaysia. (2022). Kurikulum Standard Sekolah Rendah: Bahasa Inggeris Sekolah Jenis Kebangsaan - Dokumen Standard

- Kurikulum dan Pentaksiran Tahun 6 [Standard Curriculum for Primary Schools: English Language (National-Type Schools) Year 6 Curriculum and Assessment Standard Document]. http://bpk.moe.gov.my/index.php/terbitan-bpk/kurikulum-sekolah-rendah/category/524-dskptahun-6?download=4742:dskp-kssr-semakan-2017-bahasa-inggeris-sjk-tahun-6
- Mohamad, H., & Idrus, F. (2019). Written communication in entrepreneurship course in Malaysian vocational colleges: A qualitative inquiry. *International Journal of Education, Psychology and Counseling, 4*(33), 22-40. https://doi.org/10.35631/IJEPC.433003
- Muñoz-Repiso, A. G.-V., Casillas Martín, S., & Basilotta Gómez-Pablos, V. M. (2020). Validation of an indicator model (INCODIES) for assessing student digital competence in basic education. *Journal of New Approaches in Educational Research*, 9(1), 110-125. https://doi.org/10.7821/naer.2020.1.459
- Nasir, N. A. M., & Aziz, A. A. (2020). Implementing student-centered collaborative learning when teaching productive skills in an ESL primary classroom. *International Journal of Publication and Social Studies*, *5*(1), 44-54. https://doi.org/10.18488/journal.135.2020.51.44.54
- Nasrudin, N., & Othman, N. (2012). Evaluation of polytechnic entrepreneurship programs in Malaysia. *International Journal of Trade, Economics and Finance, 3*(5), 356-362. https://doi.org/10.7763/IJTEF.2012.V3.227
- Nijat, N., Atifnigar, H., Chandran, K., Selvan, S. L. T., & Subramonie, V. (2019). Psychological factors that affect English speaking performance among Malaysian primary school pupils. American International Journal of Education and Linguistics Research, 2(2), 55-68. https:// doi.org/10.46545/aijelr.v2i2.117
- Novak, M. (2022). Netiquette and digital empathy in the context of applying cross-curricular

- topics in the contemporary education. In L. Luic, I. Martincevic, & V. Sesar (Eds.), 83rd International Scientific Conference on Economic and Social Development "Green Marketing" (pp. 146-153). Varazdin Development and Entrepreneurship Agency. https://www.esd-conference.com/upload/book_of_proceedings/Book_of_Proceedings_esdVarazdin2022_Online.pdf
- Palmer, D. J., Stough, L. M., Burdenski, J. T. K., & Gonzales, M. (2005). Identifying teacher expertise: An examination of researchers' decision making. *Educational Psychologist*, 40(1), 13-25. htttps://doi.org/10.1207/s15326985ep4001_2
- Rahim, H. L., Abdul Kadir, M. A. B., Abidin, Z. Z., Junid, J., Kamaruddin, L. M., Lajin, N. F. M., Buyong, S. Z., & Bakri, A. A. (2015). Entrepreneurship education in Malaysia: A critical review. *Journal of Technology Management and Business*, 2(2).
- Rasiah, R., Somasundram, S., & Tee, K. P. (2019). Entrepreneurship in education: Innovations in higher education to promote experiential learning and develop future ready entrepreneurial graduates. *Journal of Engineering Science and Technology*, 6, 99-110.
- Raţiu, A., Maniu, I., & Pop, E. L. (2023). EntreComp framework: A bibliometric review and research trends. *Sustainability*, *15*(2), Article 1285. https://doi.org/10.3390/su15021285
- Ray, D. M. (1993). Understanding the entrepreneur: Entrepreneurial attributes, experience and skills. Entrepreneurship and Regional Development, 5(4), 345-358. https://doi. org/10.1080/08985629300000022
- Roulet, T. (2015). "What good is Wall Street?" Institutional contradiction and the diffusion of the stigma over the finance industry. *Journal of Business Ethics*, 130(2), 389-402. https://doi.org/10.1007/s10551-014-2237-1

- Sánchez-Hernández, M. I., & Maldonado-Briegas, J. J. (2023). The EntreComp framework in practice: A case study linking employability, entrepreneurship, and regional development. Sustainability, 15(15), Article 12022. https://doi. org/10.3390/su151512022
- Sarwat, S., Ullah, N., Anjum, H. M. S., & Bhuttah, T. M. (2021). Problems and factors affecting students English writing skills at elementary level. *Ilkogretim Online - Elementary Education Online*, 20(5), 3079-3086.
- Sawatzki, C., & Goos, M. (2018). Cost, price and profit: What influences students' decisions about fundraising? *Mathematics Education Research Journal*, 30(4), 525-544. https://doi.org/10.1007/s13394-018-0241-y
- Scuotto, V., & Morellato, M. (2013). Entrepreneurial knowledge and digital competence: Keys for success of student entrepreneurship. *Journal of* the Knowledge Economy, 4(3), 293-303. https:// doi.org/10.1007/s13132-013-0155-6
- Seikkula-Leino, J., Salomaa, M., Jónsdóttir, S. R., McCallum, E., & Israel, H. (2021). EU policies driving entrepreneurial competences—Reflections from the case of EntreComp. *Sustainability, 13*(15), Article 8178. https://doi.org/10.3390/su13158178
- Spartz, J. M., & Weber, R. P. (2015). Writing entrepreneurs: A survey of attitudes, habits, skills, and genres. *Journal of Business and Technical Communication*, 29(4), 428-455. https://doi.org/10.1177/1050651915588145
- Studdard, N. L., Dawson, M., & Jackson, N. L. (2013). Fostering entrepreneurship and building entrepreneurial self-efficacy in primary and secondary education *Creative and Knowledge Society*, 3(2), 1-14.
- Suryanti, Arifin, I. S. Z., & Baginda, U. (2018). The application of inquiry learning to train critical thinking skills on light material of primary

- school students. *Journal of Physics: Conference Series, 1108*(1), Article 012128. https://doi.org/10.1088/1742-6596/1108/1/012128
- Talukder, S. C., Lakner, Z., & Temesi, Á. (2024). Development and state of the art of entrepreneurship education: A bibliometric review. *Education Sciences*, 14(3), Article 295. https://doi.org/10.3390/educsci14030295
- Taylor, E. (2021). Using online genres to promote students' audience awareness. *Journal on Empowering Teaching Excellence*, 5(2), Article 4. https://doi.org/10.26077/ac79-ce31
- Teoh, W. M. Y., & Chong, S. C. (2014). Towards strengthening the development of women entrepreneurship in Malaysia. Gender in Management: An International Journal, 29(7), 432-453. https://doi.org/10.1108/GM-10-2013-0122
- Vo, D., & Csapó, B. (2022). Measuring inductive reasoning in school contexts: A review of instruments and predictors. *International Journal* of *Innovation and Learning*, 31(4), 506-525. https://doi.org/10.1504/IJIL.2022.10046982

- Weicht, R., Ivanova, I., & Gikopoulou, O. (2020). The CRADLE teaching methodology: Developing foreign language and entrepreneurial skills in primary school pupils. *Entrepreneurship Education*, 3(3), 265-285. https://doi.org/10.1007/s41959-020-00036-2
- Yalap, O., Polatçı, S., & Yılmaz, H. (2020). Do psychological capital and communication skills affect entrepreneurial intention? Global Journal of Business, Economics and Management: Current Issues, 10(1), 21-30. https://doi. org/10.18844/gibem.v10i1.4540
- Yaman, M. N., Kamarudin, M. A., Besar, M. N. A., Bujang, S. M., Salam, A., Siraj, H. H., & Mohamad, N. (2014). Students' acceptance towards entrepreneurship module at Universiti Kebangsaan Malaysia. *Education in Medicine Journal*, 6(4), e87-e90. https://doi.org/10.5959/eimj.v6i4.312
- Zupan, B., Cankar, F., & Cankar, S. S. (2018). The development of an entrepreneurial mindset in primary education. *European Journal* of Education, 53(3), 427-439. https://doi. org/10.1111/ejed.12293

APPENDIX

Interview Protocol for Needs Analysis

I am a PhD program candidate at the Faculty of Education, University of Malaya, and I am currently conducting a study on the development of an entrepreneurial persuasive communication module for primary school learners, supervised by Associate Professor Dr. Norlidah Alias and Associate Professor Dr. Dorothy Dewitt. First, thank you for your willingness to take part in this study. Your participation in this needs analysis interview session will help me capture the needs of entrepreneurial competencies and essential persuasive communication skills of primary schoolers based on the gap between the desired and the actual situations. The interview session aims to answer the following questions:

Research Question 1: What are the components of entrepreneurial persuasive communication in the current curriculum?

Research Question 2: What elements of persuasive entrepreneurial communication are needed?

This interview session will take about 30 minutes, and you will answer questions about the teaching practice in primary schools, your current teaching practice, your perceptions of pupils' abilities, existing entrepreneurial persuasive communication skills training in school and some challenges you faced in teaching. For your information, your response to the interview questions is completely confidential, and your identity will remain anonymous. All the information collected from the interview session will only be used for this dissertation. You can also withdraw your consent or any unprocessed data provided.

- 1. Current teaching practice
 - a. How are lessons usually conducted in the primary school context?
 - b. How do you prepare before your lessons?
 - c. How is class carried out in terms of:
 - Content
 - Instructional strategies
 - Activities
 - Resources and materials
 - Evaluation methods
- 2. Teaching of Entrepreneurship in Bahasa Malaysia/English/Design and Technology
 - a. Do you think primary school pupils can **think** in an entrepreneurial manner? Why do you think so?
 - b. Do you think primary school pupils can **communicate** persuasively? Why do you think so?
 - c. Can you suggest ways to promote **entrepreneurship skills** among primary school pupils? Which of these are practiced in your class?

- d. Can you suggest ways to promote **persuasive communication skills** among primary school pupils? Which of these are practiced in your class?
- e. Can you tell me how you teach **entrepreneurship skills** among primary school pupils? What kind of task do you give? Can you give some examples? Where do you get the inspiration for the tasks from (past experiences or industrial experience)?
- f. How do you teach **persuasive communication skills** among primary school pupils? What kind of task do you give? Can you give some examples? Where do you get the inspiration for the tasks from (past experiences or industrial experience)?
- g. What are the tools that you use in your teaching? How do you use them? Are those tools being used in teaching **entrepreneurship** communication? Can you provide more information in your context?
- h. What are the tools that you use in your teaching? How do you use them? Are those tools being used in teaching **persuasive communication** skills? Can you provide more information in your context?
- i. Does your teaching in **entrepreneurship skills** meet future industrial needs? Can you elaborate more on that?
- j. Does your teaching in **persuasive communication skills** meet future industrial needs? Can you elaborate more on that?

3. What skills do pupils have?

- a. What **entrepreneurship skills** do your pupils already have and do not have?
- b. What **persuasive communication skills** do your pupils already have and do not have?
- c. What **persuasive communication skills** does society need to be successful in the future?
- d Think of what skills are required for pupils wanting to start a business and stay ahead of the game.
- e. Think of what skills are required for pupils to influence others.
- f. Will these **entrepreneurship skills** be used daily?
- g. Will these **persuasive communication skills** be used on a daily basis?
- h. Can you explain why these entrepreneurship skills are valuable and necessary?
- i. Can you explain why these persuasive skills are valuable and necessary?
- j. If these skills are not learned, how will they impact society?
- k. Are these skills necessary to meet the challenges of Industry 4.0?
- 1. What challenges might your pupils face when learning the new skills?

- 4. Former entrepreneurial communication training in school
 - a. Has any training been done for these particular skills?
 - b. Were former training programs successful?
 - c. How were training evaluation methods done?
 - d. How accessible was training for all pupils?

5. Challenges

- a. What are the challenges that you encounter in teaching pupils entrepreneurship and communication skills?
- b. Have you ever been trained to teach entrepreneurial communication? What kind of training is needed? If yes, what was taught in the training? Do you apply what you learned from the training to your teaching practice? How?
- c. If you have never received any training in teaching entrepreneurial communication, what kind of training do you think you need? Can you describe more? What are the tools that you need?

Thank you so much for your response.