THE RESEARCH & DEVELOPMENT UNIT 2023
KOLEJ PROFESIONAL MARA BERANANG

OFFICIAL CONFERENCE PROCEEDING

2ND MARA VIRTUAL EDUCATIONAL RESEARCH CONFERENCE 2023

IN COLLABORATION WITH
MARA HIGHER EDUCATION DIVISION
MAJLIS AMANAH RAKYAT

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ISBN: 978-967-17559-4-5

Front cover image by Raja Mahani binti Raja Mohamed Ali.
Book design by The Research & Development Unit 2023 KPM Beranang.

Printed by AKM Corner (003036429-T)

First printing edition 2023

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SYNOPSIS

2nd MARA Virtual Educational Research Conference 2023 (MVERC 2023) is an initiative lead by The Research & Development Unit of Kolej Profesional MARA (KPM) Beranang, in hopes to benefit from online knowledge sharing amongst MARA educators. Educators benefit a lot in enhancing their knowledge and professionalism when this reflection practice is shared in a networked circle such as conference.

Therefore, this conference was held as a platform to allow educators to the experience to present their research in hopes to instill research as a culture amongst educators. This official conference proceeding is a compilation of 23 research articles from various field of studies that was written by MARA educators across Malaysia. Each article was reviewed and presented during the conference, and published in this proceeding with the aim of contributing to both local and global educational committees.

TABLE OF CONTENTS

ASSESSING THE ACHIEVEMENT OF PROGRAM EDUCATIONAL OBJECTIVES: DIPLOMA IN ENTREPRENEURSHIP - ALUMNI SURVEYS

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ABSTRACT

Graduate companies formed the second largest group of project initiators in the theatre category on crowdfunder.uk in the decade between 2010-2019, yet empirical exploration into the composition of their online backers shows that due to the nascent stage of their practice, support for their projects has largely concentrated on family and friendship networks, with minimal backing at the communal and institutional levels. Informed by Social Capital Theory, the findings from multiple case studies highlight the struggles of new entrants to the UK theatre industry that pushed them into utilizing the ubiquitous mode of online fundraising under the climate of funding cuts. Data from the online backing of graduate theatre projects reveals that graduate theatre companies which relied highly on the bonding social capital of close ties risked hiatus, while those with greater bridging and brokerage social capital were able to capitalize on these connections for growth and sustainabillity during periods of austerity. The research demonstrates how reliance on the affective economy of family and friends posed a threat to future funding support beyond the existing networks, whereas active seeking of connections outside their strong ties benefitted companies by providing them opportunities to grow as young enterprises and thrive on the economy of cultural awards.

***Keywords**: Outcome-Based Education; Programme Educational Objectives; Malaysian Qualification Agency; Key Performance Indicator*

INTRODUCTION

Outcome-Based Education (OBE) is a learner-centered approach to education that emphasizes what a student should be able to perform in the real world after completing a course or programme. One of the important aspects of Outcome-Based Education is Programme Educational Objectives (PEOs). The Programme Educational Objectives are the statements that describe what the graduates are expected to perform and achieve in the three to five years following graduation (Malaysian Qualifications Framework, 2017). Good PEOs include those that are distinct, precise, quantifiable, achievable, result-oriented, and have a time frame. (Makinda, Bolong, Gungat and Sarman, 2011). Therefore, to develop PEOs that have these criteria, the opinions and views of Diploma in Entrepreneurship (DEn) alumni representatives were taken into account.

In 2016, MARA Higher Education Division took steps to develop an outcome-based curriculum for all study programmes under its supervision. This pro-active step taken is in line with the MQA's accreditation requirements. Thus, the teaching concept based on OBE has been implemented in KPMBM beginning in 2017. Since PEOs are arguably the most vital part of OBE, MARA Higher Education Division requires the college to prepare a set of PEOs. The PEOs of the

Diploma in Entrepreneurship programme conducted at KPMBM are shown in Table 1.

TABLE 1: Programme Educational Objectives

NO	PROGRAMME EDUCATIONAL OBJECTIVES (PEO)
PEO1	Apply entrepreneurship knowledge and be technically competent in line with the industry requirement
PEO2	Lead and work in team through effective communication skills
PEO3	Apply ethical and professional values in contributing to economy and nation development with appropriate numeracy skills by leveraging current digital technology.
PEO4	Demonstrate entrepreneurship skills and recognize the need for lifelong learning for successful academic and career advancement

In addition, the PEOs and Programme Learning Outcomes (PLOs) are connected directly. The PLOs are supported by course outcomes that have been identified in the curriculum design. If the students' PEOs were not met after graduation, there were probably problems with the PLOs (Hairi, Affandi and Nasri, 2019). Thus, the assessment of PEOs will support the evaluation of the institutions' curriculum development, teaching strategies, assessment practices, and evaluation procedures (Rajak, Shrivastava, Bhardwaj, and Tripathi, 2019). The PEOs and PLOs matrices for the Diploma in Entrepreneurship programme are displayed in Table 2.

TABLE 2: Matrix PEO-PLO

NO	PROGRAM LEARNING OUTCOMES (PEO)	PROGRAMME EDUCATIONAL OBJECTIVES (PEO)			
		PEO 1	PEO 2	PEO 3	PEO 4
At the end of the programme, graduates should be able to:					
PLO1	Describe entrepreneurial knowledge, theories and principles related to entrepreneurship fields	X			
PLO2	Analyse situations and select solutions to solve problems related to various entrepreneurial conditions	X			
PLO3	Demonstrate practical skills in an entrepreneurial context	X			
PLO4	Demonstrate teamwork and interpersonal skills in carrying out given activities		X		
PLO5	Communicate effectively both orally and in writing in a variety of context		X		
PLO6	Apply digital skills in various entrepreneurial situations			X	
PLO7	Use appropriate numerical skills in making decisions in an entrepreneurial context			X	
PLO8	Demonstrate effective leadership quality with some degree of responsibility and autonomy towards achieving a goal		X		

PLO9	Engage in independent and lifelong learning for academic and career development.		X
PLO10	Develop entrepreneurial mindset in preparation towards the real-world perspectives		X
PLO11	Demonstrate ethical values and professionalism in carrying out responsibilities.	X	

Structured PEOs are crucial in assessing a programme's quality, but little thought has been devoted to evaluating the PEOs (Abbadeni, Ghoneim and Alghamdi, 2013). The purpose of this study is to assess PEOs' achievements for the Diploma in Entrepreneurship study programme. The achievement of PEOs has been assessed by an alumni survey. This study outlines how the Diploma in Entrepreneurship study programme at KPMBM evaluated its PEOs using the alumni survey technique. Weisbrook and Schonberg (2011) claim that alumni surveys offer a reliable primary method of evaluation for PEOs. Additionally, most public universities have a long history of using alumni surveys (Makinda et al., 2011; Hairi, Affandi and Nasri, 2019).

METHODOLOGY

Given the limited reference to the assessment of PEOs especially in the Diploma in Entrepreneurship area, the main idea of this current study is to measure the achievement of PEOs in KPMBM using a direct assessment tool that is an alumni survey. In this survey, the attributes that make up each statement were identified and evaluated based on the 1-7 Likert scale. The survey is divided into two sections. The first section of the questionnaire focuses on the alumni information, and the second section is the PEOs' descriptions. Cronbach's Alpha was used to determine the internal consistency of the scale. The values of Cronbach's alpha above 0.7 are regarded as sufficient, indicating that all the test items are valid (DeVellis, 2003; Nunnally, 1978). Cronbach's alpha values for all variables under study are above 0.9 and thus, considered excellent. Using the KPMBM alumni database, these questionnaires were disseminated to alumni using Google Form. The survey was conducted for almost one month, and only 60 alumni responded to the survey. According to Roscoe (1975), sample sizes larger than 30 and less than 500 are appropriate for most research. Based on the rules of thumb, the sample size of 60 is deemed appropriate. The analysis was conducted using descriptive analysis using the Statistical Package for Social Sciences (SPSS) software.

RESULTS AND DISCUSSION

RESPONDENT BACKGROUND

Table 3 provides several basic personal information such as gender, highest academic qualification, and year of graduation from 2015 until 2020 alumni respondents. All the alumni respondents have already met the maturity period for PEO measurement which is between three to five years of graduation from KPM Bandar Melaka.

TABLE 3: Respondent's Background

Information	Frequency	Percentage
i) Gender		
Male	17	28.3
Female	43	71.7
Total	60	100.0
ii) Year of Graduation at KPMBM		
2015	12	20
2016	12	20
2018	12	20
2019	12	20
2020	12	20
Total	60	100.0
iii) Education Level		
Diploma	46	76.7
Bachelor's degree	14	23.3
Total	60	100.0

PEOs' achievement

FINDINGS AND ANALYSIS

Table 4 below summarizes the findings of the results obtained from the assessments of each PEO. For PEO1, the results show that 81.3% of the alumni can apply knowledge in entrepreneurship and be technically competent in line with the industry requirement. The finding results for PEO2 show that 96.7% of respondents lead and work in teams and 86.4% of respondents acquire their leadership styles through effective communication skills. Besides that, 84.7% can communicate appropriately. According to PEO3, 94.9% of the alumni can comply with organizational and professional ethics in a work environment. They also use relevant skills in entrepreneurship such as numeracy skills, digital skills, and general skills with the results of 84.7%. Findings for PEO4 reveal that 83% of respondents demonstrate entrepreneurship skills, and 78% and 86.4 of the respondents either attended courses for career advancement or pursued their studies. In conclusion, these findings indicate that alumni can reach their desired PEOs three to five years after graduating.

TABLE 4: Responses for PEOs based on LO

ITEMS	Responses	Total
PEO1: Apply entrepreneurship knowledge and be technically competent in line with the industry requirement.		81.3%
PEO 1.1: Ability to apply knowledge in entrepreneurship and be technically competent in line with the industry requirement.	81.3%	
PEO2: Lead and work in team through effective communication skills.		89.27%
PEO 2.1: Able to work in team.	96.7%	
PEO 2.2: Acquire leadership skills.	86.4%	
PEO2.3: Possess good command of oral and written communication.	84.7%	

PEO3: Apply ethical and professional values in contributing to economy and nation development with appropriate numeracy skills by leveraging on current digital technology.		
PEO 3.1: Able to use the relevant skills (numeracy skill, digital skill and general skills) for entrepreneurship.	84.7%	88%
PEO 3.2: Able to comply with organizational and professional ethics in work environment.	94.9%	
PEO 3.3: Able to demonstrate acceptable interpersonal skills.	84.4%	
PEO4: Demonstrate entrepreneurship skills and recognize the need of lifelong learning for successful academic and career advancement.		
PEO 4.1: Capable to identify self-improvement initiatives and possibilities for further education.	83%	82.47%
PEO 4.2: Able to develop realistic career and professional goals.	78%	
PEO 4.3: Engage in activities relating to entrepreneurship.	86.4%	

PEOs' overall performance

The overall performance of the PEOs is shown in Table 5. It illustrates that the overall performance of the alumni across all PEOs is in line with the KPMBM Key Performance Indicator's objective. In the coming Continual Quality Improvement (CQI) process of PEOs assessment and evaluation, it is suggested to revise the questionnaire as well as increase the number of respondents. Workshops will be arranged in the future to improve the survey and to find ways of getting more responses.

TABLE 5: Overall Performance of the PEOs

PEOs indicator	Target	% of PEOs achievement	Status
Apply entrepreneurship knowledge and be technically competent in line with the industry requirements.	50%	81.3%	Achieved
Lead and work in a team through effective communication skills.		89.27%	Achieved
Apply ethical and professional values in contributing to economy and nation development with appropriate numeracy skills by leveraging current digital technology.		88%	Achieved
Demonstrate entrepreneurship skills and recognize the need of lifelong learning for successful academic and career advancement.		82.47%	Achieved

IMPLICATION / RECOMMENDATION

The researchers should widen the research by adding more respondents among the KPMBM Alumni from different programmes. Hence, from the survey, improvement plans can be made to upgrade the programme's curriculum so that it will stay relevant in future. Furthermore, to ensure all the graduates fulfil the employment market and industry demand, researchers can collect more data (3 to 5 years after graduation) to achieve more measurable and distinct results. A survey to obtain responses from employers can also be carried out to ensure that graduates are qualified to compete in the entrepreneurial field on both national and global scales.

CONCLUSION

The assessment of PEOs for the alumni of the Diploma in Entrepreneurship study programme at Kolej Profesional MARA Bandar Melaka is shown in this study. The results demonstrate that the alumni have a strong aptitude for achieving the required PEOs. This portrays that the PEOs have a clear link to the PLOs. Thus, the IQA committee in the college will maintain the study programme with the stated PEOs. These findings can also be used to strengthen the programme's continuous improvement plan and upgrade the curriculum to ensure that the programme continues to be relevant and successful.

However, to ensure the entrepreneurs are more entrepreneurial, the researchers should obtain more data on successful entrepreneurs from this programme. Furthermore, it is recommended that more hands-on skills be explored to attract students to join this programme.

It is hoped that the alumni of the Diploma in Entrepreneurship (DEn) can be successful entrepreneurs and thus, able to provide more job opportunities to society.

ACKNOWLEDGEMENT

We would like to acknowledge Bahagian Pendidikan Tinggi MARA for the support and expertise that greatly assisted the research.

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DIPLOMA STUDENTS' PERCEPTION OF ONLINE LEARNING VIA MICROSOFT TEAMS

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ABSTRACT

Using Microsoft Teams in teaching and learning process provides a unique platform for both students and instructors to collaborate, communicate and innovate in real time since its distinctive features such as conversations within teams and channels, chat function, document storage in SharePoint and screen sharing provide opportunities for instructors to conduct better interaction in a stimulating online learning environment. This research aimed at exploring diploma students' perception of online learning via Microsoft Teams by investigating the relationships among course structure/organisation, learner interaction, student engagement and instructor presence on student satisfaction and perceived learning. The study was conducted with 81 Semester 5 diploma students from Kolej Profesional MARA Bandar Melaka (KPM). Quantitative approach was adopted to gain understanding of students' perception of online learning via Microsoft Teams. The findings revealed that the students perceived their learning as very satisfactory, and results of this study were intended to be used in the training and development of educational technology course module for KPM lecturers.

***Keywords**: online learning; students' perception; student satisfaction; perceived learning; student interaction*

INTRODUCTION

Advances in the study of learning has caused a rapid change to the field of teaching for the last 20 years due to the transformative role internet offers (Fortune, Speilman & Pangelinan, 2011). Allen and Seaman (2017) revealed that there is a significant increase in the number of student's enrolment in at least one online higher education course from the 1.6 million in 2002 to around 6 million in 2015. This proves that through technological advancement, teaching and learning are no longer limited to the traditional classroom boundaries but have transcended geographical constraints.

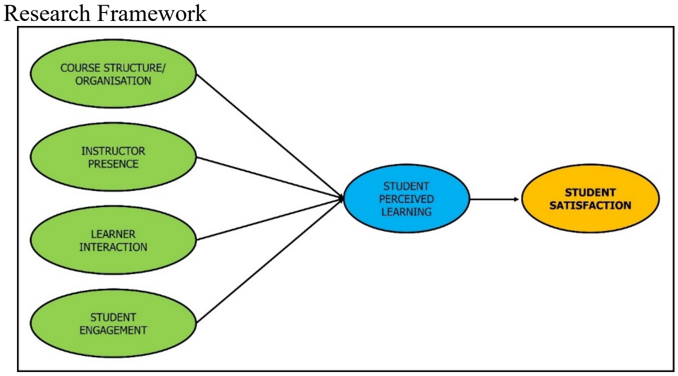
In 2020, global higher education has grappled with the repercussions of the COVID-19 pandemic, particularly regarding instructional advancements. Instructional innovations in higher education discussed how instructional influences are influenced and how to adapt to the future of instruction. The traditional act of students' congregating in physical classrooms is regarded as life threatening. Schools and higher educational institutions had been shut down in more than 172 countries worldwide including Malaysia by April 2nd (Fadzlin Ahmadon, Hajar Izzati Mohd Ghazalli & Hazlifah Mohd Rusli, 2020). As a response to the nationwide Movement Control Order and governmental closure of schools and universities, Majlis Amanah Rakyat (MARA) declared the continuation of the semester for all its *Institut Pendidikan* MARA (IPMA) through online learning. Following this announcement, instructors and students alike expressed their concerns of the potential challenges that they are going to face during this period – limited internet accessibility, classroom engagement, insufficient technology support and commitment. All these worries are significant since they have not yet undergone a complete online learning experience at the time the declaration was made.

Students perceived learning between learning in a face to face (F2F) environment versus online learning has been debated and discussed over the years. Bali and Liu (2018) found that some students were actually very comfortable learning online since it offers them a chance to be innovative in utilising computer technology. In the same study it was also found that there is no significant difference between learning in a F2F environment and online learning. This corresponded with the earlier findings by Fortune et al., (2011) that students that were learning in a high tech and cutting-edge environment are still able to grow, develop and be creative even with limited or no physical contact at all. It was also found that there is no significance difference between learning online and face to face in regard to learning preference. Another research worth citing was conducted by Ahmad Ridho Rojabi (2020) that found even though online learning is considered as something new for the students, understanding of the learning materials is easier since students found themselves motivated by the learning environment and interaction provided by online learning.

Studies have shown a lot of variance for students' perception towards online learning course. Gray and DiLoreto (2016) has found that course structure/organisation and learner interaction as having a statistically significant impact on both perceived student learning and student satisfaction. On the other hand, learning environment and interaction between student-student and student-teacher interaction as the significant variables that impact student perception towards online learning (Ahmad Ridho Rojabi, 2020).

This research aims to study the correlations between variables (course structure/organisation, instructor presence, learner interactions, student engagement, student perceived learning, and student satisfaction) by adapting a research framework by Hasnan Baber (2020) which is illustrated in Figure 1 below.

FIGURE 1: Research Framework



Below were the 5 hypotheses for this study:

Hypothesis 1 (H_1): There was a significant correlation between course structure/organisation and student perceived learning.
Hypothesis 2 (H_2): There was a significant correlation between instructor presence and student perceived learning.
Hypothesis 3 (H_3): There was a significant correlation between learner Interaction and student perceived learning.
Hypothesis 4 (H_4): There was a significant correlation between student engagement and student perceived learning.
Hypothesis 5 (H_5): There was a significant correlation student perceived learning and student satisfaction.

LITERATURE REVIEW

The relationship between course structure, learner interaction, student engagement, instructor presence, student perceived learning and student satisfaction is a topic of ongoing research in the field of education and instructional design. As educational landscapes continue to evolve with technological advancements and changing learning paradigms, understanding how these elements interweave to shape the learning experience becomes not only an academic pursuit but also an essential endeavor for optimizing teaching methodologies.

COURSE STRUCTURE/ORGANISATION

Several recent studies have explored the intricate relationship between course structure and students' perceived learning outcomes. Researchers have found that the organization of course materials, assignments, and assessments significantly influence students' perception of their learning experience (Smith et al., 2018; Gray & DiLoreto, 2016). For instance, Smith et al. (2018) discovered that courses with clear objectives and well-structured content were associated with higher levels of student engagement and a stronger sense of achievement. Conversely, Gray & DiLoreto (2016) observed that poorly organized courses led to confusion and decreased motivation among students.

LEARNER INTERACTION

Over the past few years, there has been a growing body of literature exploring the intricate connection between learner interaction and students' perceived learning outcomes. Research conducted has highlighted the pivotal role of interaction in shaping students' perceptions of their learning experiences (Tang et al., 2021; Gao, 2020). Tang et al. (2021) discovered that active participation in collaborative online discussions not only fosters a sense of community but also enhances students' perceived comprehension and engagement. Similarly, Goa (2020) found that peer interactions in both virtual and face-to-face settings were positively correlated with students' self-reported learning gains.

STUDENT ENGAGEMENT

Numerous studies have demonstrated a strong correlation between student engagement and their perceptions of learning achievements (Guo et al., 2023; Li et al., 2022). Guo et al., (2023) observed that heightened student engagement, characterized by active participation, enthusiasm, and involvement in coursework, was consistently associated with a more positive perception of learning outcomes. Li et al. (2022) further emphasized that engaged students tend to perceive their learning experiences as more meaningful and relevant, leading to increased motivation and a greater sense of accomplishment.

INSTRUCTOR PRESENCE

Research has consistently shown that the level of instructor presence has a profound impact on students' perceptions of their learning experiences (Martin & Bolliger, 2018; Gray & Smith, 2016). Martin and Bolliger (2018) found that a strong sense of instructor presence, facilitated through timely feedback, active engagement, and clear communication, positively influenced students' perceived understanding and engagement with course materials. Gray and DiLoreto (2016) similarly revealed that instructor availability and responsiveness significantly correlated with students' perception of their learning gains.

STUDENT PERCEIVED LEARNING AND STUDENT SATISFACTION

Multiple studies have revealed a strong positive association between these two constructs, emphasizing the pivotal role of perceived learning in shaping student satisfaction (Shin & Sok, 2023; Tsang et al., 2021). Shin and Sok (2023) found that students who perceived a deeper understanding and mastery of course content reported higher levels of satisfaction with their learning experiences. Tsang et al. (2021) further demonstrated that perceived learning outcomes significantly contributed to overall satisfaction with the educational process.

METHODOLOGY

This study was a descriptive research whereby it used questionnaire as the means in obtaining the survey data about the students' perception of online learning via Microsoft Teams. The instrument administered was *The Student Learning and Satisfaction in Online Learning Environments Instrument (SLS-OLE)*, replicated from Grey and DiLoreto (2016). The questionnaire consisted of six sections that focus on 6 variables which are course structure/organisation, learner interaction, student engagement, instructor presence, student perceived learning and student satisfaction. This questionnaire used a six-point Likert scale where options “Strongly Disagree” (SD) is represented by “1”, “Mostly Disagree” (MD) by “2”, “Slightly Agree” (SA) by “3”, “Moderately Agree” (MA) by “4”, “Mostly Agree” (MOA) by “5” and “Strongly Agree” (SA) by “6”. The questionnaire was distributed to 81 Semester 5 diploma students who had completed a year of online learning through Microsoft Teams. 81 undergraduate students pursuing a diploma in KPM Bandar Melaka were chosen as the respondents of the research through purposive sampling. The data was analysed using SPSS V22. The data obtained from the questionnaire was then presented in the form of tables and figures to determine the level of perceived learning and satisfaction of online learning via Microsoft Teams.

RESULTS

The regression analyses (predictions) that were obtained from the SPSS V22 software are categorised into three categories as shown below:

1.0% - 40.0%	Low influence
41.0% - 60.0%	Moderate influence
61.0% - 100.00%	High influence

which indicate that if the R Square scores for independent variables are between 1.0% - 40.0%, it signifies that they have low influence on the dependent variable. If the R Square scores for independent variables are between 41.0% - 60.0%, it signifies that they have moderate influence on the dependent variable. However, if the R Square scores for independent variables are between 61.0% - 100.00%, it shows that they have high influence on the dependent variable.

TABLE 1: Results of Hypothesis 1

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.551[a]	.304	.295	.59823

a. Predictors: (Constant), Course Structure

Table 1 describes the regression analysis between course structure and student perceived learning that shows 30.4%. This means that the course structure has a low influence on student perceived learning.

TABLE 2: Results of Hypothesis 2

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.673[a]	.452	.445	.53059

a. Predictors: (Constant), Instructor Presence

Table 2 describes the regression analysis between instructor presence and student perceived learning that shows 45.2%. This means that the instructor presence has a moderate influence on student perceived learning.

TABLE 3: Results of Hypothesis 3

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.733[a]	.537	.531	.48785

a. Predictors: (Constant), Learner Interaction

Table 3 describes the regression analysis between learner interaction and student perceived learning that shows 53.7%. This means that the instructor presence has a moderate influence on student perceived learning.

TABLE 4: Results of Hypothesis 4

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.713[a]	.508	.502	.50295

a. Predictors: (Constant), Student Engagement

Table 4 describes the regression analysis between student engagement and student perceived learning that shows 50.8%. This means that the student engagement has a moderate influence on student perceived learning.

TABLE 5: Results of Hypothesis 5

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.826[a]	.682	.678	.37249

a. Predictors: (Constant), Perceived Learning

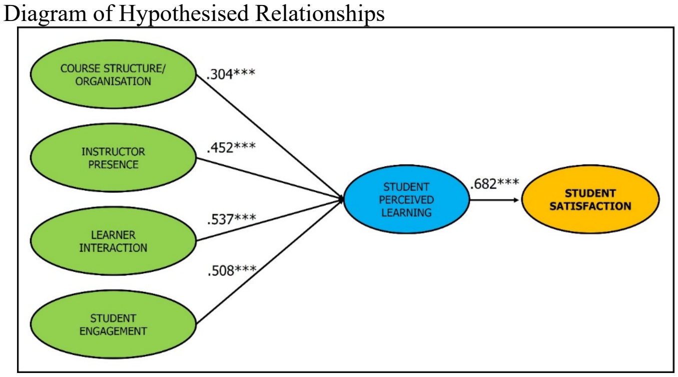
Table 5 describes the regression analysis between student perceived learning and student satisfaction that shows 68.2%. This means that the student perceived learning has a high influence on student satisfaction.

TABLE 6: Results

Hypothesis	Independent variables		Dependent variables	β	Remark
H1	Course Structure/ Organisation	→	Student Perceived Learning	.304	Accepted
H2	Instructor Presence	→	Student Perceived Learning	.452	Accepted
H3	Learner Interaction	→	Student Perceived Learning	.537	Accepted
H4	Student Engagement	→	Student Perceived Learning	.508	Accepted
H5	Student Perceived Learning	→	Student Satisfaction	.682	Accepted

The results of regression analyses propose that all hypotheses are accepted as presented in Table 6. There was a high influence of student perceived learning on student satisfaction. There were medium influence of instructor presence, learner interaction, and student engagement on student perceived learning. Last, but not least, there was a low influence of course structure/organisation on student perceived learning. Figure 2 below shows the diagram of the hypothesised relationships between both dependent and independent variables.

FIGURE 2: Diagram of Hypothesised Relationships



**significant at .05; **significant at .01; ***significant at <.01*

MANAGERIAL IMPLICATION

With this research, the researchers believe that the results obtained could be used in the training and development of educational technology course module for KPM lecturers.

CONCLUSION

This study was conducted to study the correlation between six variables: 1. Course structure/organisation, 2. Instructor presence, 3. Learner interaction, 4. Student engagement, 5. Student perceived learning, and 6. Student satisfaction. The results showed that there were significant correlations between the course structure/organisation, instructor presence, learner interaction, and student engagement with student perceived learning. Additionally, it was also found that student perceived learning had a significant correlation with student satisfaction. Therefore, the hypotheses were accepted.

ACKNOWLEDGEMENT

First of all, thank you Allah S.W.T for the strength and His blessings in completing this research. We would like to extend our gratitude towards the management of Kolej Profesional MARA Bandar Melaka, the Head of General Studies Department, and all the supportive colleagues. Not to forget, the Research & Development Unit of Kolej Profesional MARA Bandar Melaka for this opportunity to write this research. It is hoped that this research could bring the education system one step ahead towards a brighter education system in this country.

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PERSEPSI PELAJAR SEMESTER 1 KOLEJ PROFESIONAL MARA INDERA MAHKOTA TERHADAP KESIHATAN MENTAL

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ABSTRAK

Perkembangan berita dan informasi tentang kesihatan mental di Malaysia telah menjadi satu persoalan hangat sejak beberapa tahun kebelakangan ini khususnya dalam kalangan remaja. Pelbagai kempen kesihatan dan program kesedaran dianjurkan oleh pihak kerajaan dan bukan kerajaan bagi menyebarkan maklumat sebenar tentang penyakit mental. Oleh demikian, kajian ini bertujuan untuk mengkaji tahap kesedaran dan persepsi pelajar terhadap kesihatan mental. Borang soal selidik telah diedarkan kepada 200 orang pelajar semester satu di Kolej Profesional MARA Indera Mahkota Kuantan. Dapatan kajian menunjukkan masih ramai responden berada pada tahap rendah dalam pengetahuan dan kesedaran tentang kesihatan mental dan mereka juga memberi maklum balas bahawa penyebaran informasi tentang kesihatan mental masih kurang. Walau bagaimanapun, majoriti responden mempunyai pandangan yang positif terhadap mereka yang mempunyai masalah kesihatan mental dan menyokong bantuan rawatan sokongan terhadap permasalahan ini.

Kata kunci*: kesihatan mental; kolej profesional mara; persepsi pelajar; kesejahteraan mental remaja*

PENGENALAN

Pada masa ini hanya terdapat beberapa laporan penyelidikan dan artikel tentang kesihatan dan kesejahteraan mental yang diterbitkan dalam kalangan remaja terutamanya pelajar sekolah menengah di Malaysia. Di samping itu, promosi kesihatan berkaitan dengan penyakit mental masih kurang walaupun mereka yang didiagnosis telah meningkat. Hampir tiada maklumat dan data yang jelas dalam kalangan remaja khasnya pelajar-pelajar Institusi Pendidikan MARA (IPMA), mengenai tahap kesedaran dan pengetahuan terhadap kesihatan mental. Oleh itu, kajian ini bertujuan untuk mengukur dan mengumpul data tentang:

i) tahap kesedaran dan pengetahuan pelajar KPMIM tentang kesihatan mental
ii) sikap dan persepsi pelajar KPMIM terhadap masalah kesihatan mental,
iii) saranan dan cadangan tentang bantuan rawatan dan sokongan masalah kesihatan mental

SOROTAN LITERATUR

Menurut kajian yang dilakukan oleh Kementerian Kesihatan Malaysia pada tahun 2008, didapati kelaziman morbiditi psikiatri ialah 11.2% untuk orang dewasa (berumur 16 tahun ke atas) manakala kadar untuk kanak-kanak dan remaja (berumur 15 tahun ke bawah) adalah lebih tinggi iaitu 20.3%. Walaupun tinjauan ini tidak menggambarkan tahap gangguan mental dalam kalangan rakyat Malaysia, tetapi statistik ini boleh memberi maksud bahawa ramai rakyat Malaysia tidak berada dalam keadaan mental yang baik, Di samping itu, satu lagi tinjauan juga telah dijalankan melaporkan bahawa kadar kemurungan dalam kalangan 243 remaja di Malaysia ialah 14%. Pengetahuan dan kesedaran lebih awal adalah kunci untuk mendidik masyarakat tentang kesihatan mental. Kekurangan kempen kesedaran dan hebahan maklumat tentang perkara ini boleh dirumuskan masih rendah dalam kelangan remaja di Malaysia. Walau bagaimanapun. terdapat usaha-usaha yang dilakukan oleh kerajaan dan pelbagai organisasi untuk mendidik dan menyebarluas tentang kesihatan mental, seperti promosi kesihatan mental kebangsaan, kempen Gaya Hidup Sihat dan kempen Kesihatan Sepanjang Hayat. Bagaimana pula tentang kemajuan dan impak daripada program-program ini? Sebagaimana yang dilaporkan dalam satu kajian, kekurangan sumber manusia untuk memerhati dan mengkaji keberhasilannya, menjadikan seolah-olah program-program ini tidak begitu berhasil.

Kajian tentang kesihatan mental ini sememangnya amat diperlukan kerana ini bukan sahaja akan memberikan pemahaman tentang tahap kesedaran dalam kalangan remaja bahkan, memberi beberapa petunjuk tentang keperluan untuk kempen kesihatan awam yang lebih sistematik disasarkan kepada golongan mereka. Apatah lagi masalah kesihatan mental yang semakin meningkat dalam kalangan remaj. Didapati hanya beberapa kajian yang mengukur dan mengumpul persepsi dan kesedaran remaja terhadap penyakit mental.

Menurut satu dapatan melalui penyelidikan yang dijalankan di Ireland telah menunjukkan bahawa promosi kesihatan mental adalah paling berkesan dilakukan dalam kehidupan matang awal seseorang, oleh itu institusi pendidikan merupakan lokasi yang sesuai untuk program tersebut dianjurkan. Pelbagai program kesihatan juga telah dimulakan seperti perkhidmatan kesihatan mental di klinik kesihatan serta pengurusan tekanan dalam kalangan murid sekolah berdasarkan satu kajian pada tahun 2011.

METODOLOGI

Responden untuk kajian ini merupakan pelajar-pelajar semester satu dari semua program *Diploma in English Communication* (DEC), *Diploma in Accounting* (DIA), *Diploma in Creative Digital Media Production* (DCD) dan *Diploma in Computer Networking* (DCN) yang mendaftar pada sesi 1 2023/2024 berjumlah 200 orang.

Manakala instrumen yang digunapakai ialah set soalan kaji selidik yang dibangunkan berdasarkan soalan-soalan kaji selidik oleh penyelidik-penyelidik terdahulu. Data-data yang diperoleh dianalisis dan keputusan dibentangkan melalui kiraan kekerapan dan peratusan. Skala Likert Lima Mata telah digunakan dalam soal selidik ini dalam menganalisis data, bagi ukuran persetujuan ordinal antara sangat tidak setuju (1) hingga sangat setuju (5).

Soal selidik terdiri daripada 15 soalan diajukan pada bahagian B iaitu responden perlu memilih respons berdasarkan pemahaman mereka tentang kesihatan mental. Secara amnya, kajian ini mengukur dan mengumpul data tentang pengetahuan dan kesedaran mereka tentang huraian berbeza penyakit mental, bentuk dan gejala penyakit mental serta persepsi mereka terhadap masalah kesihatan mental. Di samping itu cadangan bantuan rawatan dan sokongan pemulihan yang perlu untuk mereka yang mempunyai masalah kesihatan mental juga diambilkira.

DAPATAN DAN PERBINCANGAN

JADUAL 1: Persepsi Pelajar Terhadap Mereka yang Mempunyai Masalah Kesihatan Mental

Seseorang yang mengalami	Peratus
Serangan Panik	1.5
Skizofrenia	12.5
Kebimbangan (Anxiety)	16
Kemurungan	22.5
Gangguan Mental	47.5

Kelima-lima definisi itu dipilih sebagai huraian yang sesuai tentang mereka yang mempunyai masalah kesihatan mental. Majoriti responden iaitu hampir 50% mengatakan gangguan mental, sementara sebanyak 22.5% mengatakan seseorang yang mempunyai Kemurungan dan sebanyak 16% mengatakan seseorang yang mengalami kemurungan adalah mereka yang mempunyai masalah kesihatan mental. Selebihnya, sebanyak 12.5% berpendapat bahawa mereka yang mempunyai masalah kesihatan mental adalah seseorang yang mendengar suara (schizophrenia) dan hanya 1.5% peratus percaya bahawa seseorang yang mengalami serangan panik adalah mereka yang mempunyai masalah kesihatan mental.

JADUAL 2: Persepsi Pelajar Terhadap Perasaan Seseorang Dikaitkan dengan Masalah Kesihatan Mental

Perasaan	Peratus
Paranoia	4.5
Skizofrenia	9.5
Khayalan (Delusion)	15.5
Kebimbangan (Anxiety)	16
Kemurungan (Depression)	54.5

Kesemua lima bentuk perasaan telah dipilih sebagai perasaan yang berkait dengan masalah kesihatan mental yang biasa. Perasaan kemurungan menjadi pilihan responden, melebihi separuh daripada semua responden iaitu sebanyak 54.5%. Diikuti dengan perasaan, kebimbangan dan perasaan khayal iaitu masing-masing memberi skor sebanyak 16% dan 15.5%. Kemudian, 9.5% daripada responden memilih skizofrenia bersetuju bahawa ini adalah perasaan seseorang yang bermasalah kesihatan mental. Hanya sebahagian kecil iaitu 4.5% responden yang melihat paranoia sebagai kaitan dengan masalah kesihatan mental.

Dapat disimpulkan bahawa majoriti responden percaya kemurungan sebagai bentuk perasaan yang sangat berkait rapat dengan masalah kesihatan mental yang lazim. Sehubungan itu, semua pilihan yang diberikan adalah bentuk perasaan yang berkait dengan kesihatan mental dengan kemurungan dan kebimbangan sebagai yang paling biasa dihadapi oleh mereka yang berkenaan. Boleh dirumukan bahawa majoriti responden mempunyai tahap kesedaran sederhana tentang masalah kesihatan mental kerana majoriti daripada mereka telah memilih salah satu bentuk penyakit mental yang paling biasa iaitu kemurungan.

JADUAL 3: Persepsi Pelajar Terhadap Simptom Masalah Kesihatan Mental

Simptom	Peratus
Dirasuk roh jahat (Possessed by evil spirits)	0.5
Kurang Pengetahuan Agama (Lack of religious knowledge)	3
Peribadi yang lemah (Personal Weakness)	5.5
Kebimbangan (Anxiety)	16
Ketakutan atau Fobia yang teruk (Intense Fear or Phobia)	19.5
Tekanan (Stress)	55.5

Jadual 3 menunjukkan persepsi responden terhadap simptom masalah kesihatan mental yang berbeza. Kesemua enam simptom yang disenaraikan adalah kemungkinan simptom masalah kesihatan mental. Tiga gejala berpotensi teratas yang dipilih oleh responden ialah tekanan, ketakutan atau fobia yang teruk dan kebimbangan. Berdasarkan dapatan ini, 55.5% pelajar memilih tekanan sebagai gejala masalah kesihatan mental manakala 19.5% daripada mereka menganggap ketakutan atau fobia yang teruk sebagai gejala masalah kesihatan mental. Sebanyak 16% pelajar memilih kebimbangan sebagai gejala berpotensi menyumbang kepada masalah kesihatan mental. Tiga item ini, yang dipilih oleh responden adalah kemungkinan gejala masalah kesihatan mental yang paling utama. Ini menunjukkan bahawa majoriti responden mempunyai tahap kesedaran yang baik tentang masalah kesihatan mental. Walau agaimanapun, sebilangan kecil responden (5.5%) memilih kelemahan diri, 3% kurang pengetahuan agama dan hanya 0.5% mempercayai dirasuk roh jahat sebagai gejala masalah kesihatan mental. Seterusnya, dapat disimpulkan bahawa kebanyakan responden menganggap tekanan sebagai gejala yang paling utama mengakibatkan masalah kesihatan mental.

JADUAL 4: Tahap Pengetahuan dan Kesedaran Pelajar Terhadap Masalah Kesihatan Mental

Soalan Terbuka	Respon/Peratus
Adakah anda mengenali mereka yang mempunyai masalah kesihatan mental?	Ya 38% Tidak 62%
Adakah anda pernah merasakan yang anda menghadapi masalah kesihatan mental dalam hidup anda?	Ya 27% Tidak 73%
Namakan kemudahan kesihatan mental di Malaysia yang anda tahu.	Betul 58% Salah 42%
Dimanakah anda boleh mendapat maklumat kesihatan mental	Internet 60% Hospital 27.5% Sekolah 7.5% Tidak Berkaitan 5%

Majoriti responden iaitu 62% juga menyatakan bahawa mereka tidak mengenali sesiapa pun yang mempunyai masalah kesihatan mental. Ini mungkin menunjukkan bahawa responden hanya mempunyai pengetahuan tentang kesihatan mental melalui pembacaan mereka dan tidak pernah menangani masalah kesihatan mental yang sebenar. Namun begitu, terdapat segelintir daripada responden yang mengatakan ya iaitu sebanyak 38% mengatakan mereka mengenali sesorang yang mempunyai masalah ini. Menariknya di sini, walaupun sebahagian besar daripada responden (73%) mengakui tidak pernah menghadapi sebarang masalah kesihatan mental, 27% daripada responden mengakui bahawa mereka pernah mengalami beberapa bentuk perasaan yang merupakan gejala seperti tekanan, kemurungan, kebimbangan, fobia dan sebagainya yang berkait dengan masalah kesihatan mental dalam hidup mereka.

Selain itu, majoriti responden melaporkan bahawa mereka tahu kemudahan berkaitan kesihatan mental ditawarkan oleh Kementerian Kesihatan Malaysia (KKM) seperti Bahagian rawatan psikiatri, unit kaunseling KKM, Mentari Putrajaya dan sebagainya, sementara itu sebanyak 42% masih lagi keliru dan mungkin boleh dikatakan tiada kesedaran dan pengetahuan yang tepat tentang di manakah lokasi kemudahan yang disediakan pihak terbabit untuk masalah kesihatan mental. Mereka menyatakan institusi yang tidak begitu berkait dengan masalah kesihatan mental seperti persatuan bulan sabit merah, Akademi Bomba dan lain-lain lagi. Jelas di sini, masih sejumlah bilangan yang besar dalam kalangan pelajar atau remaja khususnya penuntut IPMa perlu diberi pendedahan yang sebenar-benarnya tentang kewujudan kemudahan yang sudah sedia ada berkaitan masalah kesihatan mental oleh pihak kerajaan mahupun bukan kerajaan di negara kita.

Majoriti pelajar menyatakan bahawa sumber utama yang menyediakan maklumat tentang kesihatan mental ialah melalui internet iaitu sebanyak 60% responden bersetuju dengan pilihan itu. Sementara 27.5% memilih hospital adalah pusat untuk mendapatkan maklumat yang tepat tentang kesihatan mental sebaliknya hanya 7.5% bersetuju sekolah atau institusi pendidikan sebagai lokasi untuk mendapatkan maklumat tentang kesihatan mental. Ini menunjukkan bahawa maklumat tentang kesihatan mental, seperti maklumat kesihatan lain, bukanlah sesuatu yang ketinggalan zaman dan maklumat yang diperlukan boleh diperolehi dengan mudah pada masa kini. Memandangkan majoriti responden menyatakan bahawa mereka boleh mendapatkan maklumat tentang kesihatan melalui internet, dapatan ini jelas menunjukkan bahawa walaupun maklumat tentang kesihatan mental boleh didapati dengan mudah, sudah tentu kesahihan tentang maklumat yang diperoleh melalui internet diragui, kerana terdapat juga banyak maklumat salah dan tidak tepat dihebahkan melalui internet.

Golongan remaja seperti responden dalam kajian ini perlu dibimbing tentang cara mencari maklumat yang betul dan tepat daripada sumber yang boleh dipercayai. Agensi berkaitan seperti Kementerian Kesihatan Malaysia seharusnya menggunakan medium dalam talian sebagai alat penting untuk mendekati dan mendidik golongan muda tentang kesihatan mental kerana ini adalah medium yang lebih menarik minat generasi muda. Walaupun begitu, 5% daripada responden menyatakan tidak tahu di manakah sumber yang betul untuk mendapatkan maklumat tentang kesihatan mental.

JADUAL 5: Persepsi Pelajar Terhadap Cadangan Rawatan/Sokongan Masalah Kesihatan Mental

Rawantan/Sokongan	**Peratus**
Rawatan Tradisional (Traditional Treatment)	2
Rawatan Perubatan (Medical Treatment)	4
Khidmat Masyarakat (Community Service)	6
Sokongan Rakan Sebaya (Peer Support)	43.5
Rawatan Psikiatri (Psychiatric Treatment)	44.5

Di samping itu, majoriti responden juga percaya bahawa bentuk bantuan rawatan dan sokongan terbaik untuk mereka yang mempunyai masalah kesihatan mental adalah perkhidmatan psikiatri. Menarik sekali dalam kalangan remaja, responden mengatakan sokongan rakan sebaya iaitu sebanyak 44.5% adalah antara bentuk rawatan dan sokongan masalah kesihatan mental. Begitu juga dengan khidmat masyarakat, rawatan perubatan dan rawatan tradisional, masing-masing memberi skor 6%, 4% dan 2%. Ini adalah petunjuk positif bahawa responden bersetuju bahawa seseorang yang mengalami masalah kesihatan mental perlu mendapatkan bantuan profesional daripada khidmat rawatan psikiatri yang berkelayakan. Namun di sana juga dinyatakan bahawa sokongan rakan sebaya juga memainkan peranan yang penting sebagai bentuk rawatan sokongan kepada mereka yang mempunyai masalah ini. Responden juga kelihatan memahami kepentingan sokongan masyarakat dan rawatan alternatif yang lain dalam membantu mengurangkan masalah kesihatan mental.

JADUAL 6: Persepsi Pelajar Terhadap Kesedaran/Pengetahuan tentang Masalah Kesihatan Mental

Item	**Skala Likert (%)**				
	S	**TS**	**TP**	**TS**	**STS**
1. Seseorang yang mengalami masalah kesihatan mental dirawat, mereka masih berbahaya daripada orang biasa.	2.6	5.2	20.6	28.9	42.8
2. Walaupun selepas dipulihkan, kita masih tidak boleh berkawan dengan mereka yang bermasalah mental.	4.1	3.6	10.8	21.1	60.3
3. Penjagaan dan sokongan keluarga dan rakan-rakan boleh membantu mereka yang bermasalah dipulihkan.	51.3	29	13	3.6	3.1
4. Masalah kesihatan mental boleh berlakau kepada mereka yang mungkin mengalami kemalangan/trauma semasa zaman kanak-kanak.	40.2	37.6	19.1	1.5	1.5
5. Masalah kesihatan mental boleh menjejaskan sesiapa sahaja tidak kira umur, bangsa, agama atau pekerjaan.	73.7	19.1	3.6	0.5	3.1
6. Lebih ramai remaja mengalami masalah kesihatan mental pada zaman sekarang berbanding sebelum ini.	49	41	6.5	0.5	3

Dapatan yang seterusnya diukur berdasarkan skor kiraan kekerapan dan peratusan. Skala Likert Lima Mata telah digunakan dalam soal selidik ini dalam menganalisis data, bagi ukuran persetujuan ordinal antara Sangat Tidak setuju (1) hingga Sangat Setuju (5).

Analisis ini menunjukkan persepsi responden terhadap masalah kesihatan mental dan rawatannya. Daripada dapatan kajian, dapat dilihat bahawa peratusan skor yang tinggi iaitu 80.3% responden sangat setuju dan setuju dengan penyataan bahawa penjagaan dan sokongan keluarga dan rakan dapat membantu mereka yang mempunya masalaah kesihatan mental untuk dipulihkan. Ini menunjukkan bahawa responden percaya mereka yang terlibat perlu mendapatkan kasih sayang, perhatian dan bantuan daripada orang yang tersayang agar mereka sembuh. Ini kerana keluarga terdekat seseorang memainkan peranan penting dalam membantu mereka mendapatkan diagnosis yang betul oleh pakar dan rawatan yang betul.

Secara keseluruhan majoriti responden percaya yang mereka mempunya masalah kesihatan mental boleh dipulihkan dan dirawat serta berpeluang untuk sembu seperti mereka lain yang normal. Oleh itu, pendedahan awal dan penglibatan semua pihak khususnya Institusi Pendidikan MARA (IPMa) adalah sangat penting kerana rawatan yang berkesan lebih awal akan membawa hasil yang lebih baik. Institusi pendidikan seperti sekolah dan khususnya IPMa harus mengambil tindakan yang perlu untuk mengenal pasti dan menyediakan intervensi yang sewajarnya kepada pelajar yang mempunyai gejala dan symptom yang membawa kepada masalah kesihatan mental, kerana masalah ini terbukti berleluasa dalam kalangan remaja berdasarkan kajian-kajian yang lepas. Tambahan lagi, responden juga sangat setuju dan setuju iaitu 90% skor bahawa remaja mengalami masalah kesihatan mental berbanding sebelum ini. Intervensi yang lebih awal membolehkan remaja atau pelajar IPMa khususnya, boleh berjaya dan berkembang secara sihat dan mampumengutip pengalaman sscial yang sejahtera sepenuhnya dalam alam remaja.

Responden juga tidak bersetuju bahawa walaupun selepas sesorang yang mempunyai masalah kesihatan mental dirawat mereka masih dianggap lebih berbahaya daripada orang biasa dan selepas rawatan dan pemulihan, golongan ini tidak boleh didekati. Bagi dua penyataan ini di atas, nilai skor peratus yang sangat rendah iaitu antara 2.6% hingga 5.2% sahaja dilaporkan. Ini menunjukkan bahawa responden mempunyai persepsi yang positif terhadap mereka yang mempunyai masalah kesihatan mental kerana responden percaya bahawa masalah kesihatan mental ini perlu diterima dalam masyarakat apabila mereka telah pulih. Sikap positif pelajar terhadap masalah ini dan rawatannya adalah signifikan kerana perkara ini menunjukkan bahawa mereka tidak akan mempunyai stigma terhadap mereka yang mempunyai masalah kesihatan mental ini. Stigma yang selalu menyelubungi seseorang yang mempunyai masalah kesihatan mental adalah sangat teruk kerana stigma ini boleh membawa kepada diskriminasi dan prasangka. Stigma, prasangka dan diskriminasi secara umumnya boleh dianggap sebagai penghalang utama yang tidak menggalakkan mereka yang terlibat dan keluarga mereka daripada mendapatkan bantuan rawatan dan sokongan yang diperlukan.

RUMUSAN

Kajian ini telah menunjukkan bahawa secara amnya tahap kesedaran responden terhadap penyakit mental adalah agak sederhana namun positif berkaitan kesihatan mental di Malaysia. Bagi bantuan rawatan dan sokongan, walaupun responden mempunyai persepsi positif terhadap rawatan kesihatan mental, respon mereka masih menunjukkan kekurangan kesedaran yang serius apabila berkaitan dengan perkhidmatan dan sistem sokongan yang terdapat di sekeliling mereka. Mereka hanya dapat menyebut beberapa kemudahan kesihatan mental yang terkenal di Malaysia berdasarkan pengetahuan sedia ada. Secara keseluruhannya, majoriti pelajar mempunyai persepsi sederhana namun masih menunjukkan sikap yang agak positif terhadap masalah kesihatan mental dan rawatannya. Ini mungkin hasil daripada program kesihatan yang telah dimulakan dalam kalangan mereka dan juga daridapa sumber pembacaan. Sikap positif akan membantu lebih ramai yang mempunyai masalah kesihatan mental untuk tampil ke hadapan dan mendapatkan bantuan yang diperlukan untuk pemulihan dan kesejahteraan mereka.

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UNDERSTANDING READING ANXIETY: IMPLICATIONS FOR ESL CURRICULUM DEVELOPMENT

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ABSTRACT

Anxiety about English language reading is common among second language learners, and it may result in a negative impact on ESL learners' overall language learning experience. By using the Foreign Language Reading Anxiety Scale (FLRAS), this paper discusses the causes and effects of English language reading anxiety, as well as strategies for reducing it. Fear of failure, a lack of confidence, and cultural differences are all factors that contribute to reading anxiety whilst reduced motivation, avoidance of reading activities, and negative attitudes towards language learning are all side effects of reading anxiety. Strategies to reduce reading anxiety which include building confidence, providing support, using appropriate materials, and using educational technologies are recommended to help curb the issue. Educators can assist second language learners in improving their reading skills and enjoying their language learning experience by understanding the causes and effects of English language reading anxiety and implementing effective strategies.

***Keywords**: reading anxiety; English language learning; language teaching; reading strategies*

INTRODUCTION

Reading is one of the skills that students have to master in learning English. Again, the ability to read is essential to determine the success of the comprehensible input that students gather to produce the comprehensible output (Moran, 2022). However, reading effectively is not as easy as it looks. Reading requires students to spend a large portion of their time sitting in one place to complete a reading task. Moreover, reading also requires students to use more than just their physical faculties. Yang (2023) states that learners need to use their cognitive faculties in the process of reading which necessitates the readers to submit to different kinds of mental processes including giving attention, perception, memory, and comprehension or understanding of the reading materials. Adding to the intricate process of reading, when learners want to read materials from a different language (aside from the mother tongue), learners need to give more attention and need to have extra abilities such as knowledge of the foreign language, the cultural background of the target language community and the purposes or motivations to read the materials. Hence, reading is a complex process because reading entails several overlapping and interrelated skills, which pose a demanding process on the learners' cognitive systems (Spiegel, Goodrich, Morris, Osborne, & Lonigan, 2021).

Looking at the complex process of reading, Limeranto and Subekti (2021), attest that reading is an anxiety-provoking activity where many language studies proved that language anxiety plays a pivotal role for foreign or second language learners in their quest for language learning and acquisition (Fitrawati, Erdiansyah, & Perrodin 2023, Limeranto & Subekti 2021). Despite acknowledging anxiety in language learning in general, it is best to view anxiety in light of specific language skills such as reading as anxiety is said to have a prominent role in reading skills. Reading anxiety would eventually affect the readers' language acquisition and thus serve as the barrier to language proficiency. Anxiety can be a significant factor that affects reading skills, as the process of reading can trigger feelings of anxiety in learners. It can lead to difficulties with comprehension, memory retention, and other cognitive processes involved in reading. Additionally, anxiety can also have an impact on motivation, self-esteem, and overall engagement with the learning process, which can further hinder the development of reading skills. Given the potential impact of anxiety on language learning, researchers need to investigate this affective construct and identify preventative measures to address the problem. By understanding the relationship between anxiety and language acquisition, educators and researchers can develop strategies to help learners overcome anxiety and achieve success in their language-learning endeavors. Therefore, this study will further acknowledge the existence of reading anxiety among Malaysian second language learners, look into the causes of reading anxiety, and suggest strategies to reduce it.

LITERATURE REVIEW

Reading psycholinguistics is a subfield of psychology and linguistics that studies the cognitive processes involved in reading as well as the mental representation of language in the mind (Ferreira & Yang, 2019). It aims to explain how people comprehend written text, how they recognize words, and how they process and retain information from text. The field also seeks to identify the cognitive and neurological processes that underlie these abilities. According to (Ahmadi, Ismail, & Abdullah (2013), reading is the process of constructing meaning from a printed or written message which involves the use of various cognitive skills such as decoding, comprehension, and interpretation. This includes the ability of the reader to use their knowledge and understanding of the language, vocabulary, and topic to decode and comprehend the message. The process of reading starts with the recognition of individual words, which enables the reader to use several cognitive processes such as reasoning and contextual knowledge to arrive at a clear understanding of the text. Reading involves a combination of visual recognition, cognitive processing, and prior knowledge to derive meaning from a written message. Readers use both visual and contextual cues to make predictions about what a text might mean, and then constantly verify those predictions as they continue to read. Visual cues might include things like the appearance and layout of a text, as well as individual words and their letters or shapes. Contextual cues, on the other hand, might include the reader's knowledge of the topic, their understanding of the genre or type of text they are reading, and their prior experiences with similar texts (McCarthy & McNamara, 2021).

Anxiety is a psychological construct, which consists of a state of apprehension (Alamer & Almulhim, 2021) that triggers the emotion of tension, stress, nervousness, and worry and is closely related to the stimulation of the automatic system in the human body. Anxiety is the feeling of uneasiness and fear due to an individual's prediction of something bad or threatening that may befall an individual. According to Petersen & McKenna, M. C (2019) reading anxiety is defined as an unpleasant and negative emotional reaction to reading that can be caused by multiple factors, such as difficulties with decoding or comprehension, fear of negative evaluation, low self-efficacy, or a lack of interest in the material. Difficulties with decoding or comprehension can create anxiety because the reader may feel frustrated or overwhelmed by the text. They may feel like they are not understanding the material, which can lead to feelings of inadequacy or a fear of failure. This can then create a cycle of anxiety that makes it difficult for the reader to engage with the text. Fear of negative evaluation can also create anxiety, particularly in social situations where the reader may feel judged by others. For example, in a classroom setting, a student may feel like they are being evaluated by their peers or teacher, which can create pressure and anxiety around reading. Low self-efficacy, or a lack of confidence in one's ability to read and comprehend text, can also contribute to reading anxiety. This can be caused by previous negative experiences with reading, a lack of support or encouragement, or a belief that reading is not an important or valuable activity. Finally, a lack of interest in the material can create anxiety because the reader may feel like they are forcing themselves to engage with something they don't enjoy or care about. This can lead to a sense of apathy or disengagement, which can make it difficult to focus on the text and comprehend the material.

As Saito, Horwitz, and Garza (1999), explore the effects of anxiety on reading, they point out that researchers should look at two important constructs when discussing foreign language reading anxiety namely; the unfamiliar scripts and writing systems and the unfamiliar cultural materials. They predict that if the readers are unaware of most of the words that they are reading, more feelings of anxiety will arise. Consequently, if the readers do not have sufficient knowledge of the foreign language culture, it is more difficult for them to comprehend the ideas behind the written scripts and eventually these two significant factors will elicit anxiety in reading. When culture is concerned with relation to reading comprehension, it is also related to the readers' world knowledge, especially concerning the target language cultures. Reading comprehension is closely related to the ability of the readers to relate the written words with the theoretical world knowledge that they have in their heads. By relating both the dictions and the conceptual background knowledge that a reader has on the target language culture, it enables the reader to gain a better understanding of the written text.

METHODOLOGY

The data is collected using a set of Likert Scale questionnaires developed by Saito, Horwitz, and Garza (1999) known as the Foreign Language Reading Anxiety Scale (FLRAS). The questionnaires are designed to evaluate the levels of foreign language reading anxiety among learners learning a foreign or second language. It uses Likert Scale questionnaires and the respondents are free to choose a range of choices between strongly agree to strongly disagree on a scale of 1-5. FLRA particularly employs Likert scale type of questionnaires because it allows the respondents to select a range of opinions or answer from positive (strongly agree) to slightly positive (agree) to neutral (not sure) to slightly disagree (disagree) and finally negative (strongly disagree) opinion.

This study employs convenience sampling in data gathering which also falls under the category of non-probability sampling. This type of non-probability method is used to get a gross estimation of the results, without incurring the cost or time required to select a random sample. Due to time constraints, the participants are selected from diploma-level students from a private learning institution located in Batu Pahat where students are required to use the English language in completing all their assessments to graduate.

For the current study, the factors of foreign language reading anxiety are adapted from FLRAS and are segregated into three categories namely the Linguistics factors, the Personal factors, and the Cultural Items. The data gathered from FLRAS is computed to find the mean square and the standard deviation. This is to discover the level of reading anxiety of the respondents. Each respondent is identified through their students' card numbers and those who achieve the means between 1.00 – 2.50 is considered to experience high anxiety, 2.51 – 3.50 medium level of anxiety, and 3.51 – 5.00 is considered to experience low reading anxiety.

RESULTS

The impact of anxiety on reading performance is mediated chiefly by students' proficiency level and task difficulties. Students who have low language proficiency to intermediate level are not capable to handle high-level task difficulty that requires firm linguistic background as well as discourse, strategic and sociolinguistic competencies. According to MacIntyre (2017), the impact of anxiety can be examined with the integration of the stage of learning, the difficulty of the task, and the integrated intelligence. It shows that high anxiety levels facilitated learning when the task is relevantly easy but impeded learning when the tasks become difficult. This is applicable in examining reading activities as well, to which when the students encounter dictions that are more difficult for them; be it in terms of pronunciation or meaning, they tend to feel uneasy with the reading tasks. On the other hand, it increases their motivation to handle the situation by discovering more about the target language. However, if there is too much difficulty in the reading tasks, this may as well de-motivate them and eventually make them feel less interested to complete the activity. This situation also leads to feelings of uneasiness, which eventually leads to feelings of frustration and depression. This proves the existence of anxiety among students while undergoing English language reading activities.

Generally, the results proved the existence of feelings of anxiety while performing reading tasks among learners learning at tertiary levels. Similarly, it also depicts that while anxiety may affect the students' level of proficiency; it also shows that the learners' beliefs towards the language itself are also pertinent. The rigid beliefs that a learner uphold is the main reason for determining the learners' success in language learning and acquisition. The beliefs are the concepts that will ultimately influence the learners' self-esteem, confidence, self-concept, and motivations toward mastering the target language. In the case of the present study, it is observed that, even though it is proven that, the students do experience a state of anxiety while reading English materials and at some point, they also experience some detrimental personal factors such as loss of interest, depression, and frustrations especially when confronting difficult dictions, they insist to continue their reading as they are aware of the needs to master the language. It is assumed that the need to excel in their academic performances is the external factor that leads the students into persevering in learning and acquiring the language.

The findings suggest that students are majorly nervous when they encounter unknown linguistic items. Anxiety is discovered to root from the students' feeling of low proficiency and deficiency of confidence in common linguistics information or knowledge which they do not want to show. Problems such as encountering unknown grammar, and difficulties in word pronunciation, which are perceived to be the major obstacle in mastering a second language, have resulted in feelings of anxiety. It is the meaning-reconstruction process in which readers should focus on extra-text components rather than only interact with text-based components, namely word recognition, phonemic or graphemic decoding, and syntactic features. Besides, the cognitive capacities of humans are rather limited. Hence, it supports the findings in that when students immerse in recognizing linguistic items, they barely focus on the discourse or prior knowledge or even the metacognition that deals with the extra-text components.

MANAGERIAL IMPLICATIONS

Correspondingly, in shaping the students' beliefs, teachers play significant responsibilities. As discovered from the surveys students felt extremely anxious when they have to perform a public reading. It means that, even though they do not have any problems when reading silently, they still feel uneasy when they have to read aloud in front of others. In such situations, teachers need to instill a sense of confidence to the extent that it will help to reduce their feelings of anxiety while reading in public.

Again, in the case of the present study, teachers can enhance students' external motivations in acquiring the English language by making them aware of the importance of the language in their future endeavors. This can lead to persuading the students to be more confident and to inculcate more self-esteem toward learning and acquiring a second language. Hence, in brief, considering learners' beliefs in language learning and acquisition, are very important as it can serve as one of the prominent elements or ways to motivate learners' autonomy towards mastering the target language.

The existence of anxiety while exercising reading activities acknowledged the fact that anxiety does serve as a barrier for students to master a second language. Likewise, based on the findings, it is best to note that feelings of anxiety arise out of a general sense of nervousness and depression when dealing with a second language. The idea of foreign language anxiety; in which students in general, experience the feeling of anxiety due to three typical reasons namely, communication apprehension, fear of negative social evaluation, and test anxiety does exist. In the case of the present study, the existence of anxiety arises due to the student's awareness of the effect that this particular target language may have on their future or their academic achievements.

In addition, research recommends that linguistic difference between academic and conversational language is the main reason ESL learners become discouraged and drop out when they are unable to keep up with the school curriculum. Thus, this situation can be dangerous if not corrected. Development of a coherent language policy at the school level focusing on the enhancement of reading in the English language should be implemented. Reading tasks must not only focus on the basic skills but also should include the expansion of vocabulary across all subjects taught in schools such as Mathematics, Science, Arts, and Music to name a few. Apart from that, considering that Malaysia is a country that is proud of its national language (Bahasa Malaysia), it is worth considering an enormous number of dual language books in schools covering different areas of subjects as mentioned earlier.

For language anxiety to be facilitative, teachers should play pivotal roles in establishing learner-friendly environments. In the case of the present study, most respondents feel shy or nervous when it comes to reading aloud to the public. This may be due to some linguistic factors such as difficulties in pronunciation, unknown grammar, or unfamiliar dictions that make the respondents hard to encounter or handle the problems by themselves. Teachers need to take part in reducing the feelings of anxiety while performing reading practices particularly when reading aloud to the class. Teachers can help to set up anxiety-reducing environments by giving encouragement instead of punishments. Instead of giving the students difficult tasks, teachers can adapt the tasks following the students' capabilities. Accordingly, this may facilitate enhancing the students' self-esteem and in due course, the students will ascertain positive self-concepts, particularly in language learning and acquisition.

CONCLUSION

The problem of English language reading anxiety among ESL students is a significant one that must be addressed in language-learning classrooms. Anxiety has been identified as a major factor influencing learners' ability to read and comprehend English-language texts. Reading anxiety can be caused by a variety of factors, including low confidence, a lack of vocabulary, and unfamiliarity with the reading style. Teachers and language learning professionals can use a variety of strategies to help ESL learners overcome reading anxiety, such as providing support and feedback, creating a supportive learning environment, and using interactive reading materials. Finally, by addressing the issue of reading anxiety, ESL students can improve their reading skills, leading to increased academic and professional opportunities.

In conclusion, educational curriculum developers, educational policyholders, and educators need to join hands in dealing with matters affecting academic achievements. Even though the present study found insignificant effect of reading anxiety and academic performance, still the impact of reading anxiety must not be lightly considered. As mentioned earlier in this subchapter, matters that can help to reduce anxiety must be carefully studied and proper precautionary measures must be taken into consideration. This is indeed very important to enhance the capability of Malaysian ESL learners in mastering English language.

ACKNOWLEDGEMENT

The author would like to acknowledge Kolej Poly-Tech MARA Batu Pahat which has supported this humble study.

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CHALLENGES AND STRATEGIES IN SUPERVISING MINI RESEARCH (EXTENDED ESSAYS) AT MALAYSIAN INTERNATIONAL PUBLIC SCHOOL

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ABSTRACT

The extended essay (EE) is a fully referenced research essay of 4,000 words on a topic of the students in the International Baccalaureate Diploma Program (IBDP). It is an external criterion assessed by International Baccalaureate Organization (IBO) in the IB examination. The EE is an exacting piece of research, a major piece of formally presented, structured writing (IBO 2009). It is the responsibility of the school to provide students with the required support for them to be able to complete the essay. Students begin their EE journey in semester two, completing it in their final year of school. Therefore, the objective of this research is to explore challenges and strategies in supervising mini-research (Extended Essays) at Malaysian International Public School. The study involves five lecturers and eight IBDP students for the semi-structured interview. In order to support the finding survey on the challenges and strategies was also done quantitatively to the 40 students. Findings based on the interview are summarised into themes and subthemes. Data analysis through open-coding, axial coding, and selective coding revealed the supervisor's challenges in supervising Mini research (EE) at Malaysian International Public School comprising of readiness of the student towards EE, lacking writing skills, not enough information on the method used to conduct scientific research and high-density daily study schedule. Data for quantitative are analysed and presented in table and graph.

***Keywords**: Challenges; Strategies; Mini Research; Malaysian International Public School*

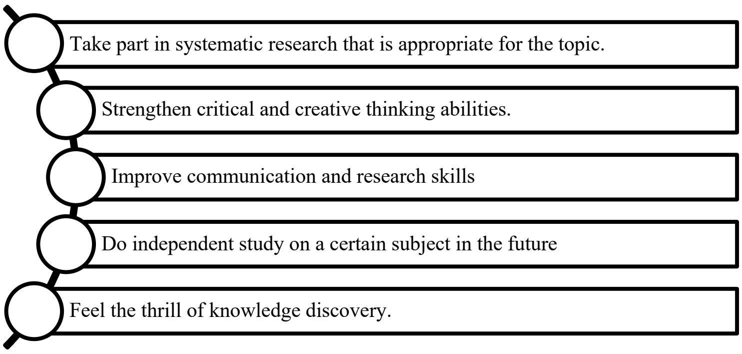
LITERATURE REVIEW

Based on Knight et al. (2020) academic writing is a crucial talent that every student in higher education needs to master to earn their degree. According to the survey, common errors made by students when drafting proposals include choosing broad, vague themes, failing to follow the proper technique, using the wrong research terms, and having trouble reporting the literature review (Ali & Zayid, 2022). Moreover, the main difficulties students encountered when writing research essay were the lack of a standard format, their inability to recognise clearly relevant literature reviews, their lack of good, adequate, and consistent feedback from supervisors, their lack of materials pertinent to their chosen topics, and finally the inadequacy of the time allocated for writing essay (Ali & Zayid, 2022). In a similar vein, Mansour (2021) also claimed that Saudi overseas graduate students struggle with a variety of rhetorical writing issues, including problems with critical thinking, concept expression, presenting persuasive arguments to back up research theses, and technical writing issues with syntax and APA citations.

MINI RESEARCH (EXTENDED ESSAYS) AT MALAYSIAN INTERNATIONAL PUBLIC SCHOOL

Mini research which is an extended essay (EE) is a fully referenced research essay on a topic of the student's choosing (Reynolds, 2021). It is criteria assessed externally to the International Baccalaureate Diploma program. The EE journey is taken over a twelve-month period. Students must show that they have a thorough grasp of and understanding of the subject they have selected. Students are generally responsible for their essays, even if they work under the supervision of a supervisor often a teacher at the school. Figure 1 shows the extended essay's objectives for IBDP students.

FIGURE 1: The extended essay's objectives for IBDP students (Reynolds, 2021)



The issue in writing EE is the varying levels of student information literacy expertise, especially in the area of research. The challenge for the supervisor is to provide students with the tools to enable them to complete the essay within the guidelines set down by the IB Organisation. Furthermore, students with a national program in Malaysia Certificate of Education (SPM) are not exposed to academic writing in school, this will be their first experience with such a challenging undertaking throughout their study.

RESEARCH OBJECTIVE

To explore challenges and strategies in supervising mini-research (Extended Essays) at Malaysian International Public School.

RESEARCH QUESTION

What are the challenges and strategies in supervising mini-research (Extended Essays) at Malaysian International Public School?

METHODOLOGY

This investigation aimed to explore challenges and strategies in supervising mini-research (Extended Essays) at Malaysian International Public School. In this research, qualitative case studies are used to uncover the challenges and strategies in supervising mini-research. The qualitative case study approach method of inquiry was adopted from Yin (2016). This case study approach is applied to a contemporary issue in a practical setting. Eight IBDP students and five lecturers are involved in this research. A semi-structured interview guide was developed based on the objectives of the study. The interview's findings are categorised into themes and subthemes. Open coding, axial coding, and selective coding methods are used for data analysis. The network for the findings is organised into categories using ATLAS ti. 23. Additionally in order to reinforce the finding, survey on the challenges and strategies also done quantitatively to the students. The data for quantitative are analysed and presented in table and graph.

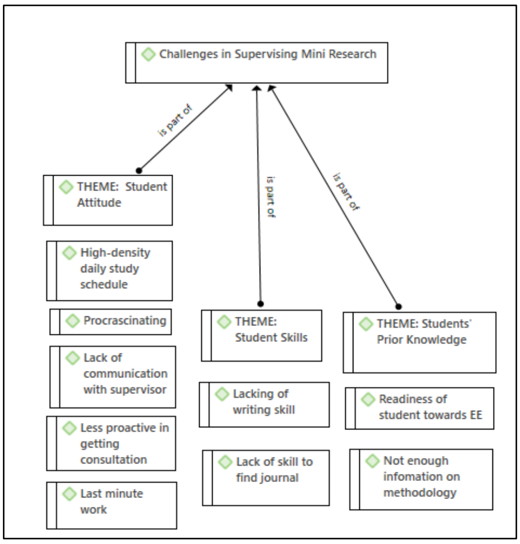
RESULTS

This section's main goal is to discuss the unit of analysis, along with the themes and sub-themes that came out of the research. Quantitative finding are presented in table and graph. Two parts of finding are found from the research which is from the supervisor and students. Both parts' emergent findings are related to challenges and strategies which can help the supervisor to solve the issue of managing EE students in their writing. Nonetheless the data for quantitative are analysed and presented in table and graph to reveal the challenges and strategies in supervising mini research.

PART 1

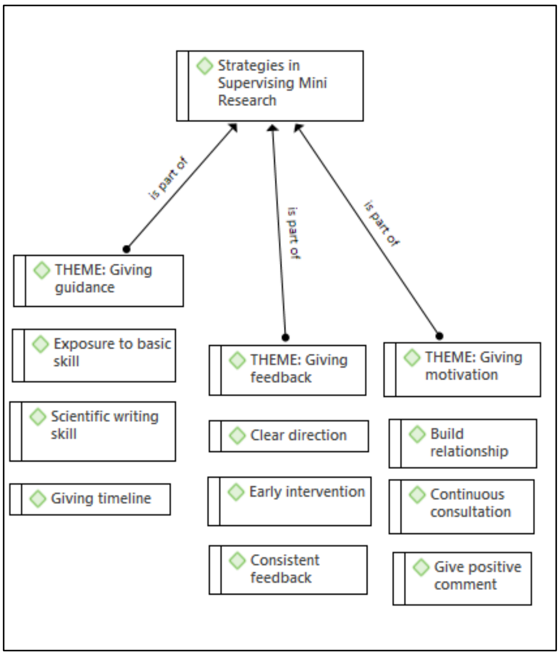
Part 1 will summary the finding from the supervisor. Figure 2 shows the first part of the finding from the supervisor. The unit of analysis is the challenges in supervising mini-research (Extended Essays) at Malaysian International Public School. Three themes emerged for challenging mainly; a.) Student Attitude; b) Student skills and c) Students' prior knowledge of EE academic writing.

FIGURE 2: Challenges in supervising mini research (Extended Essays) at Malaysian International Public School



Based on Figure 2, five categories are identified as challrenges which are; a) high-density daily study schedule; b) proscrascinating; c) lack of communication with supervisor; d) less proactive in getting consultation and d) last minute work. Subsequently challenge is students skill which include two categories which are; a) lacking of writing skill and b) lack of skill to find journal. Nonetheless, the student's prior knowledge have two categories compriosing of; a) readiness of student towards EE writing and b) not enough information on methodology. Similarly Reynolds (2021 opined that the challenge is to provide students with the tools to enable them to complete the essay within the guidelines set down by the IB Organisation. Next in Figure 3, the emergent themes for strategies in supervising mini-research based on supervisor are a) Guiding the student; b) Giving feedback, and; c) Giving motivation.

FIGURE 3: Challenges in supervising mini research (Extended Essays) at Malaysian International Public School



The theme guiding the student are very important to ensure student are expose to the basic skill to start with the mini research. Even though the briefing is given before selecting the topic for extended essay but student with no experience in writing of academic writing need more acquaintance. In discussion in guiding student to the scientic writing skill, the advisor plays imperative role to guide student from the beginning of the process so that in right track. Advisor also need to advise student with the timeline provide by the school to ensure they have ample time to complete their research.

Next the second strategy is giving feedback to the student. Student must have clear direction in their study. They must have journal to support their finding in order to discuss their results at the end of writing. Research question must be answer to get better grade.

Additionally, advisor need to be alert if early intervention necessary for those cannot end their research with the discussion and conclusion because lacking of information for the topic under study. In order to avoid such cases feedback must be given consistently especially to those left behind. They need more feedback and time of consultation compare to others with a good progress. Similarly Knight et al. (2020) in their findings showed that students who utilised their feedback comments improved in the areas of writing.

The last strategy is giving motivation to the student. Advisor in the progress of mini research writing can build relationship with student and carry out continuos consultation. The other strategy is giving student a positive feedback to the student that achieved timeline and work hard. Motivating the learner to study is pertinent to curriculum implementation. This is because motivation is an influential factor in teaching-learning situations. The success of learning depends on whether or not the learners are motivated. Motivation drives learners in reaching learning goals. It is important to recognize the fact that motivating learning is a central element of good teaching. This implies that learners' motivation is probably the single most important element of learning. Learning is inherently hard work; it is pushing the brain to its limits, and thus can only happen with motivation. Students' motivation to learn is of special importance because students' mere presence in the class is of course, not a guarantee that students want to learn. It is only a sign that students live in a society where children are required to attend school. Highly motivated learners are likely to learn readily (Filgona et al., 2020).

PART 2

The finding for Part 2 will uncover the challenges and strategies faced by student in writing Mini Research (EE).

TABLE 1: Challenges faced by students in writing Mini Research (EE)

Theme	Challenges	Sources
Challenges faced by students	Finding the most relevant and appropriate research question	R1, R2, R3, R4, R5, R6, R7, R8.
	Getting participants for the survey	R3, R4, R5, R6, R7, R8.
	Analysing the data	R1, R6, R7, R8.
	Can't find many sources	R1, R2, R3, R4, R5, R6.
	Time management	R1, R2, R3, R4, R7, R8.
	Academic writing skills	R1, R4, R5, R6, R7, R8.
	No early exposure to academic writing in school	R1, R2, R3, R4, R5, R6, R8.
	Difficulty in organising topics and developing information.	R4, R5, R6, R7, R8.

Based on Table 1, challenges are classified into searching of appropriate research question, getting participants for the survey, analysing the data, can't find many sources, time management, academic writing skills, no early exposure and difficulty in organising topics. Finding shows that all eight respondents faced the two difficult obstacle which are penetrating appropriate research question and no early exposure to academic writing in school.

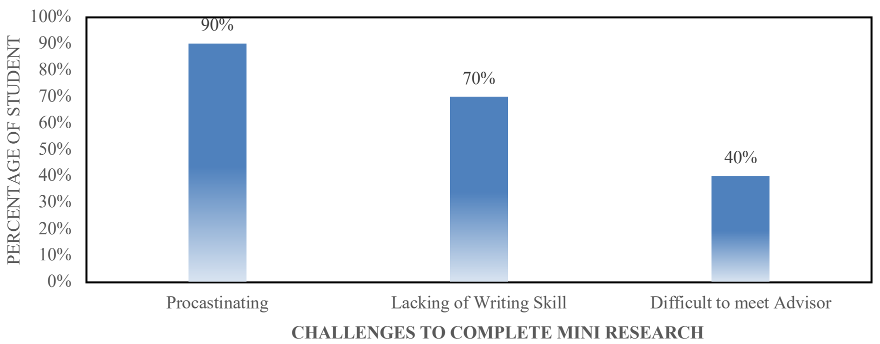
Next, Table 2 shows strategies to overcome challenges in writing mini research. Nine strategies suggested by students in order to complete the essay according to timeline. The popular strategy isa always consult an advisor.

TABLE 2: Strategies to overcome challenges in writing Mini Research (EE)

Theme	Strategies	Sources
Strategies to overcome challenges	Always consult an advisor	R1, R2, R3, R4, R5, R6, R7, R8.
	Search for previously used applications	R4, R5, R6, R7, R8.
	Always listen to the supervisor's advice	R1, R5, R6, R7, R8.
	Break down writing into stages (Finding sources, writing an introduction etc.)	R1, R2, R3, R4, R5, R6.
	Work as early as possible	R1, R2, R3, R4, R5, R6, R7, R8.
	Get advice from teachers and friends	R1, R2, R6, R7, R8.
	Learn to find solutions on your own without depending on others.	R1, R2, R3, R4, R5, R6.
	Dump write everything and re edit to keep the relevant parts only	R1, R2, R6, R7, R8.
	Using a 'mind map' to relate and develop the information next to writing skills.	R1, R7, R8.

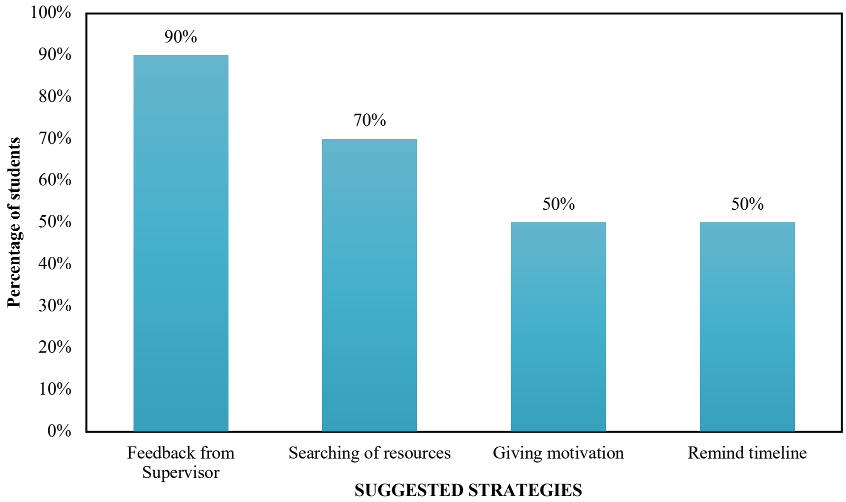
In the quantitative finding, Graph 1 shows the three most challenges in the completion of the essay. The critical challenge is procrastinating. 90 % respondent agreed that delaying writing of mini research is the crucial challenges. The lacking of writing skill one of the factor that contribute 70% of challenges to complete mini research. The third factor which is difficult to meet advisor. This is due to the compact schedule of the timetable. In order to give the students and advisor the consultation time, the extended essay facilitation (EEF) period are given according to the school timetable.

GRAPH 1: Challenges to complete mini research (extended essay)



Next in Graph 2, findings show four strategies in supervising mini research. The highest strategy is feedback from supervisor which is 90%. Most respondent opined the important to get feedback from supervisor. 70% respondent suggested that helping to find resources is also useful for the students. The others two idea are giving motivation and remind timeline which represented by 50 % respondents.

GRAPH 2: Suggested strategies in supervising mini research (extended essay)



CONCLUSION

In conclusion, in order to overcome the challenges in supervising Mini-research three parties are responsible, namely the college, supervisors, and students. Similarly based on Gupta et al (2022), students should use supervisors and resources to support their academic writing. They need to invest in developing the skill of academic writing. Additionally, the supervisor plays a key role to connect students to resources to support academic writing and promote its use such as journals and articles. The involvement of the supervisor is vital in providing constructive and positive focused feedback to the student so that the student is clear and on the right track in writing their EE. Despite students and supervisors, the organisation in the school also can give strong support by providing phase-to-phase workshops and training to guide the student.

ACKNOWLEDGEMENT

We would like to thank those involved in this research, especially Director of MARA College Banting, Deputy Director of Academic and Students Affair, friends and family who were the very source of my motivation.

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IMPLEMENTATION OF ONLINE PROBLEM-BASED LEARNING (PBL) DURING COVID-19 PANDEMIC: A QUANTITATIVE ANALYSIS OF ATTITUDE AND PERCEPTION AMONG UNDERGRADUATE PHARMACY STUDENT IN UNIVERSITI KUALA LUMPUR ROYAL COLLEGE OF MEDICINE PERAK (UniKL RCMP)

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ABSTRACT

In light of the recent onslaught of COVID-19, the Ministry of Higher Education (MoHE) of Malaysia has announced the changes from face-to-face (F2F) learning to online-based learning which includes Problem-based learning (PBL). This study aimed to evaluate the attitude and perception of undergraduate pharmacy students of UniKL RCMP towards online PBL during the COVID-19 pandemic. Methodology: A cross-sectional survey was conducted that used an online structured, and self-administered questionnaire. Descriptive analysis was used to summarise the socio-demographic characteristics. The Chi-square test or Fisher exact test were used to identify the association between independent variables and dependent variables. Results: This study found that undergraduate pharmacy students in UniKL RCMP have a good attitude (66.7%) towards online PBL, moderate perception (41.7%) of their participation in online PBL, and good perception (81.5%) of their experiences in online PBL during COVID-19 pandemic. A significant association was observed between respondents' year/semester of study with the level of respondents' perception of their participation (p=0.003), and respondents' perception of their experiences (p=0.023) in online PBL during the COVID-19 pandemic. Conclusion: It is recommended that all academic institutions in Malaysia should implement an Online Distance Learning (ODL) method during the COVID-19 pandemic such as online PBL to make sure the teaching and learning process still continues despite having MCO.

***Keywords**: Problem-based learning; attitude; perception*

INTRODUCTION

Malaysia has been facing the COVID-19 pandemic since early 2020 and worsened in March 2020. The government had taken the initiative to announce the Movement Control Order (MCO) all over the country from 18th March 2020 (Elengoe, 2020). The prime minister stated the purpose of MCO implementation is "to break the chain of the viral infection" and encourage people to "stay at home". This has given a huge impact towards various sectors including our educational system where most of the schools and universities have been closed in the meantime. Universities are more independent in planning their continuity of academic progress during the crisis. Most universities have continued their academic progress through alternative teaching learning and student assessment method online (Wahab & Zainal, 2020). Pharmacy educations are governed by Malaysia Pharmacy Board. During COVID-19, faculty of pharmacy in universities were provided with guidelines of teaching, learning as well as assessments by The Board that is in the same direction as guided by the Ministry of Higher Education (MoHE) on the conduction of academic programmes in public and private universities.

Program Based Learning (PBL) has been implemented successfully as a novel learning method in most of the colleges and schools in developed countries. PBL has been used as one of the assessments in many faculties around the world. Unlike the conventional modes of teaching, PBL is student-centred learning process (Alavi, 2007) and also a problem-based novel teaching approach. This learning method implies real practice situations through a case study or trigger that is prepared and constructed thoroughly to ensure that the trigger would cover the whole learning needs (Ansari et al., 2015).

PBL implementation should emphasise a variety of good qualities among students to prepare themselves in becoming skilful professionals, including leadership qualities, critical thinking skills, professional and interpersonal skills, self-directed learning, management skills, teamworking skills, English speaking qualities and many more (Dolmans & Schmidt, 2000). There is many evidence based on the survey conducted by other researchers that provides positive feedback from PBL implementation. The dental curriculum at Harvard School of dental medicine has implemented PBL for their students resulting in a significant development in critical thinking, communication with patients, teamwork, self-assessment as well as independent learning among them (Thammasitboon et al., 2007). Another study was also conducted to investigate the difference in the impact of PBL and Lecture-Based Learning (LBL) in terms of learning progress and satisfaction among undergraduate midwifery students. The result shows great satisfaction among students towards PBL while the theory lesson was also well-applied during their clinical practices (Gita & Mahnaz, 2013). There are four components that are necessary to conduct a complete PBL which are the facilitator, a group of students, the problem or trigger, and the session of PBL. Two sessions were involved in PBL, each could be conducted in 1 to 2 hours (Ansari et al., 2015). Both of the sessions would normally be conducted by a group of students with the presence of a facilitator in the same room.

UniKL Royal College Medicine Perak (RCMP) is a medical school where the Faculty of Pharmacy and Health Sciences (FPHS) have implemented Program-Based Learning towards their undergraduate pharmacy students. However, Malaysia has been facing the COVID-19 pandemic for almost one year and the ‘new norm’ should be practiced even during Recovery Movement Control Order (RMCO) by minimising personal contact and physical meetings. As for UniKL RCMP, a guideline for the continuity of academic progress during the pandemic known as UniKL Beyond-C had been announced where lecturers’ and students’ assessments are to be implemented online. Thus, FPHS UniKL RCMP had to come out with an alternative way to implement PBL; online PBL through an application named Microsoft Teams (MS Teams). The implementation of online Program-Based Learning-Microsoft Teams (PBL-MS) among undergraduate pharmacy students was a new method of PBL implementation, thus limited studies could not prove its effectiveness. The feedback from undergraduate pharmacy students towards online PBL-MS would be crucial in this study to contribute to the improvement of the new methodology of PBL towards our targeted group.

The COVID-19 pandemic has affected the world awfully. The mode of transmission caused by SARS CoV-2 through water droplets has made society’s daily lifestyle limited and people cannot closely contact each other. New norm during this pandemic have been practiced. Most of the activities are done in a contactless way and crowded places such as shopping malls, markets, restaurants, offices, schools as well as universities and colleges are now no longer full of people. To ensure the continuity of economic and educational progress, the community starts to normalise working from home, home food delivery and online delivery classes. As for academic progress in universities and colleges, Ministry of Higher Education (MoHE) of Malaysia has also announced to stop face-to-face lectures and other assessments to comply with the MCO. MoHE had also urged universities to perform online teaching and assessing of students (Nasri et al., 2020). This is important to avoid the spread of the virus among students and lecturers if physical lectures are still implemented. The Board of UniKL has then announced a 'Beyond-C' plan during the COVID-19 pandemic where their students are not allowed to come back to their campus, thus students' learnings and evaluations could not be run as usual.

Faculty of Pharmacy and Health Sciences (FPHS) UniKL RCMP has come out with an alternative way to conduct the PBL session which is through an online platform. The effectiveness of online PBL implementation towards undergraduate pharmacy students in UniKL RCMP during COVID-19 remains unknown. The feedback from the students is really crucial to evaluate the effectiveness of online PBL-MS so that the main goals for the original PBL implementation towards undergraduate pharmacy students could be achieved. This study is designed and focused to examine the students' attitudes and perceptions towards online PBL-MS during the COVID-19 pandemic.

LITERATURE REVIEW

THE SITUATION OF THE EDUCATION SYSTEM IN MALAYSIA DURING THE COVID-19 PANDEMIC

Universities and colleges all around the globe have been reported to be closed temporarily due to COVID-19 pandemic (Mirza, 2020). This has affected 1.58 billion students all around the world to be restrained from coming back to their respective campuses (Li & Lalani, 2020). Since Malaysia's government announced the Movement Control Order (MCO) in March 2020, most of the sectors are halted for a while, including the education sector. In May 2020, the order has been updated by the government from MCO to Conditional Movement Control Order (CMCO) where the restriction of movement and social activities had been eased. Most of the businesses were allowed to be run under Standard Operating Procedure (SOP). However, most of the universities remain closed. Universities that are mainly depending on tuition fees as their source of income will face a hard time financially to keep operating (Mirza, 2020).

PROBLEM-BASED LEARNING (PBL)

During the 1960s, McMaster University Medical School in Canada had been introducing the first PBL ever in history as part of their teaching and learning methodology (Schwartz, 2006). The implementation of PBL has now been widely and effectively applied all around the globe, mainly in medical schools and colleges in developed countries (Ansari et al., 2015). In the early 1970's, PBL has been adopted into Malaysia's education context, firstly in health sciences and then started to be adopted into engineering courses. According to Ansari et al. (2015), there are four main components for the complete implementation of PBL: a facilitator, a group of students, a well-designed case study or trigger, and the setting of sessions for PBL. There are two sessions of PBL, both require live discussion among the group of students while being facilitated by the facilitator. Instead of providing knowledge to the students, the facilitator should employ knowledge and guide the flow of the discussion to not be distracted away from the focus of the trigger. This is important to keep the students on track (Ansari et al., 2015). PBL implementation should emphasise on self-directed learning, collaborative learning, and critical thinking skills. Thus, the students should be able to identify the problems, generate hypotheses, analyse the data as well as suggest solutions to the problem from the case study through PBL discussion (Barrow, 1988). These characteristics of PBL have made the method of learning uniquely effective and suitable to be applied in education for clinical practitioners in terms of simulated processes and clinical reasoning (Shuler, 2012).

The students should also apply teamwork skills, communication skills, English speaking qualities, critical thinking skills and leadership qualities alongside the PBL sessions, as well as develop these qualities from time to time through multiple PBL engagements. In order to achieve these goals towards students' knowledge and generic skills, it is crucial to maintain proficient and systematic work with the group flow in PBL (Holen, 2000). Overall, proper conduction of PBL is significant to ensure the purpose of PBL implementation could be beneficial in the most effective way for the students' development.

ONLINE PROBLEM-BASED LEARNING (PBL) IMPLEMENTATION AT FACULTY OF PHARMACY AND HEALTH SCIENCES UNIVERSITI KUALA LUMPUR ROYAL COLLEGE OF MEDICINE PERAK (FPHS UNIKL RCMP)

The pandemic of COVID-19 gives a huge impact on many sectors all around the world including Malaysia. With the announcement of the UniKL Beyond-C plan, FPHS UniKL RCMP has also come out with their own guidelines for online classes and assessments to ensure the continuity of academic progress during MCO. Online PBL-MS implementation was also included in the learning plan. The university students come from a variety of backgrounds from anywhere in Malaysia. During MCO, most of the UniKL RCMP students have returned to their hometowns and continue to participate in online delivery classes from their respective places. The major problem is that not all of the students have good access to an internet connection. Some of them might also be stressed out during online assessments which might affect the students' performance in their study.

A survey by Wahab I. A. and Zainal Z. A (2020) had been done to gain feedback from the pharmacy students at the University of Cyberjaya (UOC) regarding online classes and assessments during the COVID-19 pandemic, including their interprofessional case-based learning. It is found that more than 60% of the respondents agreed that their internet speed at home was good. However, 41.8% of them were uncomfortable to learn through online platforms and some of the reasons are poor internet connection and stability. It is also mentioned that the students might easily get frustrated and depressed because of limited social activity during MCO (Wahab & Zainal, 2020). As for online PBL implementation at UniKL RCMP, personal internet connection problems might be a significant technical issue in which the student's participation is limited due to unclear voice during discussions or worse, they might be unable to catch up with the points of discussion. Moreover, the student's assessment from the PBL session might be affected because of limited participation which could cause them to feel frustrated and demotivated during their studies.

ATTITUDE AND PERCEPTION TOWARDS PROGRAM-BASED LEARNING (PBL)

The evaluation of the attitude and perception of the students towards PBL should be a useful parameter in order to gain feedback from the students, both from positive and negative aspects. Research on the attitude and perception of pharmacy students of Ras Al Khaimah towards PBL has been conducted by Sathvik et al. (2013). Among 76 of the respondents, 85.5% said that PBL implementation is useful while 6.6% said it is a waste of time. When the survey asked about the need for the topics covered in the PBL sessions to be taught in classrooms, 43.4% answered 'Yes', 21.1% answered 'No' while the rest wants the topic to also be taught in the classroom despite PBL sessions. As for the most challenging part of the PBL sessions, 43.4%

of the respondents choose the presentation and discussion part. However, another study found that identifying the actual problem of the case study and writing the hypothesis was the most challenging part (Alper, 2008).

Apart from that, Sathvik et al. (2013) also found out that 63.2% of the respondents reported that PBL sessions should only be conducted in PBL rooms. By conducting PBL in the PBL rooms, it should minimise the distractions faced by the students (Sridhar, 2013). Regarding distractions during PBL sessions, 55.3% of the respondents expressed that the main distraction is from other group members' personal conversations. Noises, ringing of mobile phones and participants' personal conversations are some of distractions the students usually faced that might affect the whole PBL learning progress (Williams et al., 2011).

METHODOLOGY

This was a cross-sectional study using a structured and self-administered online survey form with a representative sample of undergraduate Bachelor of Pharmacy in Faculty of Pharmacy and Health Sciences (FPHS) UniKL Royal College of Medicine Perak (RCMP). Data collection was done using a self-administered questionnaire which was distributed via social media platforms using Google Forms through WhatsApp, and Facebook from 12th April 2021 to 24th April 2021. The sample size was determined by using Raosoft online sample size calculator with a confidence level of 90% and margin of error of 5%. The minimum total number of respondents required for this study is 108 respondents. The inclusion criteria were undergraduate students in the Bachelor of Pharmacy programme, students who are willing to participate in this study and able to provide informed consent. The exclusion criteria include those students with no experience with online and physical PBL implementation and students who have completed or terminated their study in UniKL RCMP. Respondents were informed of the research's objectives and their rights as participants before to participation, and their completion and return of the questionnaire constituted their agreement to participate in the study. The content validity of the questionnaire was discussed, reviewed, and verified by a panel of experts which comprised of senior academic researchers and was revised in accordance with their suggestions. Prior to the study, a pilot study was conducted to evaluate the reliability of the validated questionnaire among 12 respondents. Internal consistency for each section in the questionnaire was assessed by using Cronbach's alpha test and alpha= 0.6 was set as the minimum acceptable value for validity. Final changes were made in consideration of the pilot study's findings.

There were four sections in the survey which are: 1) Section A: the independent variables that comprise of socio-demographic characteristics such as age, gender, and semester/year of study; 2) Section B: respondent's attitude towards online PBL during the COVID-19 pandemic; 3) Section C: respondents' perception on their participation in online PBL during COVID-19 pandemic, and 4) Section D: respondents' perception on their experiences in online PBL during COVID-19 pandemic. The questionnaire was constructed based on some published literature with some slight modifications and customizations to suit our target population. The questionnaire was prepared and translated into two types of languages, which are Malay and English language. All statements in the questionnaire were close-ended except for the last question where open-ended question was used. It was provided to let the respondents give any suggestions or improvements regarding online PBL implementation. In this study, the respondent's overall attitude and perception level were categorised using the original Bloom's cut-off point, as good if the score is between 80 and 100%, moderate if the score is between 60 and 79%, and poor if the score is less than 60% (Akalu et al., 2020).

In general, statements in sections B, C and D were all prepared in positive statements. A five-point Likert scale was used for all three sections which are Sections B, C and D, where their response ranged from strongly agree (SA), agree (A), neutral (N), disagree (D), and strongly disagree (SD). The rating scale was measured as follows: strongly agree, agree, neutral, disagree, strongly disagree, and scores five (5), four (4), three (3), two (2) and one (1) respectively. Data were analysed using the Statistical Package for Social Science (SPSS) version 26. Demographic information and respondents' summary of responses were subjected to descriptive statistics analysis using frequency and percentage. The Chi-square test or Fisher's exact test was applied to find out any association between respondents' demographic profile with the level of attitude and perception of undergraduate pharmacy students of UniKL RCMP towards online PBL during the COVID-19 pandemic. The tested variables include demographic data such as age, gender, year/semester of study, attitude, and perception score towards online PBL during the COVID-19 pandemic. P-value of <0.05 were considered significant.

RESULTS

A total of 108 undergraduate pharmacy students in UniKL RCMP responded to the questionnaire which was distributed via online Google form. All of the respondents are from Year 2 to Year 4 students, while year 1 students are excluded from the study since they have no experience in online PBL. The summary of respondents' demographic characteristics is shown in Table 1 below. Out of 108 students, 26 (24.1%) were male while the other 82 (75.9%) were female. Students from Year 2/Semester 4 have the highest number of participation in this study with a number of 41 (38.0%) respondents, followed by 38 (35.3%) respondents from Year 3/Semester 6 students and 29 (26.5%) respondents from Year 4/Semester 8 students.

TABLE 1: Demographic characteristics of respondents (n= 108)

Demographic characteristics	n (%)	Median (IQR)
Gender		
Male	26 (24.1)	
Female	82 (75.9)	
Age		
20 years old	1 (0.9)	22 (20-24)
21 years old	30 (27.8)	
22 years old	24 (22.2)	
23 years old	26 (24.1)	
24 years old and above	27 (25.0)	
Year/Semester of study		
Year 2/semester 4	41 (38.0)	
Year 3/semester 6	38 (35.2)	
Year 4/semester 8	29 (26.9)	

**IQR: Interquartile range*

The attitude of respondents towards online PBL during the COVID-19 pandemic was recorded in Table 2. Out of 108 respondents, almost all of them strongly agreed (47.2%) and agreed (40.7%) that they were always on time for all of their online PBL sessions. Also, exactly half (n=54) of the respondents agreed that they received constructive feedback from my PBL facilitator after completing the online PBL session. 58 (53.7%) of the total respondents agreed and strongly agreed that their team members have actively participated in online PBL discussions while 24 (22.2%) opposed the idea. Out of 108 respondents, almost half of them (n=52, 48.1%) disagreed and strongly disagreed that the COVID-19 pandemic does not disrupt their focus in teaching and learning with the existence of online PBL sessions while 32 (29.6%) respondents agreed with the statement. The maximum score for this section is 55. The level of attitude of respondents towards online PBL during the COVID-19 pandemic was sorted by using Bloom's cut-off point and illustrated in Table 3. The majority of the respondents (66.7%) show a good attitude towards online PBL during the COVID-19 pandemic, 31 (28.7%) respondents with moderate level while the rest (4.6%) had a poor level of attitude.

TABLE 2: Respondent's attitude towards online PBL during COVID-19 pandemic (n= 108)

No.	Attitude	Distribution of respondent's scores, n (%)				
		Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	I am always in time for all my online PBL sessions (B1)	0 (0)	4 (3.7)	9 (8.3)	44 (40.7)	51 (47.2)
2	I receive constructive feedback from my PBL facilitator after completed the online PBL session (B2)	2 (1.9)	6 (5.6)	26 (24.1)	54 (50.0)	20 (18.5)
3	I would prefer to have online PBL to become the new normal in learning (B3)	9 (8.3)	26 (24.1)	26 (24.1)	22 (20.4)	25 (23.1)
4	I am able to easily access the Internet for my online PBL (B4)	5 (4.6)	14 (13.0)	34 (31.5)	37 (34.3)	18 (16.7)
5	I feel comfortable to actively communicate with my classmates and facilitator during online PBL session (B5)	5 (4.6)	15 (13.9)	31 (28.7)	46 (42.6)	11 (10.2)
6	I prefer online PBL as it provides a lot of interaction with my instructors and students (B6)	9 (8.3)	33 (30.6)	26 (24.1)	32 (29.6)	8 (7.4)
7	I feel more comfortable sharing my thoughts in an online PBL than physical face- to-face PBL session (B7)	10 (9.3)	22 (20.4)	22 (20.4)	27 (25.0)	27 (25.0)
8	All my team members actively participate in the online PBL discussion (B8)	5 (4.6)	19 (17.6)	26 (24.1)	40 (37.0)	18 (16.7)
9	I distribute my work for the discussion and presentation during thesecond session very well (B9)	0 (0)	7 (6.5)	16 (14.8)	55 (50.9)	30 (27.8)
10	With the existence of online PBL, pandemic COVID19 does not disrupt my focus in teaching and learning session (B10)	13 (12.0)	39 (36.1)	24 (22.2)	21 (19.4)	11 (10.2)
11	Online PBL help me assign reading and homework time better than physical face-to- face PBL session (B11)	8 (7.4)	24 (22.2)	36 (33.3)	25 (23.1)	15 (13.5)

TABLE 3: Level of Respondents' Attitude Towards Online PBL During COVID-19 Pandemic (n= 108)

Level	n (%)
Good	72 (66.7)
Moderate	31 (28.7)
Poor	5 (4.6)

The respondents' perception on their participation in online PBL during the COVID-19 pandemic was recorded in Table 4. Out of 108 respondents, 30 (27.8%) agreed and 25 (23.1%) respondents strongly agreed that online PBL is preferable compared to physical face-to-face PBL sessions because it is really enjoyable for them, and they can learn more about technology.

It was also believed that through online PBL, their technology and information skills are improved. In contrast, 22 (20.4%) and 10 (10.3%) of total respondents disagreed and strongly disagreed with the statement, respectively, which is considered quite a huge percentage for opposing the idea. A relatively higher number of respondents strongly agreed and agreed that they prefer online PBL even though it is challenging, with a frequency of 21 (19.4%) and 37 (34.3%) respectively. 12 (11.1%) of the total respondents disagreed while another 12 (11.1%) respondents strongly disagreed with the statement. It is clear that the majority preferred to answer 'agree' and 'strongly agree' for the statement "Online PBL session trains me to be more responsible and independent with my task" with a frequency of 18 (16.7%) and 48 (44.4%) respectively. 31 (28.7%) of the total respondents chose to be 'neutral' regarding this statement while the rest answered 'disagree' and 'strongly disagree'. A total of 76 (70.3%) respondents agreed and strongly agreed that the internet signal was the biggest problem they faced during online PBL. 15 (13.9%) of the respondents were neutral to this statement while 17 (15.8%) respondents disagreed and strongly disagreed with this statement. The maximum score for this section is 20. The level of respondents' perception of their participation in online PBL during the COVID-19 pandemic was sorted by using Bloom's cut-off point and illustrated in Table 5. 45 (41.7%) of the respondents show a moderate perception of their participation in online PBL during the COVID-19 pandemic, followed by 39 (36.1%) respondents with a poor level while the remaining 24 (22.2%) respondents had a good level of perception.

TABLE 4: Respondents' Perception on their Participation in Online PBL during COVID-19 Pandemic (n= 108)

No.	Attitude	Distribution of respondent's scores, n (%)				
		Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	I prefer online PBL rather than physical face-to-face PBL session because is really enjoyable for me and I can learn more about technology. Through online PBL, my technology and information skill are improved (C1)	10 (10.3%)	22 (20.4%)	21 (19.4%)	30 (27.8%)	25 (23.1%)
2	I prefer online PBL even it is challenging. It makes me to study more by reading a lot of references to fulfil the tasks (C2)	12 (11.1%)	12 (11.1%)	26 (24.1%)	37 (34.3%)	21 (19.4%)

3	Online PBL session trains me to be more responsible and independence with my task (C3)	7 (6.5%)	4 (3.7%)	31 (28.7%)	48 (44.4%)	18 (16.7%)
4	The biggest problem I faced during online PBL is the internet signal. Sometimes I prefer to be absent in online learning due to the poor internet signal and can just read the topic by myself (C4)	6 (5.6%)	11 (10.2%)	15 (13.9%)	40 (37.0%)	36 (33.3%)

TABLE 5: Level of Respondents' Perception on their Participation in Online PBL during COVID-19 Pandemic (n= 108)

Level	n (%)
Good	24 (22.2)
Moderate	45 (41.7)
Poor	39 (36.1)

Table 6 illustrates respondents' perceptions of their experiences in online PBL during the COVID-19 pandemic. Out of 108 respondents, 47 (43.5%) and 28 (25.9%) preferred to answer 'agree' and 'strongly agree' respectively, regarding their demand for online PBL sessions to be more interactive compared to only 3 (2.8%) and 1 (0.9%) respondent who answered 'disagree' and 'strongly disagree' to the statement, respectively. Lastly, 'neutral' was the most preferred answer for the statement "I prefer online PBL over face-to-face PBL session" with a frequency of 28 (25.9%) respondents, closely followed by 'agree' and 'strongly agree' with a frequency of 26 (24.1%) and 20 (18.5%) respectively. The maximum score for this section is 30. The level of respondents' perception of their experiences in online PBL during the COVID-19 pandemic was sorted by using Bloom's cut-off point and illustrated in Table 7. 88 (81.5%) of the respondents show a good perception of their participation in online PBL during COVID-19 pandemic, followed by 16 (14.8%) respondents with the moderate level while the remaining 4 (3.7%) respondents had a good level of perception.

TABLE 6: Respondents' Perception on Their Experiences in Online PBL during Covid-19 Pandemic (n= 108)

No.	Attitude	Distribution of respondent's scores, n (%)				
		Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	I find it easy to engage in the online PBL session during COVID-19 pandemic (D1)	6 (5.6%)	20 (18.5%)	30 (27.8%)	37 (34.3%)	15 (13.9%)
2	I am able to ask the questions freely during the online PBL session (D2)	5 (4.6%)	18 (16.7%)	26 (24.1%)	40 (37.0%)	19 (17.6%)
3	I enjoy the online PBL session (D3)	13 (12.0%)	15 (13.9%)	38 (35.2%)	22 (20.4%)	20 (18.5%)
4	I would like the online PBL session to be more interactive (D4)	1 (0.9%)	3 (2.8%)	29 (26.9%)	47 (43.5%)	28 (25.9%)
5	I feel that online PBL is more effective compared to physical face-to-face PBL session (D5)	10 (9.3%)	26 (24.1%)	27 (25.0%)	24 (22.2%)	21 (19.4%)

6	I prefer online PBL over face-to-face PBL session (D6)	15 (13.9%)	19 (17.6%)	28 (25.9%)	26 (24.1%)	20 (18.5%)

TABLE 7: Level of Respondents' Perception on Their Experiences in Online PBL during Covid-19 Pandemic (n= 108)

Level	n (%)
Good	88 (81.5)
Moderate	16 (14.8)
Poor	4 (3.7)

TABLE 8: Associations between the respondent's demographic characteristics with attitude and perception towards online PBL during COVID-19 pandemic

Demographic characteristics (n= 108)	Total score of attitude, n (%)					Total score of perception (participation), n (%)					Total score of perception (experience), n (%)				
	Poor	Moderate	Good	χ^2 stat (df)	p-value[a] / p-value[b]	Poor	Moderate	Good	χ^2 stat (df)	p-value[a] / p-value[b]	Poor	Moderate	Good	χ^2 stat (df)	p-value[a] / p-value[b]
Gender															
Male	3 (11.5)	6 (23.1)	17 (65.4)	6.728 (8)	0.510[b]	13 (50.0)	9 (34.6)	4 (15.4)	2.958 (2)	0.228[a]	2 (7.7)	5 (19.2)	19 (73.1)	2.219 (2)	0.231[b]
Female	2 (2.4)	25 (30.5)	55 (67.1)			26 (31.7)	36 (43.9)	20 (24.4)			(2.4)	11 (13.4)	69 (84.1)		
Age															
20 years old	0 (0.0)	1 (100.0)	0 (0.0)			0 (0.0)	1 (100.0)	0 (0.0)			0 (0.0)	0 (0.0)	1 (100.0)		
21 years old	2 (6.7)	11 (36.7)	17 (56.7)			6 (20.0)	16 (53.3)	8 (26.7)			0 (0.0)	4 (13.3)	26 (86.7)		
22 years old	2 (8.3)	5 (20.8)	17 (70.8)	3.917 (2)	0.159[b]	9 (37.5)	11 (45.8)	4 (16.7)	9.287 (8)	0.276[b]	1 (4.2)	3 (12.5)	20 (83.3)	10.35 (8)	0.258[b]
23 years old	0 (0.0)	7 (26.9)	19 (73.1)			14 (53.8)	7 (26.9)	5 (19.2)			0 (0.0)	7 (26.9)	19 (73.1)		
24 years old and above	1 (3.7)	7 (25.9)	19 (70.4)			10 (37.0)	10 (37.0)	7 (25.9)			3 (11.1)	2 (7.4)	22 (81.5)		
Year/semester of study															
Year 2/semester 4	2 (4.9)	12 (29.3)	27 (65.9)			7 (17.1)	20 (48.8)	14 (34.1)			0 (0.0)	4 (9.8)	37 (90.2)		
Year 3/semester 6	2 (5.3)	8 (21.1)	28 (73.7)	2.332 (4)	0.663[b]	14 (36.8)	17 (44.7)	7 (18.4)	16.207 (4)	**0.003**[a]	1 (2.6)	4 (10.5)	33 (86.8)	11.324 (4)	**0.023**[b]
Year 4/semester 8	1 (3.4)	11 (37.9)	17 (58.6)			18 (62.1)	8 (27.6)	3 (10.3)			3 (10.3)	8 (27.6)	18 (62.1)		

[a] *Statistical calculations were done by using Chi-squared test where p-value < 0.05 was considered significant*
[b] *Statistical calculations were done by using Fisher's Exact test where p-value < 0.05 was considered significant*

Table 8 illustrates the associations between the respondent's demographic characteristics with attitudes and perception towards online PBL during the COVID-19 pandemic. This study revealed no significant association ($p > 0.05$) between the respondent's age and gender with total scores of attitudes, perception of their participation and perception of their experiences towards online PBL during the COVID-19 pandemic. Other variables such as year/semester of study also had no significant association ($p > 0.05$) with the total scores of attitudes. However, year/semester of study is the only variable which had a significant association with total scores of perceptions on their participation ($p= 0.003$) and perception of their experiences ($p= 0.023$) towards online PBL during the COVID-19 pandemic.

DISCUSSION

LEVEL OF ATTITUDE AND PERCEPTION OF RESPONDENTS TOWARDS ONLINE PBL DURING THE COVID-19 PANDEMIC

This study evaluated the attitude and perception of undergraduate pharmacy students in UniKL RCMP towards online PBL implementation during the COVID-19 pandemic, where the level of attitude and perception among respondents were demonstrated. It was found that the respondents showed a good to moderate level of attitude towards online PBL during the COVID-19 pandemic. However, the study observed that there was a moderate perception of respondents on their 'participation' in online PBL during the COVID-19 pandemic and a moderate level of perception on their 'experience' in online PBL during the COVID-19 pandemic. This finding indicates that the respondents were doing well in online PBL sessions in terms of discipline, participation, comfortability, work distribution, preference for the PBL platform (online or face-to-face), and self-management during the COVID-19 pandemic. In contrast, moderate perception of their 'participation' and 'experience' signifies that several factors may contribute to any of the satisfaction and dissatisfaction by the respondents towards online PBL, even though the number of respondents with a good level of perception of their 'experience' is recorded to be high (81.5%) as illustrated in Table 7.

A study run by Sridhar (2013) towards attitudes and perceptions of pharmacy students of Ras Al Khaimah towards face-to-face PBL highlighted that a 100% total of 'strongly agree' and 'agree' among the students regarding their good punctuality before starting face-to-face PBL session. It is expected that students will have easier and faster involvement in online classes and meeting since they do not need to move to places; students should only be ready in front of their laptops or computers on time (Nambiar, 2020). The reason why a relatively lower percentage of total agree and disagree by students during online PBL in this study might be because of low motivation, background distractions at home and technical issues including poor connectivity (Nambiar, 2020).

A good percentage of students in a survey who were involved in face-to-face PBL sessions also agreed that their PBL facilitator provided constructive feedback at the end of the sessions (Sridhar, 2013). This kind of feedback is necessary in any situation even through online, so that the students' discussion will always keep on track while self-directed learning, collaborative learning and critical thinking skills could be fully emphasized through the facilitator's comment, whether directly or indirectly (Ansari et al., 2015).

In this study, a good number of respondents agreed that all team members actively participated in online PBL. Active discussion which involves all of the team members should be very effective in understanding the underlying concept and process much better. In addition, a small group discussion would encourage the overall involvement of team members and would help them to share and exchange knowledge, which will then ignite their critical thinking skills and information analysing skill in order to execute problem-solving (Dolmans et al., 2001).

The same study has also proposed that tutorial group brainstorming and discussion has demonstrated to instil motivational effects and cognitive skills in students learning. The PBL implementation should remain effective even through an online platform since it would contribute significantly to developing well-prepared undergraduate pharmacy students before exposing them to a real-life situation during pharmacist's career.

This study also found a higher percentage of respondents disagreed that the COVID-19 pandemic does not disrupt their focus in teaching and learning with the existence of online PBL sessions. This is supported by a qualitative study by Browning et al. (2021) that illustrated a huge negative impact of COVID-19 towards student's psychological health and behaviour. The most reported cases include stress, anxiety, loss of motivation, educational changes, and depressive symptoms (Browning et al., 2021). Another study by Wahab and Zainal (2020) also mentioned that limited social activity during the COVID-19 pandemic has contributed to demotivation and depression among students. During the pandemic where so many factors may alter the psychological health among students, excessive workload, tests, and assessments may put them under high pressure thus contributing to stress and anxiety. When students' focus is lost due to these conditions, the benefits and good values that should be emphasised through online PBL implementation might be reduced.

It is found that a relatively higher frequency of respondents has a bad level of perception of their 'participation' in online PBL during the COVID-19 pandemic compared to those with moderate and good levels. However, the gap in the frequency of respondents between the three levels (good, moderate, and bad) is small. Thus, it is reasonable that the mean value of respondents' perception of their 'participation' falls under moderate level. This study highlighted a relatively higher number of respondents who agreed that they prefer online PBL rather than physical face-to-face PBL sessions, by considering that online PBL is enjoyable and the opportunity to learn more about technology. It is undeniable that the education world nowadays is always moving forward to find the best and most convenient way for teaching and learning methods. Technology should be critically applied as an advanced tool to be used for online delivery teaching and learning, online assessments as well as group discussions or tutorials. Also, this study found that a higher number of respondents agreed that they preferred online PBL even though it is challenging. It required them to study more independently by reading a lot of references to fulfil the tasks. It clearly describes that students are expecting self-study and their way of learning through various references to be more independent when dealing with online PBL.

A study by Shearer et al. (2019) investigated what students were expecting for future online learning. It was found that students were expecting personalised and adaptive learning experiences through online models/distance education which is sensitive to students' preferences and demands. However, a highly communicative environment within the learning communities should not be neglected and is still necessary for an effective learning experience (Shearer et al., 2019). This explains why the majority of respondents in this study also agreed that online PBL sessions trained them to be more responsible and independent with their tasks.

In this study, the internet signal problem is also a matter in online PBL, and this issue was agreed to by a majority of respondents. Poor internet connection was reported by numerous researchers as one of the main barriers to implementing online learning and assessments. A study by Yusuf and Ahmad (2020) reported that poor connectivity is a big issue to the extent where the class period needs to be extended which will affect the duration of the next period of class. Another study also highlighted the importance of good internet stability in order to have effective online teaching and learning (Chung et al., 2019). Pre-recorded lectures are one of the suggested alternative ways to overcome internet problems if buffering happens during live sessions. However, in terms of online PBL session, pre-recording is inapplicable since PBL session requires real-time discussion by the students.

It is also found that average respondents were having moderate perception of their 'experience' in online PBL during the COVID-19 pandemic. This study highlighted that a relatively higher number of respondents agreed regarding their demand for online PBL sessions to be more interactive. In addition, a higher number of respondents also agreed that they were able to ask any questions freely during the online PBL session. These two results indicate that the respondents are aware of the importance of good communication, interaction, and teamwork skills during PBL discussions. According to Ansari et al. (2015), communication between PBL group members is one of the elements to be evaluated. An effective evaluation will encourage the students to give their best in communicating and interacting with each other in order to solve the case study and process the outcome of the discussion.

This study also found that a higher number of respondents agreed that they found it easy to engage in the online PBL session during the COVID19 pandemic, while some of the respondents opposed the idea. Several studies reported that students would have problems involving themselves in online classes. A study revealed that students easily lose their motivation during online classes thus causing lesser involvement in class (Browning, et al. (2021). In fact, the current situation is time sensitive where the COVID-19 pandemic has become a significant factor in the demotivation of students to engage in online classes as well as online PBL.

It is also highlighted in this study that just a slightly higher number of respondents agreed that online PBL is better than face-to-face PBL, while a slightly lower number of respondents disagreed. This result is correlated with past studies where some of the studies opposed the idea while some agreed that students have favoured the implementation of online classes and assessments. Research from Australia demonstrated that even though there was no relationship in the academic performance between online and face-to-face learning methods, undergraduate students chose face-to-face classrooms compared to online learning (Kemp N & Grieve R, 2014). However, research from Jordan discovered that the average achievement score for nursing laboratory students was recorded to be higher for those attending online classes compared to face-to-face classes (Sowan & Idhail, 2014).

ASSOCIATION BETWEEN SOCIO-DEMOGRAPHIC CHARACTERISTICS WITH ATTITUDE AND PERCEPTION REGARDING ONLINE PBL DURING THE COVID-19 PANDEMIC

This study found that year/semester of study has a statistically significant association ($p<0.05$) with the level of perception of respondents, both on their 'participation' and 'experience' in online PBL during the COVID-19 pandemic. However, the year/semester of the study was found to be not significantly associated with respondent's attitude towards online PBL during the COVID-19 pandemic ($p>0.05$). It was also highlighted that no significant association was found between age and gender with the respondent's attitude and perception.

The reason for the association between year/semester of study might be related to their difference in level of experience and knowledge as proposed in a study by Shawaqfeh et al. (2020). The study highlighted the readiness of medical students in pre-clinical and clinical years towards online learning. It is mentioned that students who are in pre-clinical year perceived a lower level of experience compared to those in senior years since they are still new to the course. More guidance and observation are needed by them throughout their courses, which makes it more effective to run the course through face-to-face learning methods rather than online learning. The study also mentioned that students in pre-clinical years usually will need to face heavier and tougher subjects in their pre-clinical years. For them, more knowledge about their courses needs to be learnt in pre-clinical years, thus face-to-face learning method should be best and most effective for them to collect all those basic and important knowledge before entering clinical years. In contrast, students in clinical years are expected to be more prepared with knowledge which makes them feel more comfortable and ready to join online learning method (Shawaqfeh et al., 2020).

In the context of online PBL, students in the senior year should have more experience with face-to-face PBL sessions compared to juniors. When all pharmacy students are required to join PBL sessions online during the pandemic, students in senior year are more prepared since they are used to the PBL pedagogy while students in junior year might still get confused because of a smaller number of PBL sessions experienced by them. Students in senior years are also well-equipped with basic knowledge which is required in discussing the case study in PBL sessions efficiently. This might be a matter for the students in junior years where their scope of discussion during PBL sessions is limited on how far their syllabus has been reached. This will make them feel less comfortable with the online method of PBL implementation.

LIMITATIONS OF THE STUDY

This study outlined the level of attitude and perception of undergraduate pharmacy students towards online PBL implementation during the COVID-19 pandemic in UniKL RCMP. Other than that, this study also found out the category of demographic characteristics that may correlate with their level of attitude and perception. The information discussed and concluded in this study should be carefully understood due to some limitations. Firstly, this study is limited to undergraduate pharmacy students from UniKL RCMP located in Ipoh, Perak. The methodology of online PBL might be different from other universities as well as other programs. Data obtained from this study could not be represented by all universities or programs that implement online PBL throughout Malaysia.

RECOMMENDATION FOR FUTURE STUDY

In the future, it is suggested that other researchers conduct an extensive quantitative study with a more variable target population that could represent all universities or programs from different areas and states throughout Malaysia. This could ensure that higher precision of data could be collected thus more accurate results and discussion could be critically made. Another suggestion is to make a comparison study between two categories of institutions, which are public and private institutions.

CONCLUSION

Our study concluded that there is a good level of attitude of respondents towards online PBL while moderate perception in terms of their ‘participation’ and ‘experience’ in online PBL during the COVID-19 pandemic. This study also found a significant association between respondents’ year/semester of study with their perception in terms of their ‘participation’ and ‘experience’ in online PBL during the COVID-19 pandemic. In contrast, age and gender are not significantly associated with the respondents’ attitudes and perception regarding online PBL during the COVID-19 pandemic. Further research should consider the limitations and recommendations as stated to increase the quality of data and information in further analysis.

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WHAT DO STUDENTS SAY ABOUT TRANSLATION COURSE OFFERED TO DIPLOMA IN ENGLISH COMMUNICATION AT KOLEJ PROFESIONAL MARA INDERA MAHKOTA?

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ABSTRACT

Translation course in language classroom seen to offer lots of benefits, mainly it helps students to understand culture and pragmatics in addition to language and register. The purpose of this study was to determine the students' perception on the introduction of translation course offered to Diploma in English Communication (DEC) of Kolej Profesional MARA. The quantitative approach with survey method was used, involving questionnaires as a research instrument for collecting data. Respondents consist of 75 DEC students of Kolej Profesional MARA Indera Mahkota. Descriptive analyses were used to analyse the data. The descriptive analysis explained the students' perception on the introduction of this new course. The results showed that the students had positive perception on the introduction of the course and confirmed that it should be considered as core course with some improvements. In conclusion, the students' perception in this course needs to be responded through a variety of teaching and learning processes to ensure that objectives and purpose of the course offered can be materialised.

Keywords*: translation course; English communication; Diploma in English Communication (DEC)*; ITBM, MARA

INTRODUCTION

Communication between people from all over the world is undeniable in the dimensions of time and there are no boundaries in this era. Since the community uses translation as one of the ways to communicate, then an effort related to translation should be built, especially about training for translators. This is because the use of language either in the form of writing or speech is a dynamic process. If the translator does not perform his role efficiently can lead to serious misunderstandings in different social societies of languages.

In this regard, the translation requirements at the lowest level may be met by a person with minimal knowledge of the language without involving special training. However, the need for better quality translation is increasing as implementation problems arise such as problems of understanding, formulation and technical. Therefore, to overcome this problem, the teaching and training of translation of translators is very important. The changes that are taking place in the translation profession as well as in academic progress or a current form of training that can meet current social needs and international scope should be organized.

The offered course of translation for Diploma in English Communication (DEC) students aims to equip them with necessary knowledge and procedures in translating source texts into target texts. It offers hands-on practice on translation using various texts, from English Language to Bahasa Melayu and vice versa. Students will be exposed to six different genres of texts. Students will be able to sit for the certified translation examination offered by Institut Terjemahan dan Buku Malaysia (ITBM) once they have completed this course. This certification enables the students to become certified translators. Hence, the objective of this study is to describe the students' perceptions on the translation course offered for them. This study also hopes to provide an overview of refinement towards the implementation of the offered course in the future.

LITERATURE REVIEW

Bell (2006) has mentioned in his article about the aspect of translation training, he has listed several roles of translation to meet students' needs for translation training and teaching, and one of them is including translation as a subject in basic and applied research. It is also considered as an input in the language undergraduate program, and as the focus of a professional translator training program. Therefore, based on this view, this study is focused on the role of translation as input in language undergraduate programs. This is so because this role is seen more closely to the requirement for language or translation programmes.

Apparently, DEC students from an English Language Department are still in the process of mastering the grammar system and understanding the cross-cultural differences between the two languages. This process makes learning translation subject an important requirement to them. This is because translation course is seen to be able to meet the needs of students in achieving the objectives of pursuing Diploma in English Communication, among which are mastering grammar, vocabulary enrichment and understanding foreign cultures as supported by Nurhazlina Husin (2009) in her article.

The function of the educational institution is to equip students with skills in facing the real world. These skills include language skills. While China is rapidly developing as a world economic power, the question arises that learning Mandarin is also a necessity. In this regard, Malaysians who are Chinese as quoted by Hassan (2017) have their advantages as they already have Mandarin or Chinese language skills. English has a great function in international trade, but it is not just English that undergoes that function. There are also other languages that also support the same functions such as Mandarin, Korean, Japanese, Arabic and German. In the context of religious education, for example, Arabic is more dominant in use. On the other hand, in science and technology, Japanese, Korean, Mandarin, German, French and Swedish are more dominant in use.

Karimnia (2013) acknowledged that translation is not just a medium or an agent for communicating, but also as a medium for learning a language. Furthermore, the array of the language structure and system, the syntax and morphology, the semantic knowledge, and the complex series process due to the linguistic differences between the two languages led to the need for teaching and training translations not only among professional translators, but also language students and instructors.

Although DEC students also study other language courses and its knowledge discipline such as syntax, morphology, semantic and rhetoric, the syllabus in translation courses is seen as capable of enriching linguistic aspects from various angles. This idea is supported by the idea of Floriana (2009) in her book which attracts a relationship between language proficiency and translation proficiency. Popescu (2011) saw that the efficiency of translation will not be achieved unless a translator already has a good knowledge of the language including linguistic, sociolinguistic, pragmatic, and intercultural knowledge. Hence, introducing the translation course to DEC students could be seen as on the right track for those who are in linguistics and language field.

METHODOLOGY

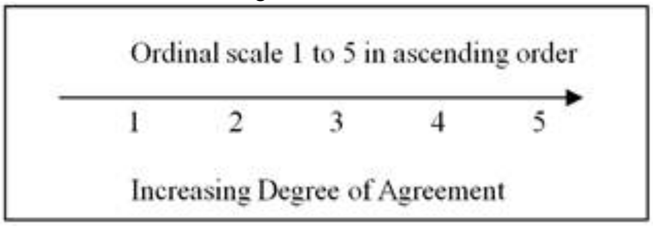
Respondents to this study were fifth and sixth semester students from programme namely Diploma in English Communication (DEC) which involved 75 students who registered in session 1 2023/2024.

While the instrument used is a set of questionnaires developed based on questionnaires by previous researchers. The data obtained were analyzed and the results were presented through the calculation of frequency and percentage. The Five Points Likert Scale has been used in this questionnaire in analyzing the data, for ordinal consent measures ranging from strongly disagree (1) to strongly agree (5).

The questionnaire consists of 10 questions asked in part B where respondents need to choose a response based on their perception towards the offered course. In general, this study measured and collected data on their perception on different descriptions of the items that related to the offered translation course for them. In addition, the necessary recommendations for refinement and revisiting of the course for future students also taken into account.

This study is interested in investigating the students' perception towards translation course offered; hence the respondents data analysis was measured based on the frequency score and percentages. The respondents' responses as "agree", "strongly agree", "disagree", "strongly disagree" and "neutral" on given statements in the questionnaire will determine their perception. The statements given consist of their perceived responses that related to offered courses teaching and learning approach the other stakeholders, institution itself and also the relationship of the course with the source and target languages.

FIGURE 1: Five ordinal measures of agreement of Likert's scale



FINDINGS AND DISCUSSION

TABLE 1: What do Students Say about Translation Course

Item	Skala Likert (%)				
	SA	A	N	D	SD
1. Translation Course is very enjoyable for me	57.3	29.4	13.3	0	0
2. The teaching methods used makes me understand the material.	65.3	21.3	12	1.3	0
3. The Translation Course is really advantageous and will help me with my future profession.	44	49.3	6.7	0	0

Table 1 showed, the majority of respondents, 86.7% scored agree and strongly agree that translation course is a very enjoyable course that they have undergone through semester. This is probably because the course is well prepared with all the material needed and the instructors and all lecturers of the course were equipped with the knowledge and well trained to fulfill the process of teaching and learning. The item is co-related to other items in the following section too. There will be an explanation and analysis of the related items. While the score of 86.6% of the respondents agreed and strongly agreed that methods used in the class were well versed and made them understand the material used. This statement also is proof that the learning process of translation course brought them enjoyment and happiness.

However, there is a slight number of respondents who disagreed with the item which is 1.3% of 75 respondents that represent 1 to 2 students only. On the other hand, almost all students felt that the translation course is really advantageous and believed that the course offered will lead and guide them well in their future profession. It is undeniable, the course is very useful for them to be applied when they are in the internship and facing the real world in workplace communication later.

TABLE 2: What do Students Say about Translation Course

Item	Skala Likert (%)				
	SA	A	N	D	SD
4. Translation Course can improve my writing skills in English and Bahasa Melayu.	53.4	41.3	5.3	0	0
5. Translation Course can improve my vocabulary in English as well as in Bahasa Melayu.	45.3	50.7	4	0	0
6. Translation Course reminds me of the importance to master in English and Bahasa Melayu.	32	61.3	6.7	0	0
7. The method used in translation course helps me to translate English text to Bahasa Melayu text and vice versa.	57.3	37.3	4.1	1.3	0

Table 2 is significant to discuss about the relationship of the course offered to the source and target languages which are English and Bahasa Melayu, majority of the respondents said that they agree and strongly agree to all the items. More than 90% of students believed that the translation course can improve their writing skills in both languages. This item might support what they have been through the course which contains written part and writing process is a major part in the translation process either as a draft or final editing.

Besides that, they also agreed and strongly agreed this course also can enhance and improve their vocabulary in English and Bahasa Melayu. Probably the frequent use of dictionary in the process of transferring the meaning can support this item. Furthermore, in this semantics which is part of the translation process takes place, finding meaning of unfamiliar and new words in both languages is a crucial part of the course.

The next item is about a signal that mastering both languages is very important. Students agreed and strongly agreed more that by undergoing this particular course reminds them how importance to master in English and Bahasa Melayu, hence almost 93% of the respondents scored the positive feedback. While almost 7% said that item is neutral. This score can be said that probably they agree that mastering in both languages is very important but might not through learning this course/ however nobody disagreed with the item. Another item that reflects how they enjoy learning this course is the method used in the course. The method used in the course helps them to translate English text into Bahasa Melayu as target text and vice versa. Perhaps, the procedure learnt to be used in exercises given might lead them to have a naturally target text. Therefore, more than 90% agreed and strongly agreed with the item.

TABLE 3: What do Students Say about Translation Course

Item	Skala Likert (%)				
	SA	A	N	D	SD
8. Translation Course is taught by qualified, competent, and professional lecturers	42	56.7	1.3	0	0
9. Translation Course gives me the opportunity to sit the special exam conducted by ITBM to obtain a professional certificate.	42.7	48	9.3	0	0

Table 3 showed the items which related to other stakeholders of the course and institution itself. On the other hand, it also reflected the item which exposed the course is very enjoyable for students or respondents. They agreed and strongly agreed which 98.7% of the respondents said, translation course is taught by qualified, competent, and professional lecturers or instructors. While nobody stated disagree or strongly disagree. This is because, all lecturers were exposed with knowledge discipline of the translation. They underwent the course of specified translation topics and participated in the training of how to teach the translation course for some time to obtain a professional certificate in the offered course. In fact, most of them are certified translators and do freelance besides teaching the course for the students.

ITBM is an established organization with the aim of elevating the translation industry in the country, dealing with matters relating to translation, interpreting and knowledge transfer at all levels, both national and international. It is also tasked with enhancing and increasing the publication of works of local writers to boost the national publishing industry, consistent with the extension of its mandate. This entity is responsible for human resource development centre training and enhancing the skills of translators, editors, interpreters, and other language professionals to fulfil the country's needs at national and international levels.

Based on the embellishment of what ITBM is, it could be the reason why a big number of students agreed which is around 90% of them stated that translation course gave them opportunity to sit the special exam to obtain professional certificate in translation. This benefits them when graduating for the programmed diploma by MARA that they are in, they also would receive the professional certificate in translation by ITBM at the same time. Therefore, it is an advantage for the students who undergo the DEC diploma programme and affiliated ITBM professional certificate. They are enriched the knowledge repository in English and Malay pertaining to the thinking of Malaysians regarding culture, science and technology through translation and book publishing. They are also frequent expose to internationalise national works continuously through translation and book publishing to produce works recognised worldwide.

Next, the item of what area of the text or genre is most enjoyable for them. DEC students are generally English based diploma programme. Their concern is more on language knowledge discipline including literature and a bit exposure on Information Technology and Entrepreneurship. Hence the result might be guessed which area of the text could be most favorable one.

TABLE 4: What area (text genre) of the translation course do you enjoy the most?

Genre	Response/Percentage
1. Law	6
2. Social Science	1
3. Science and Technology	5
4. Mass Communication	22
5. Literary	22
6. General Text	19

Table 4 showed Mass Communication and Literary text are chosen as the most favorable ones with 22% each. This option is closely related to the nature of the DEC students as language and communication students. 19% of the respondents chose General Text as the next most favourable text, General texts are written works or reading materials that discuss topics which attract people interest, and the delivery style is not too academic or technical.

Only 6% of the respondents chose law text as their most favorable one and 5% chose Science and Technology. For the lowest genre is Social Science with only 1%. This may be because the criteria and processes involved in the translation of social science texts are related to the expected reception and active paradigm in the target culture, which can be a bit challenging to the students as this is the first time for them in learning translation. Translation in the field of social science is not only about the process of text transmission and adaptation. It includes other types of delivery such as conferences, research meetings, teaching processes. Online chats, television programs and others.

CONCLUSION

The results of the study demonstrated that in general the level of student acceptance of the introduction of translation course is positive. Overall, the majority of students agreed that the translation course is really beneficial and believed that the course offered will lead and guide them well in their future profession. This translation course is seen as an added value, students have a choice and not just to the mainstream of the language as a course.

Although respondents had a positive perception of this course, their responses showed that this course needed to be improved, among the things that KPMIM can do is mainly to provide facilities such as translation tools, whether primary or optional, among them are Smartcat, Trados and many more. In addition, students need to be exposed to aspects of editing in translation. This can help students to improve their translation and better understand what is translation as a whole.

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UNLOCKING THE POTENTIAL OF ICT IN STEM TEACHING: EXAMINING ICT SELECTION CRITERIA AND IMPLICATIONS FOR TVETMARA EDUCATORS

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ABSTRACT

With the advent of Fourth Industrial Revolution (IR 4.0), the incorporation of ICT in STEM teaching has gained significant attention. In the context of TVET, ICT has the potential to enhance teaching and learning process. However, previous studies indicate a low use of ICT among TVET educators. This study aims to examine the criteria of ICT selection in STEM teaching among TVETMARA educators. Using semi-structured interview techniques, data were collected from 10 TVETMARA educators representing four TVETMARA zones. The interviews were transcribed and analyzed using Quirkos software. Two key themes emerged from the interviews: selection based on TVETMARA curriculum and teaching strategies employed by TVETMARA educators. Through the lens of TPACK, the findings highlight TVETMARA educators' preferences, challenges and considerations when choosing ICT tools and resources for their teaching. The implications of the study contribute to the targeted professional development programs and ICT training in TVETMARA. By addressing these issues, TVETMARA educators can be better equipped to leverage ICT effectively in STEM teaching.

Keywords*: ICT; STEM Teaching; TVETMARA; Industrial Revolution; TPACK*

INTRODUCTION

FOURTH INDUSTRIAL REVOLUTION (IR 4.0) AND ITS IMPACT ON STEM EDUCATION

The Fourth Industrial Revolution (IR 4.0) is characterized by significant advances in digital technologies. It incorporates cutting-edge technology into manufacturing and industrial operations. Advances in operational, communication, and information technology have provided means for increasing industrial automation and digitization (Gilchrist, 2016). It is distinguished by the convergence of several technologies, including artificial intelligence, robots, the Internet of Things (IoT), big data, and automation. Industry 4.0 intends to improve efficiency, reduce costs, and raise output in manufacturing and industrial processes by increasing degrees of automation and digitization (Gilchrist, 2016; Xu et al., 2018). As a result, Industry 4.0 marks a fundamental shift in how manufacturing and industrial processes are carried out, with the potential to revolutionize entire industries and open up new avenues for growth and innovation.

IR 4.0 is changing the employment market and creating a demand for new skills as levels of automation and digitization of production increase (Shahroom & Hussin, 2018). It introduces new technologies, alters the nature of employment, and highlights the significance of digital skills. In other words, IR 4.0 is a new level of high-tech digitalization that necessitates new talent, knowledge, and abilities for today's and tomorrow's workforce. To equip students with the global changes and knowledge required to survive in a technology-driven environment, education and instructional strategies must be transformed into creative teaching methods (Balan et al., 2021; Shahroom & Hussin, 2018; Türk et al., 2018).

IR 4.0 has a significant impact on STEM teaching. It introduces new technologies, changed the nature of work, and emphasized the importance of digital skills. Past studies suggest that IR 4.0 requires STEM teaching to adapt to new technologies and teaching methods to prepare students for the changing job market(Abd Majid & Abd Majid, 2018; Jiehan et al., 2022; Naidoo & Singh-Pillay, 2020). Naidoo & Singh-Pillay (2020) emphasized teachers to be well-versed in technology-enabled pedagogy, particularly Fourth Industrial Revolution (4IR) teaching technologies. This qualitative research explored teachers' perceptions using blended learning in STEM teaching. The results revealed that while the participating teachers valued the use of the blended learning approach within STEM classrooms, they did indicate that they had uncertainties and experienced challenges when trying to imitate what they had learnt during the two interactive workshops. According to Abd Majid & Abd Majid (2018), using AR to support STEM teaching, allows educators to add specific virtual information to enrich the existing learning materials and create new learning materials that integrate the environment. It helps students understand the practical applications of STEM concepts and prepares them for future careers in technology-driven fields. STEM education in the context of IR 4.0 encourages students to develop critical thinking, creativity, and problem-solving skills. For example, in the study by Jiehan et al. (2022) the integration of industry IR 4.0 in engineering education by creating a remote lab with robotic arm. It allowed students to be more engaged and involved in the learning process as they could perform the labs based on the tasks given to them.

IMPORTANCE OF INCORPORATING ICT IN STEM TEACHING IN THE CONTEXT OF TVET

In STEM Education, teaching becomes the focal point (de Jong, 2019; McConnell, 2017; Srikoom et al., 2018) though it is a complex process (Koehler & Mishra, 2009). Nowadays, STEM disciplines infuse as skills needed in the workplace and highly required for work problem solving (Asunda, 2014; Jang, 2016). Therefore, Technical and Vocational Education and Training (TVET) becomes an ideal platform for STEM teaching. By nature, the TVET curriculum requires students to integrate content from multiple subject areas(Dixon & Hutton, 2016; Reeve, 2016). Through Project-based learning, TVET programs help to promote STEM teaching and learning. Using the context of real-world issues, STEM teaching becomes relevant and connected.(Dixon & Hutton, 2016). Hence, STEM teaching in TVET allows STEM concepts easier to grasp. Moreover, STEM teaching focuses on innovation and problem solving that makes TVET facilities STEM teaching. Applying sciences and mathematics in the framework of TVET instruction, an instructional paradigm in STEM Education, have been examples for TVET.

In STEM Education, Information and Communication Technologies (ICT) is a crucial and significant tool in improving teaching and learning practice (Zubković et al., 2017). Numerous STEM Education research propose pedagogical models that assist STEM teachers in their technology integration practices. For example, Sanders proposes 'Purposeful Design and Inquiry' that uses scientific inquiry in a technology problem-solving environment as an essential component in STEM Education pedagogy framework (Sanders, 2009). In PD&I, to enhance students' scientific inquiry and create a robust learning environment, scientific inquiry and mathematics are situated in problem-based learning.

To promote student engagement in STEM programs, (Kennedy & Odell, 2014) introduce technology's integration into the culture, curriculum, teaching strategies and daily operations of STEM classrooms. The authors describe that appropriate technologies such as modelling, simulation and distance learning as part of STEM pedagogical models can challenge students innovative and inventive skills. For constructing high-quality STEM education programs, six elements should be included, which are an integration of technology and engineering into science and math curriculum at a minimum, promote scientific inquiry and engineering design, include rigorous mathematics and science instruction, collaborative approaches to learning, connect students and educators with STEM fields and professionals, provide global and multi-perspective viewpoints, incorporate strategies such as project-based learning, provide formal and informal learning experiences and incorporate appropriate technologies to enhance learning (Kennedy & Odell, 2014).

LOW UTILIZATION OF ICT AMONG TVET EDUCATORS

Though teachers in TVET are lack ICT knowledge and pedagogical knowledge (Ismail et al., 2017), integrating ICT still becomes an instructional practice of STEM teachers (Chan & Mohamad, 2019) in TVET. It is because ICT helps STEM teaching and learning process becomes smooth and exciting. Moreover, ICT and pedagogical competence are needed for teachers to be innovative in teaching and learning (Yasak & Alias, 2015). For STEM teachers in TVET to be competent in ICT and pedagogy, knowledge of ICT and pedagogy needs improvement. Thus, there is a need to explore the incorporation of ICT tools through teachers' knowledge in conducting STEM teaching and learning at TVET.

PURPOSE OF THE STUDY

The purpose of the study was to describe how TVETMARA educators integrate ICT in their STEM teaching. It explored the experiences of ten TVETMARA educators who incorporate ICT to conduct their STEM teaching effectively. This study addressed the following question: How TVETMARA educators integrate ICT in their STEM teaching by examining the indicators of ICT integration practices?

METHODOLOGY

In a qualitative case study, it is the intention of the researcher to describe and interpret what is happening (Creswell, 2015). This study employed a qualitative case study to provide the in-depth description and analysis of ICT integration practice in STEM teaching by TVETMARA Educators.

SAMPLE

The qualitative case study approach employed a purposeful sampling strategy(citation). In this study, the purposive sampling method was chosen because it enabled the researcher to recruit participants who practice ICT integration in their STEM teaching. The sample consisted of ten TVETMARA educators from four different TVETMARA zones: East, Mid, South and East Malaysia. The ten They were in-service TVETMARA educators from East Malaysia and West Malaysia who possessed Vocational Training Certificate (VTO) certified by Department of Skills and Development, Ministry of Human Resource as required by ACT 652 (NASDA). Moreover, they integrated ICT in their STEM teaching through best practices in *Standard Pendidik MARA* (SPMa).

TABLE 1: Demographic information of the ten TVETMARA educators.

Pseudonym	Age	Subject matter expert	Gender	Teaching experience
X1	36 years old	Automotive engineering	Male	11 years old
X2	43 years old	Electrical engineering	Male	14 years old
X3	37 years old	Electrical engineering	Male	11 years old
X4	44 years old	Mechanical engineering	Female	8 years old
X5	43 years old	Electrical and electronic engineering	Male	13 years old
X6	38 years old	Electrical engineering	Female	11 years old
X7	39 years old	Electrical engineering	Male	17 years old
X8	44 years old	Architectural engineering	Female	17 years old
X9	47 years old	Automotive engineering	Male	20 years old
X10	44 years old	Mechanical engineering	Male	20 years old

DATA COLLECTION

Interviewing is the most widely used form of data collection in qualitative study (Creswell). To keep a researcher organized and provide a record of information, an interview protocol is developed before conducting interview sessions. An interview protocol is a set of interview questions and procedural guide in the interview process (Jacob & Furgerson, 2012). In this study, an interview protocol was used as an instrument to define and describe TVETMARA educators' practices incorporating ICT in their STEM teaching.

Before conducting the interview session, the researcher contacted the directors and deputy academic directors in TVETMARA for permission to conduct the study and for names of TVETMARA educators who met the study criteria. The deputy academic directors recruited the educators to participate in the study and allowed the researcher to contact the participants. Once the educators confirmed their willingness to participate, they were asked to fill out consent forms that inform them of the purpose and benefits of their contributions to the STEM(ICT) Teaching Inventory development. Appointments for the interview sessions were made. Due to physical mobility boundaries of Covid-19, semi-structured online interviews were conducted with 10 participants of TVET educators throughout East and West Malaysia. The researcher used Teams to record the interview sessions. During the interviews, the researcher took note of elements that indicated the use of ICT in STEM teaching. The recordings were uploaded to the researcher's Microsoft OneDrive account and proceeded to transcribe the interviews after each interview session. Once the researcher completed transcribing, the transcript was shared with the participants to seek confirmation of the interviews. Then, thematic analysis continued.

DATA ANALYSIS

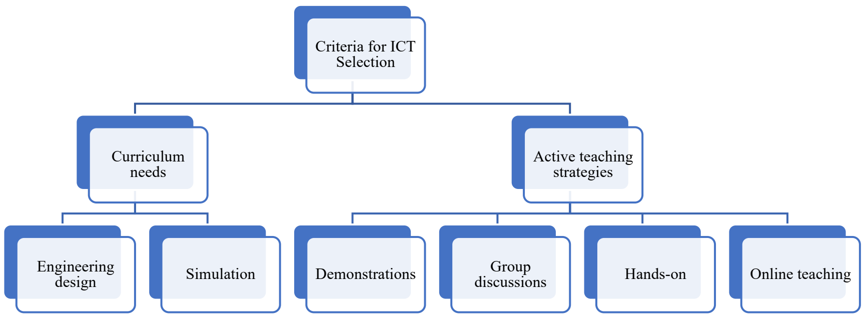
In the qualitative phase, the researcher began analyzing the data from the semi-structured open interview using Braun and Clarke (2006) approach to Thematic analysis. According to Braun & Clarke (2006), there are six phases of Thematic analysis:

1. Familiarize with data: In the first step to familiarize herself with data, the researcher conducted and transcribed interviews herself. It allowed the researcher to reflect and be familiarized with the words that were being used by the participants when they described how they conducted their STEM teaching with inclusion of ICT.
2. Generate initial codes: Both inductive and deductive coding were integrated in the generating codes phase. Using Quirkos software, 'toogle notes' were used on transcriptions before assigning codes and themes. For example, using TPACK as the basis of investigation for the conceptual framework, codes ICT selection based on curriculum and teaching strategies become the indicators of ICT integration practices. However, taking the participants' own language such as 'practical class' served as inductive coding.
3. Search for themes: In this step, the researcher identified patterns of shared meaning across the coded data. For example, codes simulator, upgraded drawing, advanced technology categorized under theme 'ICT selected is aligned with courses outcomes taught'.
4. Review themes: To check if the themes capture the essence of the coded data, the researcher incorporated and reflected on literature.
5. Define and name themes: Based on step 4, the researcher assigned informative and engaging names to each theme.
6. Produce report: Selecting excerpts from the participants and researcher's interpretation, literature was used to confirm the final analysis.

FINDINGS

CRITERIA FOR ICT SELECTION

Figure 3.1: Concept Map for Theme



Criteria for ICT selection in TVET MARA courses focus on two discrete aspects: the curriculum and learning outcomes and active teaching strategies employed by TVETMARA educators.

THEME 1: SELECTION CRITERIA BASED ON TVETMARA CURRICULUM

TVETMARA teachers tend to choose ICT tools based on the needs of their curriculum, which is designed to align with industrial recognition and STEM teaching. The syllabus and learning outcomes of TVETMARA courses cover areas such as engineering design and simulation modeling. Engineering drawing plays a crucial role in designing complex engineering projects by providing accurate plans and visual guides for precise component manufacturing. With the advent of Industry 4.0, ICT, especially computer-aided design systems like AutoCAD, enhances the efficiency of engineering drawing and technological preparation for production. Interviews with TVETMARA educators highlight the significance of engineering drawing courses in various technical engineering departments. Excerpts from interviews with participants, X1 and X4 reveal that the TVETMARA syllabus provides guidance on selecting software for engineering drawing classes. The adoption of AutoCAD as an ICT tool enhances visualization, simplifies complex structure construction, and improves the accuracy of printouts, benefiting technician trainees in understanding and executing their tasks effectively. For instance, in the context of construction, TVETMARA educator (X4) emphasizes the importance of engineering drawing. She said that:

"The CAD curriculum is taught in the first, second, and third semesters, with the focus varying in each semester. However, the software used remains the same. The second semester emphasizes "fit limit and tolerance" in design, while the CAD concept for geometrical construction involves drawings with dimensions. In the first semester, students apply basic dimensions, fit limits, and tolerance in their drawings, followed by practical workshops to reinforce their understanding." (X4)

In the engineering industry, simulators are a crucial tool for experimentation. As engineers strive to propose new ideas to improve production process, they rely on simulation mathematical testing and experimental data processing (Ibragimov Ulugbek Muradilloyevich et al., 2020) to achieve their goals. Similarly, in TVET training, simulators are indispensable tools. It helps to create realistic virtual environments and practices scenarios and allows TVET trainers to experiment with different techniques, tools, and materials without damaging costly equipment. Moreover, simulators provide immediate feedback on performance metrics such as speed, accuracy and safety compliance. TVETMARA educators incorporate simulators as part of their course syllabus, utilizing simulators as one of the ICT tools in STEM teaching particularly in practical class. By doing so, they equip TVETMARA students with the necessary skills and knowledge to succeed in the industry.

When asked on the ICT tools that were used in STEM teaching, X2, a TVET MARA electrical instructor, highlighted the function of having a simulator in the electrical workshop to run experiments. He commented that:

"For motor control, there is its own simulator – synchronized motor. It means testing the mention motor, how fast the speed of the motor. For example, if we want to have the motor running at a certain speed, how much volt and ampere it should have. Most of the courses of electric power use simulator." (X2)

The study highlights the importance of engineering drawing and simulation modeling in TVETMARA courses and examines the ICT tools employed by TVETMARA educators to enhance STEM learning experiences. Interviews with educators shed light on the utilization of AutoCAD for engineering drawing and various simulators for practical classes, showcasing how these ICT tools contribute to effective STEM instruction. The findings demonstrate how ICT integration aligns with TVETMARA syllabi, providing students with valuable skills and knowledge for their future careers.

THEME 2: SELECTION CRITERIA BASED ON TEACHING STRATEGIES EMPLOYED

The second aspect generated in Criteria for ICT selection theme is TVETMARA teachers likely to select ICT tools based on active teaching strategies. In light of the rapid development of technology in IR 4.0, TVET transforms the way it delivers its content by focusing on teaching skills (Asnul Dahar Minghat et al., 2020; Mohamad et al., 2019; Zulnaidi et al., 2020). To keep up with these changes, TVETMARA adopts active learning techniques that provide a more engaging and interactive learning experience. This approach aims to promote deeper understanding and high retention of the learning materials in TVETMARA courses.

One common view shared by interviewees is the use of videos to showcase technical processes. In TVETMARA classes, demonstrations are an active and engaging learning approach that allows students to observe, analyze and replicate tasks in real time. For example, X1 utilizes videos from YouTube to demonstrate tasks such as disassembling car parts. Based on the video, he instructs his students to create their own video on assembling car parts, using techniques shown in the video.

X10 shared his positive views on the effectiveness of using videos as a visual aid for demonstration in a hands-on session of a practical class. During a class observation, he demonstrated the movement of a system in his mechanical class. By showing the process, he was able to effectively explain the concept to his students. In his interview, he stated that:

"In a hydraulic and pneumatic class, I use videos. These videos illustrate hydraulic equipment movement in three dimensional. It is in a 3D drawing where we can see movement from inner and outer side. So, students can observe and discuss from every angle. This is an effective method for my students." (X10)

On the other hand, X3 noticed a lack of videos available on YouTube that represent the electrical practices in Malaysia. Most of the videos he found were from foreign countries such as India and Pakistan. As Malaysia has its own standards and regulations, X3 took it upon himself to create his own videos to demonstrate the electrical act and regulations in the country. By doing so, he hopes to provide his students with a better understanding of the practices conducted in their own country.

In summary, TVETMARA educators consider the curriculum needs and active teaching strategies when selecting ICT tools for their STEM teaching. AutoCAD and simulators are widely used in engineering drawing and practical classes, respectively. Visual aids, videos, and PowerPoint slide presentations enhance student engagement and understanding. Online platforms facilitate communication and collaboration. Through the integration of ICT tools, TVETMARA educators aim to equip students with the necessary skills and knowledge for their chosen technical fields.

TPACK LENS TO ANALYZE EDUCATORS' PREFERENCES, CHALLENGES AND CONSIDERATIONS

From the lenses of TPACK, both criteria suggest Technology Knowledge (TK) as its dominant component of TVETMARA educators' TPACK that in line with previous studies (Fahadi & Khan, 2022; Mohammad Yunus & Mohamad, 2022; Mutanga et al., 2018). In this study, TK is an essential knowledge in implementing STEM teaching as pedagogical practice. It encompasses the ability to operate ICT tools such as knowledge of operating systems and computer hardware, the use of standard sets of software tools for example word processors, spreadsheets, browsers and email and ICT tools that support authentic learning experiences through simulators and virtual reality. ICT is a crucial and significant tool in improving STEM teaching and learning practice (Zubković et al., 2017). Therefore, teachers need to have sufficient technology knowledge and skills to be effective in STEM teaching and learning (Goy et al., 2017; Türk et al., 2018). In STEM teaching, Technology knowledge plays (Arifin et al., 2020)a key role by combining it with scientific inquiry to create a robust learning environment(Sanders, 2009). Additionally, technology knowledge assists in making learning accessible to students through representations, analogies, examples, explanations, and demonstrations (Mishra & Koehler, 2006).

In the context of TVETMARA, its curriculum is designed to be industry-driven with advancements in ICT technology in line the needs of IR 4.0. This includes areas such as IoT, simulation, video conferencing, social media and 3D modeling that are essential in producing a high-quality workforce (Hassan et al., 2021). The foundation of TVETMARA syllabi is based on ICT technology that integrates into technical courses through engineering design and simulations. As a result, TVETMARA educators are highly competent and comfortable when handling ICT technologies. This is consistent with previous research that suggests TVET lecturers are confidence in their technology knowledge as a skill to teach their students (Mohammad Yunus & Mohamad, 2022). A study by Mutanga et al.(2018) confirmed this finding that engineering educators are highly competent in their content and technology knowledge. This implies they are highly trained in their field and using technology in their teaching. Moreover, it is crucial for TVETMARA educators to stay updated with latest ICT technologies. This is because it is important to choose technologies that match the expectations of industries (Thang Tze Yian & Park, 2017) . Hence, previous study that confirmed by this finding, suggests introducing TK as a component that support, improve and simplify teaching and learning practice in TVET (Fahadi & Khan, 2022).

The rapid evolution of ICT tools presents a significant challenge to TVETMARA educators. The educators need to ensure that ICT tools they utilize align with the learning outcomes in technical and engineering courses offer in TVETMARA centres. To address this challenge effectively, TVETMARA educators need to acquire sufficient technology content knowledge (TCK) to assist in making decision when selecting appropriate ICT tools for their courses. TCK plays a crucial role in helping TVETMARA educators understand and become proficient in using ICT tools to enhance teaching and learning process in engineering and technical courses. During interviews with TVETMARA educators who taught Computer Aided Design(CAD), it was revealed that AutoCAD software are beneficial for students. AutoCAD software enables students to design and analyse drawings for practical use. TVETMARA educators' TCK guides them to emphasize different aspects of CAD concepts based on the engineering and technical backgrounds. This strong foundation of TCK enables them to focus on imparting knowledge and skills by leveraging ICT tools. A previous study confirmed that TVET teachers need to embrace technology and incorporate it into their teaching methods to ensure that their students achieve the intended learning outcomes (Lee et al., 2020). They have to be able to harness the full potential of technology for TVET teaching and learning process

(Arifin et al., 2020) . By using ICT tools such as simulations and videos, TVET educators can explain complex concepts of technical and engineering in a visual and interactive manner(Khairul Anuar Abdul Rahman et al., 2022). Simulations, in particular, create opportunities for students to apply theory to practice in a realistic , safe and controlled environment. Hence, TCK of TVETMARA educators assist in developing engaging learning environment that facilitate understanding and application of complex technical concepts.

IMPLICATIONS AND RECOMMENDATIONS

Based on the findings, the implications of the study are as follows:

DOMINANCE OF TECHNOLOGY KNOWLEDGE (TK) IN TVETMARA EDUCATORS' TPACK

According to the findings, Technology Knowledge (TK) is the most important component of TVETMARA instructors' Technological Pedagogical Content Knowledge (TPACK). This indicates that the ability of TVETMARA educators to use ICT tools and technology is a critical aspect in executing good STEM teaching practices.

IMPORTANCE OF TECHNOLOGY KNOWLEDGE IN STEM TEACHING

TK is considered essential in implementing STEM teaching as a pedagogical practice. TVETMARA educators need to be competent in operating ICT tools, standard software, and ICT tools that support authentic learning experiences like simulators and virtual reality. Technology knowledge is recognized as a significant tool in enhancing STEM teaching and learning practices.

ROLE OF TECHNOLOGY KNOWLEDGE IN CREATING A ROBUST LEARNING ENVIRONMENT

In the context of STEM teaching, TK plays a key role in combining scientific inquiry with technology to create a robust learning environment. It enables teachers to make learning accessible to students through various methods such as representations, analogies, examples, explanations, and demonstrations.

ALIGNMENT OF TVETMARA CURRICULUM WITH ICT ADVANCEMENTS

The TVETMARA curriculum is designed to be industry-driven, aligned with the advancements in ICT technology related to Industry 4.0. Areas such as IoT, simulation, video conferencing, social media, and 3D modeling are integrated into the technical courses, making technology knowledge essential for producing a high-quality workforce.

THE NEED FOR TECHNOLOGY CONTENT KNOWLEDGE (TCK)

Rapid evolution of ICT tools poses a challenge to TVETMARA educators in choosing appropriate technologies aligned with the learning outcomes. To address this challenge, educators need to acquire sufficient Technology Content Knowledge (TCK) to make informed decisions when selecting ICT tools for their courses.

EMBRACING TECHNOLOGY FOR TVET TEACHING

Previous studies highlight the importance of TVET educators embracing technology and incorporating it into their teaching methods to ensure that students achieve the intended learning outcomes. Utilizing ICT tools such as simulations and videos facilitate a more engaging learning environment and aids in the understanding and application of complex technical concepts.

The following recommendations are relevant to the professional development of TVETMARA educators:

TECHNOLOGY KNOWLEDGE (TK) TRAINING

Offer professional development programs that focus on enhancing TVETMARA educators' technology knowledge (TK). These programs should cover the operation of ICT tools, knowledge of computer hardware and software, and the use of technology to support authentic learning experiences such as simulations and virtual reality. Special emphasis should be placed on incorporating ICT tools that align with the needs of Industry 4.0 and the evolving demands of the job market.

TECHNOLOGY CONTENT KNOWLEDGE (TCK) ENHANCEMENT

Provide workshops and courses to improve TVETMARA educators' technology content knowledge (TCK). This should include training on how to effectively select and integrate ICT tools into technical and engineering courses, aligning the technology with specific learning outcomes, and utilizing technology to create engaging learning environments.

INTEGRATION OF TECHNOLOGY IN TEACHING PRACTICES

Facilitate professional development sessions that demonstrate how technology can be effectively integrated into TVETMARA educators' teaching practices. This can include showcasing successful examples of using ICT tools, simulations, videos, and other technology-based resources to enhance the delivery of complex technical concepts and improve student engagement.

CONCLUSION

In summary, the key findings of the study emphasize the significance of technology knowledge and content knowledge for TVETMARA educators in effectively implementing STEM teaching practices and aligning the curriculum with ICT advancements. Continuous professional development and a proactive approach to embracing technology are essential for creating engaging learning environments that meet the demands of Industry 4.0 and produce a skilled workforce. They should receive training and support to enhance their technology knowledge, content knowledge, and integration of technology in teaching practices.

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KOLABORASI PENSYARAH: PENGARUH SIGNIFIKAN KE ATAS EFIKASI KENDIRI PENSYARAH KOLEJ MARA

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ABSTRAK

Kolaborasi dalam kalangan pensyarah merupakan salah satu aspek yang perlu diberi perhatian khususnya dalam Institusi Pendidikan MARA (IPMA) agar proses pembelajaran pensyarah dapat terus berlaku dan kualiti pengajaran pula dapat dipertingkatkan. Kolaborasi pensyarah boleh berlaku secara formal atau tidak formal apabila terdapat perkongsian kaedah dan strategi pengajaran serta isu berkaitan penambahbaikan pengajaran. Kajian ini dijalankan bagi meninjau pengaruh kolaborasi pensyarah ke atas efikasi kendiri pensyarah dalam kalangan pensyarah Kolej MARA. Reka bentuk kajian ini merupakan kajian kuantitatif secara tinjauan. Pengumpulan data menggunakan soal selidik bagi mendapatkan maklumat demografi responden serta pemboleh ubah kajian, kolaborasi pensyarah dan efikasi kendiri pensyarah. Seramai 61 orang pensyarah Kolej MARA terlibat sebagai responden kajian. Data yang terkumpul diproses dan dianalisis menggunakan SPSS menerusi frekuensi, min, sisihan piawai, korelasi Pearson dan regresi berganda. Hasil kajian mendapati tahap kolaborasi dan efikasi kendiri dalam kalangan pensyarah Kolej MARA yang dikaji adalah tinggi. Dapatan juga menunjukkan bahawa terdapat hubungan positif yang signifikan antara kolaborasi pensyarah dan efikasi kendiri pensyarah. Sementara itu, dimensi kolaborasi pensyarah didapati mempunyai pengaruh yang signifikan ke atas efikasi kendiri pensyarah. Justeru, dapatan kajian ini jelas menunjukkan kepentingan amalan kolaborasi pensyarah dalam mempengaruhi efikasi kendiri pensyarah. Dalam membudayakan amalan kolaborasi dalam kalangan pensyarah, semua pihak di Kolej MARA perlu memainkan peranan termasuklah pihak pengurusan kolej dan juga staf.

Kata kunci*: kolaborasi pensyarah; efikasi kendiri; kualiti pengajaran; penambahbaikan pengajaran; strategi pengajaran.*

PENGENALAN

Sistem pendidikan berperanan penting dalam menyediakan masyarakat dengan ilmu pengetahuan yang bermanfaat. Hal ini kerana pendidikan menjadi perkara asas yang utama dalam mempengaruhi perkembangan seseorang individu. Namun, bagi menyediakan pendidikan yang seiring dengan peredaran masa, sistem pendidikan perlu sentiasa mengalami perubahan (Rosnarizah & Hussein, 2015; Rusliza, Norsamsinar, Jessnor Elmy & Hemini, 2017). Perubahan ini penting dalam sistem pendidikan negara supaya peningkatan kualiti pendidikan boleh berlaku dan negara mampu bersaing di peringkat global (Ainimazita, 2016). Justeru, semua warga pendidik seperti pensyarah, guru, pemimpin institusi pendidikan serta kakitangan sokongan perlu bersedia untuk menghadapinya (Kazak & Polat, 2018).

Seiring dengan hasrat mencapai kualiti dalam pendidikan, faktor pensyarah juga berperanan untuk menggerakkan keberhasilan pelajar (Alam & Ahmad, 2017; Khalip & Seng, 2017; Lee & Shukri, 2016). Pensyarah merupakan individu yang terlibat secara langsung dalam sesi pengajaran dan pembelajaran di kolej atau universiti. Sehubungan itu, pensyarah wajar mempunyai efikasi kendiri yang tinggi. Pensyarah yang berefikasi kendiri yang tinggi akan berkemampuan untuk menyediakan suasana pembelajaran yang efektif selain berupaya mendepani tugasan yang sukar (Cansoy & Parlar, 2018; Şeker, 2021). Selain itu, pensyarah yang berefikasi tinggi juga didapati mempunyai kecenderungan untuk membuat perancangan yang terbaik, sentiasa berusaha untuk mencari sesuatu kaedah yang baharu untuk keperluan pelajarnya serta sentiasa memberi motivasi kepada pelajar ke arah yang lebih cemerlang (Allinder, 1994; Guskey, 1988; Tschannen-Moran & Woolfolk Hoy, 2001).

TINJAUAN LITERATUR

Menurut Tschannen-Moran & Woolfolk Hoy (2001), efikasi kendiri adalah berkaitan dengan tingkah laku atau sikap seseorang (sama ada pensyarah atau pelajar) di bilik darjah dan ianya mampu memberi impak ke atas usaha-usaha berkaitan proses pengajaran pensyarah. Gkolia, Koustelios dan Belias (2018) pula menyatakan bahawa efikasi kendiri merupakan tahap kepercayaan seseorang terhadap kemahiran yang dimiliki tetapi bukan menunjukkan kemahiran sebenarnya. Secara jelasnya, efikasi kendiri pensyarah adalah berkaitan tingkah laku seseorang pensyarah dan kepercayaan kepada kemampuannya dalam aspek pengajaran (Chen, Lin, Hsueh & Hsieh, 2020).

Walaupun didapati efikasi kendiri merupakan aspek penting yang perlu ada dalam diri seseorang pensyarah (Liu & Hallinger, 2018; Rosidah & Nurahimah, 2020), namun kajian yang dijalankan di 41 buah institusi pendidikan di Malaysia mendapati pengajaran yang disampaikan menggunakan kaedah pedagogi terbaik adalah sebanyak 12% sahaja, 38% pula pengajaran disampaikan berada pada tahap memuaskan manakala pengajaran tidak disampaikan dengan cara yang memuaskan menyumbang sebanyak 50% (Pelan Pembangunan Pendidikan Malaysia 2013-2025). Dapatan ini jelas menunjukkan bahawa perlu ada usaha dalam penambahbaikan pengajaran guru dan pensyarah di Malaysia.

Dalam usaha menambah baik keupayaan dan kesungguhan pensyarah dalam menyampaikan ilmu di kolej atau universiti, para pensyarah perlu bekerjasama dalam merancang kaedah dan aktiviti pengajaran yang akan dilaksanakan. Tambahan pula, pengetahuan pedagogi seseorang pensyarah didapati mampu mempengaruhi kualiti pengajaran pensyarah di dalam dewan kuliah atau kelas (Muhd Zulhilmi, Mohd Muslim, Mohamad Khairi & Mohd Isha, 2021). Kajian-kajian terdahulu berkaitan kerjasama dalam kalangan pensyarah atau kolaborasi pensyarah menunjukkan kesan yang positif terhadap penambahbaikan pengajaran pensyarah (Elstad, Lejonberg & Christophersen, 2019; Lee & Madden, 2019).

Dapatan di atas turut konsisten menerusi kajian yang dilakukan oleh Minghui, Lei, Xiaomeng dan Potměšilc (2018). Dapatan kajiannya di peringkat sekolah mendapati sokongan guru mampu meningkatkan efikasi kendiri guru-guru pendidikan khas di China. Dengan adanya sokongan dan kerjasama dalam kalangan guru tersebut, tanggungjawab guru untuk memberi didikan serta bimbingan kepada pelajar dapat diteruskan dengan lebih berkualiti. Begitu juga dengan kajian yang dijalankan oleh Breyer, Wilfing, Leitenbauer dan Gasteiger-Klicpera (2020) di negara Austria turut menunjukkan kolaborasi pensyarah mempunyai hubungan yang positif dengan efikasi kendiri pensyarah. Selain itu, dapatan kajian Liu, Bellibaş dan Gümüş (2021) turut menyokong dapatan kajian yang dijalankan oleh Breyer et al. (2020). Justeru, menerusi beberapa dapatan kajian yang dibincangkan jelas menunjukkan terdapatnya hubungan yang positif antara kolaborasi dan efikasi kendiri dalam kalangan guru atau pensyarah.

Namun begitu, terdapat sedikit perbezaan dalam kajian yang terkini dijalankan oleh Kwee (2021) berkaitan aspek kolaborasi dalam kalangan guru. Kajian ini dijalankan terhadap 10 orang guru Bahasa Inggeris melalui kajian kes. Dapatan kajian Kwee (2021) memperoleh, selain guru berkolaborasi seperti menyediakan bahan pengajaran terkini, efikasi kendiri guru dapat ditingkatkan sekiranya terdapat sokongan daripada pihak pengurusan sekolah dalam memantapkan lagi elemen kolaborasi. Dapatan kajian tersebut menunjukkan bahawa perlu wujud arahan yang jelas mengenai dasar sekolah dan menetapkan tugas guru. Kolaborasi formal seperti ini perlu wujud dalam meningkatkan efikasi kendiri guru. Seterusnya, Mohd Faiz, Muhamad Rozaimi dan Jamal@Nordin (2017) turut menyatakan bahawa kolaborasi guru atau pensyarah merupakan salah satu aspek yang boleh membawa perubahan dalam bidang pendidikan khususnya ke arah peningkatan kualiti pengajaran guru atau pensyarah serta prestasi pencapaian pelajar. Menerusi amalan kolaborasi, guru atau pensyarah berpeluang untuk menjana perkongsian idea dan bahan pengajaran, membincangkan masalah yang dihadapi serta dapat membuka ruang kepada guru dan pensyarah untuk menerima sokongan daripada rakan bagi mendepani dan mengatasi situasi yang sukar dan mencabar (Çoban, Özdemir & Bellibaş, 2023).

Walaupun kajian berkaitan kolaborasi pensyarah telah dijalankan di Malaysia, namun kajian-kajian tersebut lebih tertumpu kepada kolaborasi pensyarah dalam Program Pembangunan Profesional iaitu Kajian Pengajaran (Nur Ain Elzira, Zamri & Nur Aishah, 2018) dan Komuniti Pembelajaran Profesional (Aziah, Yen & Abdul Ghani Kanesan, 2017). Dapatan kajian Nur Ain Elzira et al. (2018) ini selari dengan konsep kolaborasi yang diketengahkan oleh Mohd Faiz et al. (2016) yang menyatakan salah satu amalan kolaboratif yang boleh meningkatkan kerjasama dalam kalangan pensyarah adalah melalui Kajian Pengajaran (*Lesson Study*). Selain Kajian Pengajaran, Jelajah Pembelajaran (*Learning Walks*) dan Pembimbing Instruksi (*Peer Coaching / Instructional Coaches*) juga merupakan amalan yang boleh dipraktikkan dalam model Komuniti Pembelajaran Professional (KPP). Dalam kajian ini, penerokaan kolaborasi pensyarah lebih tertumpu kepada kolaborasi untuk penambahbaikan dalam aspek pengajaran secara menyeluruh. Kolaborasi pensyarah dalam kajian ini akan diukur melalui tiga dimensi kolaborasi pensyarah iaitu (1) kolaborasi formal; tahap formaliti yang menggambarkan sifat kerja kolaboratif pensyarah, (2) kolaborasi pensyarah dalam dasar pengajaran; pensyarah bekerjasama secara berpasukan untuk penambahbaikan dalam pengajaran seperti merancang penambahbaikan kolej atau universiti, kaedah dan aktiviti pengajaran, menilai kurikulum dan program serta merancang dan menentukan aktiviti pembangunan profesional dan (3) kekerapan kolaborasi; kekerapan pensyarah saling bekerjasama dengan rakan sekerja untuk penambahbaikan pengajaran.

Kepentingan para pensyarah untuk berkolaborasi atau bekerjasama dalam semua perkara di sesebuah institusi pendidikan adalah sangat diperlukan dan dititikberatkan. Selain dapat mempengaruhi kejayaan sesebuah institusi pendidikan, kepentingannya juga diperlukan dalam meningkatkan efikasi kendiri pensyarah. Tambahan pula, dalam anjakan keempat Pelan Pembangunan Pendidikan Malaysia, 2013-2025 turut menekankan tentang kepentingan para pensyarah dalam membudayakan pimpinan rakan sekerja dalam membimbing serta berkongsi pandangan berkaitan tugasan kerja seorang pensyarah. Dengan itu, para pensyarah perlu bijak mengambil peluang tersebut bagi tujuan penambahbaikan dan meningkatkan kualiti aspek pengajaran dan pembelajaran seterusnya dapat meningkatkan pencapaian pelajar. Justeru kajian ini dijalankan bagi mengkaji amalan kolaborasi pensyarah dan efikasi kendiri pensyarah di Kolej MARA. Secara khususnya objektif kajian ini ialah untuk: 1) menentukan tahap amalan kolaborasi pensyarah dan efikasi kendiri pensyarah; 2) menganalisis hubungan antara kolaborasi pensyarah dengan efikasi kendiri pensyarah; 3) menganalisis pengaruh dimensi kolaborasi pensyarah ke atas efikasi kendiri pensyarah.

METODOLOGI KAJIAN

Kajian ini merupakan satu kajian kuantitatif menggunakan kaedah tinjauan. Data dikumpul melalui penggunaan soal selidik yang terpiawai.

RESPONDEN KAJIAN

Populasi bagi kajian ini adalah para pensyarah yang mengajar di Kolej MARA. Kaedah pensampelan rawak mudah telah digunakan semasa memilih responden kajian. Seramai 61 orang pensyarah Kolej MARA telah terlibat sebagai responden dalam kajian ini.

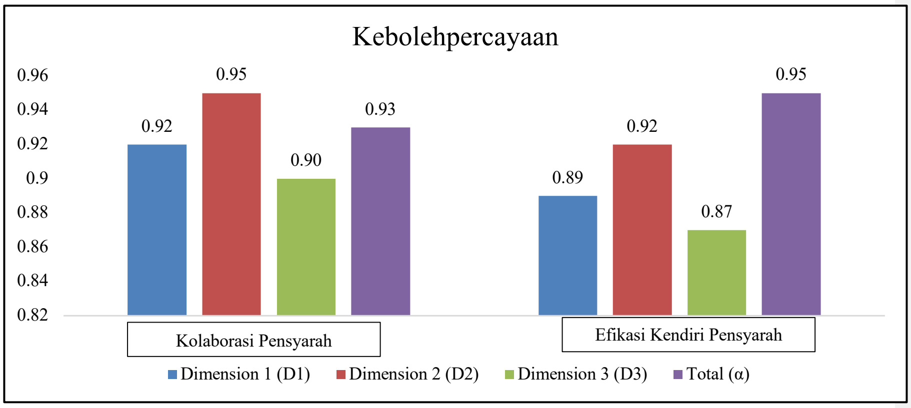
INSTRUMEN KAJIAN

Dalam kajian ini, alat ukur *Teacher Collaboration* oleh Goddard, Goddard, Sook Kim & Miller (2015) yang mengandungi 13 item telah digunakan untuk mengukur amalan kolaborasi pensyarah. Alat ukur kolaborasi pensyarah ini mengandungi tiga dimensi iaitu kolaborasi formal (4 item), kolaborasi pensyarah dalam dasar pengajaran (5 item) dan seterusnya kekerapan kolaborasi pengajaran (4 item).

Selain itu, alat ukur *Teachers' Sense of Efficacy Scale* (TSES) oleh Tschannen-Moran dan Woolfolk Hoy (2001) terdiri daripada 12 item pula digunakan bagi mengukur dimensi efikasi kendiri pensyarah. Gabungan tiga dimensi yang membentuk TSES ialah strategi pengajaran (4 item), pengurusan kelas (4 item) dan penglibatan pelajar (4 item). Keseluruhan item dalam kedua-dua alat ukur tersebut menggunakan skala enam mata bermula dengan (1) Sangat Tidak Bersetuju sehingga (6) Sangat Bersetuju. Namun, bagi dimensi kekerapan kolaborasi pengajaran pula, item-itemnya menggunakan skala enam mata bermula dengan (1) Tidak Pernah sehingga (6) Hampir Setiap Hari.

Gambar rajah 1 berikut menunjukkan kebolehpercayaan bagi alat ukur kolaborasi pensyarah dan efikasi kendiri pensyarah. Nilai kebolehpercayaan (*Cronbach's Alpha*) bagi alat ukur ini berada di antara 0.87 hingga 0.95. Tahap kebolehpercayaan alat ukur ini adalah baik (Pallant, 2013).

RAJAH 1: Statistik Kebolehpercayaan



Nota: Kolaborasi pensyarah: D1- Kolaborasi formal; D2- Kolaborasi pensyarah dalam dasar pengajaran; D3- Kekerapan kolaborasi pengajaran; Efikasi Kendiri Pensyarah: D1- Strategi pengajaran; D2- Pengurusan kelas D3- Penglibatan pelajar.

ANALISIS DATA

Data yang diperoleh diproses menggunakan perisian *Statistical Package for the Social Sciences (SPSS)* versi 22.0 kerana perisian ini memudahkan proses analisis data berbentuk kuantitatif. Statistik deskriptif, korelasi Pearson dan analisis regresi berganda digunakan untuk menjawab soalan kajian yang dikemukakan.

Analisis secara deskriptif menggunakan min dan sisihan piawai bagi mengukur tahap amalan kolaborasi pensyarah dan efikasi kendiri pensyarah dalam kalangan pensyarah di Kolej MARA. Seterusnya, ujian korelasi Pearson pula digunakan bagi menganalisis hubungan antara kolaborasi pensyarah dengan efikasi kendiri pensyarah. Tafsiran pekali korelasi oleh Fauzi, Jamal dan Mohd Saifoul (2014) dalam Jadual 1 di bawah digunakan bagi menunjukkan kekuatan hubungan antara pemboleh ubah tersebut. Analisis berikutnya iaitu analisis regresi berganda digunakan untuk menganalisis pengaruh dimensi kolaborasi pensyarah terhadap efikasi kendiri pensyarah.

JADUAL 1: Pekali korelasi

Pekali korelasi	Kekuatan hubungan
1.00	Sempurna
0.80 – 0.99	Sangat kuat
0.60 – 0.79	Kuat
0.40 – 0.59	Sederhana
0.20 – 0.39	Lemah
0.01 – 0.19	Sangat lemah
0.00	Tiada hubungan

DAPATAN KAJIAN

PROFIL RESPONDEN

Jadual 2 di bawah menunjukkan maklumat demografi bagi responden yang terlibat dalam kajian ini iaitu jantina dan kelulusan akademik.

JADUAL 2: Maklumat Demografi (n=61)

Perkara	Item	Kekerapan	Peratus (%)
Jantina	Lelaki	17	27.9
	Perempuan	44	72.1
Kelulusan Akademik	Sarjana Muda	29	47.5
	Master	31	50.9
	Doktor Falsafah (Ph.D)	1	1.6

STATISTIK DESKRIPTIF

Berdasarkan Jadual 3, skor min bagi tiga dimensi pemboleh ubah kolaborasi pensyarah dan tiga dimensi efikasi kendiri pensyarah berada di antara 3.89 hingga 4.90. Secara keseluruhannya, dimensi bagi pemboleh ubah kolaborasi pensyarah dan efikasi kendiri pensyarah dalam kalangan pensyarah Kolej MARA berada pada tahap tinggi kecuali dimensi kekerapan kolaborasi pengajaran ($M = 3.89$, $SD = 0.78$) berada pada tahap sederhana. Skor min bagi dimensi ini juga merupakan skor yang terendah. Sebaliknya, dimensi kolaborasi formal ($M = 4.90$, $SD = 0.80$) adalah skor min tertinggi. Seterusnya, skor min keseluruhan bagi kedua-dua pemboleh ubah iaitu kolaborasi pensyarah ($N = 61$, $M = 4.54$, $SD = 0.64$) dan efikasi kendiri pensyarah ($N = 61$, $M = 4.72$, $SD = 0.60$) berada pada tahap amalan yang tinggi. Jadual 3 di bawah menunjukkan statistik deskriptif bagi pemboleh ubah kolaborasi pensyarah dan efikasi kendiri pensyarah.

JADUAL 3: Statistik deskriptif untuk pemboleh ubah kajian

Pemboleh ubah	**Min**	**Sisihan piawai**	**Tahap**
Kolaborasi formal	4.90	0.80	Tinggi
Kolaborasi pensyarah dalam dasar pengajaran	4.81	0.75	Tinggi
Kekerapan kolaborasi pengajaran	3.89	0.78	Sederhana
Kolaborasi Pensyarah (Total)	**4.54**	**0.64**	**Tinggi**
Strategi pengajaran	4.69	0.63	Tinggi
Pengurusan kelas	4.82	0.67	Tinggi
Penglibatan pelajar	4.64	0.64	Tinggi
Efikasi Kendiri Pensyarah (Total)	**4.72**	**0.60**	**Tinggi**

STATISTIK INFERENSI

Bahagian ini seterusnya membincangkan hasil dapatan kajian secara statistik inferensi iaitu dengan memfokuskan kepada hubungan antara kolaborasi pensyarah dengan efikasi kendiri pensyarah dan seterusnya pengaruh kolaborasi terhadap efikasi kendiri pensyarah Kolej MARA.

HUBUNGAN ANTARA KOLABORASI PENSYARAH DENGAN EFIKASI KENDIRI PENSYARAH

Hubungan antara kolaborasi pensyarah dengan efikasi kendiri pensyarah dalam kalangan pensyarah Kolej MARA diukur menggunakan ujian korelasi Pearson. Jadual 4 di bawah menunjukkan hubungan antara pemboleh ubah kolaborasi pensyarah dan efikasi kendiri pensyarah. Analisis korelasi menunjukkan kolaborasi pensyarah mempunyai hubungan yang signifikan ($r = .62$, $p < .01$) dengan efikasi kendiri pensyarah secara keseluruhan. Hubungan positif ini menunjukkan bahawa apabila kolaborasi pensyarah tinggi maka efikasi kendiri pensyarah juga tinggi, manakala kolaborasi pensyarah rendah maka efikasi kendiri pensyarah juga rendah. Hubungan antara kolaborasi pensyarah dengan efikasi kendiri pensyarah secara keseluruhan adalah kuat ($r = .62$).

Selain itu, analisis korelasi menunjukkan dimensi kolaborasi guru iaitu kolaborasi guru dalam dasar pengajaran mempunyai hubungan positif yang signifikan terkuat ($r = .60$, $p < .01$), diikuti oleh kolaborasi formal ($r = .55$, $p < .01$) dan kekerapan kolaborasi pengajaran ($r = .39$, $p < .01$) dengan pemboleh ubah efikasi kendiri guru. Secara keseluruhannya, analisis korelasi mendapati terdapat hubungan positif yang signifikan antara kedua-dua pemboleh ubah.

JADUAL 4: Analisis korelasi bagi kolaborasi pensyarah dan efikasi kendiri pensyarah

Dimensi	Strategi Pengajaran	Pengurusan Kelas	Penglibatan Pelajar	Efikasi Kendiri Pensyarah (Total)
Kolaborasi Formal	.52**	.52**	.47**	.55**
Kolaborasi Pensyarah dalam Dasar Pengajaran	.57**	.54**	.53**	.60**
Kekerapan Kolaborasi Pengajaran	.41**	.31**	.37**	.39**
Kolaborasi Pensyarah (Total)	.61**	.56**	.56**	.62**

**p < .01 (2-tailed)

PENGARUH KOLABORASI TERHADAP EFIKASI KENDIRI PENSYARAH KOLEJ MARA

Analisis regresi berganda digunakan untuk menguji sama ada ketiga-tiga pemboleh ubah bebas iaitu kolaborasi formal, kolaborasi pensyarah dalam dasar pengajaran dan kekerapan kolaborasi pengajaran dapat meramalkan secara signifikan terhadap pemboleh ubah bersandar iaitu efikasi kendiri pensyarah. Merujuk kepada Jadual 5, keputusan analisis regresi menunjukkan ketiga-tiga pemboleh ubah bebas dapat menjelaskan secara signifikan sebanyak 39.8% varians dalam pemboleh ubah bersandar ($R^2 = .398$, $F(3,60) = 89.59$, $p < .01$). Kolaborasi pensyarah dalam dasar pengajaran menunjukkan pengaruh positif yang signifikan ($\beta = .385$, $p=0.000$) terhadap efikasi kendiri pensyarah, diikuti oleh kekerapan kolaborasi pengajaran ($\beta = .191$, $p=0.000$) dan kolaborasi formal ($\beta = .175$, $p=0.009$).

JADUAL 5: Dapatan analisis regresi bagi efikasi kendiri pensyarah dan kolaborasi pensyarah

	B	*β*	*t*	*p*
Nilai pemalar	2.036		12.309	0.000
Kolaborasi formal	.131	.175	2.643	0.009

Kolaborasi pensyarah dalam dasar pengajaran	.307	.385	5.771	0.000
Kekerapan kolaborasi pengajaran	.146	.191	4.577	0.000

$R = .631$ $R^2 = .398$ $R^2_{adj} = .394$ $F (3, 60) = 89.59$, $p < .01$ Pembolehubah Bersandar: Efikasi kendiri guru (Total)

PERBINCANGAN

Kajian ini telah dijalankan secara tinjauan yang melibatkan 61 orang pensyarah Kolej MARA. Secara umumnya, kajian ini meninjau pengaruh kolaborasi pensyarah ke atas efikasi kendiri pensyarah. Dapatan kajian menunjukkan kolaborasi pensyarah Kolej MARA berada pada tahap tinggi. Namun berbeza dengan dapatan kajian oleh Bach, Böhnke dan Thiel (2020) yang mendapati bahawa kolaborasi pensyarah iaitu penglibatan pensyarah dalam pembelajaran profesional berada pada tahap rendah. Dapatan ini menjelaskan bahawa para pensyarah di Kolej MARA dalam kajian ini telah mengamalkan kolaborasi pensyarah dengan baik. Para pensyarah didapati telah bekerjasama secara berpasukan untuk membuat penambahbaikan pengajaran. Kerjasama berlaku antara pengarah, pensyarah serta kakitangan kolej dalam memastikan semua urusan kolej berjalan lancar. Amalan kolaborasi pensyarah yang paling tinggi merupakan kolaborasi formal, diikuti dengan kolaborasi pensyarah dalam dasar pengajaran. Seterusnya, kekerapan kolaborasi menunjukkan amalan kolaborasi pensyarah yang terendah namun masih berada pada tahap sederhana.

Selain itu, efikasi kendiri pensyarah dalam kajian ini juga berada pada tahap tinggi. Dapatan ini menjelaskan bahawa para pensyarah mampu menyediakan suasana pembelajaran yang efektif serta mempunyai perancangan yang baik berkaitan proses pengajaran dan pembelajaran. Dapatan kajian ini menyokong dapatan kajian Aziah et al. (2015), Mardhiah dan Rabiatul-Adawiah (2016) dan Rusliza, Norsamsinar, Jessnor Elmy dan Hemini (2017) yang turut mendapati efikasi kendiri pensyarah di Malaysia berada pada tahap tinggi. Kajian ini mendapati bahawa para pensyarah di universiti awam di Malaysia mempunyai efikasi kendiri yang tinggi terutamanya dalam aspek pengurusan kelas dan kuliah, diikuti dengan strategi pengajaran dan yang terakhir penglibatan pelajar. Dapatan ini mempunyai persamaan dengan kajian yang dijalankan oleh Azlin Norhaini, Mohd Zabil Ikhsan dan Aida Hanim (2021) yang turut mendapati para pensyarah juga mempunyai efikasi kendiri yang paling tinggi dalam aspek pengurusan kelas.

Keputusan analisis korelasi Pearson mendapati terdapat hubungan positif yang kuat dan signifikan antara kolaborasi pensyarah dengan efikasi kendiri pensyarah. Dapatan kajian ini menjelaskan bahawa apabila amalan kolaborasi para pensyarah meningkat, maka efikasi pensyarah juga akan meningkat dan sebaliknya. Bagi dimensi kolaborasi pensyarah pula iaitu kolaborasi formal, kolaborasi para pensyarah dalam dasar pengajaran dan kekerapan kolaborasi pengajaran juga didapati mempunyai hubungan positif dan signifikan dengan efikasi kendiri pensyarah.

Walaupun dimensi kolaborasi pensyarah mempunyai hubungan yang positif dan signifikan dengan efikasi kendiri pensyarah, namun nilai beta bagi kolaborasi formal, kolaborasi pensyarah dalam dasar pengajaran dan kekerapan kolaborasi pengajaran berbeza iaitu .175, .385 dan .191 masing-masing. Justeru, dapatan ini jelas menunjukkan bahawa dimensi kolaborasi pensyarah dalam dasar pengajaran merupakan pengaruh yang paling besar ke atas efikasi kendiri para pensyarah. Dalam kajian ini, ujian regresi berganda menunjukkan bahawa ketiga-tiga pemboleh ubah bebas mempunyai pengaruh yang signifikan ke atas efikasi kendiri pensyarah Kolej MARA. Kolaborasi formal menunjukkan pengaruh positif yang signifikan ($\beta = .175$, $p=0.009$) terhadap efikasi kendiri pensyarah. Dapatan kajian selari dengan kajian yang dijalankan oleh Kwee (2021) yang mendapati sokongan pengurusan sesebuah institusi pendidikan seperti sekolah atau kolej mampu mempengaruhi peningkatan efikasi kendiri para pendidik. Menghebah misi Kolej seperti memberi arahan yang jelas berkaitan tugas-tugas pensyarah dan strategi kolaborasi yang berkesan dapat meningkatkan efikasi kendiri pensyarah (Kwee, 2021). Pihak pentadbiran Kolej juga wajar menyediakan peluang untuk pensyarah berkolaborasi bagi mendapatkan maklum balas amalan pengajaran mereka (Choi & Kang, 2019). Seterusnya, kolaborasi dalam dasar pengajaran juga mempunyai pengaruh positif yang signifikan (β= .385, p=0.000) ke atas efikasi kendiri pensyarah. Dapatan kajian ini menyokong dapatan kajian Choi dan Kang (2019) yang menyatakan bahawa para guru atau pensyarah yang bekerjasama secara berpasukan untuk penambahbaikan pengajaran akan mempengaruhi efikasi kendiri guru atau pensyarah tersebut. Peningkatan efikasi kendiri berlaku sekiranya pensyarah sentiasa bekerja bersama-sama (secara kolektif) dalam mempertingkatkan aspek pengajaran. Antaranya seperti merancang bersama-sama aktiviti pembangunan profesional serta memilih kaedah dan aktiviti pengajaran bersama-sama. Analisis yang terakhir, kekerapan kolaborasi pengajaran juga mempunyai pengaruh positif yang signifikan (β= .191, p=0.000) ke atas efikasi pensyarah Kolej MARA. Hal ini menunjukkan semakin kerap pensyarah bersama-sama berbincang berkaitan penambahbaikan pengajaran, semakin tinggi efikasi kendiri pensyarah. Kajian yang dijalankan pada tahun 2021 oleh Cassata dan Allensworth mendapati kekerapan kolaborasi pensyarah paling tinggi dalam perancangan waktu kolaboratif dan pemerhatian bilik darjah dengan rakan pensyarah yang lain. Amalan kolaborasi pensyarah yang berlaku melalui Program Pembangunan Profesional tersebut dapat menambahbaik pengajaran guru (Cassata & Allensworth, 2021). Rumusannya, kajian ini telah menyediakan maklumat penting berkaitan kolaborasi para pensyarah agar dapat diaplikasikan dalam bidang pendidikan bagi meningkatkan efikasi kendiri pensyarah khususnya di Kolej MARA. Pihak pengurusan Kolej juga perlu memberi perhatian terhadap kolaborasi pensyarah (kolaborasi formal, kolaborasi pensyarah dalam dasar pengajaran dan kekerapan kolaborasi pengajaran) kerana berkepentingan dalam mempengaruhi efikasi kendiri pensyarah.

KESIMPULAN

Amalan kolaborasi para pensyarah dalam kalangan pensyarah di Kolej MARA mempunyai kesan ke atas efikasi kendiri pensyarah tersebut. Dapatan kajian ini mendapati kolaborasi pensyarah di Kolej MARA mempunyai hubungan yang positif dengan efikasi kendiri pensyarah. Selain itu, hasil kajian ini juga mendapati amalan kolaborasi pensyarah dapat mempengaruhi efikasi kendiri pensyarah Kolej MARA.

Dalam konteks kajian ini, dapatan kajian jelas menunjukkan bahawa elemen kolaborasi pensyarah untuk penambahbaikan pengajaran iaitu kolaborasi pensyarah dalam dasar pengajaran, diikuti dengan kekerapan kolaborasi dalam pengajaran dan kolaborasi formal yang berlaku di kolej memberikan pengaruh yang positif ke atas efikasi kendiri pensyarah. Sebagai cadangan, diusulkan agar kajian lanjut secara kualitatif dilakukan untuk mendapatkan data kajian yang lebih mendalam berkaitan amalan kolaborasi para pensyarah di Kolej MARA. Di samping itu, memandangkan kajian ini hanya dikaji dalam kalangan pensyarah di salah satu Kolej MARA, maka wajarlah untuk kajian ini diperluaskan juga kepada populasi para pensyarah di Kolej MARA yang lain.

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PENGARUH LATAR BELAKANG DEMOGRAFI TERHADAP TINGKAH LAKU KEWANGAN DALAM KALANGAN PENJAWAT AWAM: SATU TINJAUAN UMUM

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ABSTRAK

Peningkatan kes muflis di Malaysia dilaporkan meningkat secara konsisten setiap tahun antaranya disebabkan oleh ketidakupayaan seseorang untuk mengawal penggunaan kad kredit dan hutang tertunggak serta pinjaman peribadi. Penjawat awam merupakan antara golongan yang sering dijadikan sasaran utama institusi kewangan dengan menawarkan produk kewangan yang direka khas dengan faedah yang lebih menarik. Kajian ini dijalankan bagi mengkaji pengaruh latar belakang demografi terhadap tingkah laku kewangan dalam kalangan penjawat awam. Sampel terdiri daripada 50 kakitangan jabatan kerajaan yang telah dipilih untuk melengkapkan tinjauan secara atas talian. Ujian-T, analisa ANOVA dan ujian kolerasi pearson digunakan bagi mengkaji perbezaan dan hubungan tingkahlaku kewangan terhadap latar belakang demografi penjawat awam. Dapatan kajian menunjukkan menunjukkan, Hipotesis 1: Terdapat perbezaan yang signifikan antara tingkah laku kewangan lelaki dan perempuan adalah tidak diterima. Hipotesis 2: Terdapat perbezaan yang signifikan antara tingkah laku kewangan dengan tahap pendidikan adalah diterima. Hipotesis 3: Hubungan antara faktor demografi iaitu pendapatan dan tahap pendidikan dengan tingkah laku kewangan responden adalah signifikan dan hipotesis 3 diterima. Hasil kajian diharapkan dapat memberi gambaran kepada sesebuah organisasi dalam merangka program bersesuaian bagi membantu penjawat awam agar tidak terjerat dengan hutang yang tidak bermanfaat.

***Kata Kunci**: Tingkah laku kewangan; latar belakang demografi; literasi kewangan*

PENGENALAN

Kewangan peribadi adalah aspek penting dalam kehidupan seseorang yang memainkan peranan besar dalam menentukan tahap kesejahteraan dan ketenangan fikiran. Ia merangkumi pengurusan pendapatan, pelaburan, pengurusan hutang, dan banyak lagi. Terdapat banyak faktor yang mempengaruhi gelagat kewangan seseorang, termasuk latar belakang demografi mereka.

Dalam konteks Malaysia, penjawat awam adalah sebahagian besar tenaga kerja yang memegang peranan penting dalam pembangunan negara. Oleh itu, kestabilan kewangan dalam kalangan penjawat awam adalah penting untuk memastikan kesinambungan perkhidmatan awam dan kesejahteraan mereka sendiri. Bagaimanakah demografi penjawat awam mempengaruhi gelagat kewangan mereka adalah persoalan yang menarik dan relevan untuk dikaji.

Latar belakang demografi individu, seperti umur, jantina, pendidikan, status perkahwinan, dan pendapatan, boleh memainkan peranan signifikan dalam pengurusan kewangan seseorang. Terdapat perbezaan yang ketara dalam cara individu dari latar belakang yang berbeza menguruskan pendapatan, melabur dan mengurus hutang. Contohnya, individu yang lebih muda mungkin lebih cenderung untuk melabur dalam jangka masa panjang, manakala individu yang lebih tua mungkin lebih fokus pada persediaan persaraan.

Selain itu, faktor demografi boleh mempengaruhi tahap kesedaran tentang pentingnya pengurusan kewangan yang berhemat dan berkesan. Demografi juga boleh mempengaruhi kepercayaan terhadap pelbagai instrumen kewangan dan tahap risiko yang diambil dalam pelaburan. Walaupun terdapat banyak kajian yang mengkaji gelagat kewangan dalam kalangan pelbagai populasi, masih terdapat kekurangan kajian yang khusus mengkaji bagaimana demografi penjawat awam di Malaysia mempengaruhi gelagat kewangan mereka. Pengetahuan mengenai perkara ini adalah penting untuk membantu penjawat awam dan pihak berkuasa dalam merancang program pendidikan kewangan yang sesuai dan strategi pengurusan kewangan yang lebih baik. Kepincangan pengurusan kewangan bukan sahaja memberi implikasi negatif kepada diri dan keluarga, malah turut memberi kesan kepada kualiti kerja pekerja seterusnya pembangunan negara.

Kajian ini bertujuan untuk mengisi kekosongan ini dengan mengkaji pengaruh latar belakang demografi terhadap gelagat kewangan dalam kalangan penjawat awam di Malaysia. Dengan melakukan demikian, kajian ini diharapkan dapat memberikan pandangan yang lebih mendalam tentang keperluan dan cabaran kewangan dalam kalangan penjawat awam, dan membantu merancang langkah-langkah yang lebih baik untuk meningkatkan kesedaran dan pengurusan kewangan mereka.

PENYATAAN MASALAH

Tinjauan Pertubuhan Kerjasama dan Pembangunan Ekonomi (OECD, 2022) menunjukkan bahawa 28% orang dewasa di seluruh kawasan sampel hanya mempunyai kecairan kewangan kira-kira satu minggu, jika mereka kehilangan pendapatan utama. 42% individu menyatakan bahawa mereka bimbang untuk memenuhi perbelanjaan hidup seharian mereka dan 40% prihatin terhadap kewangan mereka.

Terdapat juga kebimbangan mengenai peningkatan kes muflis di Malaysia. Meikeng (2019) memetik dan membicangkan tentang bilangan kebankrapan telah meningkat secara konsisten sejak 2007 disebabkan kegagalan menyelesaikan sewa beli kenderaan, ketidakupayaan untuk mengawal penggunaan kad kredit dan menguruskan hutang tertunggak serta pinjaman peribadi. Menurut statistik kebankrapan 2022 yang dikeluarkan oleh Jabatan Insolvensi Malaysia, jumlah kebankrapan meningkat sehingga tahun 2015 dan mula menunjukkan penurunan pada tahun 2016 sehingga 2022. Statistik ini sedikit sebanyak menggambarkan keberkesanan usaha kerajaan Malaysia dalam menangani isu muflis dalam kalangan rakyat Malaysia. Ebenezer (n.d.).

Kerajaan telah menjalankan pelbagai ikhtiar bagi mengurangkan kadar kebankrapan dalam kalangan penjawat awam. Antara usaha yang telah dilakukan adalah seperti mengurangkan had kadar keberhutangan, mengetatkan syarat membuat pinjaman terutamanya pinjaman peribadi, menyediakan kursus-kursus wajib kepada semua penjawat awam tentang kepentingan pengurusan kewangan yang baik dan banyak lagi.

Berdasarkan statistik kebankrapan 2022 yang sama, kes kebankrapan yang didaftarkan di negeri Kedah (591 kes), merupakan antara yang tertinggi selepas Selangor (1,044 kes) dan Wilayah Persekutuan (823 kes). Lebih 40% daripada kes kebankrapan adalah dalam golongan umur 45 tahun ke atas dan kes kebankrapan mengikut jantina menunjukkan 73% adalah lelaki.

Kebanyakan kajian terdahulu berkaitan gelagat kewangan dijalankan ke atas golongan pelajar dan belia sebagai responden. Kajian ini memberi tumpuan kepada perbezaan tingkah laku kewangan mengikut elemen latar belakang demografi terpilih terhadap penjawat awam memandangkan kurangnya kajian berkaitan gelagat kewangan penjawat awam mengikut latar belakang demografi masing-masing.

OBJEKTİF KAJİAN

Bagi menjawab persoalan- persoalan kajian iaitu:
1. Adakah terdapat perbezaan yang signifikan dalam tingkah laku kewangan antara lelaki dan perempuan?
2. Adakah terdapat perbezaan yang signifikan dalam tingkah laku kewangan berdasarkan tahap pendidikan?
3. Apakah terdapat hubungan atau kolerasi antara latar belakang demografi seperti n dengan tingkah laku kewangan?

Tiga objektif telah dikenalpasti iaitu:
1. Mengkaji perbezaan tingkah laku kewangan antara lelaki dan perempuan dalam populasi sasaran.
2. Menilai perbezaan tingkah laku kewangan berdasarkan tahap pendidikan responden.
3. Menentukan hubungan antara latar belakang demografi dengan tingkah laku kewangan dalam kalangan responden.

TINJAUAN LITERATUR

TİNGKAH LAKU KEWANGAN

Tingkah laku atau gelagat kewangan dirujuk sebagai pengurusan kewangan peribadi iaitu cara individu merancang, membelanjakan dan melabur wang mereka. Asmin, Ali, Nohong, dan Mardiana (2021) dalam penulisannya mendefinisikan tingkah laku kewangan sebagai tindakan seseorang dalam merancang, menjadualkan, mengurus, mengawal, mencari, dan menyimpan dana kewangan peribadi dan perniagaan. Tingkah laku atau gelagat kewangan ini dilihat sebagai konsep penting dalam pengurusan kewangan. Tingkah laku kewangan ini termasuk cara mengeluarkan wang mengikut keperluan, membayar hutang tepat pada masanya, merancang kewangan untuk keperluan masa depan, dan menyimpan serta menabung wang untuk keperluan peribadi. Pengurusan kewangan yang baik dapat menjamin keselamatan kewangan peribadi dan perniagaan serta mencapai matlamat kewangan yang diinginkan.

Menurut Muske dan Winter (2004), tingkah laku kewangan merujuk kepada pengurusan dan perancangan kewangan. Seseorang yang tidak dapat menguruskan elemen kewangan dengan baik akan memberi kesan negatif kepada kesejahteraan mental dan fizikal mereka. Ibrahim, Harun dan Isa (2009), menyatakan tingkah laku kewangan merangkumi kaedah menyimpan wang, belanjawan dan pelaburan. Sebaiknya, pengurusan kewangan perlu melibatkan organisasi kewangan untuk membantu pengguna menguruskan kewangan mereka bagi mengelakkan kerugian dan memudahkan mereka mengoptimumkan perbelanjaan mereka. Lusardi (2019) mencadangkan bahawa setiap individu harus bertanggungjawab menguruskan adab kewangan mereka, termasuk merancang dana persaraan mereka. Usia muda adalah masa terbaik untuk merancang kewangan masing-masing. Kebijaksanaan diperlukan apabila seseorang itu mengendalikan situasi yang berkaitan dengan wang. Seseorang itu mesti boleh mengenal pasti apa yang patut dibeli secara tunai dan apa yang boleh dibeli secara pinjaman. Adalah penting bagi mereka mengutamakan keperluan mereka berbanding kehendak. Simpanan perlu diimbangi dengan perbelanjaan bagi memastikan bajet mereka kekal di penuhi. Mereka tidak seharusnya mengubah rancangan tanpa alasan yang kukuh dan menjejaki perbelanjaan terdahulu bagi mengesan perbelanjaan yang tidak diperlukan.

Hayes (2012) menambah bahawa simpanan dan pelaburan adalah sebahagian daripada perancangan belanjawan. Jadi, pengetahuan tentang pelaburan juga sama pentingnya seperti menyimpan dan mengurus perbelanjaan. Terdapat juga kajian yang menggunakan istilah pengurusan kewangan yang merujuk kepada gelagat atau tingkah laku kewangan iaitu bagaimana individu merancang dan menguruskan simpanan dan perbelanjaan. Ringkasnya, tingkah laku kewangan adalah cara individu membuat keputusan dan mengambil tindakan berkaitan aspek perancangan dan pengurusan wang termasuklah simpanan atau pelaburan dan perbelanjaan bagi mencapai matlamat kewangan masing-masing.

LATAR BELAKANG DEMOGRAFİ

Latar belakang demografi dikategorikan sebagai ciri peribadi seperti jantina, tahap pendidikan, pendapatan dan umur. Kriteria umur merangkumi peringkat umur bermula peringkat umur pelajar atau remaja, belia, hinggalah peringkat umur veteran yang akan pencen atau telah pencen. Kurniasari, Rachmansyah dan Sutanto (2023) mengakui umur memainkan peranan penting dalam membuat keputusan kewangan termasuk menentukan produk atau perkhidmatan kewangan yang sesuai. Kematangan dan pengalaman sepatutnya mempengaruhi individu untuk menilai keputusan kewangan dan bertindak sacara rasional.

Selain tahap umur, tumpuan profil demografi ialah jantina. Pertubuhan Kerjasama dan Pembangunan Ekonomi (OECD, 2022) melaporkan bahawa wanita mempunyai tahap pengetahuan kewangan yang jauh lebih rendah berbanding lelaki di hampir semua negara yang dikaji. Tinjauan ini juga mendapati, wanita lebih cenderung untuk tidak menggunakan produk/perkhidmatan digital secara teratur. Keputusan yang sama telah ditemui oleh penyelidik lain, iaitu lelaki mempunyai pengetahuan yang lebih tinggi dan lebih celik kewangan berbanding wanita (Markovich dan DeVaney, 1997; Chen dan Volpe, 2002). Kurniasari et al. (2023) dalam kajiannya turut menjadikan jantina sebagai salah satu faktor yang boleh mempengaruhi sikap kewangan individu, terutamanya dalam kalangan pelajar. Lelaki dijangkakan mempunyai kemahiran pengurusan kewangan yang lebih rendah daripada perempuan memandangkan wanita lebih baik daripada lelaki dalam menganalisis hutang, menyimpan bil dan resit di tempat yang mudah diakses, dan menyisihkan wang secara berkala. Chiteji dan Stafford (1999) menyimpulkan bahawa pendapatan mempengaruhi pengurusan kewangan. Individu yang berpendapatan tinggi lebih berkemungkinan mempunyai lebih banyak pengetahuan tentang kewangan dan dapat menguruskan kewangan mereka secara berdikari tanpa meminta sebarang bantuan daripada pihak luar.

Dapatan ini selari dengan hasil kajian Mawad, Athari, Khalife & Mawad (2022) yang menunjukkan bahawa prestasi dan tingkah laku kewangan individu turut dipengaruhi secara positif oleh latar belakang demografi terutamanya tahap pendidikan dan pendapatan, selain faktor jantina dan taraf perkahwinan. Pengaruh keluarga juga mempunyai kaitan secara signifikan dengan literasi dan gelagat kewangan. Tahap pendidikan dapat mempengaruhi literasi kewangan serta kemampuan individu mengendalikan kewangan dengan lebih baik memandangkan individu yang memiliki pendidikan yang lebih tinggi cenderung untuk memahami konsep-konsep kewangan yang lebih kompleks.

Hipotesis kajian yang dijalankan oleh Kurniasari et al. (2023) yang menjangkakan hubungan positif antara faktor demografi dan tingkah laku kewangan individu adalah ditolak. Dapatan kajian menunjukkan, faktor demografi seperti umur, jantina, dan elaun pelajar tidak memberi kesan kepada tingkah laku pengurusan kewangan individu iaitu pelajar. Lelaki dan perempuan tidak boleh dibandingkan dalam cara menguruskan kewangan kerana setiap individu mempunyai cara tersendiri dalam berkelakuan. Demikian juga, umur dan elaun pelajar tidak mempengaruhi tingkah laku pengurusan kewangan. Kajian ini menyokong dapatan kajian Normalasari, Maslichah & Dwiyani (2022) yang juga mendapati, faktor demografi pelajar tidak memberi kesan yang signifikan terhadap tindakan kewangan pelajar.

Walau bagaimanapun, kedua-dua dapatan ini bertentangan dengan kajian yang dijalankan oleh

Iriani, Rahayu & Rahmawati (2021) yang mendapati, faktor-faktor demografi tertentu seperti pekerjaan, pendidikan, dan pendapatan ibubapa tidak begitu penting dalam menentukan gelagat kewangan mahasiswa. Sebaliknya, literasi kewangan memainkan peranan yang lebih penting dalam membentuk tingkah laku kewangan yang lebih baik dalam kalangan pelajar. Normalasari et al, (2022) mengkaji hubungan pembolehubah tingkah laku kewangan, literasi kewangan dan faktor demografi dengan tindakan kewangan pelajar dalam membuat keputusan berkaitan pelaburan. Hasil kajian mendapati, faktor demografi pelajar tidak memberi kesan yang signifikan terhadap tindakan kewangan pelajar.

LİTERASİ KEWANGAN

Secara keseluruhannya, tingkah laku kewangan adalah aspek penting dalam pengurusan kewangan individu. Latar belakang demografi boleh mempengaruhi cara individu menguruskan kewangan mereka selain literasi kewangan. Pengurusan kewangan yang baik adalah kunci untuk mencapai matlamat kewangan dan kesejahteraan peribadi. Oleh itu, pemahaman tentang tingkah laku kewangan, literasi kewangan, dan pengaruh latar belakang demografi adalah penting dalam mengembangkan strategi pengurusan kewangan yang berkesan. Literasi kewangan merujuk kepada tahap pengetahuan, kebolehan, dan kefahaman individu mengenai kensep-konsep kewangan serta kemampuan untuk menguruskan wang secara bijak. Ia juga termasuk kesedaran tentang kepentingan menguruskan wang dengan berkesan.

Huang dan Kisgen (2013) menyebut bahawa setiap individu perlu menghadiri kursus berkaitan pengurusan kewangan. Adalah penting bagi mereka untuk mengembangkan kemahiran mereka dan belajar bagaimana untuk menguruskan wang mereka supaya mereka akan dapat membuat keputusan kewangan yang lebih baik pada masa hadapan. Mereka juga boleh menggunakan maklumat dan kemahiran yang mereka perolehi untuk memperbaiki tingkah laku kewangan mereka. Selain itu, Ibrahim et al. (2009), yang menumpukan kepada pelaburan, juga lebih mengutamakan usaha berterusan untuk mempelajari pengurusan kewangan dengan membaca dan menghadiri seminar untuk mendapatkan maklumat yang betul tentang cara menangani isu kewangan. Mereka juga mesti cuba berjumpa dengan kaunselor dan penasihat kewangan jika mereka menghadapi sebarang masalah atau komplikasi kewangan.

Tingkah laku dan sikap pengguna muda dalam pasaran mencerminkan tingkah laku pengguna pada masa hadapan. Program berkaitan gelagat kewangan perlu dianjurkan bagi membuka peluang setiap indidvidu mendapat pendedahan dan menimba ilmu pengurusan wang. Program sebegini boleh membantu meningkatkan pengetahuan dan kesedaran tentang hal kewangan. Iriani et al. (2021) turut penekanan meningkatkan literasi atau pengetahuan kewangan dalam kalangan pelajar dapat membantu pelajar menguruskan kewangan mereka dengan lebih berkesan dan meningkatkan kesejahteraan pelajar secara keseluruhan.

Walaupun banyak kajian terdahulu yang mengkaji pengaruh faktor demografi dan gelagat kewangan serta literasi kewangan, sebahagian besarnya memberi tumpuan kepada pelajar dan belia sebagai responden. Oleh itu, terdapat keperluan untuk mengkaji gelagat kewangan dalam kalangan penjawat awam, khususnya dengan mengambil kira perbezaan dalam latar belakang demografi mereka. Ini adalah penting kerana latar belakang demografi individu boleh mempengaruhi cara mereka menguruskan kewangan mereka dan juga tahap keberkesanan erajaan dalam menangani isu muflis. Berdasarkan tinjauan literatur dan ujian rintis yang telah dijalankan, tiga hipotesis telah dikenalpasti untuk dikaji.

H1: Terdapat perbezaan yang signifikan antara tingkah laku kewangan lelaki dan perempuan.
H2: Terdapat perbezaan yang signifikan antara tingkah laku kewangan dengan tahap

pendidikan.
H3: Terdapat kolerasi antara latar belakang demografi dengan tingkah laku kewangan.

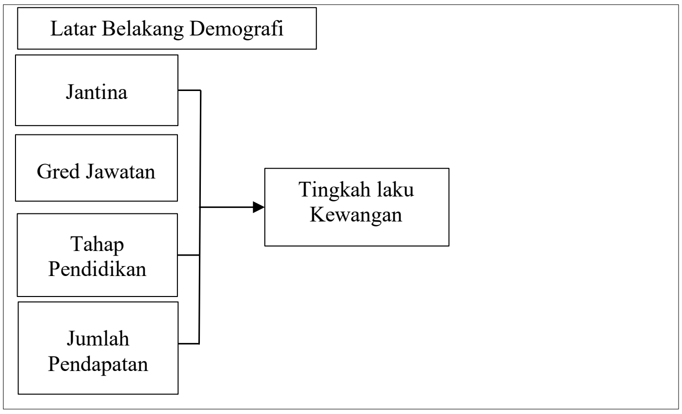
METODOLOGI KAJIAN

KERANGKA KONSEP

Teori Tingkah laku Terancang Theory of Planned Behaviour (TPB) oleh Ajzen, (1991) menghuraikan tingkah laku manusia dipengaruhi oleh tiga konstruk iaitu sikap, norma subjektif dan tanggapan kawalan tingkah laku. Norma subjektif merujuk kepada persepsi atau pandangan seseorang terhadap kepercayaan orang lain yang akan mempengaruhi keinginan untuk melakukan atau tidak melakukan perilaku yang sedang dipertimbangkan. Ketiga-tiga konstruk menyumbang kepada tercetusnya niat seterusnya melakukan tingkah laku pengurusan kewangan.

Teori Tindakan Beralasan Theory of Reasoned Action pula mencadangkan bahawa tingkah laku seseorang ditentukan oleh niat mereka untuk melakukan tingkah laku (Ajzen dan Fishbein, 1975). Peramal tingkah laku terbaik ialah niat atau instrumentaliti (kepercayaan bahawa tingkah laku itu akan membawa kepada hasil yang dimaksudkan). Instrumentaliti ditentukan oleh tiga perkara: sikap mereka terhadap tingkah laku tertentu, norma subjektif mereka, dan kawalan tingkah laku. Lebih baik sikap dan norma subjektif dan lebih besar kawalan yang dirasakan, semakin kuat niat seseorang untuk melakukan tingkah laku.
Kerangka konsepsual dibentuk berasakan kepada kedua-dua teori Tingkah Laku Terancang (TPB) oleh Ajzen, (1991) dan Teori Tindakan Beralasan oleh Ajzen dan Fishbein, (1975).

RAJAH 1: Kerangka Konsep



INSTRUMEN KAJİAN

Kajian ini dilaksanakan melalui pendekatan kuantitatif dengan mengumpul data melalui soal selidik yang diadaptasi daripada kajian-kajian lepas untuk mendapatkan maklumat latar belakang dan juga menjawab persoalan kajian oleh penjawat awam di sebuah jabatann kerajaan sebagai responden. Soal selidik terdiri daripada 2 bahagian utama iaitu Bahagian A berkaitan latar belakang demografi responden dan Bahagian B merangkumi soalan-soalan berkaitan tingkah laku kewangan responden menggunakan lima skala Likert; 1 = Tidak Pernah, 2 = Jarang, 3 = Kerap, 4 = Sangat Kerap.

Data dianalisis menggunakan SPSS versi 16. Instrumen statistik untuk inferensi statistik, iaitu Ujian-T bebas, ANOVA Sehala dan regresi berganda analisis digunakan untuk mengkaji semua hipotesis. Ujian –T bebas digunakan untuk melihat perbezaan tingkah laku kewangan antara lelaki dan perempuan. ANOVA Sehala digunakan untuk mengkaji perbezaan tingkah laku kewangan mengikut tahap pendidikan. Akhir sekali, analisis regresi berganda digunakan untuk mengkaji hubungan antara latar belakang demografi dengan tingkah laku kewangan.

TİNGKAH LAKU KEWANGAN

Aspek tingkah laku kewangan dalam soal selidik bertanya tentang tingkah laku responden berkaitan perbelanjaan dan simpanan yang diadaptasi daripada soalan kajian Dew dan Xio (2011).

LATAR BELAKANG DEMOGRAFİ

Latar belakang demografi termasuk jantina (lelaki, perempuan), gred jawatan, umur, pendapatan bulanan dan latar belakang pendidikan.

SAMPEL KAJİAN

Kajian dijalankan di sebuah institusi kerajaan dan sampel sasaran kajian ini adalah dua pertiga daripada keseluruhan kakitangan akademik dan staf sokongan. Seramai 60 orang responden telah dipilih mengikut unit dan kepelbagaian yang diperlukan dalam kajian. Walau bagaimanapun, hanya 50 responden menjawab soal selidik ini dan semua sampel digunakan untuk tujuan kajian ini.

ANALISA DAN PERBINCANGAN

PROFİL DEMOGRAFİ

JADUAL 1: Jadual Kekerapan

Demografi		Kekerapan	Peratus
Jantina	Lelaki	22	44.0
	Perempuan	28	56.0
Umur	25 - 34 tahun	8	16.0
	35 - 44 tahun	25	50.0
	45 - 54 tahun	14	28.0
	55 dan ke atas	3	6.0
Pendapatan bulanan	RM1,000 - RM2,999	11	22.0
	RM3,000 - RM4,999	13	26.0
	RM5,000 - RM6,999	8	16.0
	RM7,000 - RM8,999	12	24.0
	RM9,000 - RM10,999	5	10.0
	RM11,000 ke atas	1	2.0
Tahap pendidikan	SPM dan ke bawah	11	22.0
	STPM dan setaraf	3	6.0
	Diploma	2	4.0
	Ijazah	17	34.0
	Sarjana dan PHD	17	34.0

Didapati 56% penjawat awam yang menyertai kajian ini adalah perempuan dan 44% adalah lelaki. Data juga menunjukkan bahawa 16% berumur 25 hingga 34 tahun, 50% berumur antara 35 hingga 44 tahun, 28% berumur antara 45 hingga 54 tahun 6% adalah penjawat awam yang berumur melebihi 55 tahun. 22% daripada mereka berpendapatan kurang daripada RM3,000 sebulan, 26% berpendapatan antara RM3,000 hingga RM4,999, 16% berpendapatan antara RM5,000 hingga RM6,999, 24% berpendapatan antara RM7,000 hingga RM8,999 dan 2% berpendapatan melebihi RM11,000. Melihat dari sudut tahap pendidikan pula, didapati 22% daripada penjawat awam yang menyertai kajian ini berpendidikan SPM dan ke bawah, 6% berpendidikan STPM dan setaraf, 4% berpendidikan diploma, 34% berpendidikan ijazah dan selebihnya 34% berpendidikan sarjana dan PHD.

ANALİSİS TİNGKAH LAKU KEWANGAN

Tingkah laku atau gelagat kewangan penjawat awam diukur berdasarkan aktiviti kewangan mereka sejak enam bulan lalu. Skala penilaian berperingkat digunakan untuk menunjukkan sikap terhadap 9 item tingkah laku kewangan mereka. Skala empat mata disediakan untuk setiap satu item dan responden menyatakan nombor yang menggambarkan tahap yang sesuai dengan amalan berkaitan pengurusan kewangan masing-masing iaitu nombor 1 = Tidak Pernah, 2 = Jarang, 3 = Kerap, 4 = Sangat Kerap.

JADUAL 2: Jadual Tingkah Laku Kewangan

TINGKAH LAKU KEWANGAN	TIDAK PERNAH	JARANG	KERAP	SANGAT KERAP	PURATA
Saya melakukan beberapa perbandingan apabila membeli produk atau perkhidmatan.	-	2	11	37	3.70
Saya menyimpan rekod perbelanjaan bulanan saya.	6	15	16	13	2.72
Saya kekal dalam bajet atau rancangan perbelanjaan saya.	3	8	29	10	2.92
Saya memulakan atau mengekalkan dana simpanan kecemasan.	-	3	16	31	3.56
Saya menyimpan wang daripada gaji saya setiap bulan.	1	3	15	31	3.52
Saya menyimpan untuk matlamat jangka panjang, seperti untuk kereta, pendidikan dan rumah.	-	4	14	32	3.56
Saya membeli bon, saham atau dana bersama, seperti ASB, SSPN dan lain-lain.	10	12	12	16	2.68
Pada pendapat saya, memiliki insuran/takaful sangat penting.	-	4	12	34	3.60
Saya sanggup mengorbankan sebahagian gaji saya untuk mendapatkan perlindungan takaful/insuran.	4	9	12	25	3.16
PURATA TINGKAH LAKU KEWANGAN					**2.94**

Jadual menunjukkan bahawa 96 peratus (min 3.70) atau majoriti responden melakukan beberapa perbandingan semasa membeli produk atau perkhidmatan dalam tempoh 6 bulan yang lalu. Daripada 50 penjawat awam yang dikaji, 58 peratus daripada mereka menyimpan rekod perbelanjaan bulanan mereka selama 6 bulan yang lalu (min 2.72) dan selebihnya sama ada tidak pernah atau jarang merekodkan perbelanjaan mereka selepas mereka membeli produk atau perkhidmatan selama 6 bulan yang lalu. 78 peratus (min 2.92) reponden kekal mengikut bajet mereka untuk aktiviti perbelanjaan dan majority atau 80 peratus (min 3.56) daripada mereka menyatakan bahawa mereka memulakan atau mengekalkan dana simpanan kecemasan 6 bulan yang lalu. Daripada 50 penjawat awam yang menyertai tinjauan ini 92 peratus (min 3.52) daripada mereka menyimpan wang daripada gaji setiap bulan.

Keputusan daripada jadual di atas juga menunjukkan bahawa 92 peratus (min 3.56) respondent menyimpan untuk matlamat jangka panjang, seperti untuk kereta, pendidikan dan rumah. Hanya 28 peratus daripada mereka membeli bon, saham atau dana bersama sebagai instrumen pelaburan mereka berbanding responden lain (min 2.68) yang tidak pernah atau jarang membeli instrumen tersebut sebagai sebahagian daripada aktiviti pelaburan mereka. Majoriti 92 peratus penjawat awam yang dikaji menyedari dan mengakui kepentingan untuk mendapatkan perlindungan takaful/insuran (min 3.60) dan 74 peratus (min 3.16) sanggup mengorbankan sebahagian gaji untuk mendapatkan perlindungan takaful/insuran.

Keputusan keseluruhan (min 2.94) menunjukkan penjawat awam yang terlibat dalam kajian mempunyai sikap kewangan yang baik dalam beberapa aspek seperti membuat perbandingan produk atau perkhidmatan sebelum membeli, mengekalkan dana simpanan kecemasan, menyimpan wang dalam tempoh 6 bulan yang lalu dan menyedari kepentingan memiliki takaful atau insuran. Antara amalan kewangan baik yang kurang dititikberatkan oleh kebanyakan responden adalah seperti menyimpan rekod perbelanjaan bulanan bagi tempoh 6 bulan yang lalu dan pembelian bon, saham atau dana bersama seperti ASB, SSPN dan lain-lain.

PENGUJİAN HİPOTESİS

Ujian-T Bebas, ANOVA Sehala digunakan untuk menganalisis perbezaan antara tingkah laku kewangan dengan kumpulan yang tidak berkaitan iaitu latar belakang demografi penjawat awam yang dikaji seterusnya menguji hipotesis 1 dan hipotesis 2. Manakala Ujian Kolerasi digunakan bagi mengkaji hubungan antara latar belakang demografi dengan tingkah laku kewangan penjawat awam yang menyertai kajian seterusnya menguji hipotesis 3.

HİPOTESİS 1: TERDAPAT PERBEZAAN YANG SIGNIFIKAN ANTARA TINGKAH LAKU KEWANGAN LELAKI DAN PEREMPUAN.

JADUAL 3: Ujian-T Bebas

KUMPULAN STATISTIK

	JANTINA	N	Mean	Std. Deviation	Std. Error Mean
Tingkah Laku Kewangan	Lelaki	22	3.09	.811	.173
	Perempuan	28	3.43	.504	.095

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
	Equal variances assumed	.706	.405	-1.806	48	.077	-.338	.187	-.714	.038

Tingkah Laku Kewangan	Equal variances not assumed			-1.710	33.287	.097	-.338	.197	-.739	.064

Jadual sampel tak bersandar di atas menunjukkan perbezaan min antara tingkah laku kewangan berdasarkan jantina responden. Didapati bahawa hubungan antara tingkah laku kewangan berdasarkan jantina adalah tidak signifikan yang mana nilai t(48)= -1.806 dan p=0.077 (p>0.05). Ini boleh disimpulkan bahawa tidak terdapat perbezaan min yang signifikan antara tingkah laku kewangan berdasarkan jantina. (Aras keertian, α=0.05) dan hipotesis 1 tidak disokong.

HİPOTESİS 2: TERDAPAT PERBEZAAN YANG SIGNIFIKAN ANTARA TINGKAH LAKU KEWANGAN DENGAN TAHAP PENDIDIKAN

JADUAL 4: ANOVA

Tingkah Laku Kewangan					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.542	4	1.885	5.836	.001
Within Groups	14.538	45	.323		
Total	22.080	49			

Jadual Anova di atas adalah menunjukkan perbezaan min antara tingkah laku kewangan dengan tahap Pendidikan responden. Didapati bahawa hubungan tingkah laku kewangan dengan tahap pendidikan adalah signifikan yang mana nilai $F_{4,45}=5.836$; p=0.001 (p<0.05). Ini boleh disimpulkan bahawa terdapat perbezaan min yang signifikan antara tingkah laku kewangan dengan tahap Pendidikan responden (aras keertian, α=0.05). Hipotesis 2 adalah diterima.

HİPOTESİS 3: TERDAPAT KOLERASI ANTARA LATAR BELAKANG DEMOGRAFI DENGAN TINGKAH LAKU KEWANGAN

JADUAL 5: Jadual Kolerasi

Correlations						
		Jantina	Umur	Pendapatan bulanan (Gaji & Elaun)	Tahap pendidikan	Tingkah Laku Kewangan
Tingkah Laku Kewangan	Pearson Correlation	.252	.139	.343*	.444**	1
	Sig. (2-tailed)	.077	.336	.015	.001	
	N	50	50	50	50	50
**. Correlation is significant at the 0.05 level (2-tailed).*						

Jadual korelasi di atas menunjukkan hubungan antara faktor demografi dengan tingkah laku kewangan responden. Didapati hasil ujian korelasi pearson menunjukkan bahawa hubungan antara faktor demografi iaitu pendapatan bulanan dan tahap pendidikan dengan tingkah laku kewangan responden adalah signifikan berdasarkan nilai p masing-masing iaitu 0.015 dan 0.001 (p<0.05). Ini menunjukkan bahawa terdapat hubungan yang signifikan antara pendapatan bulanan dan tahap pendidikan dengan tingkah laku kewangan responden. Nilai korelasi pearson bagi pendapatan bulanan ρ = 0.343 dan tahap pendidikan, ρ = 0.444 menunjukkan korelasi positif yang sederhana kuat dengan tingkah laku kewangan responden. Hipotesis 3 adalah diterima.

Dapatan yang menunjukkan tiada perbezaan tingkah laku kewangan berdasarkan jantina tidak selari dengan kebanyakan kajian lain seperti dapatan tinjauan OECD, (2020) yang mendapati bahawa perempuan mempunyai tahap pengetahuan kewangan yang jauh lebih rendah berbanding lelaki di hampir semua negara yang dikaji. Dapatan kajian yang tidak selari ini mungkin dipengaruhi oleh faktor-faktor lain seperti kebanyakan responden lelaki yang menyertai kajian terdiri daripada penjawat awam yang berpendidikan rendah berbanding responden perempuan yang majoriti berpendidikan tinggi.

Hal ini disokong oleh hasil hipotesis 2 iaitu terdapat perbezaan yang signifikan antara tingkah laku kewangan dengan tahap pendidikan penjawat awam. Dapatan ini selari dengan dapatan kajian-kajian lain yang menunjukkan tahap pendidikan seseorang mempengaruhi amalan kewangan mereka. Secara keseluruhannya, kajian ini mendapati bahawa terdapat hubungan yang signifikan antara latar belakang demografi penjawat awam dengan tingkah laku kewangan mereka.

RUMUSAN

Kajian ini melihat kepada pengaruh latar belakang demografi terhadap tingkah laku kewangan 50 orang penjawat awam yang menyertai kajian. Mewujudkan masyarakat yang mempunyai kesedaran tentang kepentingan pengurusan kewangan dan hutang, memerlukan tindakan jangka panjang. Garis panduan berkaitan perancangan kewangan berhemat, tabiat menyimpan, mengurus kredit dengan berkesan dan mengurus perbelanjaan dicadangkan dibangunkan dan disampaikan sebagai kursus wajib kepada penjawat awam. Usaha ini bukan sahaja dapat mengurangkan kes muflis, tetapi turut membantu membentuk tingkah laku kewangan yang betul berhubung perancangan dan pengurusan kewangan terutamanya berkaitan belanjawan, pelaburan dan takaful.

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KESANTUNAN BERBAHASA DALAM KALANGAN PELAJAR MAKTAB RENDAH SAINS MARA (MRSM)

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ABSTRAK

Bahasa merupakan wadah untuk seseorang manusia berkomunikasi khususnya untuk menyampaikan info, idea dan pendapat kepadaindividu lain. Oleh sebab itu, aspek kesantunan berbahasa perlu dititikberatkan bagi menghasilkan komunikasi yang berkesan. Kajian ini dijalankan bertujuan untuk meneroka pengetahuan kesantunan berbahasa para pelajar MRSM dan menganalisis amalan kesantunan berbahasa mereka semasa proses pengajaran dan pembelajaran (PdP). Kajian ini melibatkan 10 orang pelajar tingkatan empat yangdipilih secara rawak untuk ditemu bual dan sebuah kelas untuk dirakam audio semasa proses PdP dijalankan. Instrumen kajian ini ialah protokol temu bual dan skrip komunikasi lisan yang telah ditranskripsi daripada rakaman audio semasa PdP. Data kualitatif yang diperoleh dianalisis menggunakan kaedah analisis kandungan bagi mencapai objektif kajian kajian. Dapatan kajian menunjukkan kesemua responden mempunyai pengetahuan tentang aspek kesantunan berbahasa. Para pelajar tingkatan empat di MRSM juga didapati mengamalkan keempat-empat strategi kesantunan berbahasa, iaitu kesantunan secara terus terang, kesantunan positif, kesantunan negatif dan kesantunan secara tidak terang-teranganselari dengan Teori Kesantunan Berbahasa Brown dan Levinson(1978). Secara rumusnya, para pelajar MRSM menggunakan kata- kata yang baik dan sesuai dalam pertuturan tanpa menimbulkan sebarang konflik dan mengaibkan pendengar. Budaya ini signifikan untuk melahirkan modal insan yang berbudi pekerti dan berakhlak mulia.

Kata Kunci*: kesantunan berbahasa; maktab rendah sains mara; strategi komunikasi; MARA*

PENDAHULUAN

Bab ini memberi gambaran awal berkaitan kajian yang akan dijalankan oleh pengkaji melalui penerangan latar belakang kajian. Seterusnya, pengkaji menjelaskan masalah- masalah yang mendorongnya untuk menjalankan kajian tersebut. Objektif kajian pula dibina dalam bab ini untuk menyambut masalah kajian yang diutarakan dalam pernyataan masalah. Setelah mengetahui objektif kajian, maka soalan kajian danhipotesis kajian dibina dan dibincangkan dalam bab ini.

LATAR BELAKANG KAJIAN

Bahasa merupakan alat komunikasi yang digunakan oleh manusia untuk berhubung sesama sendiri sama ada melalui pertuturan, tulisan, isyarat atau simbol tertentu. Bahasa terbahagi kepada dua iaitu bahasa lisan dan bahasa bukan lisan. Bahasa lisan ialah bahasa yang terhasil daripada ujaran yang keluar melalui mulut, kemudiannya disusun menjadi ayat yang sempurna maksudnya. Menurut Adam & Galanes (2009), komunikasi ialah satu proses mencipta, menghantar, menerima dan menterjemah mesejantara seorang dengan seorang yang lain.

Penguasaan komunikasi yang baik signifikan dalam bidang Pendidikan bagi memastikan objektif pembelajaran tercapai selaras dengan hasrat Kementerian Pendidikan Malaysia untuk melahirkan generasi yang mempunyai kemahiranberbahasa yang baik dan lancar. Komunikasi lisan banyak digunakan dalam pembelajaran Bahasa Melayu khususnya semasa sesi pembentangan dan soal jawab. Oleh sebab itu, Kurikulum Standard Sekolah Menengah (KSSM) Bahasa Melayu telah digubal semula sejajar dengan transformasi kurikulum sekolah rendah yang mula digunakan sejak tahun 2011. Kandungan kurikulum Bahasa Melayu terkini digubal untuk memastikan murid menguasai kemahiran belajar berasaskan kemahiran asas meliputi membaca, bertutur, menulis dan mendengar. Dokumen Standard Kurikulum dan Pentaksiran (DSKP) telah dirangka oleh Kementerian Pendidikan Malaysia untuk memudahkan guru-guru melaksanakan pengajaran dan pembelajaran.

Aspek komunikasi lisan disebut sebagai kemahiran bertutur dalam KSSM Bahasa Melayu. Pelajar bukan sahaja perlu mahir bertutur, malah mereka perlu mempraktikkan kesantunan berbahasa dalam pertuturan. Kesantunan berbahasa menjadi satu keperluandalam menjalinkan hubungan sosial antara masyarakat. Hal ini demikian kerana masyarakat yang berbudi bahasa saling menghormati antara satu sama lain tanpa mengira warna kulit dan status. Kesannya, masyarakat akan hidup dalam suasana amandan harmoni tanpa sebarang perselisihan faham. Oleh itu, kajian ini cuba untuk menelitiaspek kesantunan berbahasa dalam komunikasi lisan murid tingkatan empat semasa pembelajaran Bahasa Melayu.

PERNYATAAN MASALAH

Pengkaji terdorong untuk melakukan kajian ini kerana wujudnya isu remaja tidak bersopan dalam percakapan khususnya semasa berkomunikasi dengan individu yang lebih berumur. Terdapat juga golongan remaja yang menggunakan bahasa kesat dalamkehidupan seharian tanpa memikirkan perasaan pendengar. Hetti Waluati Triana dan Idris Aman (2011) berpendapat generasi muda pada hari ini cenderung memilih strategiyang lebih langsung dan kurang mengamalkan nilai-nilai kesantunan serta mencerminkan lakuan tutur yang meninggalkan nilai luhur dalam budaya mereka. Masyarakat pada zaman dahulu menggunakan pelbagai kiasan dalam pertuturan untukmenjaga hati pendengar, tetapi gologan muda pada zaman kini kurang mementingkan aspek kesantunan dalam berkomunikasi.

Selain itu, ketaksantunan pelajar dalam berkomunikasi dianggap sebagai satu budaya biadab. Budaya ini memberi cabaran kepada golongan pendidik dalam usaha untuk melahirkan modal insan yang berbudi pekerti mulia. Kajian yang dijalankan oleh Fazura (2011) menunjukkan salah satu faktor guru stres adalah kerana karenah pelajaryang biadab dengan guru. Hal ini demikian kerana pelajar melawan guru sehingga ada kalanya menimbulkan perdebatan antara guru dan pelajar. Setiap pelajar boleh memberi pendapat berdasarkan pandangan sendiri serta mengeluarkan hujah bantahan jika terdapat pendapat yang dirasakan tidak bersesuaian dengan tugasan yang diberikan olehguru. Namun begitu, dalam kebudayaan masyarakat Asia, tindakan ini dianggap biadab jika seseorang pelajar mencabar guru dan budaya ini tidak mungkin diterima secara terbuka (Jamilah, 2011). Oleh sebab itu, pelajar perlu berunding dan berbincang secara baik dengan guru untuk mengemukakan sebarang bantahan agar tidak menimbulkan konflik antara guru dan pelajar.

OBJEKTIF KAJIAN

Objektif kajian ini adalah untuk:

i) Meneroka pengetahuan kesantunan berbahasa murid tingkatan empat.
ii) Menganalisis amalan kesantunan berbahasa murid tingkatan empat semasa sesi pengajaran dan pembelajaran Bahasa Melayu

SOALAN KAJIAN

Selari dengan dua objektif utama kajian ini, maka dua soalan kajian telah dikemukakan iaitu:

i) Bagaimanakah pengetahuan kesantunan berbahasa murid tingkatan empat?
ii) Apakah amalan kesantunan berbahasa murid tingkatan empat semasa sesi pengajaran dan pembelajaran?

KEPENTINGAN KAJIAN

Kajian ini dilakukan untuk memberi pengetahuan berkaitan bidang bahasa, lebih-lebihlagi kepada penyelidik yang ingin mengkaji tentang kesantunan berbahasa pada masa akan datang. Kajian ini juga akan mewujudkan lebih banyak variasi rujukan berkaitan bidang sosiolinguistik. Kepelbagaian bahan rujukan dan panduan sudah tentu dapat memantapkan dan mempelbagaikan lagi ilmu pengetahuan masyarakat dalam pelbagai bidang. Oleh itu, kajian ini membantu penyelidik akan datang untuk mengetahui aspek kesantunan berbahasa dalam kalangan pelajar khususnya semasa PdP. Tambahan pula,kajian ini juga diharapkan dapat menyumbang wadah ilmu tentang Teori Kesantunan Berbahasa Brown dan Levinson (1978).

Selain itu, kajian ini akan menjadi panduan kepada para pembaca untuk mementingkan aspek kesantunan dalam berkomunikasi bagi mengelakkan sebarang pertikaman lidah atau perselisihan faham. Sebagai penutur yang berbudi pekerti,seseorang individu perlu memelihara tutur katanya untuk menjaga air muka orang yangdiajak berkomunikasi. Pengetahuan tentang kesantunan berbahasa berguna dalam bidang pendidikan terutamanya untuk diaplikasikan dalam komunikasi antara guru danpelajar serta komunikasi dalam kalangan pelajar. Pemilihan perkataan dan strategi yangbersesuaian penting untuk mengekang golongan muda daripada biadab semasa berkomunikasi di samping mendidik golongan muda untuk menjaga adab dalam pertuturan.

BATASAN KAJIAN

Kajian ini terbatas kepada pelajar tingkatan empat sebuah sekolah berasrama penuh sahaja sahaja kerana mereka terdiri daripada pelajar yang memiliki akademik yang cemerlang, matang pemikiran dan mahir bertutur dalam Bahasa Melayu. Tambahan pula, pelajar sekolah berasrama penuh merupakan pelajar yang terpilih dan mereka perlu menduduki peperiksaan khas untuk mendapat tempat di sekolah berasrama penuh.Sekolah berasrama penuh ditubuhkan untuk memberi kemudahan pelajaran pada peringkat menengah kepada pelajar-pelajar yang pintar cerdas, mempunyai kebolehan akademik dan intelektual yang tinggi untuk mengembangkan potensi diri mereka.

Selain itu, kajian ini hanya dijalankan semasa pembelajaran Bahasa Melayu kerana Kurikulum Standard Sekolah Menengah menekankan kemahiran bertutur dalamsubjek Bahasa Melayu. Kemahiran bertutur telah menjadi salah satu aspek penilaian dalam Sijil Pelajaran Malaysia. Dokumen Standard Kurikulum dan Pentaksiran BahasaMelayu memberi panduan tentang pelaksanaan pelbagai aktiviti komunikasi lisanseperti forum, pengucapan awam dan perbahasan. Oleh sebab itu, pengkaji memilih untuk menjalankan kajian kesantunan berbahasa dalam pembelajaran Bahasa Melayu.

Kajian ini hanya menggunakan skrip komunikasi lisan pelajar untuk dianalisis menggunakan Teori Kesantunan Berbahasa Berbahasa Brown dan Levinson (1978) kerana pelajar merupakan sampel kajian ini. Komunikasi lisan ini ditranskripsi daripadarakaman audio semasa sesi pengajaran dan pembelajaran (PdP) Bahasa Melayu. Komunikasi lisan guru semasa PdP dan komunikasi pelajar yang tidak berkaitan denganpembelajaran Bahasa Melayu akan dikeluarkan semasa proses penganalisisan data. Penelitian terhadap ujaran pelajar mempunyai kekuatan untuk mendorong para pembaca agar lebih menitikberatkan kesantunan berbahasa dalam komunikasi seharianbagi mengelakkan perselisihan faham.

DEFINISI OPERASIONAL

Terdapat dua istilah utama yang berkaitan dengan kajian ini, iaitu kesantunan berbahasadan komunikasi lisan.

KESANTUNAN BERBAHASA

Kesantunan berbahasa merupakan satu perkara yang signifikan dalam pragmatik kerana kesantunan dianggap sebagai fenomena universal dalam pemakaian bahasa konteks sosial (Brown & Levinson, 1978). Asmah (2000) mengatakan bahawa kesantunan berbahasa ialah penggunaan bahasa sehari-hari yang tidak menimbulkan rasa gusar, marah dan tersinggung pihak lawan tutur. Noriati (2005) pula menegaskan bahawa kesantunan berbahasa sebagai penggunaan kata-kata yang sesuai, yang tidakmenimbulkan konflik dan sentiasa menjaga air muka pendengar. Secara umumnya, kesantunan berbahasa didefinisikan sebagai perbuatan yang sepatutnya diamalkan oleh seseorang individu apabila berhubung dengan masyarakat sekeliling untuk menghargaiorang lain sesuai dengan norma yang berlaku dalam masyarakat.

KOMUNIKASI LISAN

Menurut Fuziah (2013) komunikasi lisan merupakan percakapan yang dihasilkandisebabkan penutur berniat untuk berhubung dengan orang yang menjadi pendengar manakala komunikasi bukan lisan merujuk kepada komunikasi yang disampaikan tanpa menggunakan kata-kata. Komunikasi lisan bermaksud ujaran yang dikeluarkan oleh penutur semasa berkomunikasi dengan orang lain untuk menyampaikan sesuatu mesejatau maklumat.

Secara keseluruhannya, kajian yang ingin dilakukan oleh pengkaji berserta objektif kajian telah diterangkan secara jelas dan terperinci menerusi bab pertama ini. Di samping itu, persoalan kajian, kepentingan kajian, batasan kajian serta definisi operasional yang berkaitan dengan kajian ini telah dihuraikan dengan lebih lanjut. Objektif yang ingin dicapai akan menjawab dan merungkai segala permasalahan dalamkajian ini. Seterusnya, pengkaji akan membincangkan sorotan literatur kajian ini dalamBab 2.

TINJAUAN LITERATUR

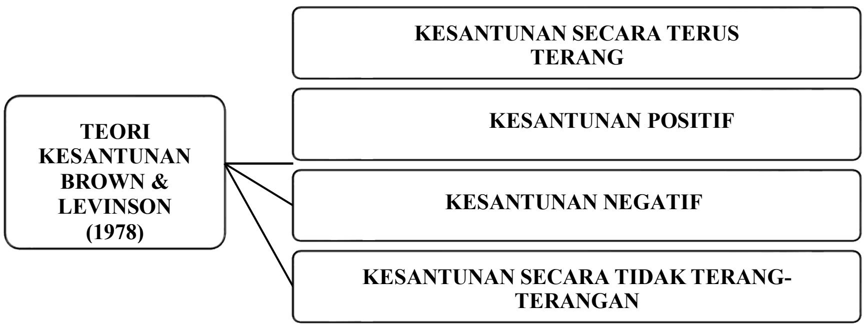
Bab dua menjelaskan kajian terdahulu yang telah dijalankan oleh pengkaji-pengkaji terdahulu berkaitan dengan kesantunan berbahasa. Sumber penting dalam penyelidikan ialah sorotan kajian lepas yang akan memberi gambaran awal tentang sesuatu perkara yang perlu diberi perhatian. Bab ini turut membincangkan teori yang menjadi tonggakkepada kajian ini.

TEORI DAN KONSEP

Bagi menganalisis skrip komunikasi lisan para pelajar, beberapa aspek perlu diambil kira. Teori-teori yang telah digunakan oleh pengkaji terdahulu menjadi asas untuk digunakan bagi membuktikan sesuatu kajian itu sahih serta benar. Teori yang digunakan oleh pengkaji untuk mendasari kajian ini ialah Teori Kesantunan BerbahasaBerbahasa Brown dan Levinson (1978). Pengkaji telah memilih Teori Kesantunan Berbahasa Brown dan Levinson (1978) untuk mengenal pasti amalan kesantunan berbahasa dalam kalangan pelajar. Teori ini membincangkan strategi menjaga air mukamerangkumi air muka positif dan air muka negatif untuk mengelakkan sebarangkonflik.

Air muka positif merujuk kepada harapan seseorang individu agar segala usaha dan tindakannya dihargai manakala air muka negatif merujuk kepada keinginan seseorang individu agar tidak diganggu oleh orang lain. Terdapat empat strategi kesantunan yangdiketengahkan dalam Teori Kesantunan Berbahasa Brown dan Levinson (1978) seperti yang ditunjukkan dalam Rajah 1.

RAJAH 1: Strategi Kesantunan Berbahasa Brown dan Levinson (1978)



Pertamanya, strategi kesantunan secara terus terang ialah komunikasi yang digunakan oleh penutur untuk menyatakan sesuatu dengan jelas tanpa berusaha untuk meminimumkan ancaman air muka pendengar. Strategi ini akan membuat pendengar terkejut, malu dan tidak selesa. Kebiasaannya, strategi ini digunakan oleh penutur dan pendengar yang sudah saling mengenali dan rapatl misalnya antara ahli keluarga dan sahabat handai. Strategi ini juga digunakan untuk menyampaikan sesuatu dengan cepatdan efektif contohnya, *"Siapkan kerja tu hari ni juga"*. Dalam situasi ini, penutur memiliki kuasa yang lebih tinggi daripada pendengar. Oleh sebab itu, penutur tidak mempedulikan apabila tidak mendapat kerjasama daripada pendengar.

Kedua, strategi kesantunan positif yang juga digunakan antara dua teman atau pihak-pihak yang mempunyai hubungan akrab untuk melancarkan perhubungan sosial.Beberapa cara untuk menggunakan strategi kesantunan positif adalah dengan memberi perhatian kepada pendengar, bersimpati terhadap pendengar, mencari kesepakatan, berjenaka, bersetuju dengan pendapat pendengar, menawarkan bantuan dan bersikap optimis. Sebagai contoh, *"Kita memang hebat dan layak terpilih"*. Komunikasi ini menggunakan ungkapan inklusif untuk mewujudkan persamaan antara penutur dan pendengar.

Seterusnya, strategi kesantunan negatif yang digunakan oleh penutur yang menjaga air muka negatif untuk mempertahankan kebebasan tindakannya. Lazimnya, strategi ini berlaku dalam kalangan orang yang belum dikenali seperti antara golongan atasan dan golongan bawahan dan antara orang muda dan orang yang lebih berusia. Contoh komunikasi lisan yang menggunakan strategi kesantunan negatif ialah *"Awak ambilkan buku atas meja saya ya?."* Komunikasi ini seolah-olah tidak memberipeluang kepada lawan tutur untuk menjawab "tidak" dan jelas menunjukkan bahawa penutur telah mengancam kebebasan lawan tutur untuk membuat keputusan.

Akhir sekali, strategi kesantunan tidak terus terang yang memerlukan pendengar mentafsir maksud yang disampaikan oleh penutur. Apabila wujudnya ancaman air muka yang lebih serius kepada pendengar, strategi kesantunan tidak terang ini biasa diaplikasikan kerana penutur tidak mahu bertanggungjawab atas tindakannya, contohnya *"Tak tahu ke bilik ni* *panas?"*. Pertuturan ini membawa maksud sila buka kipas, namun penutur menyebut sesuatu yang berkaitan dengan tindakan yang diminta.

KAJIAN LEPAS

Setelah menjalankan kajian kepustakaan, pengkaji mendapati beberapa kajian lepas yang hampir sama dengan bidang kajiannya, iaitu aspek kesantunan berbahasa. Salah satu kajian yang ditemui ialah kajian yang dijalankan oleh Khairul Izzat Amiruddin danHasmidar Hassan (2019). Kajian ini menggunakan teori Kesantunan Brown dan Levinson (1978, 1987), Model Kesantunan Noriati A. Rashid (2005) dan modelketaksantunan Culpeper (1996, 2005) dan Culpeper et al., (2003) untuk melihat pematuhan ahli-ahli majlis parlimen di bawah pimpinan Kerajaan Pakatan Harapan terhadap aspek kesantunan berbahasa semasa berbahas. Walau bagamainapun dapatankajian ini hanya membincangkan dua strategi kesantunan berbahasa, iaitu strategi persetujuan dan strategi berterima kasih dan dua strategi ketaksantunan berbahasa, iaitustrategi ketaksantunan negatif dan strategi sindiran. Kajian yang akan dijalankan oleh pengkaji akan membincangkan kesemua aspek kesantunan berbahasa.

Seterusnya, Indirawati dan Nasihah (2018) turut menjalankan kajian berkaitan dengan kesantunan berbahasa. Kajian ini melihat strategi kesantunan berbahasa dalamkritikan program realiti televisyen Mentor menggunakan teori Brown & Levinson (1987) dan Asmah (2000). Pola strategi ini distrukturkan berdasarkan teknik Sandwich(Davies & Jacobs,1985). Pengkaji mendapati aplikasi struktur kesantunan positif dan kesantunan negatif terdapat dalam kritikan juri program Mentor. Kajian ini tidak menyentuh aspek ketaksantunan berbahasa. Analisis data kajian ini hanya berfokus kepada kritikan yang diujarkan oleh juri dalam program yang bersifat santai. Hal ini berbeza dengan kajian yang akan dijalankan oleh pengkaji kerana kajian ini melihat aspek kesantunan berbahasa dalam skrip komunikasi lisan pelajar semasa PdPC.

Sorotan literatur seterusnya berdasarkan kajian yang dijalankan oleh Anisah danNurul (2021) bertajuk Strategi Kesantunan Tindak Tutur Positif Dan Negatif oleh Karakter di Film "Let It Snow 2019". Kajian ini berjaya membuktikan karakter di film"Let It Snow" lebih banyak menggunakan kesantunan positif berbanding kesantunan negatif berdasarkan teori Brown dan Levinson (1978). Kajian ini tidak menyatakan dengan jelas objektif kajian yang dijalankan dan kaedah pelabelan data semasa proses pengumpulan data, tetapi penggunaan teori dalam kajian ini sama seperti kajian yang akan dijalankan.

Maya dan Kuang (2012) turut menjalankan kajian untuk melihat kesantunan berbahasa dalam kalangan staf yang menjaga kaunter pejabat pos dan Kumpulan WangSimpanan Pekerja (KWSP) semasa memulakan dan mengakhiri perbualan. Hasil kajian mendapati kesemua responden kadang-kadang sahaja menggunakan kata-kata permulaan dan kata-kata penutup semasa memberikan perkhidmatan. Kajian ini menggunakan instrumen yang ditranskripsi daripada rakaman sama seperti kajian yangakan dijalankan. Namun begitu, suasana sekeliling yang bising menyebabkan data yang dirakam mempunyai gangguan sehingga menyebabkan pengkaji perlu merekodkan datasecara manual. Oleh sebab itu, pengkaji perlu menyediakan alat perakam suara yang lebih banyak untuk mendapatkan rakaman suara yang lebih jelas dalam kajian yang akan dijalankan.

Kajian seterusnya dijalankan oleh Zaitul dan Ahmad Fuad (2012) yang bertajuk Penggunaan Strategi Ketidaksantunan dalam Kalangan Remaja di Sekolah. Kajian ini menggunakan 987 orang remaja sekolah daripada pelbagai jenis sekolah sebagai sampel kajian untuk menampung kekurangan kajian sebelum ini yang menyentuh tentang penggunaan strategi ketidaksantunan dalam kalangan remaja sekolah. Pengkajihanya memilih beberapa data yang relevan untuk membincangkan penggunaan strategiketidaksantunan dalam kalangan remaja ketika mereka mengejek, memarahi, mentertawa dan sebagainya. Namun begitu, kajian ini tidak membincangkan kesemua data yang menunjukkan penggunaan strategi ketidaksantunan dalam kalangan remaja dan tidak membandingkan penggunaan strategi ketidaksantunan dalam kalangan remaja mengikut jenis sekolah, bangsa dan jantina.

Secara rumusnya, bahagian ini menyorot kajian-kajian lepas yang mempunyai perkaitan dengan bidang yang akan dikaji oleh pengkaji dalam penyelidikannya. Sebagai wahanapanduan untuk menghasilkan kajian ini, ulasan kritis terhadap kajian-kajian lepas yang telah dijalankan dibuat oleh pengkaji. Metodologi kajian akan dihuraikan dalam bab seterusnya.

METODOLOGI

Bab tiga membincangkan reka bentuk kajian, instrumen kajian dan sampel kajian. Selain itu, tatacara pengumpulan data dan kaedah analisis data juga dibincangkan dalam bab ini. Perbincangan dalam bab ini meliputi kaedah-kaedah yang digunakan oleh pengkaji bagi menyempurnakan kajian ini. Beberapa peringkat kajian perlu dilalui oleh pengkaji untuk mengumpul data kajian yang dikehendaki selari dengan objektif kajianyang telah dihuraikan dalam bab satu dan seterusnya merumuskan dapatan kajian. Pengkaji perlu menjalankan beberapa proses kerja pada peringkat penganalisisan data bagi mendapatkan hasil kajian.

REKA BENTUK DAN KAEDAH KAJIAN

Reka bentuk kajian ini ialah penyelidikan kualitatif yang menggunakan kaedah kajian kes. Kajian kes merupakan reka bentuk inkuiri yang ditemui dalam pelbagai bidang khususnya dalam penilaian penyelidik untuk membangunkan analisis yang mendalam tentang sesuatu kes, peristiwa, aktiviti atau proses yang melibatkan seorang individu atau lebih (Yin, 2003). Pengkaji menggunakan reka bentuk kajian ini untuk meneroka kesantunan berbahasa dalam kumpulan sampel yang dipilih.

LOKASI, POPULASI DAN SAMPEL KAJIAN

Kajian ini dijalankan di sebuah sekolah berasrama penuh yang terletak di Sungai Besar, Selangor. Sampel kajian ini dipilih secara rawak, iaitu 10 orang pelajar tingkatan empatdan sebuah kelas dipilih untuk merakam audio semasa proses pengajaran dan pembelajaran (PdP) Bahasa Melayu dijalankan.

INSTRUMEN KAJIAN

Instrumen yang digunakan dalam kajian ini ialah protokol temu bual yang disediakan bagi mencapai objektif kajian yang pertama. Protokol temu bual ini mengandungi empat soalan, iaitu:

(i) Adakah murid bersopan semasa pembelajaran Bahasa Melayu?
(ii) Apakah yang anda faham tentang kesantunan berbahasa?
(iii) Adakah guru menekankan aspek kesantunan berbahasa semasa di dalam kelas?
(iv) Adakah anda mengamalkan kesantunan berbahasa?

Seterusnya, kajian ini menggunakan skrip komunikasi lisan pelajar yang telah ditranskripsi daripada rakaman semasa pembelajaran Bahasa Melayu sebagai instrumen kajian bagi menjawab soalan kajian kedua. Rakaman tersebut akan dibuat sebanyak 3 kali bersamaan dengan 3 jam. Jadual 1 menunjukkan aktiviti yang akan dilaksanakan oleh pengkaji berdasarkan tema yang dipilih daripada Buku Teks Tingkatan 4 untuk mendapatkan rakaman.

JADUAL 1: Tema dan Aktiviti Semasa Pembelajaran Bahasa Melayu

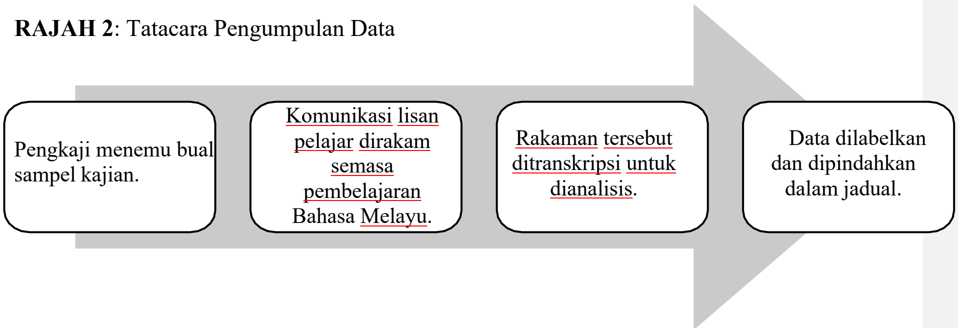
Masa	Tema	Aktiviti
1	Integriti	Debat
2	Alam Sekitar dan Teknologi Hijau	Forum
3	Kesihatan dan Kebersihan	Perbincangan Kumpulan

PROSEDUR PENGUMPULAN DATA

Teknik pengumpulan data yang digunakan dalam kajian ini ialah temu bual dan analisis dokumen. Proses pengumpulan data kajian ini dimulakan dengan sesi temu bual separa berstruktur terhadap 10 orang sampel yang telah dipilih. Temu bual ini memakan masalebih kurang 10 hingga 15 minit untuk seorang responden. Kemudian, data temu bual dilabel berdasarkan kod S1 untuk sampel pertama dan seterusnya hingga S10 untuk sampel ke-10. Semua jawapan yang diberikan oleh sampel dicatatkan dalam protokol temu bual dan direkodkan menggunakan pita perakam untuk diulang dengar oleh pengkaji.

Selepas mendapatkan data temu bual, pengkaji mendapatkan rakaman komunikasi lisan murid tingkatan empat semasa pembelajaran Bahasa Melayu untuk ditranskripsi dan dilabelkan bagi memudahkan proses analisis. Data rakaman audio yang telah ditranskripsi dilabelkan A untuk aktiviti dan M untuk murid, contohnya A1 M1merupakan data yang diperoleh daripada aktiviti 1 dan murid pertama. Kesemua data temu bual dan rakaman komunikasi lisan dipindahkan ke dalam jadual sebelum dianalisis. Tatacara pengumpulan data dalam kajian ini ditunjukkan dalam Rajah 2.

RAJAH 2: Tatacara Pengumpulan Data



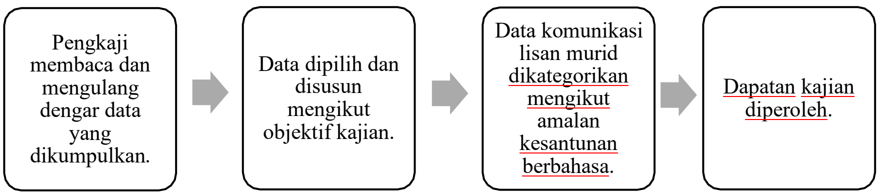
PENGANALISISAN DATA

Kajian ini menggunakan kaedah analisis kandungan untuk menganalisis data yang diperoleh. Krippendorff (2018) mentakrifkan analisis kandungan sebagai satu kaedah penyelidikan untuk membuat kesimpulan yang sah daripada teks (atau perkara lain yangbermakna) dalam konteks penggunaan penyelidik. Kaedah analisis kandungan sesuai digunakan untuk menganalisis data berbentuk dokumen, teks atau visual. Elo dan Kyngas (2008) mencadangkan tiga langkah untuk menjalankan analisis kandungan, iaitu persediaan, menyusun dan melaporkan.

Pada peringkat persediaan, pengkaji membaca dan mengulang dengar data yang diperoleh berulang kali bagi membiasakan diri dengan data dan memilih data yang yang bersesuaian untuk dianalisis. Hal ini penting bagi memastikan pengkaji betul-betul memahami data yang diperlukan untuk memenuhi objektif kajian. Oleh sebab itu, komunikasi lisan guru tidak dipilih untuk dianalisis kerana kajian ini berfokus kepada kesantunan berbahasa murid. Komunikasi lisan guru dan perbualan antara murid di luarkonteks pembelajaran Bahasa Melayu dikeluarkan semasa peringkat analisis data.

Seterusnya, pada peringkat menyusun, pengkaji menyusun data temu bual untuk meneroka pengetahuan murid terhadap aspek kesantunan berbahasa manakala data rakaman komunikasi lisan murid digunakan untuk menganalisis amalan kesantunan berbahasa murid yang digunakan semasa pembelajaran Bahasa Melayu. Data komunikasi lisan murid juga dikelaskan mengikut empat amalan kesantunan berbahasayang berdasarkan Teori Kesantunan Berbahasa Brown dan Levinson (1978). Akhir sekali, pengkaji memperoleh dapatan kajian setelah melalui langkah-langkah seperti yang dilaporkan dalam Rajah 3.

RAJAH 3: Proses Penganalisisan Data



KESAHAN DAN KEBOLEHPERCAYAAN

Kesahan dan kebolehpercayaan merupakan salah satu aspek yang perlu dititikberatkandalam usaha untuk menghasilkan penyelidikan yang berkualiti. Pengkaji melaksanakantriangulasi antara data temu bual dengan data rakaman audio komunikasi lisan murid. Data temu bual dijadikan data sokongan untuk menyokong analisis dokumen komunikasi lisan murid. Soalan temu bual juga disemak oleh pensyarah pembimbing yang mempunyai kepakaran dalam bidang sosiolinguistik sebelum pengkaji menjalankan proses temu bual.

Secara keseluruhannya, perbincangan dapat dirumuskan seperti berikut iaitu merangkumi reka bentuk kajian, sampel kajian dan instrumen kajian. Di sampingitu, prosedur pengumpulan data dan kaedah penganalisisan data juga telah dibincangkan dalam bab ini. Reka bentuk kajian ini ialah kajian kualitatif menggunakankaedah kajian kes.

DAPATAN KAJIAN

Dalam bab keempat, pengkaji menjelaskan analisis yang dilakukan terhadap data yangtelah dikutip melalui temu bual dan analisis dokumen komunikasi lisan murid. Data kajian dianalisis dengan teliti dan teratur bagi memastikan objektif kajian yang dinyatakan dapat dicapai dan seterusnya menghasilkan kesimpulan kajian yang tepat. Hal ini penting bagi menghasilkan satu kajian yang bermanfaat dan boleh menjadi rujukan kepada pembaca.

Pengkaji membahagikan dapatan ini kepada dua bahagian iaitu, pengetahuan kesantunan berbahasa murid dan amalan kesantunan berbahasa murid selari dengan soalan kajian yang ditetapkan.

PENGETAHUAN KESANTUNAN BERBAHASA

Soalan kajian pertama daripada kajian kes ini ialah bagaimanakah pengetahuan kesantunan berbahasa murid tingkatan empat? Data bagi menjawab soalan kajian ini diperoleh daripada temu bual bersama peserta kajian. Rajah 4 menunjukkanpengetahuan kesantunan berbahasa sampel pertama.

RAJAH 4: Pengetahuan Kesantunan Berbahasa Sampel Pertama

S1

- *"Saya tengok kawan-kawan bersopan je bercakap depan cikgu tapi belakang cikgu jela kadang tu tak berapa sopan. Bagi saya kesantunan berbahasa ni perlu ada dalam diri setiap orang. Yela bila bercakap kenalah bersopan. Tak leh cakap ikut sedap mulut je. Kena tengok juga dengan siapa kita bercakap. Pendekkata kalau cakap dengan orang tua lagilah kena bersopan santun. Kena pandai susun ayatlah dulu sebelum cakap tu. Cikgu pun memang selalu pesan gitu. Saya sendiri pun cuba nak cakap elok-elok dengan orang. Nanti orang kata biadab pula."*

Berdasarkan maklum balas yang diberikan oleh sampel pertama kajian ini, murid mempunyai pengetahuan dalam kesantunan berbahasa. Kesantunan berbahasa dianggap sebagai satu kaedah berkomunikasi menggunakan bahasa yang sopan. Oleh sebab itu, seseorang penutur perlu berfikir terlebih dahulu sebelum berbicara. Amalan ini turut dipraktikkan dalam kalangan murid khususnya apabila berkomunikasi denganmereka yang lebih berusia seperti guru. Tambahan pula, guru turut memberi galakan untuk murid mengamalkan amalan kesantunan berbahasa. Seseorang yang tidak mengamalkan kesantunan berbahasa juga boleh dianggap tidak bersopan atau biadab. Seterusnya, pengetahuan sampel kedua tentang kesantunan berbahasa boleh dilihat dalam Rajah 5.

RAJAH 5: Pengetahuan Kesantunan Berbahasa Sampel Kedua

S2

- *"Bagi sayalah cikgu, dalam kelas semua murid bersopan je. Kesantunan berbahasa ni bagi saya bahasa yang baik dan teratur. Maknanya kalau orang dengar tu tak menyakitkan hatilah. Bila kita cakap benda baik, orang pun selesa bercakap dengan kita. Dalam kelas pun memang cikgu selalu ingatkan murid cakap dengan lemah lembut dan jangan sekali-kali berbohong. Jadinya, saya sendiri pun cuba sehabis baik nak cakap guna bahasa yang baik dan lemah lembut."*

Petikan temu bual sampel kedua membuktikan bahawa kesantunan berbahasa ialah penggunaan bahasa yang baik dan teratur. Lazimnya, murid menggunakan bahasa yangsopan semasa di dalam kelas. Bahasa ini digunakan untuk menggelakkan penutur daripada menggores hati dan perasaan pendengar. Situasi ini boleh mewujudkan suasana yang selesa antara penutur dan pendengar untuk meneruskan komunikasi. Murid akan berusaha sebaik mungkin untuk mempraktikkan amalan kesantunan berbahasa dalam kehidupan seharian apabila diberi peringatan oleh guru. Pengetahuankesantunan berbahasa sampel ketiga pula ditunjukkan dalam Rajah 6.

RAJAH 6: Pengetahuan Kesantunan Berbahasa Sampel Ketiga

S3

- *"Kesantunan bahasa ni melambangkan akhlak dan adab seseorang. Kalau murid tu bercakap sopan beradablah dia. Kalau terpekik-pekik tak fikir perasaan orang, memang tak beradablah orang tu. Sebab tu orang yang bercakap sopan biasanya lemah lembut saja. Dalam kelas pun cikgu selalu tegur murid elok-elok walaupun murid tu dah menyakitkan hati dia. Murid pun dapat kawal emosi bila cikgu tegur dengan cara macam ni. Jadi, kesantunan berbahasa ni sangat penting untuk jaga hati orang."*

Sampel ketiga menyatakan kesantunan berbahasa digunakan oleh individu yangberadab dan berakhlak untuk menjaga hati orang lain. Kesantunan berbahasa juga berkait dengan penggunaan bahasa yang lembut dan sopan. Menurutnya lagi, guru turutmenggunakan bahasa yang baik untuk menegur kesalahan murid supaya murid berlapang dada menerima teguran tersebut. Kaedah ini menyenangkan hati murid yangditegur oleh guru serta tidak menimbulkan sebarang konflik antara murid dan guru. Jadual 2 menunjukkan pengetahuan kesantunan berbahasa murid tingkatan empat di sebuah sekolah berasrama penuh.

JADUAL 2: Pengetahuan kesantunan berbahasa murid tingkatan empat di sebuah sekolah berasrama penuh

Pengetahuan	**S1**	**S2**	**S3**	**S4**	**S5**	**S6**	**S7**	**S8**	**S9**	**S10**
Bahasa yang sopan	x	x			x		x			x
Bahasa yang baik		x		x				x		
Bahasa yang teratur		x		x		x				x
Bahasa yang lembut			x		x			x		
Bahasa yang menjaga perasaan orang lain	x	x	x	x	x	x	x	x	x	x
Bahasa berakhlak dan beradab	x		x			x	x			

AMALAN KESANTUNAN BERBAHASA

Terdapat empat strategi kesantunan berbahasa yang diperkenalkan dalam Teori Kesantunan Berbahasa Brown dan Levinson (1978) mencakupi kesantunan secara terusterang, kesantunan positif, kesantunan negatif dan kesantunan secara tidak terus terang.Hasil analisis dokumen skrip komunikasi lisan dalam pembelajaran Bahasa Melayu mendapati murid menggunakan keempat-empat strategi ini dalam berkomunikasi semasa rakan.

KESANTUNAN SECARA TERUS TERANG

Amalan kesantunan secara terus terang dipraktikkan oleh murid semasa pembelajaran Bahasa Melayu apabila penutur ingin menyatakan sesuatu dengan cepat tanpa berusaha untuk mengurangkan ancaman air muka pendengar. Rajah 7 menunjukkan kesantunansecara terus terang yang dilakukan oleh murid semasa aktiviti 1.

RAJAH 7: Strategi Kesantunan Secara Terus Terang

A1 M1
- *"Yang Berhormat sedar atau tidak negara kita semakin huru hara akibat rasuah? Jelaskan isu ini. Jangan hanya menuding jari."*

A1 M2
- *"Duduk Yang Berhormat. Beri ruang untuk saya meneruskan hujah."*

Murid 1 cuba membuat celahan terhadap hujah yang dikemukakan oleh pendengar. Situasi ini membuatkan pendengar berasa malu dan tidak selesa dengan pertanyaan yang diajukan. Penutur tidak mempedulikan ancaman air muka yang dilakukan terhadap pendengar dengan menyatakan secara langsung ketidakpuasan hati terhadap pendengar. Murid 2 pula cuba menghalang pendengar untuk terus bercakap. Situasi inimembuatkan pendengar terkejut dan terpaku dengan tindakan penutur. Ujaran ini memaksa pendengar untuk memenuhi tuntutan penutur. Ciri-ciri ini membuktikan ujaran murid 1 dan murid 2 dikategorikan sebagai kesantunan secara terus terang berdasarkan Teori Kesantunan Berbahasa Brown dan Levinson (1978). Kekerapan penggunaan strategi ini dalam kalangan responden adalah sebanyak 8 kali (16%).

KESANTUNAN POSITIF

Kesantunan positif merupakan strategi yang paling kerap digunakan dalam kalangan responden semasa pembelajaran Bahasa Melayu. Strategi ini merekodkan kekerapansebanyak 30 kali atau 60%. Hal ini demikian kerana strategi kesantunan berbahasa ini lazimnya digunakan antara pihak yang mempunyai hubungan rapat terutamanya rakan-rakan. Kesantunan positif dilihat berdasarkan aktiviti 1, 2 dan 3 adalah seperti dalam Rajah 8.

RAJAH 8: Strategi Kesantunan Positif

A1 M3	• *"Kami di pihak kerajaan sebulat suara menyokong gagasan yang dibawa oleh Perdana Menteri."*
A2 M1	• *"Panel yang berbaju merah bukan sahaja bijak berkata-kata, pandai pula mencuri hati penonton. Jadi, marilah kita sama-sama menyumbang dana untuk projek teknologi hijau yang sedang diusahakan."*
A3 M2	• *"Betul cakap kamu. Kebersihan diri perlu diberi didikan sejak kecil lagi."*

Murid 3 dalam aktiviti 1 menggunakan kesantunan positif untuk mencari kesepakatan dengan pendengar manakala murid 1 dalam aktiviti 1 menggunakan kesantunan positifuntuk berjenaka di samping membantu pendengar mempromosikan projek pengumpulan dana untuk projek teknologi hijau. Kesantunan positif pula digunakan oleh murid 2 dalam aktiviti membuktikan penutur memberi perhatian kepada pendengardan bersetuju dengan pendapat pendengar.

KESANTUNAN NEGATIF

Strategi kesantunan yang seterusnya ialah kesantunan negatif. Strategi ini mencatatkan kekerapan penggunaan sebanyak 2 kali (4%) sahaja. Lazimnya, kesantunan negatif berbentuk arahan seperti yang ditunjukkan dalam Rajah 9.

RAJAH 9: Strategi Kesantunan Negatif

A1 M4	• *"Hujah pihak pembangkang goyah. Terima sahaja gagasan di pihak kerajaan. Selesai."*
A3 M3	• *"Pilih je tajuk ni. Masa bincang kejap je."*

Murid 4 dalam aktiviti 1 menggunakan kesantunan negatif untuk mempertahankan hujahnya dan mendesak pendengar untuk menerima cadangannya manakala murid 3 dalam aktiviti 3 seolah-olah tidak memberi peluang kepada pendengar untuk menjawab“tidak” dan mengancam kebebasan pendengar untuk membuat keputusan.

KESANTUNAN SECARA TIDAK TERUS TERANG

Akhir sekali, amalan kesantunan yang dikenal pasti dalam pembelajaran Bahasa Melayu ialah kesantunan secara tidak terus terang yang digunakan untuk mengancam air muka pendengar menggunakan pernyataan tersirat yang perlu ditafsir oleh pendengar. Strategi ini merekodkan kekerapan sebanyak 10 kali atau 20% dalam kalangan responden. Salah satu penggunaan strategi kesantunan secara tidak terus terang ditunjukkan dalam Rajah 10.

RAJAH 10: Strategi Kesantunan Secara Tidak Terus Terang

A1 M6	• *"Hujah pihak kerajaan penuh dengan kata-kata benar dan bijak, namun kelakuannya tidak sesuai dengan apa yang diucapkan sendiri."*

Pertuturan dalam Rajah 10 menunjukkan sindiran sinis pihak pembangkang kepada pihak kerajaan yang membawa maksud pendengar hanya pandai bercakap tetapi tidak mengambil sebarang tindakan seperti yang diperkatakan. Kesimpulannya, dapatan-dapatan telah menjawab soalan kajian yang telah dibina dalam Bab 1. Dapatan kajian yang ditunjukkan diperolehi daripada hasil temu bual dan analisis dokumen yang dilakukan oleh pengkaji. Pengkaji menghuraikan dapatan kajian ini secara deskriptif dengan membahagikannya kepada dua bahagian utama, iaitu pengetahuan kesantunan berbahasa dan amalan kesantunan berbahasa murid tingkatanempat di sebuah sekolah berasrama penuh.

RUMUSAN, PERBINCANGAN DAN IMPLIKASI KAJIAN

Bab ini menyimpulkan keseluruhan kajian serta merumuskan kesemua dapatan kajian secara menyeluruh. Selain itu, bab ini juga memaparkan implikasi kajian yang dilakukan dalam bidang sosiolinguistik terutamanya yang berkaitan dengan kesantunanberbahasa. Seterusnya, pengkaji turut memberikan cadangan kajian lanjutan yang bolehdilakukan pada masa akan datang bagi memperluas dan memperkasa lagi ilmu yang berkaitan bidang sosiolinguistik.

RUMUSAN KAJIAN

Berdasarkan analisis yang dibuat, kajian yang dilakukan di sebuah sekolah berasaramapenuh berjaya membuktikan wujudnya amalan kesantunan berbahasa murid tingkatan empat dalam pembelajaran Bahasa Melayu. Setelah selesai kajian yang dilakukan, pengkaji mendapati kesemua data yang dianalisis mencapai objektif yang ditetapkan. Oleh hal demikian, pengkaji dapat membuat rumusan berdasarkan hasil kajian berikut.

RUMUSAN PENGETAHUAN KESANTUNAN BERBAHASA

Pengkaji mendapati murid tingkatan empat di sebuah sekolah berasrama penuh mempunyai pengetahuan tentang aspek kesantunan berbahasa. Namun begitu, aspek iniada kalanya hanya dipraktikkan semasa pembelajaran dan di hadapan guru. Apabila murid berkomunikasi sesama rakan, mereka berpotensi untuk menggunakan bahasa yang tidak sopan. Buktinya, pengkaji berjaya mendapatkan enam pengetahuan utama tentang kesantunan berbahasa setelah menemu bual sampel kajian, iaitu kesantunan berbahasa merupakan bahasa yang baik, teratur, sopan, lembut, berakhlak dan beradabserta menjaga perasaan orang lain. Kesemua responden kajian ini mengganggap kesantunan berbahasa sebagai bahasa yang digunakan supaya tidak menggores hati danperasaan orang lain. Dapatan kajian ini jelas membuktikan murid tingkatan empat di sebuah sekolah berasrama penuh memahami aspek kesantunan berbahasa dan mempraktikkan amalan ini dalam pembelajaran Bahasa Melayu.

RUMUSAN AMALAN KESANTUNAN BERBAHASA

Hasil analisis dokumen skrip komunikasi lisan murid tingkatan empat semasa pembelajaran Bahasa Melayu mendapati bahawa murid mengamalkan keempat-empatstrategi kesantunan berbahasa yang diketengahkan dalam Teori Kesantunan Berbahasa Brown dan Levinson (1978), iaitu kesantunan secara terus terang, kesantunan positif, kesantunan negatif dan kesantunan secara tidak terang-terangan. Oleh itu, murid tingkatan empat di sebuah sekolah berasrama penuh mempraktikkan amalan menjaga air muka untuk mengelakkan sebarang konflik semasa berkomunikasi dengan rakan dalam pembelajaran Bahasa Melayu. Dalam kajian ini, pengkaji mendapati strategi kesantunan berbahasa yang paling dominan digunakan dalam pembelajaran Bahasa Melayu ialah strategi kesantunan positif. Hal ini demikian kerana murid berusaha untukmemberi perhatian kepada pendengar dan mencari kesepakatan untuk bersetuju denganpendapat pendengar.

PERBINCANGAN

Strategi kesantunan berbahasa yang digunakan oleh murid tingkatan empat menunjukkan aspek kesantunan berbahasa dipraktikkan dalam pembelajaran Bahasa Melayu. Amalan ini selari dengan Teori Kesantunan Berbahasa Brown dan Levinson (1978) yang digunakan untuk menjaga air muka pendengar. Dapatan kajian ini menerima dapatan kajian yang dijalankan oleh Hafizuddin (2011) yang mendapati amalan kesantunan berbahasa remaja sekolah sewaktu berada di dalam kelas adalah lebih baik daripada sewaktu di luar kelas.

IMPLIKASI KAJIAN

Secara keseluruhannya, kajian ni memberi sumbangan dalam bidang Bahasa Melayu kerana kajian ini memberi impak kepada pembaca untuk mempraktikkan kesantunan berbahasa semasa berkomunikasi. Amalan ini penting untuk mewujudkan komunikasiyang berkesan di samping menjaga hati dan perasaan orang lain. Selain itu, kajian ini menyumbang dalam bidang sosiolinguistik dengan menghuraikan amalan kesantunan berbahasa yang bersesuaian mengikut mesej yang ingin disampaikan dan perhubungan sosial seseorang penutur dan pendengar. Tambahan pula, kajian ini menunjukkan secara jelas amalan kesantunan berbahasa dalam pembelajaran Bahasa Melayu bagi membantu pendidik memahami komunikasi para pelajar. Hal ini penting untuk mengelakkan pendidik tersalah tafsir maklumat yang ingin disampaikan oleh pelajar khususnya melibatkan strategi kesantunan tidak terus terang yang memerlukan pendengar mentafsir maksud yang disampaikan oleh penutur.

Di samping itu, kajian ini juga memberi dan memperluaskan pengetahuan kepada pembaca berkaitan bidang sosiolinguistik khususnya bagi golongan pelajar yang masihbelum mahir tentang amalan kesantunan berbahasa berdasarkan Teori Kesantunan Berbahasa Brown dan Levinson (1978). Teori ini mementingkan aspek penjagaan air muka dalam berkomunikasi. Oleh sebab itu, para pelajar yang mengambil jurusan bahasa Melayu dan seangkatan dengannya perlu menguasai teori ini. Justeru, kajian iniboleh menjadi salah satu bahan rujukan para pelajar dalam proses untuk memahami Teori Kesantunan Berbahasa Brown dan Levinson (1978).

CADANGAN KAJIAN LANJUTAN

Kajian dalam bidang sosiolinguistik didapati mempunyai keunikan dan memberi sumbangan kepada umum. Oleh itu, pengkaji pada masa hadapan boleh melakukan kajian tentang aspek kesantunan berbahasa dengan lebih mencabar dan menjadikan teks pembaca berita di kaca televisyen sebagai data kajian seperti teks pembaca berita TV3. Hal ini kerana siaran berita merupakan salah satu medium untuk menyampaikanmaklumat kepada pendengar. Penggunaan bahasa yang bersesuaian penting agar beritayang disampaikan tidak disalah tafsir. Penggunaan ayat dalam siaran berita ini dapat dilihat dengan kaedah mentranskripsikan teks berita yang ditonton dan menganalisis teks tersebut dengan kaedah kualitatif.

Pengkaji pada masa akan datang juga boleh menggunakan iklan dalam media cetak atau media elektronik sebagai data kajian. Lazimnya, ayat yang digunakan dalamiklan lebih ringkas agar mesej dapat disampaikan dengan jelas. Justeru, pemilihan bahasa dalam iklan perlulah bersesuaian dengan konteks yang ingin disampaikan agar penjual dapat mempengaruhi pembeli untuk menggunakan sesuatu produk atau perkhidmatan. Walau bagaimanapun, penjual produk perlu menitikberatkan aspekkesantunan berbahasa dalam usaha menghasilkan iklan yang berkualiti di samping menarik minat pembeli. Iklan yang mengandungi bahasa yang tidak sopan cenderung untuk diboikot atau dikecam oleh masyarakat memandangkan Malaysia mementingkanbudaya ketimuran yang kaya dengan budi bahasa dan bertatasusila.

Akhir sekali, pengkaji akan datang juga dicadangkan untuk menjalankan kajiantentang aspek kesantunan berbahasa terhadap murid yang terdiri daripada jantina dan latar belakang yang berbeza. Faktor demografi seumpama ini berkemungkinan mempengaruhi amalan kesantunan berbahasa seseorang individu. Oleh itu, kajian ini dapat melihat golongan yang lebih dominan mempraktikkan amalan kesantunan berbahasa dalam kehidupan mereka. Natijahnya, kajian ini dapat membantu golonganpendidik untuk menentukan kumpulan fokus bagi memberikan penekanan aspek kesantunan berbahasa semasa pembelajaran Bahasa Melayu.

KESIMPULAN

Setelah melakukan analisis terhadap data kajian, kedua-dua objektif kajian yang ingin dicapai oleh pengkaji telah disempurnakan. Semua data yang diperoleh daripada analisis dikelaskan mengikut amalan kesantunan berbahasa masing-masing. Pemilihanbahasa yang bersesuaian penting bagi memastikan maklumat dapat disampaikan dengan jelas dan berkesan serta terhindar daripada menyakitkan hati orang lain. Justeru, pemahaman terhadap ilmu sosiolinguistik ini dapat membantu seseorang untuk mengamalkan kesantunan berbahasa dalam kehidupan seharian.

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KESEDARAN PERANCANGAN KEWANGAN: STRATEGI APLIKASI E-DUIT BAGI MENYELESAIKAN ISU KEBANKRAPAN

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ABSTRAK

Penyelidikan ini bertujuan bagi mengenalpasti pemahaman perancangan kewangan dalam kalangan pekerja sektor awam dan swasta. Kajian ini memfokuskan pekerja mahir dan berkelulusan tinggi serta mempunyai pendapatan yang baik dan memuaskan. Mereka berkelayakan untuk mendapat kelulusan pinjaman bank atau institusi kewangan. Namun begitu, golongan ini sangat terdedah dengan isu kebankrapan. Kebankrapan berlaku apabila seseorang individu menghadapi kegagalan bagi membayar semula pinjaman kewangan. Statistik menunjukkan bahawa golongan berusia 35 hingga 44 tahun adalah yang paling banyak diisytiharkan bankrap, diikuti oleh golongan berusia 55 tahun ke atas dan yang berusia 25 tahun ke bawah. Golongan profesional yang mempunyai pendidikan sekurang-kurangnya di peringkat diploma atau ijazah, berusia antara 25 hingga 45 tahun dengan pendapatan gaji sekurang-kurangnya RM3000.00 berisiko mengalami kebankrapan. Hal ini disebabkan, kemudahan akses mereka kepada pinjaman bank. Punca utama muflis adalah disebabkan ketidakmampuan membayar balik pinjaman kewangan melebihi 4 bulan berturut-turut. Pembiayaan yang menjadi punca kebankrapan melibatkan pembiayaan rumah, pembiayaan kereta, pinjaman peribadi dan kad kredit. Masalah ini berpunca daripada kurangnya ilmu pendidikan kewangan dan kurangnya perancangan kewangan yang baik. Gaya hidup berbelanja berlebihan dan kesedaran yang rendah terhadap kewangan juga turut menyumbang kepada masalah ini. Ekoran daripada itu, individu menghadapi tekanan hidup, masalah keluarga, perceraian, kesukaran untuk menyimpan untuk pendidikan anak-anak dan masalah kesihatan. Bagi mengelak berlakunya masalah ini, adalah sangat penting untuk memulakan perancangan kewangan yang baik sejak awal dan mewujudkan kesedaran kewangan melalui pendidikan di rumah dan sekolah. Oleh yang demikian, Aplikasi pengiraan agihan pendapatan iaitu e-Duit diperkenalkan untuk membantu individu merancang kewangan seperti pembelian rumah, kenderaan, dan perbelanjaan lain dengan lebih baik. Kaedah ini diharapkan dapat mengurangkan kadar kebankrapan dan meningkatkan keupayaan pengurusan kewangan yang lebih cekap dan berkesan dan seterusnya berjaya mengurang kadar kebankrapan.

***Kata kunci**: kebankrapan; aset; pengurusan kewangan; perancangan kewangan peribadi; pekerja; pengetahuan kewangan*

PENGENALAN

Kebankrapan merupakan perkara yang merisaukan dan boleh menyebabkan stress. Hal ini berpunca daripada pengurusan kewangan yang tidak teratur dan kegagalan membayar pinjaman. Masalah menjadi lebih kritikal lagi apabila majikan terpaksa menamatkan perkhidmatan pekerja mereka. Skim Voluntary Separation Scheme (VSS), wang yang diperolehi mungkin akan kehabisan dalam tempoh kurang daripada tiga tahun (Azizi Ali, 2015). Kenaikan harga barang pula lebih tinggi daripada kenaikan pendapatan bulanan.

Penularan pandemic COVID-19 yang bermula awal tahun 2020 sehingga 2021 menambahkan lagi jumlah kebankrapan ekoran daripada ketiadaan punca pendapatan akibat diberhentikan kerja (Rohaniza Idris, 2020)

Bagi membendung masalah ini, setiap individu perlu mengawal aliran wang tunai. Namun begitu bukan mudah untuk mengekang perbelanjaan dan mengubah cara hidup. Oleh sebab itu, pengurusan kewangan perlu dipupuk sejak kecil lagi. Anak-anak perlu dididik dan diterapkan disiplin menyimpan dan menabung (Azizi Ali,2016). "Sikit-sikit lama-lama jadi bukit" dan "melentur buluh biarlah dari rebungnya" adalah pepatah yang sering digunakan dalam motivasi kewangan. Konsep ekonomi menyatakan kehendak manusia adalah tidak terhad. Mereka bijak mencari wang tetapi tidak bijak menguruskan wang mereka. Hal disebabkan oleh kehendak manusia adalah tidak terhad. Wang pula seperti air yang mengalir laju (Robert T.Koyasaki, 2015).

PERNYATAAN MASALAH

Pernyataan masalah adalah merujuk kepada isu kebankrapan dalam kalangan golongan professional, faktor-faktor yang menyebabkan muflis berlaku dan kaedah bagi mengatasi masalah tersebut.

OBJEKTIF KAJIAN LEPAS

Objektif kajian lepas adalah untuk mengenalpasti statistik kebankrapan di Malaysia, faktor-faktor yang mendorong masalah kebankrapan di Malaysia dan mengenalpasti strategi untuk mengatasi masalah ini.

KAJIAN LEPAS

Penularan pandemik COVID-19 bermula awal 2020 sehingga sekitar pertengahan 2021 mempunyai kesan mendalam terhadap kehidupan mereka dengan catatan tersendiri. Secara umumnya, antara kesan langsung ditanggung segelintir masyarakat akibat pandemik adalah pengisytiharan status muflis atau bankrap oleh mahkamah seperti ditetapkan Jabatan Insolvensi (MdI), susulan kegagalan membayar hutang (Abdul Basit,2014).

Penelitian ke atas jumlah 34,480 kes kebankrapan ditakbir bagi tempoh 2019 sehingga Mei 2023 mendapati, 49.12% atau 16,937 kes berpunca daripada kegagalan membayar pinjaman peribadi, diikuti pinjaman perniagaan (17.15 peratus atau 5,912 kes) dan pinjaman sewa beli kenderaan (11.05 peratus atau 3,810 kes) (Laporan Jabatan Insolvensi,2017).

Semua itu berlaku dalam masyarakat di sekeliling kita dengan sifir mudah difahami. Ada yang membuat pinjaman peribadi untuk majlis perkahwinan, tetapi gagal memenuhi komitmen pembayaran bulanan, ada bertukar kereta baharu sebelum menyedari ia akhirnya menjadi liabiliti, selain tidak kurang meminjam untuk memulakan perniagaan namun tidak menjadi seperti yang diharapkan. (Azizi Ali, 2016)

Seramai 98,696 pekerja ditamatkan perkhidmatan antara bulan Januari 2022 hingga 27 November 2022, berdasarkan laporan dari Sistem Insuran Pekerja (SIP). Hal ini disebabkan majikan menutup perniagaan mereka, pengurangan pekerja, Skim Pemisahan Sukarela (VSS), Skim pemberhentian Kerja dengan Persetujuan Bersama (MSS), perniagaan menghadapi masalah kewangan yang kritikal, syarikat menutup separuh aktiviti perniagaan dan pengambilalihan oleh syarikat lain. (Azaddin, 2016)

Trend ini mempunyai hubungan dengan tekanan global yang dialami oleh semua industri akibat pandemik COVID-19. Menurut rekod SIP pada 27 November, pendemik ini telah menjejaskan pelbagai segmen profesional, termasuk 13,109 pengurus, 26,079 profesional, dan

19,095 juruteknik serta profesional bersekutu (Azalina, 2023).

Satu kebimbangan utama ketika ini adalah isu mengenai hutang yang menghantui golongan profesional. Laporan menunjukkan bahawa sejak tahun 2010, sebanyak 24,953 individu di bawah usia 35 telah diisytiharkan muflis. Perbadanan Tabung Pendidikan Tinggi Nasional atau PTPTN menyatakan lebih kurang sejuta nama peminjam berada di dalam Sistem Maklumat Rujukan Kredit Pusat (CCRIS). Golongan yang berumur antara 31 hingga 41 tahun, yang berperanan sebagai ketua keluarga, bergelut dengan pelbagai tanggungjawab kewangan seperti pinjaman perumahan, pinjaman kereta dan pinjaman peribadi. Potensi kehilangan pekerjaan membayangkan ancaman besar terhadap keupayaan mereka untuk melangsaikan komitmen bulanan, yang mendorong bank untuk memulakan tindakan pemulihan (Rohani, 2017).

Individu yang sudah bekerja mendapati diri mereka tidak bersedia dari segi kewangan untuk membeli rumah sendiri. Komitmen dan pinjaman yang sedia ada menyukarkan mereka untuk membuat pembiayaan perumahan, ditambah lagi dengan peningkatan harga rumah. Pinjaman isi rumah telah meningkat sejak 2009, melonjak dari 50.5% daripada Keluaran Dalam Negara Kasara tau KDNK kepada 85.4% pada tahun 2017 (Rohani, 2017). Oleh itu, kadar kebankrapan yang semakin meningkat dalam kalangan golongan muda Malaysia adalah satu perkara yang perlu dititikberatkan. Kecenderungan mereka untuk mengumpulkan hutang bagi menunjukkan kemewahan telah menyebabkan meningkatnya masalah kewangan (Abdul Basit Hodari, 2014). Faktor-faktor utama yang menyumbang kepada trend ini termasuk pembelian kereta tanpa bayaran pendahuluan, pembelian rumah di luar kemampuan kewangan, pengambilan pinjaman peribadi untuk majlis perkahwinan, dan bergantung kepada kad kredit untuk keperluan harian (Zaidi Ismail, 2022). Selain itu, jurang antara tahap pendapatan dan kos sara hidup yang tinggi telah mengakibatkan inflasi gaya hidup.

METODOLOGI

Data utama dan juga data sekunder telah digunakan bagi skop kajian. Data sekunder adalah artikel-artikel yang berkaitan dengan isu-isu kebankrapan seperti Laporan Agensi Kaunseling dan Kredit Negara (AKPK) dan Jabatan Insolvensi Malaysia. Selain dari itu, maklumat juga diperolehi dari buku motivasi kewangan.

Kaedah yang telah digunakan bagi mengenalpasti responden ialah dengan menggunakan teknik pensampelan. Responden adalah daripada kalangan profesional yang terdiri daripada pekerja atau usahawan yang berumur di antara 26 tahun hingga 51 tahun. Umur responden dipilih kerana golongan tersebut ketika ini diandaikan sudahpun mempunyai kerjaya. Bagi memudahkan pengedaran borang soal selidik, aplikasi "*google form*" telah pun digunakan. Sebanyak 160 borang soal selidik dengan menggunakan "*google form*" yang telah diedarkan melalui aplikasi media sosial iaitu facebook dan whatsapps. Pengagihan borang memfokuskan kepada responden yang menetap di Kuala Lumpur, Melaka, Johor Bahru dan Seremban. Hanya 112 soal-selidik sahaja yang telah lengkap dijawab oleh responden.

Aplikasi "Financial/Loan Calculator" digunakan bagi mengira kadar faedah pembiayaan dan jumlah keseluruhan pembiayaan bank. "Loan Calculator Apps" boleh dimuat turun daripada Google "*playstore*" telefon pintar. Pengguna boleh menggunakan kalkulator ini untuk membuat pengiraan dengan lebih tepat sebelum membuat pinjaman bank.

HASIL KAJIAN

Profesional adalah merujuk kepada mereka yang berpendidikan tinggi, berkerjaya atau mempunyai perniagaan sendiri serta mempunyai pendapatan yang memuaskan. Golongan profesional adalah golongan yang mempunyai kelayakan bagi membuat pinjaman di institusi kewangan. Walaubagaimanapun kajian mendapati ada di antara mereka gagal membuat bayaran pinjaman seperti yang telah ditetapkan.

Menurut Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN), peminjam yang mempunyai masalah kewangan serius, diminta hadir ke Agensi Kaunseling dan Pengurusan Kredit (AKPK) bagi penstrukturan semula pembayaran tunggakan pinjaman mereka (AKPK news, 2017). Ianya adalah satu strategi yang dilaksanakan untuk memberi kemudahan kepada peminjam yang kurang berkemampuan. Dalam situasi ekonomi yang kurang memberangsangkan dan masalah kekurangan dana yang kritikal, strategi ini dilihat penting untuk meningkatkan kutipan bayaran balik. Ia bagi memastikan generasi seterusnya dapat menikmati kemudahan pembiayaan yang disediakan oleh PTPTN (Shamsul Anuar, 2018)

Menurut Bank Negara Malaysia (BNM), hutang isi rumah di negara ini adalah antara yang tertinggi di Asia, iaitu sebanyak 89% daripada Keluaran Dalam Negara Kasar (KDNK). Seramai 482,138 pelanggan mendapatkan khidmat nasihat sejak tahun 2012 sehingga 30 September 2016. Program Pengurusan Kredit AKPK (Agensi Kaunseling dan Pengurusan Kredit) berjaya membantu 161,739 orang pelanggan mengatasi masalah kewangan yang dihadapi (AKPK news, 2017).

Kaum Melayu mempunyai pendapatan yang lebih rendah jika dibandingkan dengan kaum lain. Tambahan lagi, kaum Melayu telah menjadi penyumbang utama kepada masalah kewangan yang menyebabkan mereka terjerumus ke kancah kebankrapan. Jabatan Insolvensi Malaysia (2017) melaporkan sebanyak 300,958 kes kebankrapan telah didaftarkan semenjak 2007. Dianggarkan kira-kira purata 50 kes dilaporkan setiap hari. Majoriti kaum yang diisytiharkan bankrap adalah kaum Melayu iaitu sebanyak 11,502 kes. Manakala kaum Cina adalah 28 %, kaum India adalah 13 %, dan lain-lain kaum adalah 5.4 %. Nisbah mengikut jantina pula, lelaki adalah 69.1% dan perempuan adalah 30.9%. (Jabatan Insolvensi Malaysia, 2017)

Jabatan Insolvensi Malaysia melaporkan sebanyak 95,921 kes kebankrapan di negara ini bagi tahun 2012 sehingga September 2016. (Berita Online, 2017).

Semua pekerja adalah diwajibkan untuk mencarum di Kumpulan Wang Simpanan Pekerja (KWSP). Walaubagaimanapun, kemungkinan caruman KWSP tidak memadai bagi menanggung kos dan perbelanjaan kehidupan seseorang individu bermula dari usia 60 tahun ke atas, yakni untuk 20 tahun akan datang (Jomo KS, 2017). Pada usia yang semakin meningkat kos perubatan juga semakin meningkat. Masalah ketidakcukupan perbelanjaan turut akan berlaku apabila pencarum mengeluarkan wang KWSP untuk majlis perkahwinan anak- anak, membeli rumah baru secara tunai, membeli kereta baru secara tunai, penambahbaikan rumah sedia ada, membiayai pendidikan anak-anak serta perbelanjaan percutian mewah.

Kajian juga mendapati bahawa terdapat golongan yang menghadapi masalah kewangan pada usia persaraan. Masalah ini timbul disebabkan oleh masih banyak pembiayaan yang perlu dijelaskan seperti pembiayaan peribadi, pembiayaan kereta dan pembiayaan rumah. Tidak kurang juga yang boros berbelanja untuk membeli barang-barang berjenama (Azizi Ali, 2014). Masalah kewangan boleh mendorong kepada tekanan mental, kesihatan dan juga menyumbang masalah perceraian (AKPK news, 2017).

Jabatan Insolvensi Malaysia 2017 melaporkan majoriti yang diisytiharkan bankrap adalah yang berusia 35 hingga 45 tahun, iaitu sebanyak 35.20%, diikuti dengan golongan yang berumur 45 hingga 55 tahun iaitu sebanyak 27.17%. 26.49% Kes kebankrapan melibatkan individu yang berumur 25 hingga 35 tahun. Kes kebankrapan individu yang berumur melebihi 54 tahun adalah sebanyak 13.95%, Peratus kebankrapan bagi golongan yang berumur bawah 25 tahun adalah 1.18% sahaja. Negeri yang mempunyai peratusan tertinggi kebankrapan adalah negeri Selangor iaitu sebanyak 28,554 kes. Jumlah kes kebankrapan kedua tertinggi adalah Wilayah Persekutuan yang melibatkan 15,141 kes dan jumlah kes ketiga yang tertinggi adalah Johor Bahru yang melibatkan 13,340 kes. Faktor ini berpunca dari kenaikan harga barang yang semakin meningkat dan kos sara hidup yang tinggi di Kuala Lumpur dan Johor Bahru (Jabatan Insolvensi Malaysia, 2017).

HASIL KAJI SELIDIK

Berdasarkan kaji selidik menunjukkan 95% responden adalah pekerja yang mempunyai pendapatan yang setaraf dengan tahap Pendidikan. Sebanyak 55.4% responden telah pun bekerja melebihi 10 tahun. Sebanyak 18% responden telah pun bekerja selama 5 hingga 9 tahun.

Kajian menunjukkan purata gaji atau pendapatan seisi rumah adalah RM4500.00 sehingga RM12,500.00. Sebanyak 45% responden belum bersedia untuk membuat tabungan Pendidikan anak-anak. Sebanyak 55% responden belum lagi membuat simpanan tetap. Manakala 45% responden telah pun membuat simpanan tetap. Simpanan tetap adalah merujuk kepada 10% daripada pendapatan bulanan.

68.7% responden mempunyai pinjaman perumahan. 35.4% responden membayar ansuran pinjaman kereta melebihi RM1300.00 sebulan. 41% responden menggunakan kad kredit untuk perbelanjaan harian. 48.3% responden mengatakan mereka menggunakan wang pembiayaan peribadi bagi membayar hutang kad kredit. 62.7% daripada responden mengatakan kesukaran bagi membuat bayaran pembiayaan kad kredit.

Hasil kaji selidik juga mendapati 3% daripada responden telah pun diisytiharkan bankrap. mempunyai status kebankrapan. 45% responden belum bersedia untuk menyimpan sekurang-kurangnya 10% simpanan tetap daripada gaji bulanan. Perkara ini memberi maksud masih ada pekerja yang kekurangan pengetahuan di dalam menguruskan perbelanjaan bulanan. 93% responden adalah terdiri daripada golongan profesional seperti pensyarah, eksekutif, jurutera, guru dan pengurus.

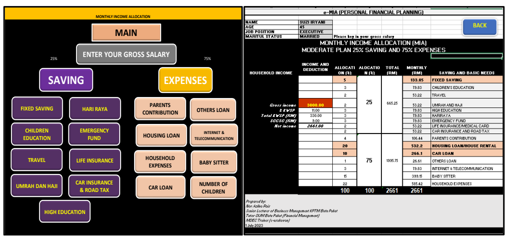
CADANGAN

Bagi mengurangkan risiko kebankrapan, sebuah aplikasi pengurusan kewangan telah dicipta untuk membantu individu yang ingin menguruskan kewangan dengan lebih cekap dan efektif. Aplikasi tersebut dinamakan e-duit bagi membantu membuat agihan pendapatan bulanan secara efisien dan sistematik.

e-Duit

Aplikasi e-duit adalah aplikasi excel di mana ianya sangat mudah digunakan dan mesra pengguna. E-Duit adalah agihan pendapatan yang memfokuskan simpanan sebanyak 25% dan perbelanjaan 75% daripada pendapatan sebulan. E-duit juga telah pun mengambil kira potongan Kumpulan Wang Simpanan Pekerja (KWSP), Socso dan cukai pendapatan.

JADUAL 1: Aplikasi e-Duit



Terdapat dua jenis simpanan iaitu simpanan luarjangka, simpanan dalam jangkaan dan simpanan bagi mencapai impian. Simpanan luarjangkaan diwujudkan bagi menghadapi masalah seperti kerosakan kereta, kerosakan peralatan rumah dan masalah kesihatan yang tidak dijangka. Simpanan kedua pula adalah bagi perkara dalam jangkaan iaitu persiapan persekolahan anak-anak dan persediaan menyambut perayaan . e-Duit juga menyenaraikan simpanan bagi mencapai impian iaitu impian menunaikan ibadah haji dan umrah, menyambung pengajian dan perlancongan. Jadual 1 menunjukkan aplikasi e-Duit. Simpanan luarjangka dan simpanan dalam jangkaan diwujudkan bagi mengelakkan kebergantungan kepada kad kredit dan pembiayaan peribadi.

e-Duit juga menyenaraikan perbelanjaan bulanan termasuk pemberian terhadap ibu bapa bagi mendapatkan keberkatan rezeki, bayaran kemudahan internet dan telekomunikasi, sewaan rumah atau pembayaran ansuran pembiayaan perumahan, bayaran bulanan pembiayaan kereta serta perbelanjaan seisi rumah, pusat asuhan anak-anak dan juga bilangan anak. Sumbangan kepada ibu bapa adalah perlu bagi mendapatkan keberkatan rezeki.

Kaedah lain untuk mengurus kewangan dengan lebih efisien adalah dengan cara mendisiplinkan diri. Jika pengguna mendapati bebanan hutang mereka agak tinggi, mereka patut mengurangkan perbelanjaan dan menghentikan segala hutang. Mereka boleh mencuba untuk menambahkan pendapatan seperti membuat kerja-kerja separuh masa atau memulakan perniagaan yang tidak memerlukan modal yang tinggi. Setiap individu juga perlu membuat senarai perbelanjaan untuk mengesan transaksi wang masuk dan wang keluar.

Tanggungjawab, kawalan nafsu, kekuatan mental dan disiplin diri adalah sangat diperlukan di dalam menguruskan kewangan. Walaupun mempunyai pendapatan yang tinggi, mereka tidak boleh sewenang-wenangnya berbelanja tanpa had, terutama bagi mereka yang telah mempunyai pelbagai hutang. Kegagalan pengurusan kewangan yang berkesan boleh mengakibatkan mereka terjerumus dengan bebanan hutang dan seterusnya menyebabkan kegagalan untuk menyediakan kewangan bagi pendidikan anak-anak ke peringkat kolej atau universiti. Ianya juga boleh menjurus kepada berlakunya tekanan perasaan yang memberi kesan kepada diri, keluarga, dan rakan sekerja.

Dimanakah tempat yang sesuai bagi membuat simpanan wang? Amanah Saham Nasional Berhad dan Lembaga Tabung Haji adalah sebuah organisasi kewangan dan pelaburan yang boleh dipercayai. Setakat ini kedua-dua organisasi ini kekal memberikan agihan pendapatan setiap tahun kepada pelabur. Penyimpanan emas fizikal juga adalah salah satu bentuk pelaburan yang boleh dipertimbangkan. Hal ini demikian, nilai harga emas yang semakin meningkat setiap tahun. Emas boleh dipajak atau dijual bagi ditukarkan dalam bentuk wang tunai. Namun begitu, setiap individu perlu berhati-hati dengan pelaburan yang menjanjikan pulangan yang tinggi dan lumayan.

KESIMPULAN

Golongan profesional terdedah dengan isu kebankrapan kerana adanya kemudahan membuat pinjaman bank dan institusi kewangan. Faktor utama yang mendorong kepada masalah kebankrapan adalah kerana kurangnya pengetahuan ilmu kewangan dan masalah apabila dibuang kerja. Bagi mengatasi masalah ini, setiap individu perlu memantau agihan pendapatan setiap bulan. Mereka juga perlu bijak mengagihkan pendapatan kepada simpanan dan perbelanjaan. Setiap individu perlu ada simpanan tetap sekurang-kurangnya 6 bulan gaji. Aplikasi e-Duit dapat membantu individu mengawal perbelanjaan dan juga membuat simpanan. Pengurusan kewangan peribadi bukan sahaja memberi kepentingan kepada golongan profesional, tetapi adalah untuk kebaikan negara bagi menuju ke arah negara maju.

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PENGGUNAAN KAEDAH SIMULASI PERAKAUNAN DALAM PENYEDIAAN PENYATA KEWANGAN UNTUK KURSUS PERAKAUNAN KEWANGAN 1

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ABSTRAK

Elemen interaktif dalam pengajaran dan pembelajaran (PdP) ke arah memenuhi keperluan pembelajaran abad ke- 21 merupakan satu proses pembelajaran berpusatkan pelajar. Satu usaha ke arah penghasilan pelajar yang memenuhi keperluan alam pekerjaan pada era Revolusi Industri 4.0 (IR 4.0) dengan menerapkan kemahiran teknikal amat digalakkan. Oleh itu, inisiatif bagi menambahbaik PdP kursus Perakaunan di Kolej Profesional MARA Ayer Molek kepada bercorak interaktif dengan menggunakan pendekatan 'blended learning' iaitu melalui kaedah simulasi perakaunan dalam penyediaan penyata kewangan untuk kursus Perakaunan Kewangan 1 telah dijalankan. Program aplikasi Microsoft Excel dipilih dalam aplikasi simulasi perakaunan bagi membolehkan pelajar menyediakan penyata kewangan dengan berpandu kepada proses kitaran perakaunan. Tujuan kajian ini dilaksanakan bagi meningkatkan kefahaman kitaran perakaunan di kalangan pelajar dengan menggunakan kaedah simulasi perakaunan. Kajian ini dijalankan dengan melibatkan 40 orang responden yang terdiri daripada pelajar semester 1 sesi 2 2022/2023 dan sesi 3 2022/2023 dari Kolej Profesional Mara Ayer Molek, Melaka. Justeru itu, kajian ini dilaksanakan melalui kaedah tinjauan dengan menggunakan kaedah pemerhatian dan borang soal selidik skala likert lima pilihan. Hasil analisis dapatan kajian menunjukkan pelajar boleh menyediakan penyata kewangan yang mengandungi penyata untung rugi dan penyata kedudukan kewangan yang lengkap berpandukan proses kitaran perakaunan untuk suatu tempoh masa perakaunan bermula dengan penyediaan dokumen perniagaan.

Kata Kunci*: Simulasi Perakaunan; Subjek Perakaunan; Penyata Kewangan; Perakaunan Kewangan 1*

PENGENALAN

Salah satu program yang ditawarkan di Kolej Profesional Mara Ayer Molek adalah Diploma Perakaunan yang telah mendapat pengiktirafan dari Agensi Kelayakan Malaysia (*Malaysian Qualification Agency*, MQA). Program ini menawarkan kursus Perakaunan Kewangan 1 (*Financial Accounting 1*, FA 1) pada tahun pertama pengajian kepada pelajar semester 1 sebagai permulaan dan memerlukan mereka untuk lulus sebelum meneruskan ke kursus Perakaunan Kewangan 2 (*Financial Accounting 2*, FA 2) dan seterusnya. Kandungan kursus FA 1 merangkumi konsep dan prinsip asas perakaunan, sumber dokumen perniagaan, sistem perekodan dan seterusnya penyediaan penyata kewangan (pelaporan kewangan) yang perlu dikuasai oleh pelajar.

Penguasaan pelajar dalam kandungan kursus sangat penting kerana ia akan memberi kesan kepada pencapaian hasil pembelajaran pada akhir semester. Maka, proses pengajaran dan pembelajaran (PdP) yang berkesan dengan menggunakan pendekatan teknik *'blended learning'* sebagai bahan pengajaran interaktif ke arah pembelajaran sepanjang hayat. Hal ini disebabkan oleh, transformasi sistem pendidikan konvensional kepada sistem pendidikan digital yang seiring dengan era Revolusi Industri 4.0 (IR 4.0) memberi cabaran dalam semua aspek termasuk proses pengajaran dan pembelajaran (PdP), alat bantu mengajar dan teknik pengajaran yang digunakan. Gittings et al. (2020) menyatakan amalan pengajaran yang berkesan membawa kepada peningkatan sikap dan kepuasan pelajar terhadap pembelajaran seterusnya kefahaman pelajar tentang pengetahuan teknikal terhadap konsep dan teori juga dapat diaplikasikan melalui aktiviti pembelajaran melalui pengalaman. Perkara ini juga turut dinyatakan dalam kajian Othman & Annuar (2020) yang menunjukkan keputusan analisa minat pelajar terhadap kursus Perakaunan dan pemahaman pelajar boleh ditingkatkan dengan menggunakan kaedah penyampaian yang lebih mudah difahami oleh pelajar.

Bukan itu sahaja, pembelajaran kini yang mementingkan kemahiran teknikal dalam pendekatan pembelajaran melalui pengalaman juga amat digalakkan. Hasil daripada variasi kaedah pengajaran dan pembelajaran (PdP) yang dijalankan dapat membantu pelajar dalam '*real world skill*' dan berkemampuan menyelesaikan masalah. Butler et al. (2019) juga amat menekankan pembelajaran melalui pengalaman dalam pembangunan kemahiran berfikir, mahir dalam penyelesaian masalah dan boleh mengendalikan isu kompleks dalam amalan perakaunan. Hal ini juga dinyatakan dalam kajian Palatnik dan Previti (2019), mentakrifkan pembelajaran melalui pengalaman sebagai "*development and application of knowledge, skills and values from direct experiences outside of a traditional academic setting*". Ini merujuk kepada definisi pembelajaran berasaskan pengalaman merupakan satu proses pembelajaran yang memberi satu manfaat kepada peningkatan dari segi semua aspek dalam diri pelajar.

Seiring dengan perubahan tersebut, pengajar juga perlu menggalakkan pembelajaran berpusatkan pelajar serta kaedah 'chalk and talk' bukan lagi kaedah yang bersesuaian pada era pendidikan masa kini. Pendekatan pembelajaran berpusatkan pelajar ini menitikberatkan pada peranan aktif pelajar sepanjang sesi pengajaran dan pembelajaran (PdP) di dalam kelas mahupun tugasan di luar kelas. Kajian oleh Johnson et al. (2020) dan Yahaya et al. (2019) menunjukkan bahawa penggunaan pendekatan berpusatkan pelajar (*student-centred*), seperti penggunaan kajian kes dan permainan peranan, dapat meningkatkan pemahaman konsep kitaran perakaunan dan memotivasikan pelajar untuk terlibat secara aktif dalam pembelajaran abad ke-21 (PAK21) yang bukan sahaja merujuk kepada penggunaan gajet, perkakasan dan perisian terkini teknologi tetapi sebenarnya bagaimana pengajar menggalakkan penglibatan pelajar dalam proses pengajaran serta penekanan elemen kemahiran berfikir aras tinggi (KBAT). Perkara ini selaras dengan hasrat yang ingin dicapai dalam Pelan Pembangunan Pendidikan Malaysia 2013-2025, iaitu pengajaran yang berkesan selari dengan keperluan abad ke-21, bukan sahaja dapat menambah pengetahuan dan kemahiran dalam diri mereka, malah pelajar akan berpelakuan lebih positif (Ahmad et al., 2019).

Justeru itu, satu inisiatif sebagai langkah awal dengan pemilihan aplikasi Microsoft Excel dalam mewujudkan simulasi perakaunan yang digunakan sebagai salah satu alat pengajaran dan pembelajaran untuk menyediakan penyata kewangan lengkap dengan berpandukan kepada kitaran perakaunan yang bermula dari dokumen perniagaan sehingga penyata kewangan iaitu Penyata Untung Rugi *(Statement of Profit or Loss)* dan Penyata Kedudukan Kewangan *(Statement of Financial Position)*. Galakan kepada penggunaan teknologi dalam pengajaran dan pembelajaran (PdP) bagi subjek Perakaunan amat disokong oleh semua pihak. Ini dinyatakan dalam kajian yang dijalankan oleh Chen et al. (2021), mengkaji kesan penggunaan simulasi komputer dalam pengajaran kitaran perakaunan dan mendapati bahawa penggunaan teknologi ini dapat memberikan pengalaman praktikal kepada pelajar dan meningkatkan pemahaman konsep yang rumit. Hal ini disebabkan oleh, penggunaan teknologi dalam pendidikan menjadi keperluan dalam menerapkan kemahiran teknikal dalam kalangan pelajar. Idea dalam membentuk sebuah simulasi seperti Sistem Perakaunan Berkomputer seperti UBS dan SQL diperkenalkan melalui kaedah Simulasi Perakaunan agar dapat mencari penyelesaian masalah yang dihadapi dan seterusnya mempraktikkan konsep tersebut dengan berkesan.

REFLEKSI PENGAJARAN DAN PEMBELAJARAN YANG LALU

Kemasukan pelajar ke Kolej Profesional MARA Ayer Molek yang mendaftar bagi Program Perakaunan (Diploma in Accounting) bukan sahaja terdiri daripada pelajar yang mempunyai pengetahuan asas dalam perakaunan, yang mana ia berdasarkan kelayakan akademik yang ditetapkan. Berdasarkan Buku Garis Panduan daripada Bahagian Pendidikan Tinggi MARA (2023), calon yang mendaftar perlu mendapat sekurang-kurangnya kepujian dalam tiga subjek, iaitu Bahasa Melayu, Matematik dan subjek lain serta lulus dengan gred D dalam Bahasa Inggeris. Selain itu, keutamaan akan diberikan kepada calon yang memperolehi gred C dalam subjek Bahasa Inggeris. Pelajar yang mendapat gred D perlu memohon Program Intensif Bahasa Inggeris (IEP) dan wajib lulus sekurang-kurangnya gred C bagi melayakkan mereka untuk memohon masuk ke Program Diploma Perakaunan Kolej Profesional MARA. Selain itu, keutamaan akan diberikan kepada calon yang memperolehi gred C dalam subjek Bahasa Inggeris.

Kepelbagaian latar belakang pendidikan pelajar yang mendaftar menyebabkan kursus Perakaunan dianggap sukar walaupun belum dipelajari, ditambah lagi dengan pandangan sesetengah pihak yang meletakkan persepsi negatif terhadap kursus ini. Bagi pelajar yang lemah, pandangan ini adalah lumrah dalam memahami sesuatu perkara yang baru. Perkara ini tidak dinafikan dengan merujuk kepada kandungan silibus kursus FA1 yang merangkumi enam tajuk iaitu *Introduction to Accounting, Accounting Equation, The Recording Process, Adjustments on Revenues and Expenses, Financial Statements after Adjustment* dan *Bank Reconciliation*. Namun, tanggapan tersebut perlu diubah bagi menjadikan pelajar perakaunan yang mempunyai minat terhadap subjek Perakaunan sejak dari awal lagi dan mencapai keputusan yang cemerlang. Perkara ini ditegaskan oleh Rakow (2019) tentang peranan utama pendidikan bagi menyediakan pelajar untuk berjaya dalam bidang yang dipilih. Kajian yang dijalankan oleh Ahmad & Azman (2020) pula menyatakan bahawa amalan pengajaran pengajar juga memainkan peranan dalam peningkatan kualiti pengajaran bergantung kepada kompetensi seorang guru dalam memastikan keberkesanan pendidikan dengan menggunakan pelbagai kaedah dan pendekatan pengajaran yang berkualiti serta bersesuaian dengan tahap pelajar.

Sehubungan itu, semua kandungan silibus subjek ini perlu didalami oleh pelajar dalam masa 12 minggu akademik iaitu menyamai satu semester. Tajuk yang akan diberi perhatian adalah *The Recording Process,* yang mana tajuk ini meliputi satu kitaran perakaunan yang bermula dari dokumen perniagaan sehingga penyediaan penyata kewangan. Kebanyakan pelajar sukar mengenal pasti sumber dokumen yang betul kerana terdapat pelbagai format atau tiada standard yang spesifik dalam penyediaan sesuatu sumber dokumen seterusnya menyukarkan pelajar untuk mengenal pasti standard dokumen mana yang boleh diguna pakai. Secara praktikal, pengajaran yang berkesan kebiasaannya menggunakan dokumen sebenar bagi membolehkan pelajar menghubungkait apa yang dipelajari di dalam kelas dengan dunia sebenar, hal ini selari dengan kajian Brown (2019) yang menggariskan betapa pentingnya memberikan contoh-contoh realiti dalam pengajaran, seperti menghubungkan kitaran perakaunan dengan transaksi harian dalam perniagaan sebenar.

Galakan diberikan kepada pelajar untuk mengakses dokumen perniagaan melalui internet bukan sesuatu yang mudah kerana terdapat pelbagai format dokumen yang boleh diperolehi daripada sumber yang berlainan. Masalah ini timbul apabila pelajar hanya bergantung kepada hasil carian tetapi tidak mengaplikasikan pengetahuan dalam merekod urusniaga. Razak (2022) menegaskan bahawa kesilapan dalam merekodkan maklumat akan menyebabkan penyata kewangan yang disediakan tidak tepat dan benar seterusnya menjejaskan kesahihan rekod kewangan sesuatu perniagaan. Keputusan tugasan FA 1 pada sesi 1 2023/2024 menunjukkan terdapat dua kumpulan yang hanya mendapat markah sederhana iaitu 15.50% dan 15.32% daripada keseluruhan markah sebanyak 20% kerana kurang penguasaan dalam mengenal pasti dokumen perniagaan yang diberikan, memindahkan maklumat ke Buku Catatan Pertama, Buku Tunai dan mengepos ke Lejar, Imbangan Duga dan Penyata Kewangan. Topik ini selalunya dimasukkan di dalam silibus sebagai topik pengenalan kepada para pelajar yang baru mengikuti kursus Perakaunan di peringkat diploma, matrikulasi atau program yang ditawarkan di universiti dan kolej.

Tambahan lagi, berdasarkan Laporan Peperiksaan Sijil Tinggi Persekolahan Malaysia (STPM) dan Malaysian University English Test (MUET) bagi tahun 2021, merujuk kepada subjek Perakaunan juga menunjukkan seramai 2,200 calon menduduki peperiksaan bagi mata pelajaran Perakaunan dan 60.33% daripadanya telah mendapat lulus penuh. Secara umumnya, komen yang dinyatakan adalah mutu jawapan calon secara keseluruhannya adalah memuaskan. Masalah utama calon yang dikenal pasti dalam kertas 1, ialah calon tidak dapat menghitung pelarasan asas, penyediaan penyata pendapatan dan penyata kedudukan kewangan, pengelasan liabiliti, serta kemahiran menyediakan catatan jurnal pelarasan. Jika catatan jurnal iaitu proses kedua dalam kitaran perakaunan tidak dapat disediakan dengan lengkap oleh pelajar, hatta begitu juga dalam penyediaan penyata kewangan (pelaporan kewangan). Manakala, pelajar Diploma Akauntansi di Politeknik Hulu Terengganu juga menghadapi masalah membezakan penggunaan dan kedudukan debit dan kredit kerana keputusan penilaian berterusan pada awal semester kurang memuaskan terutama pada topik sistem catatan bergu (Othman & Annuar., 2020).

Perkara ini jelas menunjukkan penguasaan pelajar dalam topik yang berkaitan tidak menepati apa yang diingini dalam objektif pembelajaran. Punca daripada masalah ini, disebabkan pemahaman prinsip dan konsep amat penting terutamanya dalam bahagian asas, kerana asas yang tidak kukuh akan berpotensi memberikan masalah kepada proses pembelajaran akan datang. Dalam pembentukan asas yang kukuh, peranan guru amat penting dalam menyediakan kaedah dan pendekatan yang sesuai yang dapat membina pemahaman yang kukuh dalam kalangan pelajar (Fadzillah & Bahari, 2019). Jadi, masa mengajar tajuk ini memerlukan sekurang-kurangnya 8 jam, yang mana ia tidak mencukupi untuk melengkapkan satu kitaran perakaunan jika proses pengajaran dan pembelajaran (PdP) yang dijalankan masih menggunakan kaedah manual (bertulis) atau tradisional. Kaedah ini bukan sahaja tidak praktikal pada masa kini malah tidak digemari oleh pelajar kerana mereka tidak dapat mengimbas kembali apa yang ditulis di papan putih dan memerlukan mereka menggunakan kertas kajang yang banyak. Bukan itu sahaja, masa untuk menyediakan rangka atau format Buku Catatan Pertama, Lejar, Imbangan Duga dan Penyata Kewangan memerlukan masa penyediaan.

ISU/FOKUS KAJIAN

Kajian ini dapat mengenalpasti beberapa isu, iaitu :

1. Pelajar sukar membayangkan situasi sebenar proses kitaran perakaunan berlaku secara praktikal.
2. Pelajar menghafal tanpa memahami konsep penyediaan penyata kewangan.

OBJEKTIF KAJIAN

Objektif kajian dilaksanakan adalah untuk meningkatkan kefahaman kitaran perakaunan di kalangan pelajar dengan penggunaan simulasi perakaunan. Selepas aplikasi simulasi perakaunan dihasilkan, kajian ini dilaksanakan untuk :

1. Memudahkan pelajar mengenal pasti dan memberi gambaran situasi sebenar

mengenai dokumen perniagaan dan penyediaan penyata kewangan/pelaporan kewangan.

2. Memperbaiki amalan pengajaran pensyarah agar proses pengajaran dan pembelajaran dilakukan dengan lebih berkesan dan menyeronokkan.

KUMPULAN SASARAN

Kajian penggunaan kaedah simulasi perakaunan dalam penyediaan penyata kewangan untuk kursus Perakaunan Kewangan 1 (FA 1) di Kolej Profesional Mara Ayer Molek dilaksanakan terhadap pelajar-pelajar semester 1 Program Diploma Perakaunan. Pelajar-pelajar ini dipilih berdasarkan bilangan pelajar yang sedang mengambil kursus Perakaunan Kewangan 1 (FA1) iaitu seramai 40 orang, yang mana terdiri daripada 22 orang dari Sesi 2 2022/2023 dan 18 orang dari Sesi 3 2022/2023.

PELAKSANAAN KAJIAN

Kajian tindakan terhadap penggunaan kaedah Simulasi Perakaunan dalam penyediaan penyata kewangan untuk kursus Perakaunan Kewangan 1 ini dijalankan melibatkan proses pengumpulan data dan menganalisis data yang diperoleh daripada instrumen yang digunakan.

Dalam kajian tindakan ini, instrumen yang digunakan dalam proses pengumpulan data, adalah:

1. Soal Selidik: Soal selidik yang disediakan berdasarkan objektif dan masalah kajian. Soal selidik ini diberikan kepada pelajar menggunakan *Google Form*.
2. Pemerhatian: Pemerhatian yang dilakukan dengan menggunakan telefon bimbit (video dan kamera) dan borang penilaian pengajaran dan pembelajaran.

DAPATAN KAJIAN

Data yang diperolehi daripada borang soal selidik dan borang penilaian pengajaran dan pembelajaran adalah seperti berikut:

1. Borang Soal Selidik: Soal selidik ini disediakan untuk menilai pengajaran dan pembelajaran (PdP) menggunakan simulasi perakaunan. Borang ini diedarkan kepada 40 orang responden yang dipilih setelah selesai pengajaran dan pembelajaran (PdP) bagi tajuk *The Recording Process* menggunakan simulasi perakaunan, yang mana kelas bagi tempoh pelaksanaan tersebut dibuat di makmal komputer. Dapatan yang diperolehi daripada kedua-dua semester ditunjukkan melalui jadual 1, 2, 3 dan 4 bagi 10 soalan dalam soal selidik yang disediakan. Hanya empat soalan dalam borang soal selidik ini menggunakan borang soal selidik skala likert lima pilihan (1 : Tidak Bersetuju, 2 : Kurang Bersetuju, 3 : Sederhana, 4 : Bersetuju, 5 : Sangat Bersetuju) untuk melihat keberkesanan kaedah Simulasi Perakaunan terhadap pelajar dalam penyediaan penyata kewangan lengkap dengan berpandukan kepada kitaran perakaunan. Jadual di bawah menunjukkan dapatan yang diperolehi daripada 10 soalan dalam borang soal selidik yang bertajuk Instrumen Penilaian Simulasi Perakaunan Bagi Pelajar Diploma Perakaunan di Kolej Profesional Mara Ayer Molek.

JADUAL 1: Dapatan bagi soalan 1, 2, 3 dan 5

No	Soalan	Ya	Tidak	Mungkin
1	Adakah anda mempunyai ilmu asas dalam kursus Perakaunan?	25 (62.5%)	15 (37.5%)	0 (0%)
2	Adakah anda menghadapi kesukaran untuk memahami/menguasai topik asas kitaran perakaunan (tidak termasuk pelarasan)?	5 (12.5%)	18 (45%)	17 (42.5%)
3	Adakah anda menghadapi kesukaran dalam merekod urusniaga mengikut kitaran perakaunan?	4 (10%)	19 (47.5%)	17 (42.5%)
5	Adakah kaedah Simulasi Perakaunan yang diperkenalkan bersesuaian dengan kaedah pembelajaran masa kini?	40 (100%)	0 (0%)	0 (0%)

JADUAL 2: Dapatan bagi soalan 4

No	Soalan	Secara manual (bertulis)	Sistem komputer (Accounting Simulation, SQL, UBS dan lain-lain aplikasi)	Gabungan manual dan berkomputer
4	Pada pendapat anda, apakah kaedah yang sesuai digunakan untuk meningkatkan kemahiran dalam merekod urusniaga sesuatu perniagaan?	2 (5%)	13 (32.5%)	25 (62.5%)

JADUAL 3: Dapatan bagi soalan 6, 7, 8 dan 9

No	Soalan	1	2	3	4	5
6	Saya terlibat secara aktif semasa aktiviti Simulasi Perakaunan dijalankan.	0 (0%)	0 (0%)	2 (5%)	8 (20%)	30 (75%)
7	Pengetahuan dan kefahaman saya meningkat hasil dari penggunaan Simulasi Perakaunan untuk kursus Perakaunan Kewangan 1.	0 (0%)	0 (0%)	1 (2.5%)	13 (32.5%)	26 (65%)
8	Kemahiran saya meningkat untuk merekod urusniaga perniagaan selepas menggunakan kaedah Simulasi Perakaunan.	0 (0%)	0 (0%)	2 (5%)	12 (30%)	26 (65%)

9	Saya seronok mempelajari dan menggunakan Simulasi Perakaunan untuk kursus Perakaunan Kewangan 1 ini.	0 (0%)	0 (0%)	0 (0%)	4 (10%)	36 (90%)

JADUAL 4: Dapatan bagi soalan 10

Bil	Cadangan / Ulasan
1	Menyeronokkan
2	Perlu banyak waktu simulasi
3	Saya ingin menggunakan sistem komputer
4	Ajar banyak lagi tentang simulasi perakaunan
5	Mengadakan simulasi perakaunan setiap semester
6	Saya mencadangkan menggunakan simulasi perakaunan dalam sesi pembelajaran dan menyiapkan tugasan kerja

Respon yang diperoleh daripada 40 orang responden kajian dalam jadual di atas menunjukkan majoriti pelajar memberikan komen yang positif terhadap penggunaan kaedah Simulasi Perakaunan dalam penyediaan penyata kewangan untuk kursus Perakaunan Kewangan 1. Berdasarkan cadangan pelajar di atas menunjukkan pelajar dapat meningkatkan kefahaman terhadap kitaran perakaunan dengan menggunakan teknik pengajaran yang berkesan dan menyeronokkan selain memberi gambaran situasi sebenar mengenai dokumen perniagaan dan penyediaan penyata kewangan/pelaporan kewangan. Kajian oleh Ahmad et al. (2020), ini menyumbangkan perspektif pelajar terhadap amalan pengajaran guru yang dapat dijadikan salah satu daripada penanda aras keberkesanan guru berbanding penanda aras yang lain, di mana ianya harus diambil perhatian kerana pelajar merupakan penerima kepada penyampaian pengajaran guru yang mana maklum balas mereka perlu dititikberatkan dalam proses pengajaran dan pembelajaran.

2. Borang Penilaian Pengajaran dan Pembelajaran: Berdasarkan penilaian pengajaran dan pengajaran (PdP) yang dibuat ke atas pensyarah yang menggunakan simulasi perakaunan dalam kursus Perakaunan Kewangan 1 menunjukkan pencapaian yang sangat baik iaitu sebanyak 96.67% diberi oleh pemantau. Secara keseluruhannya, ulasan yang diberikan kepada pensyarah menunjukkan simulasi perakaunan yang dilakukan di dalam kelas dapat menarik minat pelajar dalam penyediaan penyata kewangan serta menjadikan proses pengajaran dan pembelajaran yang interaktif. Jadual 5 di bawah menunjukkan pengiraan skor dan pencapaian secara terperinci yang diperoleh daripada borang instrumen penilaian pengajaran dan pembelajaran.

JADUAL 5: Dapatan borang penilaian pengajaran dan pembelajaran

Bahagian	Skor
Bahagian C : Pengurusan dan Pembangunan Pelajar di Dalam Kelas	15

Bahagian D : Pelaksanaan Pengajaran dan Pembelajaran (PdP) : Pensyarah Pelajar	 29 14

KESIMPULAN DAN CADANGAN KAJIAN AKAN DATANG

Berdasarkan visi MARA dalam sektor pendidikan, sebagai persiapan ke arah memperkasakan modal insan sejajar dengan keperluan negara terutama dalam bidang perakaunan, setiap pelajar perlu bersedia untuk melengkapkan diri dengan ilmu, kemahiran dan pengalaman dalam merekod urusniaga perakaunan menggunakan sistem perakaunan berkomputer. Hal ini bagi membolehkan pelajar memahami konsep dan prinsip asas perakaunan, sumber dokumen yang digunakan dalam urusniaga, perekodan seterusnya penyediaan penyata kewangan. Justeru itu, simulasi perakaunan perlu dilaksanakan seawal semester 1 dalam subjek Perakaunan Kewangan 1 untuk proses pengajaran dan pembelajaran dapat dilakukan dengan lebih berkesan dan menyeronokkan. Pengkaji juga mencadangkan agar kajian lanjutan dijalankan penggunaan kaedah simulasi perakaunan terhadap kursus lain.

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GEOGEBRA'S IMPACT ON STUDENT PERFORMANCE IN 3D LINES AND PLANES AMONG MAA HL IB STUDENTS

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ABSTRACT

One of the subtopics of vectors in the Mathematics Analysis and Approaches at Higher Level (MAA HL) curriculum of the International Baccalaureate Diploma Program (IBDP) is the study of lines and planes in three-dimensional (3D). According to May 2022 and 2021 IB examination reports, student's difficulty with three-dimensional lines and planes. These challenges included locating the intersection of 3D lines, calculating the distance between 3D lines and planes, and solving vector problems geometrically. The objective of this action research is to assess the impact of the GeoGebra software on students' performance in quizzes and test on 3D lines and planes. The research used two Kolej Mara Banting IBDP student groups. The control group had 56 students and the experimental group 58. Welch's test showed that the experimental group mean marks were significantly greater than control group marks in all quizzes and post-test. According to the results of an informal questionnaire, a majority of the students in the experimental group (81%) reported that the use of GeoGebra had an excellent impact on their post-test scores.

Keywords*: vector; three dimensional; GeoGebra Software; lines and planes; Welch's test*

INTRODUCTION

The integration of technology is a fundamental component within the context of International Baccalaureate Diploma Program (IBDP) mathematics courses. One of the goals of the courses is to help students get an understanding of how technological and mathematical advancements have influenced one another, and one of the evaluation goals is to help students use technology effectively, appropriately, and efficiently to explore new ideas and solve problems. Using technology to teach and study mathematics successfully requires a delicate balance between both teacher and student use, as well as the thoughtful selection of technology to promote understanding and communication of the mathematics itself.

A significant number of the topics included in the International Baccalaureate Diploma Program (DP) mathematics curriculum demonstrate a high level of compatibility with the integration of technology tools. One of the topics under consideration is the study of Geometry and Trigonometry, with a specific focus on the properties and characteristics of lines and planes within a three-dimensional space. This particular subtopic combines information about lines, the intersection of lines, as well as the -intersection of lines and planes, and the intersection of planes with other planes.

GeoGebra is a freely available interactive software tool that may be obtained from the official website, www.geogebra.com. A plethora of research studies have provided evidence that the utilization of GeoGebra software has the potential to enhance academic achievement among students spanning various grade levels and disciplines. This software, designed with a user-friendly interface, enables students to quickly and effectively visualize abstract mathematical concepts. Through its mathematical functions and graphical representations, GeoGebra software can help teachers improve students' understanding of mathematical concepts (Hutkemri & Zakaria, 2012; Zulnaidi & Zakaria, 2017), and GeoGebra was more beneficial for students with integrated thinking, particularly for conceptual knowledge (Mohammad Latifi (2021). Sariyasa (2017) and Murni et al. (2017) claimed that the utilization of GeoGebra promotes active students' involvement in the educational experience through the facilitation of interactive exploration. According to a research conducted by Marie Sagesse Uwurukundo in 2022, GeoGebra enhances students' attitudes toward learning 3-D geometry. While Edmore Mukamba (2020) claimed that the use of GeoGebra enhanced students' performance in geometric transformation more than traditional methods. The GeoGebra-based approach to learning calculus also had a positive effect on students' proficiency (Tola Bekene Bedada, 2022). Nevertheless, despite the numerous advantages associated with the utilization of geometry, there remains a conspicuous absence of its incorporation into educational curricula at the school and college levels. (Untarti & Kusuma, 2018; Wahyuni & Rahmadhani, 2019).

The primary objective of integrating GeoGebra software into the teaching of 3D lines and planes is to reinforce the fundamental principles of mathematical inquiry and mathematical modeling, with the ultimate goal of enhancing students' academic achievement. Moreover, the primary aim of this effort is to offer educational chances to students possessing diverse levels of mathematical aptitude and proficiency, with the ultimate goal of developing their independence and critical thinking abilities through time. Therefore, the objective of our study is to assess the impact of this technology on the academic achievement of students in the context of the International Baccalaureate (IB) curriculum, specifically concentrating on the topic of lines and planes.

REFLECTION ON PAST PRACTICES

In order to be eligible for enrollment in this program, students are required to get a minimum grade of A in both Mathematics and Additional Mathematics in their SPM examination. Therefore, it can be inferred that the KMB's students possess a strong foundation in mathematics.

From the observation, mastering geometry can be difficult, and many students fail to develop a solid understanding of geometry and vector ideas (Battisa, 1999; Idris, 2006). Geometry, according to Noraini Idris (2006), necessitates visualizing ability; however, many pupils struggle to visualize three-dimensional objects from a two-dimensional perspective. Furthermore, a plane is a geometric idea that does not exist in the real world, but it may be represented by any flat surface, such as a white board or a table. As a result, vectors and planes are difficult to comprehend and visualize. Traditionally, geometry concepts are taught using chalk, pencil, and paper, resulting in students finding it difficult to produce geometrical representations correctly (Sariyasa, 2016).

With a teaching experience spanning more than twenty years, we previously aimed to illustrate the principles of vectors and lines by utilizing a model constructed from cardboard and wooden sticks. The model is explained as below.

FIGURE 1: The using of three types of cardboard with the scale

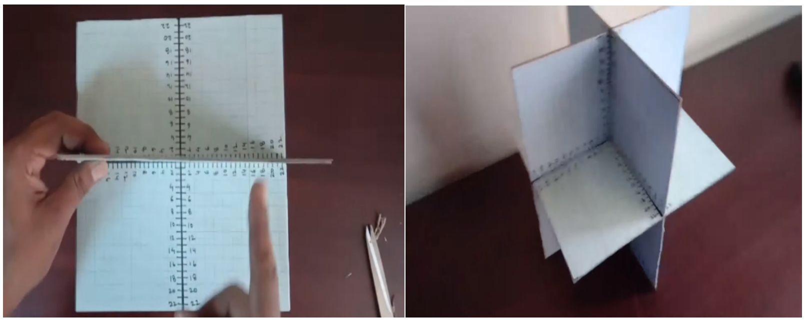
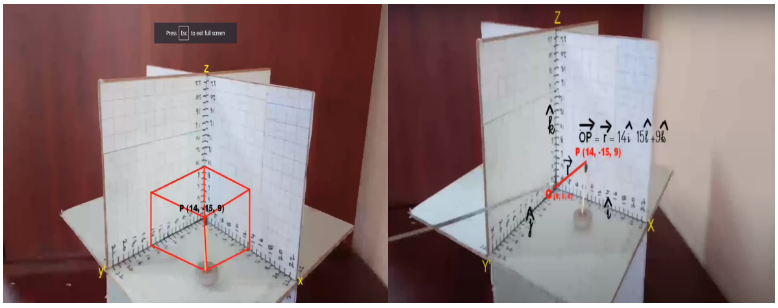


FIGURE 2: The using of sticks to build rectangle and lines



Based on Figure 1 and 2, we encountered a lot of technical issues when using this hand-made model in math class (batch 2019–2021). The handcrafted model exhibited both durability and challenges in terms of transportation to the classroom due to its substantial and delicate dimensions. The dimensions of the model occasionally proved unsuitable for presentation in specific classroom settings, rendering it incapable of effectively representing three-dimensional planes. As a result of several restrictions and limitations, we made the decision to discontinue the utilization of this strategy and revert to traditional instructional methods. However, it is important to note that the outbreak took place in 2020, necessitating the need for online instruction for this course. Throughout this challenging period, we have acquired proficiency in a diverse range of mathematical software applications, which have proven important in enhancing students' understanding, particularly in the context of lines and planes.

GEOGEBRA SOFTWARE

GeoGebra was developed by Markus Hohenwarter, an esteemed faculty member in the Department of Mathematics at the University of Atlanta, Frida, United States, during the initial years of the 21st century (Reis, 2010). It fulfills two primary objectives: geometry and algebra (which encompasses calculus).

FIGURE 3: GeoGebra's user interface

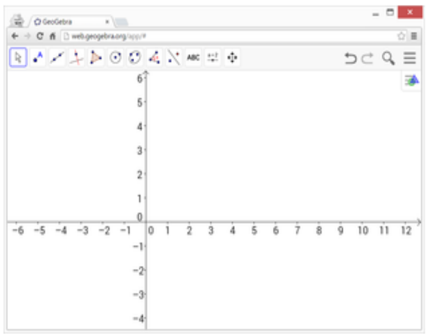
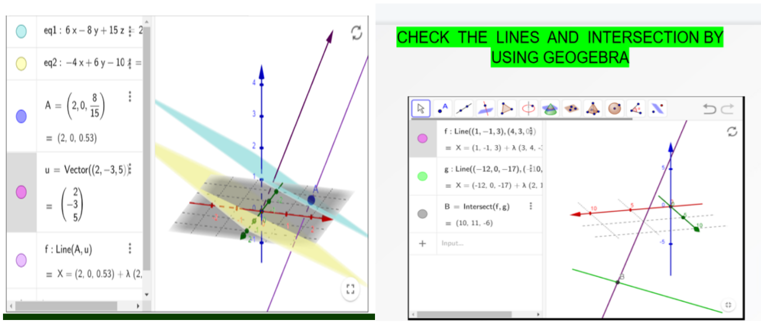


FIGURE 4: Drawing two parallel planes and skew lines



Based on Figure 3 and 4, GeoGebra is recognized as an outstanding educational resource in MAA HL. Figures 3 and 4's diagram makes clear that this dynamic software has the ability to generate and build a variety of geometric objects, including points, lines, planes, polygons, and curves, in a dynamic and simple way. According to Hallal et al. (2016), the utilization of mathematical expressions within GeoGebra software facilitates a more artistic, inventive, innovative, energetic, and dynamic approach for students to grasp different ideas related to lines and planes.

RESEARCH OBJECTIVES

The aim of this study is to assess the influence of GeoGebra Software on student academic performance within the domain of lines and planes in three-dimensional space. The aims that have been explicitly mentioned are as follows:

1. Assess the existence of a statistically significant difference in the fundamental understanding of Lines and Planes between the Control and Experimental groups.
2. Evaluate the presence of a statistically significant difference in achievement between the control and experimental groups following the adoption of GeoGebra software.

METHODOLOGY

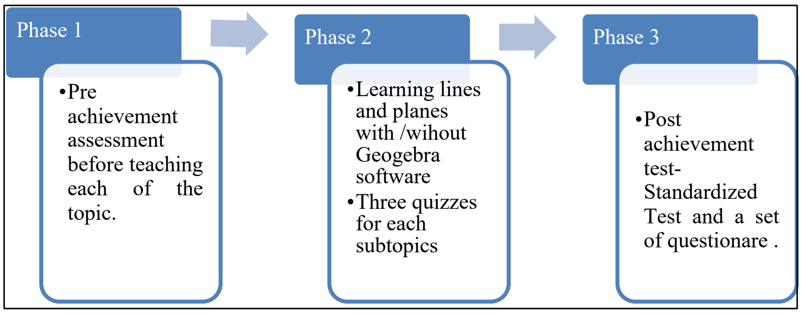
The study employed an action research methodology and focused on a cohort of second-year students that were enrolled at Kolej Mara Banting. The research comprised of two groups of students, encompassing a combined total of 56 participants from the experimental group and 58 participants in the control group. This study was conducted during the designated formal academic hours as outlined in the scheme of work for the batch of 2021-2023.The recommended duration of learning lines and planes is 15 hours, which is equivalent to approximately 4 weeks. During the specified time period, the instructional session covered the material outlined in sections 3.14 to 3.18 of Chapter 3, as specified in the MAA HL syllabus.

The research used a pre- and post-test approach for the purpose of conducting action research. Traditional teaching methods were used to teach the control group, whereas GeoGebra software was used to instruct the experimental group. Nevertheless, both groups were granted permission to utilize the designated calculator for the International Baccalaureate examination, namely the Graphic Display Calculator (GDC).

A statistically significant difference in mean results between the control group and the experimental group was observed across all quizzes and tests subsequent to the use of GeoGebra software inside the classroom setting. The study employed the unequal variance Left Tailed T test, also known as Welch's test, to compare the marks of the experimental group with those of the control group.

Figure 5 illustrates the three different phases of the research process. Pre-achievement tests were provided to both groups in the first step of this process to assess their understanding of the concept of lines and planes in three dimensions.

FIGURE 5: Summary of the research procedure



Based on Figure 5, the study encompasses three key subjects that had been addressed. The initial subject matter (Phase 1) pertains to the fundamental equations of lines, which are generally referred to as the Basis Equation of Lines. The subsequent topic delves into the study of lines within three-dimensional space, while the final topic covers the characteristics and properties of three-dimensional planes. The second stage (Phase 2) involves the acquisition of knowledge by the experimental group through the utilization of GeoGebra, whereas the control group employs traditional methodologies. A brief quiz was administered following each class session. A total of nine quizzes were administered, with same sets of questions given to both groups.

The last step in phase 3 entails administering a post-performance assessment or standardized test to both the experimental and control groups. The post-test questions utilized in this study were obtained from examination questions of the International Baccalaureate (IB) program. The allotted time for the examination was established at 120 minutes. The examination was administered simultaneously on the specified date and time, encompassing all three subjects. At the end of the study, a set of survey questionnaires were conducted to ascertain whether the use of GeoGebra has a significant impact on the academic performance of students, specifically in relation to their exam marks in the topic of the study of lines and planes. The survey was conducted with the aim of offering supplementary evidence supporting the acquired findings.

There are related competences for each topic in this study. The competencies pertaining to the first topic, specifically points and lines, involve the ability to ascertain perpendicular and intersecting lines inside two-dimensional and three-dimensional spaces. Additionally, these competencies encompass the capability to calculate the shortest distance between points and lines. The competencies pertaining to the second topic, specifically lines and lines, involve the ability to assess whether two lines are parallel, skew, or coincident, as well as the capacity to determine the distance between two skew lines. The competencies pertaining to the third topic, namely three-dimensional planes, involve the ability to ascertain the characteristics of points and lines inside the plane, as well as the capacity to manipulate and solve equations related to the three-dimensional plane.

This study utilizes the two-sample Welch's t-test, a statistical test, to ascertain the statistical significance of the change in the mean.

DATA ANALYSIS

The IB grading scale ranges from 1 to 7, with 7 being the highest mark. Table 1 displays the grade descriptions based on the range of marks used in the pre-test and post-test.

TABLE 1: Grade descriptors

		Range marks	
Descriptors	**Grade**	**Pre-test**	**Post-test**
Excellent	Grade 7	20-25	32-40
Very good	Grade 6	17-19	27-31
Good	Grade 5	13-16	22-26
Satisfactory	Grade 4	10-12	16-21
Mediocre	Grade 3	7-9	15-11
Poor	Grade 2	5-6	8-10
Very poor	Grade 1	4 and below	7 and below

Based on the data presented in Table 1, it can be observed that a grade of seven is indicative of an outstanding level of performance, whereas grades five and six can be classified as achieving the minimum performance standards. The academic performance of students in fourth grade necessitates significant improvement, whereas students in grade three and below are considered to have not achieved satisfactory levels of accomplishment. Therefore, students who have achieved a grade of four or lower need improvement.

PRE-TEST: RESULT AND ANALYSIS

Before introducing each sub-topic, the researchers conducts a pre-test. The purpose of this evaluation is to assess the students' basic understanding of lines and planes.

TABLE 2: Topic 1's result

	Basic equation of line			
	Topic 1			
grade	Control group	%	Experimental group	%
7	8	15.15	10	17.95
6	12	21.21	12	20.51
5	19	33.33	22	38.46
4	12	21.21	6	10.26
3	5	9.09	7	12.82
Total	56		58	
Mean	5.12		5.21	

According to the provided data in Table 2, the average grade obtained by the experimental group in the test pertaining to topic 1 is 5.21. This value is marginally higher than the average grade achieved by the control group. The proportion of students who attain scores below 4 or at below average levels in the control group is significantly larger than that in the experimental group. The percentage of students who complete grades 6 and 7 is, however, nearly identical. In general, students in both groups exhibit an equal level of comprehension on the topic of the equation of a line.

As shown in table 3, the average score on pre-test topic 2 for both groups is a grade 5. Both groups have a comparable proportion of pupils who attain grades three through seven. Both groups of students exhibit an equivalent level of fundamental knowledge regarding the extension of equations of lines.

TABLE 3: Topic 2's result

	Lines in three Dimensional			
	Topic 2			
grade	Control group	%	Experimental group	%
7	12	21.21	9	15.38
6	8	15.15	10	17.95
5	19	33.33	22	38.46
4	8	15.15	7	12.82
3	8	15.15	9	15.38
	56	100	58	100
	5.12		5.05	

The mean value for the topic pertaining to equation of planes, namely topic 3, is comparatively lower than the mean values observed for topics 1 and 2. In the control group, 63% of students demonstrated a satisfactory understanding of the fundamental concepts related to the equation of a plane, whereas in the experimental group, this figure was just 57%.The average grade for the control group is marginally higher than that of the experimental group, while both groups exhibit equivalent grades.

TABLE 4: Topic 3's result

	Equation of plane			
	Topic 3			
grade	Control group	%	Experimental group	%
7	7	12.12	4	7.69
6	8	15.15	4	7.69
5	20	36.36	25	43.59
4	15	27.27	18	30.77
3	5	9.09	6	10.26
	56	100	58	100
	4.94		4.72	

TABLE 5: Mean and standard deviation in pre-test

	MEAN		**STANDARD DEVIATION**		**Total Marks**
	Control groups	**Experimental groups**	**Control groups**	**Experimental groups**	
Topic1: Basic equation of line	14.2	14.85	5.18	4.4	25
Topic 2: Line in three dimensional	14.8	13.6	4.97	4.09	25
Topic 3: Equation of plane	12.76	11.26	4.4	6.17	25

According to Table 5, the experimental groups for the topic of the basic equation of line have a marginally higher mean than the control groups. However, in topic 2, line in three-dimensional space, the control group's mean is greater than the experimental group's mean. In comparison to the control group, the mean score on the pre-test for the topic of plane equations for the control group is 15, which can be classified as a satisfactory performance. The mean for the control group is only 11.26, or in grade four or satisfactory achievement.

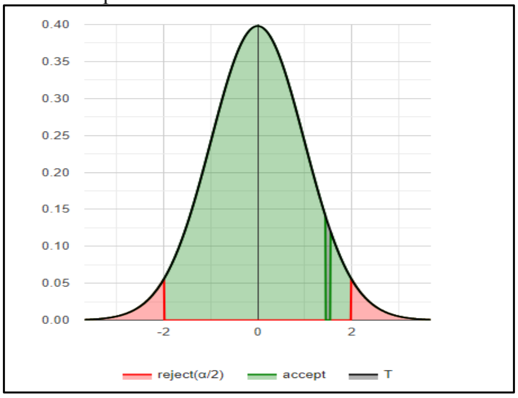
Two tailed Two sample T test for Unequal Variance was employed to make conclusion about difference in mean and standard deviation correspond to both groups in Pre-test. The hypothesis stated as below:

1. Null hypothesis: $x_C = x_E$
2. Mean pretest marks for control group and experimental group is same.
3. Alternative hypothesis $x_C \neq x_E$
4. Mean pre-test marks for control group and experimental group is not equal

TABLE 6: Comparison level of performance both group in pre knowledge or before utilization of GeoGebra

	Topic 1	**Topic 2**	**Topic 3**
P value	0.2363 (23.63%)	0.9185(91.85%)	0.9315(93.15%)
T value	-0.7209 Acceptance region T > -1.49	1.405 Acceptance region T > -1.417	1.4984 Acceptance region T > -1.66
	We accept the null hypothesis because, based on the results above and Figure 2, P value is bigger than 0.05 or 5%. There is evidence that, at the 5% level, students in both groups perform equally on all topics. Both groups have grade 5 or good understanding for the lines in three dimensional, and grade 4 for three-dimensional planes.		

FIGURE 6: Two tailed T test pre-test



POST TEST: RESULT AND ANALYSIS

The software GeoGebra was exclusively employed for classroom use pertaining to the topics of lines and planes, and was not utilized during assessments such as quizzes or examinations. GeoGebra was only used when absolutely essential or when a more detailed diagram was required to clarify a concept when solving problems from a revision set. There were two different types of assessments: quick tests and standardized exams.

QUIZZES

There were three quizzes given for each topic, with the average scores listed in table 7. The brief test was administered immediately following double period or twice a week. Students presented and engaged the class in discussion on the answers to each quiz questions.

TABLE 7: Quizzes' results

	Basic Equation of Lines		**Lines in three-dimensional**		**Three-dimensional planes**	
	control group	experimental group	control group	experimental group	control group	experimental group
Sub Topic	Direction vector for lines and point on the line. (vector Equation of lines in three dimensional)		Parallel, distinct and same lines.		Direction vector for planes, lines and point on the plane.	
Mean	5.72	6.22	5.83	6.03	4.45	5.8
Sub Topic	Equation of line in vector, parametric or Cartesian form		Problem solving involve skew lines		Distance and angle between two parallel planes.	
Mean	6.03	6.52	6.12	6.34	5.2	6.7
Sub Topic	Distance between point and line and angle between two lines		Kinematic and vector application		Intersection between two and three planes	
Mean	6.22	6.72	6.32	6.63	5.78	7.8
Mean total	5.99	6.49	6.09	6.33	5.14	6.77
Standard deviation	1.02	0.98	0.55	0.6	2.02	2.5
Total marks	10	10	10	10	10	10

According to the Table 7, it can be observed that the topic with the lowest mean corresponds to planes and their basic concepts. However, the students in the experimental group exhibited significant improvement in their performance on the subsequent two quizzes. The experimental group exhibits the highest mean in the area of the intersection of planes, while the control group has the highest mean in the area of skew lines. However, we cannot conclude the sample which corresponds to experimental group has the higher mean than the sample corresponding to control group. Thus, we tested used the Unequal Variance T Test or Welch's t test with the following hypothesis:

1. Null hypothesis: Mean of Quizzes in each topic in Control group is equal to mean of quizzes in Experimental group.
2. Alternative hypothesis: Mean of Quizzes in each topic in Control group is smaller than mean of quizzes in Experimental group.

TABLE 8: T test for quizzes

	P value	**Test Statistics, T**	**95% acceptance Region**
Topic 1	0.0406(4.06 %)	-1.7694	T > -0.3952
Topic 2	0.0342 (3.42%)	-1.85	T > -0.2161
Topic 3	0.0259 (2.53%)	-1.984	T > -0.882

As in above table, p value is less than 0.05 and T values are not in the acceptance region. Thus, we reject null hypothesis or we cannot say the mean marks for both groups are equal. There is significance difference between that group and mean for control group is statistically smaller than the mean marks in experimental group.

We can conclude that the integration of GeoGebra software into the teaching syllabus for three-dimensional (3D) geometry has demonstrated a positive impact on students' achievement and learning experiences.

POST-TEST: RESULT AND ANALYSIS

Based on the data presented in the table 9, it can be observed that 33.33 percent of the students in the experimental group attained a grade of 7 or demonstrated excellent performance in the equation of a line, whereas only 18.18 percent of the students in the control group achieved the same level of performance. The percentage of failures or grade 3 outcomes in the experimental group is comparatively lower than that observed in the control group.

TABLE 9: The result of the post-test for topic 1

	Basic equation of line			
	Topic 1			
grade	Control group	%	Experimental group	%
7	10	18.18	19	33.33
6	20	36.36	21	35.9
5	10	18.18	10	17.95
4	7	12.12	4	7.69
3	8	15.15	3	5.13
Total	56	100	58	100

TABLE 10: Score analysis for each question in topic 1

Question number	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Total Marks	3	4	4	9	7	13	40
Mean marks for control groups	2.5	3.4	3.26	5.62	5.96	5.45	26.15 (65.4%)
Mean group for experimental group	2.7	3.6	3.52	5.9	5.75	6.82	28.33 (70.8%)

There were six questions on the topic of lines in this test, worth a total of 40 marks. The total score for question 1 is 3, and the mean of the control group is slightly greater than the mean of the experimental group. The first question examined whether parallel and coincident lines have parallel direction vectors. Both groups were able to respond correctly and received perfect scores. This question does not directly assess the impact of GeoGebra software.

The mean score on question 2 for the control group is 3.4, while the mean score for the experimental group is only 3.6. Many students lost one point on question 2 for failing to identify either the line intersection or the distorted line. In question 3, however, they neglected the concept of the unit vector. They lost points for this section. With a mean score of 3.52, students in the experimental group perform marginally better than those in the control group. They can envision the axis as a line with a direction vector and a point on the line. The utilization of GeoGebra software and the completion of in-class exercises greatly facilitated their ability to tackle this particular question.

Students were unable to figure out the z-axis line equation for question 4.. Consequently, the mean marks for both groups are 5.62 and 5.9 out of a possible 9. Nonetheless, they performed admirably in sections b and c, or they understood how to locate a point on a line given its length. The experimental group's performance is superior to that of the control group.

Both groups scored well on question 5, which was worth a maximum of 7 points. A good comprehension of the concept of length from point to line was demonstrated. Part c of question 6 is the most challenging question. The students must envision two points of the same length on a single line. Students in the experimental group perform slightly better than those in the control group.

There are four questions pertaining in Topic 2. The number of pupils performing at the highest level is approximately equal in both groups. However, the experimental group of students achieved a 6-grade score that was 18% higher compared to the control group. In the experimental group, 55 percent of students were able to attain a very good performance, whereas in the control group, only 36 percent of students were able to achieve the same level of performance. The experimental group also exhibited a reduced percentage of students achieving grades 4 and below.

TABLE 11: The result of the post-test for topic 2

	Three-dimensional line			
	Topic 2			
grade	Control group	%	Experimental group	%
7	14	24.24	15	25.64
6	7	12.12	18	30.77
5	20	36.36	13	23.08
4	10	18.18	9	15.38
3	5	9.09	3	5.13
Total	56	100	58	100

TABLE 12: Score analysis for each question in topic 2

Question Number	1	2	3	4	Mean
Mean marks for Control group	4.07	4.43	5.9	9.9	24.3 (60%)
Mean marks for Experimental group	5.48	5.4	7.2	12.12	30.2 (75.5%)
Total marks	6	6	10	18	

Question 1 assessed knowledge of points on lines and determining the angle between a line and the z-axis. The majority of students can earn complete score for this question. However, the performance of students in the experimental group is still significantly higher than students in the control group.

Question 2 tests knowledge of line and vector concepts. This query is worth 6 points, and the mean score for the experimental group is higher than the mean score for the control group. Many students lost points because they could not adequately explain why two helicopters collided. Students performed well on question 3's parts a, b, and c but not on part d. The students in the control group are incapable of imagining the correct position for coordinates A, B, and C and line L.

The maximum score on Question 4 for the control group is 10, and for the experimental group, it is 8. However, many students in both groups received single digit marks, and some students answered only partially. The significant impact of geometry is obvious in this particular topic, as seen in the average score of 75.5%, or grade 7, achieved by the experimental group.

Based on the data shown in the Table 13, it can be observed that the mode for the experimental group is in grade 7, whereas for the control group, it is only in grade 6 for topic 3. The experimental group demonstrates the lowest percentage in grade 3, whereas the control group has the lowest percentage in grade 5. Making use of GeoGebra software in the process of acquiring knowledge on this particular topic significantly influences the academic achievement of the students.

TABLE 13: The result of the post-test for topic 3

	Three-dimensional plane			
	Topic 3			
grade	Control group	%	Experimental group	%
7	7	12.12	22	38.46
6	17	30.30	15	25.64
5	8	15.15	13	23.08
4	12	21.21	6	10.26
3	12	21.21	3	5.13
Total	56	100	58	100

TABLE 14: Score analysis for each question in topic 3

Question Number	1	2	3	4	5	Mean
Mean marks for control group	6.2	3.8	5	5.2	5.5	25.7 (64%)
Mean marks for experimental group	7	4	5.2	6.9	8.3	31.4 (78%)
Total marks	8	6	8	8	10	

The experimental group has an average score of 7 on the first question, while the control group has an average score of 6.2. Numerous students were able to derive the equation of the line between two nonparallel planes; however, their answers to Part 1(c) were incorrect. Some students also fail to use the correct method to demonstrate that the line is parallel to the provided plane. There are two parts to question 2. In both parts, the plurality of students performed well on part (a), but only a few performed poorly on part (b). The mean grades of the experimental group are marginally higher than those of the control group.

The third question proved challenging for many students. In this question, many students had difficulty visualizing the plane. However, the experimental group's mean ratings are still higher than those of the control group. In general, the fourth question is well answered, with many students receiving complete marks for parts (a), (b), and (c), but not for part (d). Some students are able to recognize a parallel line between two planes. Many students successfully answered Question 4. However, they forfeited points for using the incorrect plane.

The utilization of GeoGebra software in the context of plane geometry facilitates students in visualizing and comprehending the questions at hand. Students showed excellent performance in the topic of planar geometry, even in the absence of software, due to the extensive practice conducted in the classroom.

The two-sample T-test is utilized to demonstrate that incorporating GeoGebra into the learning of lines and planes is effective. Based on the prior result, the post-test score distribution followed a normal distribution with an approximate variance.

TABLE 15: Control group and experimental group

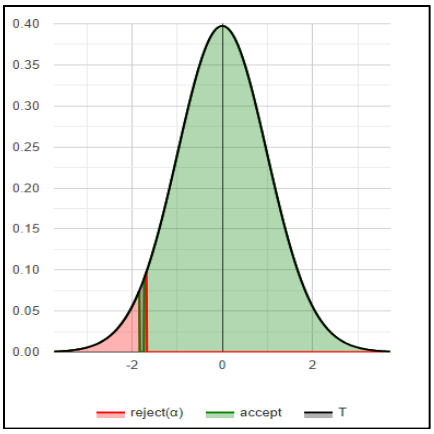
	Control group			**Experimental group**		
	Topic 1	Topic 2	Topic 3	Topic 1	Topic 2	Topic 3
mean	26.15	24.3	25.7	28.33	30.2	31.4
standard deviation	5.3	5.5	6.00	5.00	5.8	6.81

1. Null hypothesis : $x_C = x_E$
2. Mean post-test marks for control group and experimental group is same.
3. Alternative hypothesis $x_C < x_E$
4. Mean post-test marks for control group is lesser than experimental group .

TABLE 16: T test for post test

Type of post-test	Topic 1	Topic 2	Topic 3
P value	0.0123 (1.3%)	0.00000878%	0.000014(0.0014%)
T value	-2.2574	-5.5745	-4.363
	At the significance level of 5% for a left tailed test, the null hypothesis is rejected as the p-value is less than 0.05 (Figure 3). Therefore, the average scores for the post-test outcomes of the experimental group exceed those of the control group. The observed difference exhibits a level of significance that is considered statistically significant. According to the study's conclusions, using GeoGebra software helps students perform better on exams.		

FIGURE 3: Left Tailed T test



TOTAL MEAN IN PRE-TEST AND POST- TEST

The quizzes and tests consist of a total of 56 and 58 samples, respectively. Upon calculating the mean and sample size for each pre-test and post-test, it is evident that there is an increase in the number of samples. As shown in Table 17, the probability of rejecting the null hypothesis decreases as the sample size increases in the post-test.

TABLE 17: Comparison total mean in pre-test and post-test

Assessment	Group	Mean	Standard Deviation	n value	t value	p value	
pre-test	control group	40.26	14.55	168	-1.1486	0.215	NS
	Experimental group	42.15	15.86	174			
post test	control group	76.15	16.8	168	-7.41	5.167×10^{-13}	S
	experimental group	89.93	17.61	174			

Conversely, the probabilities of accepting the null hypothesis increase. Therefore, as the size of the sample increases, there is a proportional increase in the statistical power of the test. The test demonstrates a high level of proficiency in accurately discerning authentic differences within the dataset. Next, the findings derived from Table 18 indicate that there was a predominantly favorable response to the utilization of GeoGebra as a tool for comprehending the concepts of lines and planes in a three-dimensional context.

TABLE 18: Questionnaire in the learning three-dimensional lines and planes

		Strongly Agree	**Agree**	**Not Agree**
		Frequencies		
1	I was very engaged in the learning process when using GeoGebra	32	24	2
2	During the learning process, I developed the ability to mentally represent and comprehend the interconnectedness of lines and planes in relation to each question.	30	28	0
3	The use of GeoGebra in the classroom has resulted in an improvement in my aptitude for comprehending questions in quizzes and tests.	25	23	10
4	My ability to use critical thinking to tackle difficulties during assessments has significantly improved because to how the course's employs the GeoGebra software.	28	22	8
5	The utilization of GeoGebra software has been found to positively impact my performance in quizzes and tests pertaining to the topic of lines and planes.	27	20	11

The utilization of GeoGebra software was found to enhance students' engagement in the learning process, as it offers interactive learning opportunities. The consensus among the students is that the utilization of GeoGebra software enhances their comprehension and visualization of three-dimensional concepts. However, a small number of students expressed that this benefit is not observed specifically during examinations or quizzes. Out of a total of 58 students, eight students expressed their opinion that the software did not assist them in effectively resolving challenging questions during tests and quizzes. The utilization of GeoGebra in the classroom has proven advantageous to students' performance in quizzes and tests, as shown by 47 students, accounting for 81 percent of the student population, who expressed agreement with this statement.

LIMITATION

The sample size and duration of the study were the limitations of the study. The sample size for this study represents just 50% of the entire population of students enrolled in the MAA HL course at Kolej Mara Banting. The outcome of this study will be more reliable if a larger sample size is utilized. More cohorts of students who can represent the MAA HL student population should be taken into consideration for future research. Teachers participating in this study are required to possess a high level of expertise and proficiency in using the GeoGebra program. Additionally, they should possess exceptional experience and understanding in the subject matter of lines and planes in three-dimensional space. In term of time constraints and inconsistent internet access during the implementation of these activities are further factors that should be taken into account for further research.

CONCLUSION

The learning and teaching of mathematics should not be limited to a strictly theoretical approach but should also incorporate a variety of learning strategies that employ teaching aids. The results of the study have shown that students' interest in mathematics is stimulated. Market- and even Internet-accessible mathematics software has made it easier for teachers to impart knowledge that is beneficial to students. However, it is up to the teachers to utilize existing materials without devoting additional time to the creation of other teaching aids. This study examined the effectiveness of using geometry to teach lines and planes. Teaching mathematics, especially in three dimensions, is significantly more difficult, and this software facilitates visualization considerably. There are numerous free mathematics programs available today, but I found the GeoGebra software to be the most intuitive and simple to grasp. Combining the creativity of instructors with technology makes mathematics education more engaging. The study makes three recommendations, the first of which encourages instructors to use technology in mathematics instruction and learning. Second, school administrators should provide adequate resources to facilitate technology use, such as Internet access. Finally, to maximize the use of technology in mathematics classrooms, there should be increased competition.

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KESAN PENGGUNAAN APLIKASI XUEXI JIDDAN GOOGLE SITES TERHADAP TAHAP KEFAHAMAN DAN MINAT SUBJEK PENGAJIAN AM KOLEJ PROFESIONAL MARA AYER MOLEK, MELAKA

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ABSTRAK

Kajian tindakan ini dijalankan adalah untuk menilai keberkesanan penggunaan aplikasi 'Xuexi JIddan Google Sites' terhadap tahap kefahaman dan minat kepada subjek-subjek Pengajian Am iaitu Bahasa Inggeris, Pengajian Islam, Pengajian Malaysia dan Mandarin. Sampel kajian yang terlibat di dalam kajian ini ialah pelajar semester 1-6 Diploma Perakaunan dan Diploma Pengajian Perniagaan. Kajian ini menggunakan kaedah kajian kualitatif melibatkan proses mengumpul data untuk dianalisis melalui soal selidik yang diberikan kepada pelajar. Kajian rintis dilakukan bagi mengenal pasti keberkesanan menggunakan aplikasi teknologi Google Sites di dalam kelas. Selain itu, pemerhatian juga dilakukan oleh pensyarah semasa proses pembelajaran dan pengajaran bagi mengetahui tahap kefahaman dan minat pelajar terhadap subjek-subjek Pengajian Am selepas menggunakan aplikasi Google Sites Xuexi Jiddan. Selepas satu bulan menggunakan aplikasi teknologi Google Sites sebagai bahan bantu mengajar di dalam kelas, tahap kefahaman dan minat pelajar terhadap subjek-subjek Pengajian Am dinilai melalui kuiz dan pemerhatian pensyarah di dalam kelas. Berdasarkan analisis kajian, penggunaan aplikasi ini dapat membantu pelajar untuk mudah faham isi kandungan yang ingin disampaikan dan seterusnya menarik minat serta fokus pelajar di dalam kelas.

Kata kunci*: Xuexi Jiddan Google Sites; kefahaman dan minat; subjek Pengajian Am*

REFLEKSI PENGAJARAN LALU

Di Kolej Profesional MARA Ayer Molek, pelajar-pelajar diwajibkan untuk mengambil kursus-kursus di bawah Jabatan Pengajian Am iaitu Bahasa Inggeris, Bahasa Mandarin, Pengajian Islam dan Pengajian Malaysia. Justeru, kami telah melihat beberapa masalah semasa sesi pembelajaran dan pengajaran berlaku, pelajar didapati sukar untuk memahami isi kandungan kursus-kursus tersebut, isi kandungan bagi kursus pengajian Am melibatkan fakta, konsep, perbualan, membina ayat dan pelbagai maklumat yang bersifat kompleks dan abstrak yang secara tidak langsung dapat mempengaruhi kefahaman dan minat pelajar secara keseluruhan. Hal ini terjadi adalah disebabkan bahan bantu mengajar yang bersifat membosankan seperti penggunaan buku yang terlalu banyak patah perkataan dan tidak mempunyai unsur-unsur yang efektif dan menarik.

Oleh itu, kami merasakan adalah satu keperluan bagi pensyarah Jabatan Pengajian Am melaksanakan proses pembelajaran dan pengajaran menggunakan aplikasi teknologi terkini sesuai dengan hasrat Kementerian Pendidikan dan juga Institusi Pengajian MARA dalam menggalakkan pendidik untuk mengaplikasi teknik pembelajaran dan pengajaran menggunakan aplikasi abad ke-21. Justeru, kami memilih aplikasi Google Sites sebagai medium yang efektif dan menarik bagi mengatasi masalah-masalah yang telah dinyatakan.

FOKUS KAJIAN

Setelah menjalani proses pengajaran dan pembelajaran selama satu semester, kami mendapati pelajar mempunyai masalah untuk memahami isi kandungan yang ingin disampaikan di dalam kelas dan ketiadaan sumber rujukan nota kerana isi kandungan yang disampaikan secara terus semasa proses pengajaran dan pembelajaran berlangsung. Antara masalah yang kami dapati ialah pelajar kurang minat terhadap subjek-subjek Pengajian kerana ia bukan subjek utama bagi mereka.

Oleh itu, kajian ini adalah berfokuskan kepada menarik minat dan meningkatkan kefahaman pelajar terhadap subjek-subjek Pengajian Am semasa proses Pembelajaran dan Pengajaran berlaku di dalam kelas atau secara dalam talian. Oleh itu, platform 'Xuexi Jiddan Google Sites' dibina sebagai medium bahan bantu mengajar dan rujukan bagi pelajar dan pensyarah di luar waktu kelas kerana ia boleh dicapai dengan mudah dan senang pada bila-bila masa.

KAJIAN LITERATUR

PENGGUNAAN APLIKASI GOOGLE SITE

Majoriti pelajar bersetuju penggunaan Google Sites dijadikan sebagai medium pembelajaran di kalangan pelajar. Hal ini juga menunjukkan pelajar telah bersedia menghadapi transformasi pendidikan yang berasaskan e-learning dan juga pembelajaran teradun (Nurhani, 2015). Medium pembelajaran menggunakan aplikasi Google Sites dapat dijadikan alternatif yang mampu menyumbangkan idea dan maklumat khususnya kepada guru. Penggunaan aplikasi Google Sites juga telah menjadi medium alternatif yang digunakan oleh semua masyarakat sebagai contoh dalam bidang ekonomi, aplikasi Google Sites dilihat telah memberi banyak manfaat dalam meningkatkan kualiti dan produktiviti suatu organisasi (Arwansyah Kirin, 2021). Selain itu, dalam kajian Noraziah hamid, 2022, mendapati penggunaan aplikasi Google Sites telah memudahkan urusan penghantar dokumen sepanjang pelajar berada di Industri. Justeru itu, jelaslah penggunaan Google Sites telah menjadi medium yang boleh digunapakai dalam pelbagai cara terutama dalam urusan pembelajaran dan pengajaran.

KEFAHAMAN DAN MINAT

Menurut Fathi Abdullah, (2021) untuk menjadikan PdPc yang berkesan, pelajar perlulah mempunyai sikap dan minat yang mendalam untuk mengikuti pengajaran yang diajar. Pelbagai aplikasi pembelajaran pada masa kini dapat menarik tahap kefahaman dan minat di kalangan pelajar (Fathi Abdullah, 2021). Sebagai contoh, penggunaan aplikasi kahoot dalam pembelajaran dapat menarik minat, fokus semasa sesi pembelajaran, dan para pelajar melibatkan diri dalam aktiviti menjawab soalan di dalam kelas, (Nurul Ain et al. 2018). Selain itu, kaedah pembelajaran menggunakan gamikfikasi juga dapat merangsang motivasi dan minat pelajar dalam mata pelajaran yang selalu di anggap sukar dan membosankan seperti subjek pengajian Islam (Nurhani, 2015). Dalam kajian Muhammad Zulfaqar, (2021) pelajar berminat apabila guru memberikan latihan yang sesuai dengan tahap dan kemahiran mereka dalam subjek sejarah.

Oleh itu, jelaslah tahap kefahaman dan minat pelajar di dalam proses pembelajaran dan pengajaran di dalam kelas sangat dipengaruhi oleh faktor penggunaan aplikasi abad ke-21 dan teknik mengajar yang lebih kreatif oleh guru.

PEMBELAJARAN ABAD KE-21

Gaya pembelajaran yang pelbagai dapat membantu para pelajar memahami sesuatu dengan lebih berkesan. (Mohd Zuri Ghani & Aznan Che Ahmad, 2015) mencadangkan guru perlu mengetahui setiap pelajar mempunyai gaya pembelajaran yang berlainan. Oleh sebab itu, selain penyampaian dua hala di dalam kelas, seiring dengan peredaran zaman dan teknologi, pengajaran dan pembelajaran menggunakan Google Sites dapat memberi lebih pemahaman kepada pelajar selain ianya lebih interaktif. Fathi Abdullah et al. (2021) Inovasi dalam pendidikan pada hari ini telah banyak diterokai dan digunakan oleh para guru di dalam kelas. Terdapat tujuh kaedah pengajaran yang digunakan iaitu kaedah tunjuk cara, kaedah amali, kaedah projek, kaedah simulasi, kaedah syarahan, kaedah latih tubi dan kaedah perbincangan. Namun pada abad ke-21 ini, kaedah pengajaran dan pembelajaran guru diselitkan elemen teknologi maklumat dan komunikasi untuk memudahkan cara pembelajaran para pelajar (Muhammad Zulfaqar et al. ,2021).

OBJEKTIF KAJIAN

Objektif kajian ini adalah terbahagi kepada tiga komponen utama iaitu, pelajar, bahan bantu mengajar dan Proses Pengajaran dan Pembelajaran.

i. Menggalakkan proses pembelajaran dan pengajaran dengan menggunakan aplikasi teknologi terkini.
ii. Mengetahui minat pelajar terhadap subjek Pengajian Am melalui penggunaan bahan bantu mengajar yang lebih efektif di Google Site
iii. Mengenalpasti tahap kefahaman pelajar terhadap subjek pengajian Am melalui penggunaan aplikasi Google Site di dalam kelas.

KUMPULAN SASARAN

Sampel bagi kajian tindakan ini melibatkan 50 orang pelajar Diploma Perakaunan dan Diploma Pengurusan Perniagaan di Kolej Profesional MARA Ayer Molek bagi subjek-subjek Pengajian Am iaitu Bahasa Inggeris, Pengajian Islam, Mandarin dan Pengajian Malaysia. Kajian yang dijalankan menggunakan kaedah kuantitatif yang berbentuk pemerhatian, soal selidik dan temu bual.

PELAKSANAAN KAJIAN

TINJAUAN MASALAH

Dalam pelaksanaan kajian ini, tinjauan masalah dibuat berdasarkan pemerhatian, soal selidik dan temu bual.

PEMERHATIAN

Kaedah pemerhatian telah digunakan didalam kajian ini. Kaedah ini digunakan untuk mendapatkan maklumat tambahan yang dapat menyokong dapatan kajian.Kami membuat pemerhatian terhadap kesan pembelajaran dan tahap minat pelajar dalam penggunaan Google Site sebelum dan selepas.

Kami turut menjalankan pemerhatian terhadap pelajar, keatas penggunaan Google Site ini selepas tamat sesi pdp di kelas.

Untuk tujuan ini, kami telah membuat pemerhatian ke atas pelajar kami yang mengambil subjek Bahasa Inggeris, Bahasa Mandarin, Pengajian Islam dan Pengajian Malaysia pada sesi 1, 2023/2024 kali ini. Kami menjalankan pemerhatian didalam kelas semasa sedi pdp dan juga semasa pelajar membuat ulangkaji sendiri diluar kelas. Bagi memudahkan pemerhatian diluar kelas dilaksanakan, kami dibantu oleh pelajar lain untuk membuat pemerhatian penggunaan Google Site ini semasa sesi ulangkaji pelajar diluar kelas.

SOAL SELIDIK

Instrumen kajian yang kedua yang telah digunakan untuk mengumpul data adalah melalui kaji selidik. Borang soal selidik adalah secara dalam talian. Kami telah menjalankan kaedah ini untuk mendapatkan maklumat berkaitan sebelum dan selepas penggunaan Google Site dikalangan para pelajar didalam sesi pembelajaran mereka. Kaedah ini turut dijalankan untuk mengenalpasti tahap minat pelajar keatas subjek Pengajian Am. Dapatan yang diperoleh digunakan bagi menyokong menjawab persoalan kajian.

TEMU BUAL

Selain kaedah soal selidik, kami juga telah menggunakan kaedah temu bual. Kami telah menggunakan kaedah ini untuk mengenalpasti permasalahan dan minat pelajar terhadap subjek Pengajian Am. Satu pertemuan telah diadakan bersama-sama enam orang pelajar dibilik pensyarah. Kami menemu bual setiap seorang pelajar untuk menjadi sampel kajian tindakan ini. Kaedah semi-formal telah digunakan semasa sesi temu bual. Soalan-soalan temu bual ditanya didalam Bahasa Melayu kepada pelajar dan kami memperoleh jawapan yang berbeza daripada setiap pelajar. Sesi temu bual ini dirakam dan direkodkan sebagai bahan kajian.

ANALISIS DATA

ANALISIS PEMERHATIAN

Ketika menjalankan kajian tindakan ini, kami telah membuat pemerhatian terhadap permasalahan yang dihadapi oleh pelajar untuk menguasai subjek-subjek Pengajian Am. Pelajar menghadapi masalah untuk memahami isi kandungan pelajaran sekaligus kurang minat tehadap mata pelajaran yang dipelajari mereka.

Sebelum kami memperkenalkan Googe Site ini, pelajar menggunakan buku teks dan nota dari pensyarah sahaja. Kurangnya bahan bantu mengajar yang menarik menyebabkan pelajar kurang minat dan tidak menguasai pelajaran dengan baik. Rentetan daripada itu, ia memberi kesan kepada sikap pelajar. Pelajar tidak fokus dan tidak melibakan diri semasa sesi pdp berlangsung.

Selepas kami memperkenalkan Google Site didalam sesi pdp bersama pelajar, pelajar lebih memahami isi kandungan pelajaran yang dipelajari. Kandungan video, nota, ‘game’ dan sebagainya, menarik minat pelajar untuk menguasai sesuatu subjek. Pelajar lebih bermotivasi dan melibatkan diri sepenuhnya semasa sesi pdp berlangsung.

Kami turut membuat pemerhatian terhadap pelajar di luar kelas. Pelajar menggunakan Google Site ini sebagai salah satu medium ulangkaji yang sistematik. Pelajar membuat latihan dan bermain ‘game’ yang disediakan didalam Google Site semasa diluar sesi pdp. Pelajar turut melihat rakaman pengajaran yang disediakan oleh pensyarah.

ANALISIS SOAL SELIDIK

Berdasarkan hasil dapatan soal selidik daripada pelajar, kami akan mengemaskini data yang diperolehi ke dalam jadual kekerapan. Hal ini bagi memudahkan kami until menganalisis hasil soal selidik berdasarkan aspek minat dan tarikan Xuexi Jiddan Google Site kepada pelajar. Soal selidik ini dilakukan kepada 57 orang pelajar Sesi 1 2023/2024 yang terdiri daripada pelajar Semester 1-Semester 7. Hal ini adalah bagi memperlihatkan keberkesanan dalam menarik minat pelajar kepada subjek-subjek Pengajian Am.

JADUAL 1: Analisis hasil soal selidik berdasarkan aspek minat dan tarikan Xuexi Jiddan Google Site

Bil	Item	Ya (Kekerapan/ peratus)	Tidak (Kekerapan/ peratus)
1.	Tahap kepuasan pelajar terhadap 学习 جدا (Xuexi Jiddan GS) Google Site sebagai medium pengajaran dan pembelajaran.	96.4% (56)	3.6%(1)
2.	Adakah penggunaan 学习 جدا (Xuexi Jiddan GS) Google Site ini banyak menarik minat dan tumpuan anda sepenuhnya di dalam kelas?	96.5% (56)	3.5%(1)
3.	Adakah penggunaan 学习 جدا (Xuexi Jiddan GS)Google Site ini membuatkan anda bersemangat dan ingin melibatkan diri di dalam kelas?	100% (57)	
4.	Adakah bahan-bahan pengajaran dan pembelajaran yang di dalam 学习 جدا (Xuexi Jiddan GS) Google Site ini membantu anda meningkatkan kefahaman dan mengguasai subjek-subjek Pengajian Am di Kolej Profesional MARA Ayer Molek (Bahasa Inggeris, Bahasa Mandarin, Pengajian Malaysia, Pengajian Islam)?	100% (57)	
5.	Adakan bahan-bahan pengajaran dan pembelajaran di dalam 学习 جدا (Xuexi Jiddan GS) Google Site ini terkini, pelbagai dan lengkap?	100% (57)	
6.	Adakah bahan-bahan pengajaran dan pembelajaran di dalam 学习 جدا (Xuexi Jiddan GS) Google Site ini menggunakan aplikasi dan teknologi yang terkini?	100% (57)	
7.	Adakah aplikasi dan teknologi yang di gunakan di dalam 学习 جدا (Xuexi Jiddan GS)Google Site ini menarik dan seronok?	100% (57)	
8.	Adakah anda berpuas hati dengan penggunaan 学习 جدا (Xuexi Jiddan GS) Google Site ini sebagai medium pembelajaran anda?	98.2% (56)	1.8% (1)
9.	Adakah anda akan terus menggunakan 学习 جدا (Xuexi Jiddan GS)Google Site ini sebagai medium pembelajaran anda?	98.2% (56)	1.8% (1)

Berdasarkan daripada jadual 1, kami mendapati majoriti pelajar berasa tertarik dan seronok untuk menggunakan Xuexi Jiddan Google Site ini. Hal ini kerana Xuexi Jiddan Google Site menggunakan aplikasi teknologi terkini seperti Quizizz, Kahoot!, dan banyak lagi. Bahan-bahan pengajaran yang digunakan juga sentiasa diperbaharui oleh para pensyarah dalam membantu minat dan kefahaman pelajar terhadap subjek Pengajian Am. Beberapa cadangan juga diberikan kepada kami agar menyediakan latihan-latihan pengukuhan serta aktiviti-aktiviti menarik di dalam Xuexi Jiddan Google Site. Selain itu, pelajar juga mencadangkan agar dapat memasukkan beberapa soalan-soalan yang disoal di dalam peperiksaan agar pelajar lebih bersedia untuk mengulangkaji menggunakan aplikasi Xuexi Jiddan Google Site. Disamping itu, elemen keceriaan seperti penggunaan gambar dan warna akan meningkatkan tahap kepuasan minat pelajar menggunakan Xuexi Jiddan Google Site ketika Di luar waktu kelas.

ANALISIS TEMU BUAL

Guru-guru telah melakukan sesi temubual kepada pelajar mengikut 4 subjek Pengajian Am iaitu Pengajian Malaysia, Pengajian Islam, Bahasa Inggeris dan Bahasa Mandarin. Satu soalan ditanya kepada beberapa orang pelajar iaitu ‘Apakah pendapat anda selepas menggunakan Xuexi Jiddan Google Sites?”.

Dapatan daripada temubual mendapati penggunaan Xuexi Jiddan Google Sites sebagai bahan bantu mengajar sama ada di dalam kelas atau di luar kelas telah dapat meningkatkan tahap kefahaman dan minat pelajar terhadap subjek-subjek Pengajian Am.

JADUAL 2: Analisis dapatan temubual penggunaan Xuexi Jiddan Google Sites

Soalan Temu Bual	Pelajar	Hasil Temu Bual
Apakah pendapat anda selepas menggunakan Xuexi Jiddan Google Sites?	Pelajar 1	“Saya mendapati dengan Xuexi Jiddan Google Sites ini, saya dapat menemui point-point penting untuk dihafal dan difahami”
	Pelajar 2	“Saya dapat mengulangkaji dengan mudah kerana saya boleh merujuk nota yang saya tertinggal di dalam kelas di Xuexi Jiddan Google Sites”
	Pelajar 3	“Saya merasa mudah untuk menjawab soalan yang diberikan. Walaupun ada sedikit kesalahan tetapi ia memberi impak kepada saya untuk selidik soalan-soalan yang diberi.”
	Pelajar 4	“Saya dapat memahami tentang sesuatu subjek dengan lebih mendalam serta mendapat ilmu tambahan kerana sebahagian daripada nota tidak terdapat di dalam buku teks untuk dijadikan rujukan.”
	Pelajar 5	“Saya merasa lebih bersemangat untuk memahami subjek yang dipelajari kerana penggunaan bahan pengajaran yang lebih kreatif dan juga padat.”

Kesimpulan daripada jadual 2, membuktikan kesemua pelajar yang ditemu bual memberikan maklum balas yang memberangsangkan setelah pensyarah memperkenalkan Xuexi Jiddan Google Sites di dalam kelas sebagai salah satu bahan bantu mengajar yang lebih menarik dan boleh dicapai pada bila-bila masa untuk mereka mengulangkaji pembelajaran.

CADANGAN

Sekiranya kami diberikan peluang untuk menjalankan kajian tindakan ini semula, kami mencadangkan supaya kajian selepas ini memfokuskan kepada keberkesanan penggunaan 'Xuexi Jiddan Google Sites' dalam kalangan pensyarah semasa proses pengajaran dan pembelajaran berlangsung bagi menambah baik mutu pembelajaran seiring dengan pembelajaran abad ke-21. Hal ini kerana kami ingin melihat sejauh mana 'Xuexi Jiddan Google Sites' ini boleh membantu para pensyarah dalam menyampaikan kandungan dengan lebih efektif.

KESIMPULAN

Maulina Ismaya (2022) menyatakan pembelajaran melalui aplikasi Google Sites dapat menjadikan pelajar lebih memberi tumpuan semasa sesi pengajaran dan pembelajaran. Manakala NoorErma, Leong Kwan, (2014) menyebut hal ini kerana jika pelajar mempunyai sikap yang negatif dan bersikap sambil lewa terhadap sesuatu subjek itu secara tidak langsung akan menjejaskan pencapaian pelajar.

Kami berharap kajian yang dijalankan ini dapat menambah baik mutu pengajaran dan pembelajaran dalam kalangan pensyarah Jabatan Pengajian Am. Selain itu, dengan menggunakan aplikasi teknologi terkini Google Sites di harap dapat memberi kesan terhadap tahap kefahaman dan kecenderungan minat pelajar bagi kursus Pengajian Am.

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ENGAGING SUBJECT MATTER EXPERTS IN THE LEARNING OF THE THEORY OF KNOWLEDGE

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ABSTRACT

The learning of Theory of Knowledge (TOK) among students is often met with a sense of disconnectedness to real world application. More often than not, students need help to see how a subject of a philosophical nature inherently cuts across disciplines and manifests beyond subject/academic assessments. The insularity rooted in students' inability to link their understanding with practical relevance has made teaching the subject one of the greatest challenges for teachers who are committed to raising interest and helping students see its ubiquity in real-life knowledge production. In a move to increase engagement, a series of hourly webinars from February to September 2023 was organized for 313 Year 1 (2022/2024 cohort) International Baccalaureate Diploma Programme (IBDP) students of Kolej MARA Banting to bring together Subject Matter Experts (SMEs) and relay aspects of TOK, evident in their respective professions. Nevertheless, while the intention is to help students see the TOK in various Areas of Knowledge (AOKs) in the working world, the connection to TOK remains distant and elusive, calling for a revision of the 'Ask The Expert' project. Students' responses and teachers' reflections point to a more purposeful alignment of Knowledge Framework (KF), Themes, TOK Concepts, and Areas of Knowledge (AOKs) when preparing SMEs and webinar moderators. Concurrently, the bridging of classroom learning and its manifestation in various disciplines will also require TOK teachers to orientate students and build their readiness for a meaningful engagement of the sessions that will better highlight aspects of TOK across the curricular.

***Keywords**: Theory of Knowledg; Subject Matter Experts (SMEs); interdisciplinarity*

REFLECTION ON PAST PRACTICES

Since the start of the *International Baccalaureate Diploma Programme* (*IBDP*), the teaching of the *Theory of Knowledge* in KM Banting has relied on teachers trained initially to teach English. As an unfamiliar course to most, it was presumed that a subject written and mediated in the English Language was 'easier' taught by English teachers. Hence, as non-experts in Mathematics, Natural Science, Human Science, History, and the Arts (known as *Areas of Knowledge* in *the Theory of Knowledge*), these language teachers mainly depend on textbooks and related online resources for pedagogical content. The feelings among TOK teachers can be represented by these admissions:

> **T1**: “I realized that we do not have enough manpower to ensure smooth delivery of the subject matter because most of the time it was from our own reading, and there wasn’t any real experience that I had as a teacher from the language background.”

> **T2**: “A lot of what we teach the students comes from the many years of teaching the subject as well as from each other, and while we have referred to the textbooks

> to plan our lessons, we've had to imagine how experts do their jobs, in order to understand the content."

In reality, even if teachers have experienced teaching *the Theory of Knowledge* for more than 10 years and assessed thousands of students' written assignments in the process, teaching the subject from the position of non-experts remains a factor that generally displaces them from the locus of subject authority than those trained explicitly in Math, Sciences, Human Sciences, History, or the Arts. Moreover, the involvement of SMEs is seen as crucial in bridging pedagogical with (real-life) content gaps:

> **T3**: "While we have learned and taught *TOK* on-the-job, and there are many available resources we have resorted to, there is a real need to confirm what we teachers understand about the actual work of experts in various fields. It would be good to know that that we are on the same page when we talk about theories, methodology, knowledge claims. If *ATE* does what it is meant to do, we can clarify our understanding, and both teachers and students can obtain this directly from the horses' mouth."

In the past, experts have been invited to speak on given topics as part of school-wide enrichment strategies or targeted group programs in the form of physical forums and TOK camps. More recently, however, in a move to encourage students to make better sense of the topics taught in the classroom, a series of webinars was proposed to provide students with explanations by experts themselves. This move was also seen to inspire students who largely struggle with critical thinking, open-ended inquiries, and mostly the seemingly hidden reality of knowledge production among knowledge communities by engaging them in sessions with working adults currently at the forefront of their careers. Hence, the idea of involving Subject Matter Experts (SMEs) from various *Areas of Knowledge* (AOK) was initiated and, to date, culminated in five one-hour webinars in the span of eight months.

Literatures in the occupational and educational setting have shown high regard for SMEs due to their professional insight and industrial experience (Rose, 2023; Nielson, 2023; Al Zawati et al., 2018; Manross et al., 1994). Sought for on-the-job, specialized knowledge, and current engagement in their respective sectors, a significant number of literatures have accounted for the role of SMEs most commonly in the health services, engineering, and technical areas, particularly where learning designs and training requirements require their involvement (Altunoğlu et al., 2018; Vula et al., 2012; 2018, Schmidt et al., 1993). With the transition to online learning platforms, universities have notably involved SMEs in their adoption of design learning, frequently partnering with them in collaborative and team-based approaches to teaching and learning (Nielson, 2023; Ramani et al., 2022; Davey, 2019; Clearfield, 2019; Altunoğlu et al., 2018).

Essentially, the invitation of SMEs in various fields has often signaled a lack of expertise or the need for non-experts to seek the missing 'ingredients' that SMEs can offer (Ramani et al., 2022; Altunoğlu et al., 2018; Schempp et al., 1998). This is based on the understanding that while non-experts may have the pedagogical knowledge, and familiarity of the target audience, which SMEs do not possess, SMEs are the most direct form and source of professional knowledge with the capacity to share current insight into day-to-day concerns and judgement in their line of work (Ramani et. al., 2022; Davey et.al., 2019). Hence, to benefit learners, non-experts have worked in tandem with SMEs in which each party provides complimentary aspects of training. Supported by these literatures, an action research was carried out to engage SMEs in bringing real accounts of *TOK* in the working world, and fleshing out aspects of the subject that are present in different fields which have only been primarily discussed theoretically in the classroom.

RESEARCH FOCUS

The focus of the action research is to gauge the potential of engaging SMEs in webinars as an intervention in the teaching of *Theory of Knowledge (TOK)*, in particular, to help draw the link between classroom learning with real-life manifestations in the working world, more clearly. With SMEs from different fields responding to prompts during the webinars, this approach centers on the effort to clarify the ambiguities in classroom understanding by spelling out more apparent connections between TOK *Knowledge Framework (KF), Themes, TOK Concepts*, and *Areas of Knowledge* (*AOKs*) through the explanation of the work they perform.

RESEARCH OBJECTIVES

The overarching objective of the action research is to describe the implementation of engaging SMEs in a series of webinars to support the learning of *Theory of Knowledge (TOK)*, which is otherwise limited to classroom teaching and enrichment activities run by teachers themselves. Its purpose is to improve the practice of exercising the value that SMEs bring into the understanding of *TOK* to bridge the gap between theoretical knowledge and its manifestations in various professions. It aims to answer the research question: **How do *TOK* teachers improve the implementation of *Ask the Expert* webinars to complement students' learning of *TOK*?**

Through improvements in administering the webinars, it is hoped that students will be able to recognize aspects of *TOK* in the working world and, thus, find relevance and clarity in the learning of the subject in the classroom.

RESEARCH SAMPLE/AUDIENCE

The main participants at the start of the research are 313 first-year students of the IBDP at KM Banting who have undergone two semesters of *Theory of Knowledge*. By the time *the Ask The Expert* (*ATE*) project was introduced, their classes had covered the syllabus on *Knowledge Framework* (*KF*)*, Themes, TOK Concepts*, with *Areas of Knowledge* (AOKs) to be explored later in the third semester. During the first cycle of the action research, this population of students were in the midst of finalizing their internal assessment, which is a written response to one of the 35 listed IA Prompts, culminating in a school-wide exhibition. Therefore, the implementation of the SME-webinar approach took place at a time when students were expected to already have an idea of *Knowledge Framework* (KF), *Themes, TOK Concepts* but were relatively new to *Areas of Knowledge* (*AOKs*). The webinars were the students' first official encounter with *Areas of Knowledge* (*AOKs*) directly from the vantage point of practitioners.

PRELIMINARY OBSERVATION

A preliminary observation from the first *ATE* webinar conducted on 12th January 2023 with a futures remise with more than two decades of experience gave an indicator of how students would respond to a session with an SME. The anticipation was high, but it was three quarter through the webinar before the question, 'How much faith should we put in the past to predict the future of the field? 'How does a cultural context influence the explanations that exist in your field?' and 'What methods are used in producing the knowledge in your field?' that some connection to *TOK* finally surfaced. Despite not having studied *TOK*, the SME understood the questions and made a point to respond based on her experience of dealing with investors over the years. Overall, the SME was accommodating to students' queries and silences by trying to check on their understanding and providing insight based on the capacity of her field of expertise.

To check that students have paid attention to the parts where pertinent aspects of *TOK* were highlighted, teachers later asked students in their respective classes. Teachers reported that students could recall and explain in their own words what they understood, but also dwelled a little on the part of the session that changed their outlook. Here, some students expressed their consideration to start investing a small amount, if not RM100 per month, as suggested by the SME. This highlights aspects of the webinar that was perhaps more eye-opening for students and arguably more appealing to them than *TOK*-relevant pedagogical content. What can be observed at this point was the weightage and duration that the SME dedicated to the questions, which had control over the content, and consequently, how much of *TOK* was eventually given emphasis during the webinar. While students' responses to the first webinar were promising, some awareness on proportional delegation of time for each question should guide future invited SMEs to delve into aspects more central to *TOK*, rather than a lengthy preamble. The following webinars should take heed of these pointers if contents richer in TOK are expected.

INTERVENTION IMPLEMENTATION

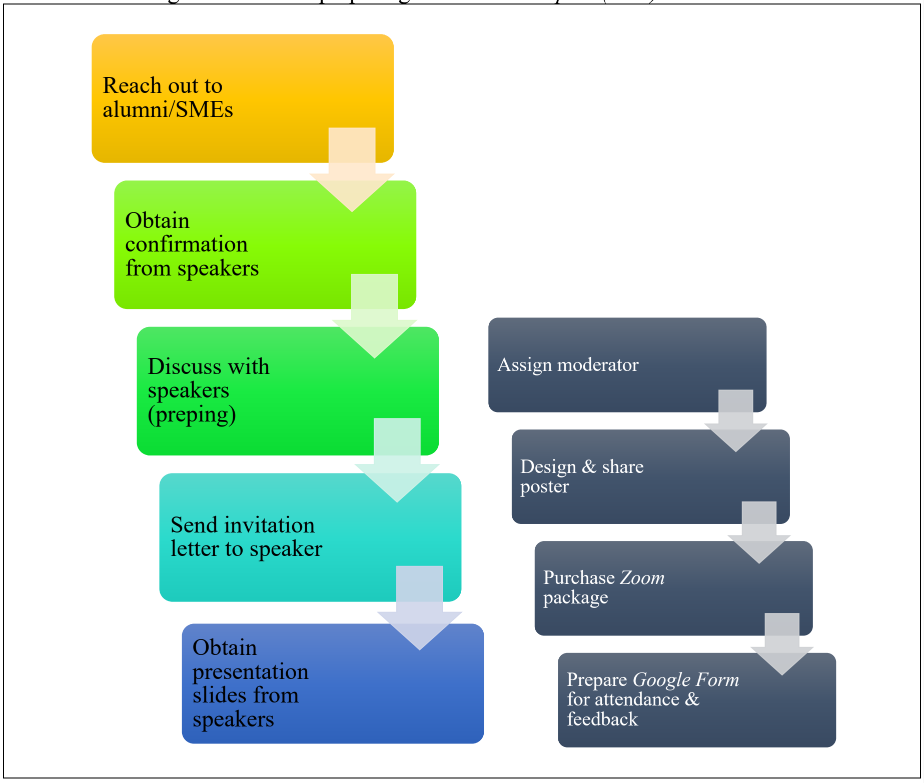
The action research was initiated after the first SME had been secured. A number of stages were involved in the preparation of the webinars (*pre, during, post*):

PRE –WEBINAR

The project started in December 2022 by reaching out to college alumni, specifically former students who have undergone the *International Baccalaureate Diploma Programme* (DIAGRAM 1). While many were willing, they were unavailable due to hectic work schedules. Responses were also slow because many former students were no longer using *Facebook* as their means of social media; hence, messages sent to them were left unchecked for a long time. As these potential SMEs were taught prior to the birth of *WhatsApp and Telegram*, they were not reachable by other means.

Meanwhile, a contingency plan was set out to reach families, friends, and neighbors who are experts in their respective fields and could be invited to speak at the webinars. With no former students responding to the invitation, the first (January 2023) and second webinars (February 2023) had to secure speakers related to the *Teacher-in-charge*. After the second speaker, a former student finally responded and accepted the invitation for the third webinar (April 2023). Following this, two other college alumni have agreed to speak at the webinars (August and September 2023).

FIGURE 1: Stages involved in preparing for *Ask The Expert (ATE)* Webinars



An essential process of the webinar was to brief and prepare speakers with the objectives, scope, direction, and aspects of *TOK* relevant to their field. Each preparatory session took approximately half an hour. Following this, a formal invitation was sent to them to seal the arrangement. Concurrently, with the approval of the project's paperwork, the Student Representative Bureau for Student Development went on to appoint moderators, designing promotional posters (DIAGRAM 2 and 3), purchasing a *Zoom* package, and preparing *Google Forms* to record online attendance as well as to gather feedback from student-attendees. Members of the Student Representative Council were also asked to prepare extra questions. A few days before the webinar, the *Teacher-in-charge* went through the speakers' slides to oversee the alignment of their contents with the project's purpose.

FIGURE 2: Posters of the three webinars (ATE 1-3) in Cycle 1

FIGURE 3: Posters of two out of three webinars in Cycle 2

DURING WEBINAR

On the day of the webinar, *TOK* teachers reminded students to attend the session, listen attentively, respond, and ask questions to the speakers. They also told students to fill out the *Google Form* for attendance and provide feedback on the session.

POST-WEBINAR

After the webinar, teachers prompted students to discursively share their feedback and, where possible, extended the query into classroom discussion with relevant aspects of the subject.

FINDINGS AND ANALYSIS

Several methods were employed to answer the research question: **How do *TOK* teachers improve the implementation of *Ask the Expert* webinars to complement students' learning of *TOK*?** Data was collected mainly from the recorded webinars (Mussaui-Ulyanishcheva, & Zakharov, 2020; Hamel & Viau-Guay, 2019) and teachers' observations (Crompton, 2016; Atkinson & Susan, 2010). This was triangulated by student feedback (Flodén, 2017; Poulos & Mahony, 2008).

The content of the recorded webinars was later tabulated against the prompts provided to SMEs prior to their session to account for the sharing they have provided. TABLE 1 shows a comparison of SME responses to the prompts in *ATE* webinars in Cycle 1. Other than the first SME (a remiser) who responded to one of the questions related to *TOK*, the second SME (a diplomat) and third SME (a medical director) did not use the prompts to guide their content:

TABLE 1: Comparison of the three *Ask The Expert (ATE)* Webinars in Cycle 1

Questions	**Webinar Month**	**January**	**February**	**April**
SME	**Profession**	Remiser	Diplomat	Medical Director
Webinar prompts	**AOK**	Human Science (Investment/ Banking)	Human Science (International Relations)	Natural Science (Medicine)
1	Can you explain your nature of work?	✓	✓	✓
2	What is it that you do on a daily basis?	✓	✓	✓
3	What would you do to achieve certain goals in your area?	✓	✓	✓
4	How much faith should we put in the past to predict the future of the field?	✓	✗	✗
5	How does a cultural context influence the explanations that exist in your field?	✓	✗	✗
6	What methods are used in producing the knowledge in your field?	✓	✗	✗
7	How much is ethics part of your field?	indirectly responded	indirectly responded	indirectly responded

Teachers' observation of the webinar sessions, in particular, colleagues who were indirectly involved in the organization of *ATE* Webinars, transpired into a critical friend approach to provide honest feedback and constructive criticism in all aspects of the intervention (Mat Noor & Shafee, 2021; Foulger, 2010; Kember, et. al., 2006). The observation made during the first cycle of the action research points to some weaknesses in the preparation stage and administering of the webinars:

> **T1**: "From my point of view and observation, *ATE* should involve experiential learning. We should be able see to that the interaction process happens between the experts and the students during the zoom meeting. Experiential learning in *ATE* is not like any hands-on activity but more to live discussion. The students listen and ask questions directly to the experts. They were to be given ample explanation and clear examples on certain fields by the respective experts. This should not be limited to information on the nature of job and life experiences, but more directed to aspects of *TOK* learned in class."
>
> **T2**: "I wonder why despite being prepped on aspects to highlight in their presentations (which pertains to *TOK*) that speakers tended to leave them out. For the most part of the webinars, speakers were merely talking about their jobs. For every webinar, I would be waiting the *TOK* part that the speakers are going to dive into but with the exception of the first webinar which made some room towards the end of the webinar to respond to two *TOK* questions, I did not see much happening with the next two webinars. I feel that the webinars should be more relevant to *TOK*, otherwise they are merely career advice and motivational sessions for the students."

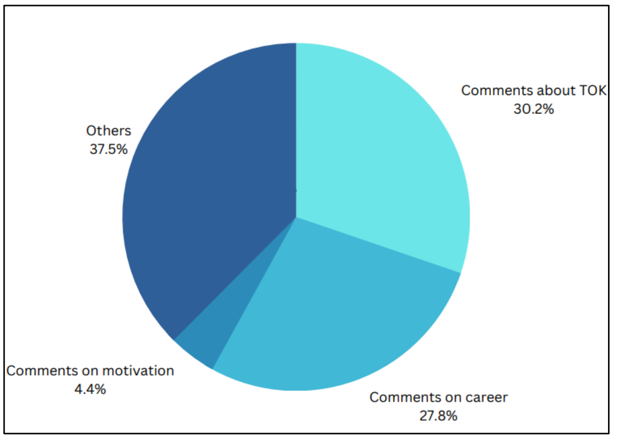
These teachers who attended the webinars noted the presence and absence of *TOK* elements, and their discussions arrived at the following aspects of the intervention strategy, which need to be rectified in the next cycle of webinars (*ATE 4-6*):

i. Webinar prompts should be revised to steer SMEs into sharing *TOK* contents with students
ii. SMEs should be prepared with a greater awareness of the webinars' intended outcome
iii. SMEs' contents should reflect their response to the webinar prompts, therefore guiding them to stay relevant to *TOK*
iv. Moderators should be advised to administer the flow of the webinar by ensuring that questions posed to the SMEs fall within the parameters of *TOK*.
v. Students should be repeatedly reminded to pose *TOK*-related questions to SMEs to optimize the webinars.
vi. Students' reflection forms should ask for feedback on relevant aspects of *TOK* that are aligned with the objectives of the intervention.

Students' feedback was collected using *Google Form*s and retrieved at the end of each webinar to ascertain their level of engagement with the webinars. A link to *Google Form*s was shared with students as the webinars came to a close by the moderator, and the feedback was later forwarded to the teachers for analysis.

In total, 698 responses were collected after the fifth webinar (*ATE 1-5*). Due to the brevity of the student feedback forms, a more detailed input specific to the webinar prompts was not available. Nevertheless, upon analysis, the responses can be grouped into four categories: comments about TOK (211), comments on career (194), comments on motivation (31), and others (262) (DIAGRAM 4). Comments on TOK include identification and connection relevant to the subject, while comments on careers are statements made about the profession of the SMEs but are detached from any aspect of TOK. Next, comments on motivation are statements in which students solely point to the inspirational aspect of the webinars without any link to TOK. Finally, 'others' refers to general statements which do not fall into any of the three categories of comments.

FIGURE 4: Percentage of student responses on ATE webinars according to types of comments



The analysis resumed with the first category (comments on TOK), which contains evidence of students' direct engagement with the subject. The set of data obtained can be divided into 3 tiers:

i. comments indicating a high level of engagement through the offering of valuable insight (*scaffolding*)
ii. comments indicating a satisfactory level of engagement through the identification of relevant input (*reinforcing*)
iii. comments indicating an acceptable level of engagement through demonstration of basic understanding (*description*)

Several of the 211 (30.23%) comments indicating a high level of engagement offering valuable insight into the teaching and learning of TOK are shared below. Words in bold are indicative of the keywords used in class, demonstrating students' ability to extract them from the webinars, relate to TOK, and articulate their understanding in a meaningful way:

> "Very good **explanation** of investment and the stock market. Gained **knowledge** about the **variables** affecting the financial industries, for example, **cultural beliefs** and human **bias**".
>
> (*Student feedback, ATE 1*)
>
> "This prompt could be used to explore how **individual and collective perspectives** shape our understanding of international events and relations. For example, one could analyze how different **cultural, historical, or ideological backgrounds** shape people's **perceptions** of conflicts or alliances between nations".
>
> (*Student feedback, ATE 2*)

"Her **values** reflect her action in the **acquisition of knowledge**; one would likely favour the **pursuit of knowledge** that support their **values.**"

(*Student feedback, ATE 3)*

"**Evidence** is necessary in the **production of knowledge** because we need some **observations** to learn from it and adapt to **new findings** so it can be discussed in further **knowledge acquisition**."

(*Student feedback, ATE 4*)

"Dr. mentioned about going through **paradigm** shifts so this personally shows in undergoing this, thorough **investigations** and earlier **assessments** are needed which leads to a new **revolution of knowledge** or **procedures** in some fields. Better **methods** and **tools** used in analyzing data also allows **conclusion** to be made, such as having **research question**, **examining patterns** and making **conclusion** of the **findings**".

(*Student feedback, ATE 5*)

While the responses above denote students' ability to scaffold new input from the webinar contents by building upon previous knowledge (Tier 1), the comments below are considered to demonstrate a satisfactory level of engagement (Tier 2) from students who could identify aspects of TOK learned in class which were reinforced through the webinars:

"I have learned about finance management and also **bias context** in the **behaviour** of investors. **Values** and **Ethics** were also being point out in order to relate it with TOK. There were also knowledge about stock markets too".

(*Student feedback, ATE 1*)

"Every **theory** must have its own **evidence** by doing **research** and **analysis** from the **data** that they (experts) gained. In **natural science**, **observation** is important for a **claim** but (it is) not enough. **Inductive reasoning** must also be included."

(*Student feedback, ATE 4*)

"It taught me that **perspectives** matter in viewing situations. The speaker showed how he went from medic to a career in biomedical science, which although similar, has different job scopes. He's also very passionate in his career. It showed me how in one AOK (Natural Science), there can be very different **experience** within people (experts) in the **field**".

(*Student feedback, ATE 5*)

Meanwhile, Tier 3 comments indicate restatement, reporting, or admission, many of which leaned on their realization of the subject criteria. Neither new input nor particular insight is signaled, but aspects of the subject that have been constantly highlighted in class are pointed out:

"My mind is opened to various **perspectives** on field of pharmaceutical sciences. A lot of **RLEs** gained from the programme in which can help me relate with **TOK framework**".

"Today's programme was very insightful as it gives an overview on how we can do **research** from the **perspective** of medical field and can be applied within other **areas of knowledge** too."

"The speaker made me more aware of the **real life examples** of **theory** that we learnt in TOK."

While these third-tier comments demonstrate a minimal level of engagement with the webinars, they still belong to the categories of responses that have relevantly commented on

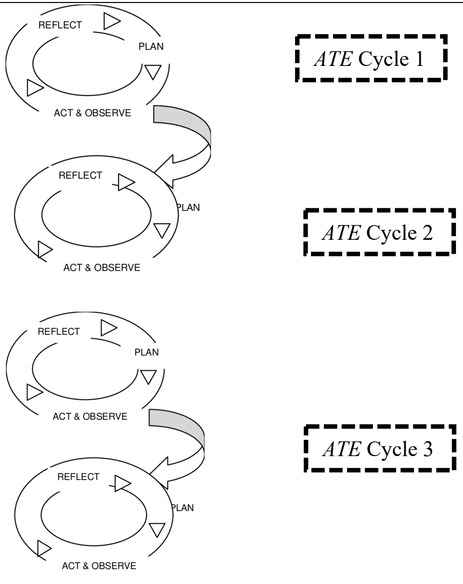
TOK. This is more than what can be said about the 70% of students who saw the webinars as merely, if not solely, career advice or motivation sessions, instead of an exercise to bridge their classroom learning of TOK with its manifestations in the real world. Hence, it is this bigger percentage that teachers will need to tackle next, starting with efforts to re-align students' perception of the project by re-introducing *ATE* objectives, as well as expectations from their attendance and participation, which will require re-adjustments to approaches in the pre, during, and post-webinars.

REFLECTION

The frustration of the effectiveness of the *ATE* project has compelled *Theory of Knowledge* teachers to re-evaluate the effort put into the webinars. As an approach to coordinate and mediate classroom teaching with insight from SMEs, the project has remained one of the more appealing ways to weave professional experiences into the classroom. However, steps should be taken to ensure that all parties involved (SMEs, teachers, moderators, students) are fully aware and clear about the objectives and expectations of the webinars.

A sign that the webinars garnered students' interest was pronounced following the pause after the third webinar when the Student Representative Council approached the *TOK* Unit expressing their wish to invite an inspirational college alumnus they had recently met. This avenue has provided a second chance for *TOK* teachers to revisit the procedures involved in meeting the relevance of the subject, as initially intended, and the prospect of framing the webinars with the aspiration of the *TOK* unit (DIAGRAM 5).

FIGURE 5: Feedback from *Ask The Expert* (*ATE*) Webinars in Cycle 1 is currently making way for improved practice in Cycle 2



Adapted from *The Action Research Spiral* (Kemmis &McTaggart, 1999)

Based on teachers' observation of the webinar sessions and considering students' feedback, there was an immediate need to revise the questions asked to SMEs to be more aligned with the objectives of *ATE*. The preparation of the SMEs, the live interactions between SMEs and students, which frequently slid away from the concerns of *TOK* (*KF, themes, TOK concepts, AOKs*), have pointed out to the set of questions that shaped and resulted in the degrees of responses less focussed/centered on the subject, hence, making it challenging to tie the 'loose ends' that teachers badly want connected (already partially rectified for *ATE 4* and *ATE 5* in Cycle 2 webinars). This means getting speakers to clarify which AOK is directly linked to their profession and illustrate how some *TOK* concepts apply to their field of work. Ideally, this entails securing speakers who are involved directly or indirectly in research. Where not possible, speakers must be navigated towards a more precise direction, which may require a standardized *PowerPoint* template to ensure that related subject matters form the content of the webinars (rectification is already underway with *ATE 6*).

Additionally, tailored questions for SMEs' areas of expertise could provide a more personalized insight of their role in knowledge production instead of a 'one size fits all' approach in the previous three webinars. As part of the individual preparation via telephone calls with SMEs upon their agreement to part*icipate* in the webinar, it would be more helpful to construct questions that align closely with their respective professions. For example, SMEs from the field of Natural Science should be directly asked about *methods, evidence, justification, explanation, responsibility*, and scientific *truth*, among others listed in *the TOK concepts* and subject glossary.[1].

Another revision to the practice is to provide preparatory notes for SMEs based on the *AOK* they are invited to speak. This is especially important for SMEs to recall (if they are IBDP alumni) and to have an idea of what is currently taught in class (the new syllabus focuses more on research, and has newer issues). Such re-alignment can allow for connections to be drawn quicker, besides making sure that they actually take place during or after the webinars. Some changes to the questions asked to SMEs for Cycle 2 webinars are suggested below:

TABLE 2. Proposed Changes to the Questions for SMEs in Cycle 2 of *Ask The Expert (ATE)* Webinars

Profession/Work-related questions		Suggestion	TOK Webinar Prompts
1	Can you explain your nature of work?	*retain as is*	1. Can you explain the nature of your work?
2	What is it that you do on a daily basis?	Scope *Choose 1 most purposeful to the research objectives*	*(May need an explanation from the Teacher-in-Charged)* 2a. In which *Area of Knowledge* (AOK) can you place your profession? 2b. Which AOK can your field be placed/positioned? 2c. Which AOK is dominant in your profession?
3	What would you do to achieve certain goals in your area?		3. Is research a huge part of your profession?

[1] These are only a few of the 12 *TOK Concepts* stated in the textbook.

TOK-related questions *(as originally stated from the first webinar)*			-	-
Scope	4	How much faith should we put in the past to predict the future of the field?	*to be replaced by the questions below*	
Perspective	5	How does a cultural context influence the explanations that exist in your field?	*Choose 1; most purposeful to the research objectives*	4. Whose perspectives are important/considered in your field?
Methods	6	What methods are used in producing the knowledge in your field?	*Choose 1-2; most purposeful to the research objectives*	5a. What methods do you use/employ to draw conclusions in your field of work? 5b. What challenges have you come across in the use of different methodologies? 5c. How do methodologies shape the conclusions you arrive?
Ethics	7	How much is ethics Part of your field?	*Choose 1-2, the most purposeful to the research objectives*	6a. Does ethics play a role in your field? 6b. Where are ethics applied in your profession? 6c. What ethical considerations exist in your field? 6d. How are ethical issues resolved in your field?

FUTURE RESEARCH RECOMMENDATIONS

From the progress of this action research, the team opines that the potential of *ATE* has only been tapped on the surface, and that its greater offering is yet to be fully realized. With an overhaul of the current approach, a revised version of the *ATE* project is believed to be more aligned with the research objectives. Hence, in the next cycle, a more structured method of inquiry into student engagement during and post-webinar phases, would allow for measurable responses to be analyzed. Themes obtained from individual responses can then be further examined through focus group discussions to gauge improved project implementation. With a restructuring of how SMEs are primed for the webinars, the navigation of their presentation could be maneuvered more closely to aspects of *TOK* and, in doing so, helps draw the connections between classroom learning and real-world application and knowledge production more clearl

ACKNOWLEDGEMENT

We would like to thank everyone involved in this research, especially the Director of MARA College Banting, the Deputy Director of Academic and Students Affairs, and fellow friends and family who were the very source of our motivation.

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ASSESSING THE STUDENT PREPARATION AND READINESS OR CAREER LIFE: UNVEILING PATHWAYS TO SUCCESS

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ABSTRACT

This paper presents a two-phase study investigating the impact of the current syllabus on students' preparation and readiness for their career life. Focusing on final year students at KPMB, the study aims to determine how well the current syllabus equips students with the necessary skills and knowledge to support their future careers. In the initial phase, pre-assessment data will be collected from a sample of final year students at KPMB. This dataset encompasses individuals' sentiments regarding their readiness for their internship program, as influenced by their interaction with the existing syllabus. The student will answer a few surveys question throughout their intern term., this will be employed to gather comprehensive data. The post-assessment phase will focus on gathering feedback from the same group of students after they have completed their industrial training. The study will capture their experiences and assess whether the actual situations they encountered during their training aligned with their expectations. Additionally, the feedback will highlight any skill deficiencies they encountered, providing insights into areas where the current syllabus may be lacking in adequately preparing students for their careers. By investigating the relationship between the current syllabus and student preparedness for career life, this study bridges the gap between academic education and real-world application. The findings will inform educational policymakers, curriculum developers, and educators, providing insights for curriculum design and pedagogical approaches. It aims to provide actionable recommendations for curriculum enhancement, ensuring students are well-equipped for success in their chosen careers.

Keywords*: career readiness; industrial training; higher education skills*

INTRODUCTION

Work-readiness pertains to the capacity to operate effectively upon entering the workforce and within various contemporary work settings. Over recent decades, the concept of work-readiness has been closely associated with the acquisition of specific skills and attributes. However, this concept has evolved to encompass a wider range of competencies and qualities that are essential for graduates to thrive in a labour market characterized by rapid technological advancements and precarious employment practices, which we refer to as career-readiness (Campbell & Price, 2016). Career-readiness has now become a significant strategic focus for higher education (HE) providers, with substantial efforts dedicated to incorporating opportunities and initiatives into both the academic curriculum and extracurricular activities. It is incumbent upon the industry to play a role in nurturing career-readiness in students, ensuring they possess confidence in their abilities, can pursue appropriate career prospects, and are adept at transferring their skills and knowledge across diverse work environments when starting their professional careers.

Today's job market presents a dynamic and formidable challenge for recent graduates hailing from diverse educational backgrounds. Employment opportunities favour those graduates who possess the vital employability skills demanded by workplaces. It is worth noting that only around 30% of interviewees secure job placements (Siddiqui & Lokhande, 2019), and one of the principal factors contributing to this statistic is the deficiency in English proficiency and the essential skills expected of contemporary professionals. Consequently, higher education institutions face an immediate imperative to furnish their graduating students with the requisite workplace competencies, as this has become a pressing concern (Cimatti, 2016). In response to this situation, many countries around the world have heightened their emphasis on skill development to prepare graduates for the employability standards set by employers (Abelha et al., 2020)

Malaysia has grappled with a persistent issue of graduate unemployment for nearly 12 years. The problem has endured despite efforts to address it. According to the Centre for Future Labour Market Studies (EU-ERA) statistics in 2023, approximately 90,000 graduates in Malaysia are facing unemployment. Remarkably, the rate of graduate unemployment remained elevated every year. Furthermore, the Ministry of Education's Graduate Tracer study in 2018 indicated that nearly 60 percent of graduates were still unemployed even one year after graduation (Ministry of Education Malaysia, 2018)

RESEACH FOCUS

This paper examines the experiences of MARA Professional College Beranang (KPMB) internship students in relation to how they perceive the application of their academic knowledge in shaping their future careers. Aims to assess the degree to which schools can emulate the advantageous outcomes associated with firsthand exposure to the professional world through career development programs, especially those incorporating real workplace involvement. This analysis provides insights into the adaptability of educational methods in addressing the evolving needs of students in today's workforce.

Successful career guidance fosters students' self-reflection as they respond to a supplementary Educational Career Questionnaire, offering insights into their engagement in career development activities and other measures to prepare for the professional sphere. By contrasting the findings both psychological preparedness before internship and their internship experiences, it becomes feasible to track shifts in attitudes and experiences that influence their decisions regarding pursuing or advancing in their careers.

RESEARCH OBJECTIVE

The objectives of this study are as follows:

i. Investigating students’ perceptions of the knowledge they acquire in collage provides insights into the effectiveness and applicability in equipping them for their prospective careers.
ii. Study the challenges for internship students face when attempting to bridge the gap between theoretical learning and practical application in real work situations.
iii. To explore the potential factors that impact students' decisions regarding whether to pursue further education or enter the workforce.

RESEARCH SAMPLE

This sample consists of 44 students who have completed a 12-week internship program in various companies. These students have a background in Diploma in Computer Science. After the internship, the students have the opportunity to decide whether they want to pursue further studies or enter the workforce.

IMPLEMENTATION

The data collection process for this research was segmented into two distinct phases. Initially, primary data was gathered by administering questionnaires to the students, focusing on their levels of enthusiasm regarding their internships and their scores on the Depression, Anxiety, and Stress Scale (DASS) (Lovibond et al., 1995). The DASS questionnaire is a widely recognized tool for measuring emotional states and psychological distress. It consists of three subscales: depression, anxiety, and stress, each of which provides scores indicating the severity of these conditions. Respondents were asked to rate their experiences on a scale of 0 (did not apply to me at all) to 3 (applied to me very much or most of the time) for each item. The second phase of data collection occurred post-internship completion, involving a survey that examined the students' preparedness for their future careers following their academic studies. The five skill selected to survey were based on consensus of numerous studies, such as (Robles, 2012), (Asefer & Abidin, 2021) and (Williams et al., 2016) . We selected the traits for the survey that are directly relevant to the scope of our study, ultimately resulting in the creation of two distinct domain areas. The first domain is Student readiness for career, which consist of question regarding on i) personal readiness ii) career expectation and challenge and iii) subject preparedness traits. While second domain is Skill acquisition through internship asking about i) creativity, innovation and change ii) personal organisation and time management iii) personal strength iv) learning and v) problem and analytic solving traits.

RESULT AND DISCUSSION

DASS RESULT ANALYSIS

The result from DASS analysis was shown in figure 6.1.1, revealed a few finding:

ANXIETY LEVELS

The anxiety was the most prevalent psychological condition among the respondents were out of 44 respondents, 45.5% reported experiencing anxiety at varying levels ranging from mild to extremely severe. This finding indicates that nearly half of the respondents faced some degree of anxiety as they prepared for their internships.

DEPRESSION LEVELS

9 respondents reported experiencing depression to some extent. Although not as prevalent as anxiety. The presence of depression is a notable concern for significant portion of respondents.

STRESS LEVELS

15.9% respondents reported under stress levels where fewer than anxiety and depression but remains a relevant issue to address in the context of internship preparation.

FIGURE 6.1.1: DASS-21 Result Analysis

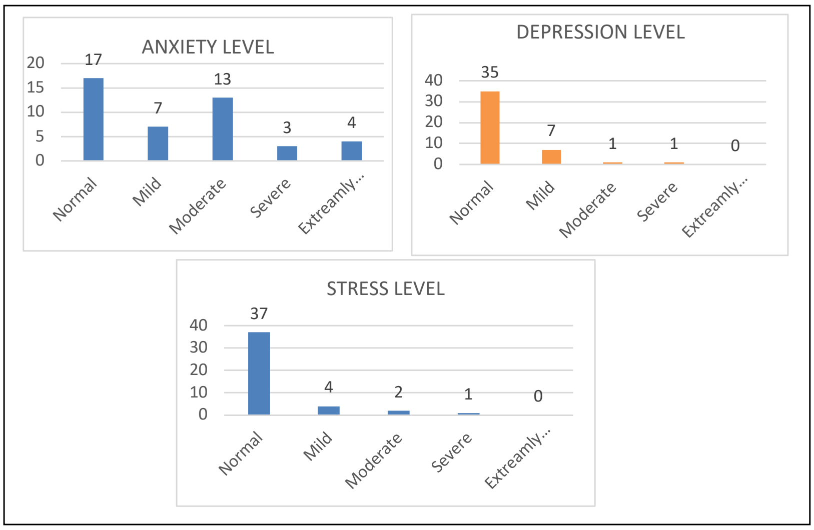


TABLE 6.1: Student readiness and skills acquired

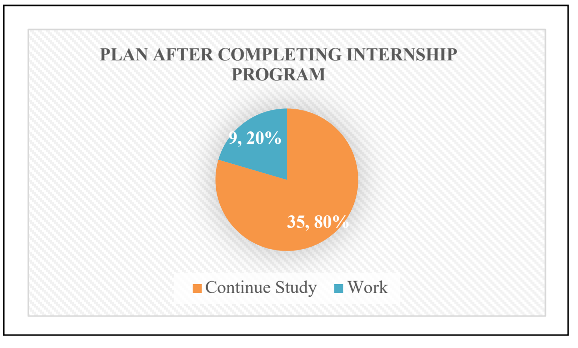
Domain/Traits	Mean Score
Student readiness for career	
Personal Readiness	3.0
Career Expectation and Challenge	3.0
Subject Preparedness	3.0
Note for Score; 0 = strongly disagree, 1= disagree , 2 = Neutral, 3 = Agree 4= Strongly agree	
Skill Acquired throughout internship	
Personal Strength	2.4
Creativity, Innovative and Change	2.4
Learning	3.0
Problem And Analytic solving	3.0
Personal Organisation and Time Management	2.4

*Note for Score; 0 = not important, 1= minor importance , 2 = Moderate Importance, 3 = Major Importance , 4= Don't know

Table 6.1 shows the results for the two domain from the post intern survey question. Domain A, assessing student readiness for a career, revealed that respondents rated their readiness at an "agree" level across various aspects, including personal readiness, career expectations, and subject preparedness. The mean score indicates that the students generally feel prepared to enter the workforce and have a clear vision of their future careers and hold realistic expectations.

The results for Domain B, which assesses the skills acquired through internships, revealed varying levels of skill acquisition. Two aspects, in particular, showed lower mean scores, indicating that students believed they acquired fewer skills in these areas. For creativity, innovation, and change suggests that students feel they acquired fewer skills in these areas during their internships. This may point to a need for more emphasis on fostering creative thinking and adaptability in internship programs. Similar to creativity, personal organization and time management received a lower mean score, indicating that students perceived a deficit in these skills post-internship. This could be an area for improvement in internship training and guidance.

FIGURE 6.1.2: Student Plan after Internship



In response to our final question, students were asked to indicate their preference for either continuing their studies or entering the workforce. The data depicted in Figure 6.1.2 reveals that a significant majority, comprising 80% of respondents, expressed their intent to pursue further education, while the remaining 20% indicated their plans to commence their professional careers.

LIMITATION

It is crucial to acknowledge the limitations of study to ensure a comprehensive understanding of the research scope and potential implications. First, the study exclusively targeted students from the Diploma in Computer Science program at KPMB only who participated in internships during the second semester of 2023. This limited sample size and specific focus on one program may affect the generalizability of the findings, as the experiences and perspectives of students from other programs or institutions might vary significantly. Secondly, the study relied solely on survey methodology to gather data. This decision was influenced by the diverse locations and time constraints associated with student internships, which made other data collection methods less feasible.

CONCLUSION

This study has delved into multiple dimensions of student readiness for their careers and the acquisition of skills during internships, illuminating essential facets of both educational and professional development. It has offered valuable insights into students' preparedness for their future careers. A majority of the respondents expressed a high level of readiness across personal preparedness, career expectations, and subject-specific readiness, showing their robust preparedness and optimism about their impending career prospects.

Moreover, the investigation has underscored disparities in the development of skills during internships. While many students reported acquiring valuable skills, specific areas, notably creativity, innovation, and change, as well as personal organization and time management, emerged as focal points requiring further enhancement. These findings underscore the necessity for targeted skill development within student internship programs.

In addition, the survey results concerning post-internship intentions elucidate the diverse career aspirations and goals of students as they transition from their academic pursuits to their professional journeys. This diversity reflects the multifaceted nature of their ambitions and future endeavours.

Furthermore, the outcomes of the DASS analysis have unveiled the psychological well-being of the respondents before their internships. This analysis has accentuated the imperative of addressing anxiety-related concerns within the context of internship preparation. Additionally, while depression and stress were reported by some to a certain extent, they remain pertinent issues to be considered in the context of career preparation.

FUTURE RESEARCH RECOMMENDATION

After concluding the research and analysing the results, the researcher proposes the following recommendations for future research. These recommendations primarily address the deficiency in skills development and the necessity of specific skills for career preparation in the future. Additionally, suggestions for enhancing the study for improved results and broader experiences are also provided. The recommendations are:

1. Conduct longitudinal studies to track the career trajectories of students who choose to continue their studies versus those who opt to enter the workforce after internships. Long-term data can provide insights into the impact of these decisions on career success and satisfaction.
2. Further investigate the specific challenges and barriers that students face in acquiring skills in areas such as creativity, innovation, change, and personal organization and time management during internships. Develop targeted interventions and training programs to enhance skill development in these areas.
3. Expand research to compare the readiness and skill acquisition of students across different academic programs and institutions. This can provide a broader perspective on the effectiveness of educational and internship experiences in preparing students for their careers.
4. Complement survey-based research with qualitative methodologies, such as interviews or focus groups, to gain deeper insights into the factors influencing students' career readiness and skill development. Qualitative research can provide a more comprehensive understanding of students' experiences and perceptions.
5. Develop and implement mental health support programs that address anxiety, depression, and stress concerns among students before and during their internships. These programs can help improve the overall well-being and mental health of students as they transition into the professional world.
6. Strengthen career counselling and guidance services for students to help them make informed decisions regarding their post-internship intentions. Providing resources and

information on various career paths and educational opportunities can empower students to make well-informed choices.

7. Collaborate with educational institutions and employers to refine curriculum and internship programs. Ensure that they align with industry demands and offer comprehensive skill development opportunities. Evaluate and adapt internship placements to cater to diverse skill requirements.
8. Establish mechanisms for ongoing monitoring and support for students as they navigate their career paths. Regular check-ins, mentorship programs, and resources for both students continuing their studies and those entering the workforce can facilitate successful transitions.
9. Foster stronger partnerships with industries to bridge the gap between education and employment. Encourage internships and curricula to be developed in tandem with industry needs, ensuring students acquire practical and relevant skills.
10. Investigate the impact of diversity and inclusion initiatives on students' readiness and skill development. Assess the effectiveness of programs aimed at promoting inclusivity and equal opportunities for all students.

In conclusion, future research and recommendations should focus on advancing our understanding of students' career preparedness and skill acquisition while addressing mental health concerns. By conducting comprehensive studies and implementing targeted interventions, educational institutions and employers can better support students as they embark on their professional journeys, ultimately contributing to their long-term success and well-being.

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PENGARUH FAKTOR-FAKTOR TEKNOLOGI TERHADAP PENERIMAAN APLIKASI MEDIA SOSIAL DALAM KALANGAN PERUSAHAAN KECIL DAN SEDERHANA (PKS) DI MALAYSIA

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ABSTRAK

Penerimaan teknologi merupakan perkara yang penting kepada organisasi seperti Perusahaan Kecil dan Sederhana (PKS). Penerimaan teknologi ini dikatakan akan memberikan pelbagai kelebihan kepada syarikat melibatkan kelebihan kompetitif, produktiviti dan peningkatan kualiti kerja. Pelbagai teknologi wujud kepada PKS seperti perkomputeran awan, e-dagang, e-HRM, perisian audit kewangan dan termasuklah aplikasi media sosial. Aplikasi media sosial seperti Tik Tok, Facebook dan Instagram menjadi antara pilihan PKS untuk berhubung dengan pelanggan dan dikatakan memberikan kesan positif kepada prestasi organisasi syarikat. Meskipun begitu, PKS dilihat belum lagi mengutilisasikan sepenuhnya teknologi ini dalam perniagaan meskipun wujudnya peningkatan terhadap penerimaan aplikasi ini. Kajian lepas menunjukkan keperluan untuk mengkaji faktor-faktor yang mempengaruhi penerimaan aplikasi ini di peringkat organisasi seperti PKS disebabkan ianya masih lagi terhad dan masih lagi di awal kajian di negara-negara membangun berbanding negara maju. Tambahan lagi, tiada persetujuan di antara pengkaji-pengkaji lepas mengenai faktor-faktor yang boleh mempengaruhi aplikasi ini kepada PKS dan pemahaman mengenai faktor-faktor ini perlu dilakukan bagi memahami faktor manakah yang signifikan kepada penerimaan aplikasi ini. Berdasarkan Teori Diffusi Inovasi (DOI), kajian ini mencadangkan ciri-ciri teknologi iaitu kelebihan relatif, keserasian dan kompleksiti untuk dikaji melibatkan penerimaan aplikasi media sosial kepada PKS. Kajian ini pada masa hadapan akan menggumpulkan kutipan data daripada PKS di Malaysia menggunakan kaedah kuantititif dengan instrumen soal selidik untuk mengeksplorasi faktor-faktor yang mempengaruhi penerimaan aplikasi ini dalam kalangan PKS. Keputusan kajian dijangka menunjukkan kesan positif kepada penerimaan di dalam organisasi berdasarkan kajian literatur terbaharu. Dapatan kajian terbaharu diharapkan dapat memberikan peluang kepada pembuat polisi untuk merangka kaedah bagi meningkatan penerimaan aplikasi ini dan seterusnya memberikan faedah kepada PKS di Malaysia.

Kata kunci: *Aplikasi media sosial; Perusahaan Kecil dan Sederhana (PKS); e-dagang; media sosial*

PENGENALAN

PKS memainkan peranan penting kepada ekonomi di pelbagai negara dan bagi memastikan mereka kekal produktif, berdaya saing dan mampu menembusi pasaran baru, teknologi ICT seperti internet, sistem web, telefon mudah alih dan termasuklah aplikasi media sosial adalah sangat diperlukan (Abdullah Alhamami Ahmed & Azuan Hashim Noor 2020). Media sosial merupakan "sekumpulan aplikasi berasaskan internet yang membina asas ideologi dan teknologi Web 2.0, dan yang membenarkan penciptaan dan pertukaran kandungan yang dijana pengguna" (Kaplan & Haenlein 2010). Facebook, Instagram, WhatsApp, LinkedIn, Twitter dan YouTube merupakan antara aplikasi yang menjadi pilihan PKS pada masa kini dan boleh diakses melalui pelbagai alat seperti telefon bimbit (Ahmad et al. 2018).

Media sosial dikatakan memberikan pelbagai kelebihan kepada PKS seperti menembusi pasaran baru dan menyebabkan mereka mula menerima aplikasi ini di dalam perniagaan mereka untuk pelbagai tujuan seperti komunikasi, penjualan, penjenamaan dan sebagainya (Qalati et al. 2022; Alkateeb & Abdalla 2021). Kelebihan ini hanya akan diterima oleh PKS jika mereka menerima aplikasi ini di dalam syarikat. Mesikpun begitu, banyak PKS yang belum mengetahui kewujudan dan kelebihan aplikasi ini kepada syarikat mereka seterusnya menyebabkan penerimaan aplikasi ini masih lagi rendah dalam kalangan mereka (Sugandini et al. 2020; Effendi et al. 2020).

Oleh yang demikian, kefahaman mengenai faktor-faktor yang mempengaruhi penerimaan aplikasi ini perlu dilakukan untuk menggalakkan penerimaan aplikasi ini seterusnya memberikan kesan positif kepada syarikat. Pemahaman mengenai faktor-faktor yang mempengaruhi penerimaan aplikasi ini dilakukan untuk mengetahui faktor-faktor yang signifikan kepada penerimaan teknologi ini dan memberikan input kepada pihak syarikat dan pembuat polisi (Qalati et al. 2022) dan mengurangkan halangan kepada penerimaan teknologi ini kepada PKS (Sugandini et al. 2020).

Kerajaan di pelbagai negara juga sangat menggalakkan penerimaan aplikasi ini sebagai salah satu strategi perniagaan kepada PKS yang menghadapi pelbagai cabaran pada masa kini seperti persaingan, kekurangan kemahiran teknikal, modal yang terhad dan sebagainya (C. L. Chen et al. 2021). Oleh yang demikian, PKS diharapkan dapat menggunakan peluang ini dan mendapat kelebihan daripada aplikasi ini seterusnya memberikan kesan positif kepada mereka. Kajian ini akan mengkaji faktor-faktor yang mempengaruhi penerimaan aplikasi media sosial daripada dimensi teknologi iaitu kelebihan relatif, keserasian dan kompleksiti. Kajian ini mencadangkan penggunaan Teori Diffusi Inovasi yang diperkenalkan oleh *E.M. Rogers* (1983) dan sering digunakan untuk mengkaji ciri-ciri teknologi yang mempengaruhi atau menghalang di dalam organisasi. Teori ini sering kali digunakan dalam kajian lepas menggunakan pelbagai teknologi seperti e-dagang (Mohtaramzadeh et al. 2018), e-pembelian (Hassan et al. 2017), perbankan internet (Claro & Rosa 2016), teknologi digital (Shahadat et al. 2023) dan sebagainya.

Bahagian seterusnya akan menerangkan mengenai penyataan maalah, objektif kajian, kajian literatur (penerimaan aplikasi media sosial dalam kalangan PKS, Teori Penerimaan Inovasi, faktor-faktor yang mempengaruhi penerimaan aplikasi media sosial dari segi kelebihan relatif, keserasian dan kompleksiti), metodologi dan penutup.

PENYATAAN MASALAH

Penerimaan aplikasi media sosial boleh dipengaruhi oleh pelbagai faktor melibatkan pelbagai dimensi seperti teknologi, organisasi dan persekitaran serta memerlukan PKS untuk mempunyai strategi dalam menerima aplikasi ini (Ahmad et al. 2019) seterusnya memberikan kesan yang positif kepada prestasi organisasi seperti PKS (Qalati et al. 2021). Walaubagaimanapun, kajian lepas menunjukkan syarikat kecil sering ketinggalan dan lambat dalam menerima aplikasi media sosial meskipun aplikasi ini dikatakan alat pemasaran yang boleh memberikan pelbagai kelebihan dan manafaat kepada mereka (Gavino et al. 2019). Meskipun begitu, bawah 30% daripada PKS menerima aplikasi ini di dunia dan kajian melibatkan penerimaan aplikasi ini masih di peringkat awal dan memerlukan kajian lanjutan terutamanya di negara membangun (Abbasi et al. 2022). Menurut Qalati et al. (2022), kajian lepas mencadangkan kajian lanjutan perlu dilakukan untuk mengenalpasti pelbagai faktor-faktor yang mempengaruhi penerimaan aplikasi ini di dalam konteks yang berlainan dan kebanyakan kajian berkaitan penerimaan aplikasi ini berlaku di negara maju dan melibatkan syarikat besar berbanding negara membangun dan syarikat kecil seperti PKS (Effendi et al. 2020).

Berdasarkan kajian literatur, kajian menunjukkan penemuan kajian yang bercampur melibatkan faktor-faktor yang mempengaruhi teknologi di dalam organisasi. Sebagai contoh, majoriti kajian menunjukkan kelebihan relatif mempengaruhi penerimaan teknologi maklumat termasuklah media sosial. Sebagai contoh, majoriti kajian menunjukkan penerimaan aplikasi ini disebabkan oleh pelbagai kelebihan yang boleh ditawarkan oleh aplikasi ini seperti mempengaruhi prestasi perniagaan atas talian seterusnya mempengaruhi penerimaan aplikasi ini (Samsudeen et al. 2021). Banyak kajian lepas menunjukkan faktor ini mempengaruhi penerimaan teknologi lepas dan menjadi faktor utama penerimaan sesuatu teknologi di dalam syarikat (Qalati et al. 2022). PKS dapat melihat kepada manafaat yang jelas melalui aplikasi ini dalam bidang pemasaran dan interaksi pelanggan (Ali Abbasi et al. 2022). Namun, terdapat juga kajian yang menunjukkan faktor-faktor teknologi tidak mempunyai hubungan dengan penerimaan aplikasi ini kepada PKS. Sebagai contoh, penemuan menunjukkan PKS enggan menerima aplikasi ini melalui kelebihan relatif kerana keputusan penerimaan aplikasi ini disebabkan faktor dalaman syarikat berbanding faktor-faktor teknologi dan disebabkan majoriti responden daripada generasi muda yang telah mengetahui aplikasi ini lebih awal (Alkateeb & Abdalla 2021; AlSharji et al. 2018).

Seterusnya, faktor kedua iaitu keserasian juga menunjukkan penemuan yang bercampur sebelum ini. Majoriti kajian lepas menunjukkan faktor ini juga mempengaruhi penerimaan di dalam organisasi melalui arah tuju, budaya dan prosedur syarikat yang menyokong penerimaan teknologi (Samsudeen et al. 2021; Shaltoni & Shaltoni, 2017). Keserasian dikatakan menjadi antara faktor utama mempengaruhi penerimaan teknologi baru seperti media sosial melalui prosedur kerja, nilai-nilai dan teknologi-teknologi terdahulu dalam syarikat (Rahman et al. 2020; Shaltoni 2017). Namun, hasil penelitian juga menunjukkan keserasian tidak selalu mempengaruhi penerimaan aplikasi ini jika syarikat berhadapan dengan keterbatasan dari segi kefahaman mengenai teknologi ini dan sistem teknologi maklumat (Amoah et al., 2023) serta infrastruktur sedia ada di dalam organisasi (Ahmad et al. 2019).

Selain itu, faktor ketiga iaitu kompleksiti merupakan ciri teknologi mengikut Teori DOI. Majoriti kajian menunjukkan kesukaran sesuatu sistem sudah semestinya akan menghalang penerimaan inovasi dalam syarikat termasuklah aplikasi media sosial (Alkateeb & Abdalla 2021). Oleh itu, sesuatu teknologi itu perlulah mudah untuk digunakan dan memerlukan tempoh jangka masa yang pendek untuk membina kemahiran kepada pengguna (Ahmad et al. 2019). Majoriti kajian menunjukkan kompleksiti sesuatu teknologi menunjukkan hubungan negatif kepada penerimaan di dalam organisasi seperti aplikasi media sosial (Samsudeen et al. 2021), namun terdapat kajian menunjukkan faktor ini tidak mempunyai hubungan yang signifikan kepada penerimaan di dalam organisasi (Trawnih et al. 2021). Ini mungkin disebabkan teknologi seperti mudah untuk digunakan tetapi lebih kompleks melibatkan aspek perlaksanaan dan mencadangkan aspek ini untuk diberikan lebih perhatian (Alsharji et al. 2019). Oleh yang demikian, disebabkan hubungan inkonsistensi kajian lepas kepada penerimaan di dalam organisasi menyebabkan kajian lanjutan perlu dilakukan untuk mengkaji penemuan terbaharu faktor manakah yang signifikan kepada PKS.

OBJEKTIF KAJIAN

Objektif kajian ini iaitu:

1. Mengenalpasti faktor-faktor teknologi yang mempengaruhi penerimaan aplikasi media sosial dalam kalangan PKS
2. Mengenalpasti hubungan antara kelebihan relatif, keserasian dan kompleksiti dengan penerimaan aplikasi media sosial dalam kalangan PKS

HIPOTESIS KAJIAN

H1: Kelebihan relatif mempengaruhi secara positif penerimaan aplikasi media sosial dalam kalangan PKS
H2: Keserasian mempengaruhi secara positif penerimaan aplikasi media sosial dalam kalangan PKS
H2: Kompleksiti (mudah untuk digunakan) mempengaruhi secara positif penerimaan aplikasi media sosial dalam kalangan PKS

KAJIAN LITERATUR

PENERIMAAN APLIKASI MEDIA SOSIAL DALAM KALANGAN PKS

Kerajaan sangat menggalakkan PKS untuk menerima aplikasi ini, meskipun begitu PKS dikatakan sering ketinggalan dengan penerimaan teknologi di dalam syarikat meskipun teknologi ini dapat memberikan pelbagai kelebihan serta faedah-faedah kepada pelbagai pihak seperti pelanggan dan syarikat (Saeed Alkhateri et al. 2021). Berbeza dengan syarikat besar yang mempunyai kelebihan melibatkan sumber, pengetahuan dan kemampuan untuk mengutilisasikan teknologi, kebanyakkan syarikat PKS tidak menyedari kelebihan sesuatu teknologi seperti aplikasi media sosial kepada mereka sedangkan aplikasi ini boleh memberikan kelebihan seperti peningkatan keuntungan, penembusan pasaran baru, kebolehlihatan dan kesedaran jenama (Elnadi 2022). Tambahan juga, kajian lepas menunjukkan masih terdapat PKS yang tidak mahir dalam menggunakan aplikasi ini dan tidak mempunyai strategi dalam menguruskan aplikasi ini (Qalati et al. 2021). PKS yang telah menerima aplikasi ini memerlukan sokongan berterusan daripada pihak pengurusan, peningkatan kemahiran melibatkan pengurus syarikat dan kesediaan organisasi untuk menerima aplikasi ini bagi mengurangkan halangan kepada penerimaan aplikasi ini dan memastikan PKS mengutilisasikan sepenuhnya aplikasi ini untuk perniagaan seterusnya mendapat kelebihan daripada aplikasi ini (Sugandini et al. 2020). Malah terdapat negara yang kurang memberikan perhatian terhadap sesuatu ICT dan PKS yang tidak kisah kepada tekanan daripada pihak luar untuk menerima inovasi di dalam organisasi (Gui et al. 2020).

TEORI PENERIMAAN INOVASI (DOI)

Berdasarkan Teori Penerimaan Inovasi oleh Roger (1983), terdapat 5 ciri-ciri teknologi yang mempengaruhi penerimaan inovasi seperti kelebihan relatif, kebolehlihatan, keserasian, kerumitan dan triabiliti. Kelima-lima ciri-ciri tekologi menjadi antara pilihan pengkaji lepas sebagai faktor-faktor berkaitan teknologi yang dikatakan boleh mempengaruhi penerimaan teknologi kepada organisasi seperti PKS. Rogers et al. (2009) menghuraikan lima ciri teknologi inovasi.

- Kelebihan relatif merupakan suatu tahap di mana pengguna berpotensi melihat inovasi sebagai lebih baik daripada alternatif.
- Keserasian ialah sama ada ianya dilihat konsisten dengan teknologi lain yang telah digunakan dalam organisasi.
- Kerumitan berkait iaitu sama ada sesuatu inovasi dianggap sukar untuk digunakan.
- Kebolehlihatan merujuk kepada keputusan penerimaan inovasi boleh dilihat oleh orang lain.
- Triabiliti merujuk kepada sesuatu inovasi itu boeh diuji sebelum diterima pakai kepada penerima.

Kelima-lima ciri-ciri teknologi ini sering kali digunakan dalam kajian lepas melibatkan pelbagai teknologi melalui Teori Diffusi Inovasi (Mohtaramzadeh et al. 2018). Meskipun begitu, kebanyakkan kajian lepas mengaitkan faktor berkaitan kelebihan relatif, keserasian dan kompleksiti melihat faktor-faktor ini sebagai konstruk utama di dalam Teori DOI berbanding faktor berkaitan triabiliti dan kebolehlihatan yang kurang sesuai dalam menilai penerimaan teknologi baru (Riyadh et al. 2019). Malah, kajian sebelum ini menunjukkan kedua-dua faktor ini tidak mempunyai hubungan yang signifikan kepada penerimaan teknologi di peringkat organisasi seperti PKS (Ahmad et al. 2019). Oleh itu, kajian ini hanya akan menggunakan 3 pemboleh ubah pertama sahaja.

FAKTOR-FAKTOR YANG MEMPENGARUHI PENERIMAAN APLIKASI MEDIA SOSIAL DALAM KALANGAN PKS

KELEBIHAN RELATIF

Kelebihan relatif merujuk kepada kelebihan yang bakal diterima oleh penerima seperti PKS setelah penerimaan teknologi ini di dalam syarikat (Mohtaramzadeh et al. 2018). Penerimaan teknologi akan diterima dalam syarikat sekiranya mereka dapat melihat kepada kelebihan yang dapat ditawarkan seperti penambahbaikan terhadap komuikasi, reputasi, kebolehsaingan dan kemampuan untuk menembusi pasaran baru melalui teknologi internet dan media sosial (Shaltoni 2017). Kajian lepas menunjukkan kelebihan relatif berkait dengan kelebihan kompetitif menyebabkan penerimaan aplikasi media sosial ini dalam kalangan PKS (Pateli & Mylonas 2020).

Kelebihan penerimaan aplikasi ini akan memotivasikan syarikat untuk menerima aplikasi ini melalui kelebihan yang ditawarkan dan menjadi penyebab utama penerimaannya kepada PKS (Elnadi 2022). Kajian menunjukkan semakin tinggi kelebihan yang ditawarkan oleh syarikat, semakin tinggi syarikat akan menerima aplikasi ini di dalam perniagaan mereka. Kajian lepas menunjukkan faktor ini mempengaruhi penerimaan teknologi secara positif di dalam organisasi terutamanya melibatkan teknologi baru di negara membangun melibatkan PKS (Qalati et al. 2022). Tambahan juga, syarikat yang mempunyai pengetahuan tinggi terhadap kelebihan yang bakal diterima oleh syarikat selepas penerimaan aplikasi ini akan lebih mudah menerima aplikasi ini berbanding syarikat yang tidak menyedari kelebihan tersebut (Rahman et al. 2020).

Kajian oleh Shaltoni (2017) menunjukkan kelebihan relatif dan keserasian di dalam Teori DOI mempunyai hubungan yang signifikan kepada penerimaan teknologi seperti media sosial berbanding ciri-ciri lain seperti triabiliti dan kebolehlihatan yang lebih menjurus kepada penerimaan di peringkat individu. Manakala, kajian lain di dalam Teori DOI melibatkan faktor-faktor penerimaan seperti kelebihan relatif, keserasian, kompeksiti, kobolehlihatan juga menunjukkan hubungan yang signifikan kepada penerimaan media sosial dalam kalangan PKS, manakala faktor iaitu triabiliti menunjukkan hubungan yang negatif (Samsudeen et al. 2021).

Penambahbaikan terhadap prestasi pemasaran atas talian menyebabkan kelebihan relatif memberikan kesan yang positif kepada penerimaan media sosial melibatkan PKS (Samsudeen et al. 2021). Kajian lepas juga menunjukkan kelebihan relatif menjadi sebab utama penerimaan inovasi kepada PKS seperti e-dagang yang melibatkan efisiensi kepada hubungan dengan pelanggan, operasi dan sumber manusia (Setiyani & Yeny Rostiani 2021). Penerimaan ini berlaku terutamanya jika syarikat melihat kepada kebaikan yang dapat ditawarkan oleh teknologi terkini dan lebih baik berbanding alternatif termasuklah kepad teknologi lain seperti sistem pengurusan pembekalan (Hamadneh et al. 2023). Malah, faktor ini dianggap sebagai sebab utama penerimaan di dalam organisasi (Y. Chen et al. 2019) yang mempengaruhi PKS kepada aplikasi ini melibatkan kelebihan yang bakal diterima oleh mereka selain daripada faktor berkaitan kos (Elnadi 2022). Oleh yang demikian, kebanyakkan kajian lepas dilihat menyokong faktor ini signifikan kepada penerimaan aplikasi ini kepada syarikat disebabkan oleh pelbagai kelebihan yang boleh ditawarkan dan bermanafaat kepada PKS.

Walaubagaimanapun, terdapat kajian yang menunjukkan faktor ini tidak signifikan kepada penerimaan aplikasi media sosial dalam kalangan PKS disebabkan responden daripada kajian ini adalah generasi muda yang telah mengetahui kelebihan teknologi ini, maka kelebihan-kelebihan daripada teknologi ini telah pun diketahui oleh mereka (Ahmad et al. 2018). Sebaliknya, majoriti kajian menunjukkan faktor ini signifikan dan mempengaruhi penerimaan media sosial dalam kalangan PKS terutamanya melibtkan aspek pemasaran yang menyebabkan mereka perlu berhubung dan berkomunikasi dengan pelanggan dengan lebih efektif seterusnya membina hubungan dengan mereka (Abbasi et al. 2022). Secara kesimpulannya, majoriti kajian menunjukkan faktor ini signikan dan mempengaruhi penerimaan aplikasi media sosial kepada PKS. Oleh yang demikian, berdasarkan dapatan maklumat di atas, hipotesis yang dicadangkan ialah:
H1: Kelebihan relatif mempengaruhi secara positif penerimaan aplikasi media sosial dalam kalangan PKS

KESERASIAN

Keserasian merupakan salah satu ciri-ciri berkaitan teknologi mengikut Teori Diffusi Inovasi melibatkan penerimaan inovasi. Keserasian merujuk kepada sejauh mana inovasi yang diperkenalkan dilihat konsisten dengan proses, pembekal dan pelanggan sedia ada di dalam syarikat (Samsudeen et al. 2021). Faktor ini merupakan salah satu daripada 5 ciri-ciri berkaitan teknologi yang boleh mempengaruhi penerimaan inovasi dalam organisasi (Rogers et al. 2009). Keserasian mempengaruhi penerimaan aplikasi ini kepada PKS sekiranya ia sesuai dengan strategi sedia ada syarikat selain daripada infrastruktur dan nilai-nilai yang menyokongnya (Samsudeen et al. 2021). Kajian oleh Qalati et al. (2022) menyokong faktor ini mempengaruhi penerimaan kepada PKS melalui infrastruktur di dalam syarikat seperti kemudahan internet, sifat aplikasi yang mudah digunakan oleh pengguna dan kesesuaian teknologi yang diperkenalkan ini melibatkan operasi dan polisi syarikat.

Kajian lepas menunjukkan semakin tinggi keserasian teknologi ini dengan nilai, keperluan dan pengalaman syarikat, semakin tinggi penerimaan teknologi ini dalam syarikat melibatkan teknologi seperti sistem maklumat hospital (Ahmadi et al. 2017). Keserasian dalam syarikat juga boleh merujuk kepada matlamat syarikat, perkakasan, perisian dan pengalaman-pengalaman lepas syarikat yang menyokong penerimaan aplikasi media sosial ini (Ahmadi et al. 2017). Oleh yang demikian, syarikat yang bersedia dari segi kemahiran teknikal, objektif perniagaan, penerimaan pihak-pihak seperti pembekal, pekerja yang memainkan peranan penting terhadap kejayaan penerimaan teknologi ini di dalam organisasi (Malik et al. 2021).

Keserasian merujuk kepada konsistensi teknologi baru yang diperkenalkan kepada PKS iaitu aplikasi media sosial dengan keperluan syarikat, teknologi dan amalan terdahulu (Qalati et al. 2021). Keserasian merupakan antara faktor utama yang mempengaruhi penerimaan media sosial untuk aktiviti pemasaran dalam kalangan PKS dan kegagalan syarikat untuk mencari keserasian antara teknologi dan keadaan semasa syarikat akan mewujudkan kegagalan dari segi kewangan (Eze et al. 2020). Keserasian yang rendah akan menghalang proses penerimaan teknologi di dalam syarikat dan perlu dilihat mudah untuk digunakan serta memerlukan latihan untuk memastikan kejayaan penerimaan aplikasi ini (AlSharji et al. 2018). Keserasian juga boleh berlaku melibatkan produk atau perniagaan dengan aplikasi media sosial dan memerlukan kemahiran menguruskan sistem maklumat (IT) untuk kesan positif kepada syarikat (Syaifullah et al. 2021).Majoriti kajian menunjukkan keserasian mempunyai kesan positif kepada penerimaan aplikasi media sosial.

Sebaliknya, terdapat juga kajian yang menunjukkan keserasian tidak mempunyai hubungan signifikan dengan penerimaan teknologi disebabkan kebanyakkan syarikat telahpun bersedia dengan penerimaan aplikasi ini seperti kemudahan internet dan mudah untuk digunakan (Ahmad et al. 2019). Oleh yang demikian, berdasarkan dapatan maklumat di atas, hipotesis yang dicadangkan ialah**:**

H2: Keserasian mempengaruhi secara positif penerimaan aplikasi media sosial dalam kalangan PKS

KOMPLEKSITI

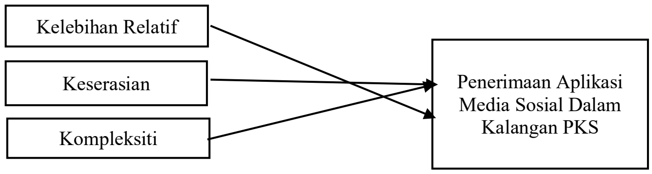
Kompleksiti merujuk kepada persepsi PKS mengenai kerumitan dalam penggunaan aplikasi media sosial dan ianya boleh mempengaruhi penerimaan media sosial di dalam syarikat (Samsudeen et al. 2021). Faktor ini merupakan salah satu daripada ciri-ciri dalam Teori DOI dan kompleksiti sesebuah teknologi akan menyukarkan proses penerimaan teknologi kepada PKS (Setiyani & Yeny Rostiani 2021). Kompleksiti merujuk satu halangan kepada penerimaan teknologi dan semakin tinggi kompleksiti sesuatu teknologi, maka semakin rendah organisasi akan menerima teknologi ini (Malik et al. 2021). Kompleksiti boleh mempengaruhi penerimaan teknologi seperti perbankan internet melibatkan ianya mudah untuk dipelajari dan digunakan di dalam organisasi (Eriksson et al. 2008). Faktor ini boleh menjadi penghalang dan menganggu motivasi organisasi untuk menerima sesuatu teknologi jika ianya sukar untuk dipelajari, digunakan dan diamalkan dalam syarikat (Y. Chen et al. 2019). Aplikasi ini digambarkan dalam kajian lepas sebagai mudah untuk digunakan dan dipelajari dan mempunyai hubungan yang positif kepada penerimaan teknologi (Elnadi 2022).

Kebanyakkan kajian lepas menunjukkan kompleksiti mempunyai hubungan negatif dengan penerimaan teknologi dan merupakan antara faktor penting dalam penerimaan aplikasi ini (Elnadi 2022). Kajian oleh Ahmad et al. (2018) menunjukkan aplikasi ini mudah untuk digunakan, mudah untuk dipelajari kemahiran dalam menguruskan aplikasi ini dan aplikasi ini dapat mencapai apa yang diperlukan, lantas menyebabkan hubungan yang positif kepada penerimaan di dalam syarikat. Oleh yang demikian, berdasarkan dapatan maklumat di atas, hipotesis yang dicadangkan ialah:

H3: Kompleksiti (mudah untuk digunakan) mempengaruhi secara positif penerimaan aplikasi media sosial dalam kalangan PKS

CADANGAN KERANGKA KERJA KAJIAN

RAJAH 1: Kerangka Kerja Kajian



METODOLOGI KAJIAN

Kajian ini adalah secara kuantitatif dan akan dilakukan di negara membangun iaitu Malaysia. Unit analisis bagi kajian ini ialah organisasi iaitu PKS di Malaysia dan melibatkan responden seperti pemilik syarikat, pengurus atau pekerja syarikat. Instrumen kajian menggunakan soal selidik secara *Random Sampling*. Soal selidik akan diambil daripada kajian lepas seperti Jadual 1 yang dipercayai sumbernya dan disahkan mengikut prosedur yang dilakukan sebelum ini sebelum proses kutipan data. Data ini akan dianalisis menggunakan SEM-PLS seperti cadangan kajian lepas. Analisis kajian ini akan menggunakan *Confirmatory Factor Analysis (CFA)* untuk mengukur model pengukuran dan model struktural juga akan dilakukan. CFA dan penilaian model pengukuran akan dilakukan bagi menilai 2 fasa di dalam SEM. Populasi PKS di Malaysia adalah sebanyak 1,173,601 bagi tahun 2022 (SME Corporation 2022). Oleh yang demikian, sampel kajian mengikut Krejcie and Morgan (1970) adalah sebanyak 384 syarikat PKS bagi populasi atas 1 juta (Agyapong & Attram, 2019). Kajian lepas menunjukkan bilangan sampel adalah pelbagai mengikut bilangan populasi PKS di negara masing-masing (Amoah et al., 2023; Qalati et al., 2021). Meskipun begitu, bilangan sampel yang besar diperlukan untuk CFA/ SEM untuk pengesahan melibatkan jumlah sampel minimum iaitu 200 (Kyriazos 2018). Bagi aspek kesahan dan kebolehpercayaan akan melibatkan kebolehpercayaan item individu, ketekalan dalaman, kesahan kandungan, kesahan konvergen dan kesahan diskriminasi (Qalati et al. 2021).

JADUAL 1: Sorotan Kajian Literatur Melibatkan Sumber Soal Selidik

No	Bah.	Konstruk	Definasi Konstruk	Nombor Soalan	Sumber	Jumlah Item	Skala Likert	Objektif
1.	A	Latar Belakang Demografik	Latar belakang responden, syarikat dan tahap penggunan media sosial	1-10	AlSharji et al. (2018) dan Chatzoglou & Chatzoudes (2016)	10	1 (sangat tidak setuju) hingga 5 (sangat setuju	Untuk mendapatkan maklumat mengenai latar belakang responden, syarikat dan tahap penggunaan aplikasi ini di dalam organisasi
2.	B	Penerimaan Aplikasi Media Sosial	Tiga aspek iaitu pemasaran, hubungan dengan pelanggan	11-15	Amoah et al., (2023) dan Parveen et al. 2016)	5	1 (sangat tidak setuju) hingga 5 (sangat setuju	Untuk mengetahui aspek penerimaan media sosial kepada PKS
3.	C	Faktor Penerimaan Daripada Konteks Teknologi	Kelebihan Relatif	16-20	Ahmad et al. (2018); AlSharji et al. (2018) dan Rogers (1995)	5	1 (sangat tidak setuju) hingga 5 (sangat setuju	Untuk mengetahui sejauh mana kelebihan relatif di dalam aspek teknologi memberi kesan kepada penerimaan media sosial kepada PKS
			Keserasian	21-25	Ahmad et al. (2018); AlSharji et al. (2018) dan Rogers (1995)	5	1 (sangat tidak setuju) hingga 5 (sangat setuju	Untuk mengetahui sejauh mana keserasian di dalam aspek teknologi memberi kesan kepada penerimaan media sosial kepada PKS
			Kebolehlihatan	26-30	Ahmad et al. (2018); AlSharji et al. (2018) dan Rogers (1995)	5	1 (sangat tidak setuju) hingga 5 (sangat setuju	Untuk mengetahui sejauh mana kebolehlihatan di dalam aspek teknologi memberi kesan kepada penerimaan media sosial kepada PKS

PENEMUAN KAJIAN

Sebanyak 15 artikel telah dikenalpasti mempunyai kaitan dengan kajian berkaitan faktor-faktor teknologi yang mempengaruhi penerimaan aplikasi media sosial. Dapatan kajian lepas yang diperolehi telah diringkaskan secara bersistematik seperti Jadual 2.

JADUAL 2: Sorotan Literatur Secara Sistematik Kajian Faktor-Faktor Teknologi Kepada Penerimaan Aplikasi Media Sosial Kepada PKS

Bil	Pengkaji	Tajuk Kajian	Kaedah Analisis (Organisasi)	Hubungan Kepada Penerimaan Aplikasi Media Sosial			Dapatan
				Kelebihan Relatif	Keserasian	Kompleksiti	
1.	Amoah et al. (2023)	Penerimaan Media Sosial Dalam Kemampanan PKS: Bukti Daripada Ekonomi Sedang Pesat Membangun	PLS- SEM (430 respon)	Tidak signifikan	Tidak signifikan	Tidak signifikan	Ketiga-tiga faktor ini menunjukkan hubungan yang tidak signifkan kepada penerimaan aplikasi media sosial melibatkan PKS.
2.	Ali Abbasi et al. (2022)	Penentu Penggunaan Pemasaran Media Sosial PKS: Industri Berdaya Saing Sebagai Moderator	PLS – SEM (153 respon)	Positif	Tidak berkaitan	Tidak signifikan	Kompleksiti tidak mempunyai hubungan signifikan kerana kebanyakkan responden telah biasa menggunakan aplikasi ini dan menyebabkan kompleksiti telah dibasmi. Kelebihan relatif menunjukkan hubungan positif kerana kebanyakkan PKS menerima kelebihan ini kerana percaya dengan kelebihan yang bakal diterima oleh mereka.
3.	Qalati et al. (2022)	Prestasi Media Sosial Dan PKS di Negara Membangun: Kesan Faktor Teknologi-Organisasi-Persekitaran Terhadap Penggunaan Media Sosial	PLS -SEM (381 respon)	Positif	Positif	Tidak berkaitan	Faktor berkaitan teknologi mempengaruhi penerimaan aplikasi media sosial melibatkan PKS termasuk interaktiviti dan kos effektif
4.	Pervin & Sarker (2021)	Faedah Dan Cabaran Dalam Menggunakan Media Sosial Untuk PKS: Kes Dari Bangladesh	Logistic Regression (L.R.) (365 respon)	Positif	Positif	Positif	Ketiga-tiga faktor ini menunjukkan hubungan yang positif kepada penerimaan aplikasi media sosial melibatkan PKS.
5.	Samsudeen et al. (2021)	Penggunaan Media Sosial: Perspektif Perusahaan Kecil Dan Sederhana di Sri Lanka	SEM (285 respon)	Positif	Positif	Positif	Ketiga- tiga faktor mempengaruhi penerimaan aplikasi media sosial melibatkan PKS.

6.	Trawnih et al. (2021)	Faktor-Faktor Yang Mempengaruhi Penggunaan Media Sosial Dalam Kalangan PKS Semasa Krisis Covid-19	SEM (250 respon)	Positif	Positif	Positif	Ketiga-tiga faktor ini menunjukkan hubungan positif kepada penerimaan aplikasi media sosial melibatkan PKS sewaktu pandemik Covid-19
7.	Alkateeb & Abdallah (2021)	Penerimaan Media Sosial dan Kesannya Terhadap Prestasi PKS: Kajian Kes Palestin	Analisis Regresi Mudah (332 respon)	Tidak signifikan	Tidak signifikan	Tidak signifikan	Faktor teknologi dilihat tidak signifikan kerana majoriti responden adalah generasi muda dan faktor dalaman lebih mempengaruhi penerimaan aplikasi ini kepada PKS berbanding faktor teknologi.
8.	Pateli et al. (2020)	Penggunaan Organisasi Media Sosial Dalam Industri Hospitaliti: Pendekatan Bersepadu Berdasarkan Rangka Kerja DIT dan TOE	PLS – SEM (106 respon)	Positif	Tidak Berkaitan	Tidak Berkaitan	Konstruk teknologi paling mempengaruhi penerimaan aplikasi media sosial melibatkan firma hospitaliti.
9.	Rahman et al. (2020)	Penggunaan Media Sosial dan Kemampanan Kewangan : Pengajaran Yang Dipetik Daripada Negara Membangun	PLS (362 respon)	Positif	Positif	Tidak Berkaitan	Kedua-dua faktor ini mempengaruhi penerimaan aplikasi ini kepada PKS di negara membangun. Kelebihan relatif menjadi faktor utama mempengaruhi penerimaan teknologi baru termasuklah aplikasi media sosial.
10.	Effendi et al. (2020)	Penerimaan Media Sosial Dalam PKS Yang Terpengaruh Oleh COVID-19: Model TOE	SEM-AMOS (250 respon)	Positif	Positif	Positif	Konteks teknologi menunjukkan hubungan positif kepada kesedaran kepada media sosial melibatkan PKS
11.	Ahmad et al. (2019)	Penggunaan Media Sosial dan Kesannya Terhadap Prestasi Firma: Kes UAE	PLS- SEM (144 respon)	Tidak signifikan	Tidak Signifikan	Positif	Hasil kajian mendapati kelebihan relatif tidak mempunyai hubungan signifikan kepada penerimaan media sosial kerana majoriti responden adalah generasi muda yang telah mengetahui kelebihan aplikasi ini. Manakala, keserasian kerana kebanyakkan infrastruktur adalah serasi dengan aplikasi ini sehingga tidak memberikan kesan yang signfikan kepada penerimaan di dalam organisasi.
12.	AlSharji et al. (2018)	Memahami penggunaan media sosial dalam PKS: Bukti empirikal dari Emiriah Arab Bersatu	PLS- SEM (1700 respon)	Tidak signifikan	Tidak signifikan	Tidak signifikan	Hasil kajian mendapati faktor berkaitan teknologi tidak mempengaruhi penerimaan aplikasi media sosial kepada PKS berbanding faktor berkaitan organisasi dan persekitaran.
13.	Tripopsakul (2018)	Penggunaan Media Sosial Sebagai Platform Perniagaan: Rangka Kerja TAM-TOE Bersepadu	SEM (357 respon)	Positif	Positif	Positif	Ketiga-tiga faktor adalah signfikan kepada penerimaan aplikasi media sosial melibatkan usahawan pelajar termasuklah faktor lain seperti kebolehlihatan dan triabiliti.

14	Shaltoni (2017)	Daripada Laman Web Ke Media Sosial: Meneroka Penggunaan Pemasaran Internet Dalam Pasaran Perindustrian Baru Muncul	Website and Business Page analysis (570 respon)	Positif	Positif	Negatif	Pemasaran internet termasuk media sosial dipengaruhi oleh kelebihan relatif dan keserasian, tetapi tidak dipengaruhi oleh kompleksiti disebabkan teknologi internet sekarang lebih mudah untuk dipelajari.
15.	Raphael Odoom, Thomas Anning-Dorson (2017)	Anteseden Penggunaan Media Sosial Dan Faedah Prestasi Dalam Perusahaan Kecil Dan Sederhana (PKS)	SEM (210 respon)	Tidak Berkaitan	Positif	Tidak Berkaitan	Interaktiviti, keberkesanan kos dan keserasian mempengaruhi penerimaan aplikasi media sosial kepada PKS

PENUTUP

Secara kesimpulannya, terdapat pelbagai faktor yang mempengaruhi penerimaan teknologi kepada organisasi seperti PKS mengikut teori-teori dan model kajian lepas. Kelebihan relatif, keserasian dan kompleksiti merupakan antara faktor-faktor di dalam konstruk teknologi melibatkan Teori DOI. Di dalam kajian literatur dan Jadual 2 menunjukkan perdebatan berterusan mengenai hubungan pemboleh ubah-pemboleh ubah ini sama ada secara positif, negatif mahupun tidak signifikan kepada penerimaan aplilasi media sosial kepada PKS. Oleh yang demikian, kajian konsep ini diharapkan dapat menyumbang kepada pembangunan literatur melibatkan penerimaan aplikasi ini di negara membangun melalui pemeriksaan kepada faktor-faktor yang berpotensi mempengaruhi penerimaan ini dan seterusnya akan memberikan penemuan terbaru dan menyelesaikan perbezaan pandangan dalam kajian literatur mengenai bidang ini.

CADANGAN KAJIAN LANJUTAN

Pada masa hadapan, cadangan model ini akan diharapkan dapat melibatkan faktor- faktor lain daripada konstruk teknologi, penambahan konstruk melibatkan organisasi dan persekitaran serta peranan pemboleh ubah penyerdahana/ pengantara dalam kajian masa hadapan. Kajian juga mencadangkan untuk melibatkan faktor berkaitan penerimaan serta impak kepada syarikat.

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REFLECTION AS AN INTERNATIONAL BACCALAUREATE (IB) BUSINESS MANAGEMENT EXTENDED ESSAY EXAMINER CERTIFIED BY THE INTERNATIONAL BACCALAUREATE ORGANIZATION (IBO)

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ABSTRACT

Introduction: The extended essay is an in-dept study of a focused topic chosen from the list of available International Baccalaureate Diploma Programme subjects for the session. It is compulsory for all students taking the Diploma Programme and it is an option for course students. A student must achieve a D grade or higher to be awarded the Diploma. It is externally assessed and, in combination with the grade for theory of knowledge, contributes up to three points to the total score for the IB Diploma.The number of students' scored for this subject is least according the past years performance, year in year out, Grade A is for students who have gone extra mile especially in terms of secondary research (for example academic journals, like in a University paper. Most of students scored grade B who did a good job and grade C typically for EEs with primary research. Least scored Grade D; with weak EEs but still showing some subject knowledge. This reflection is specifically taken from the view point as a Business Management extended essay examiner.This concept paper is going to identify the contributing factors from the teacher/examiner aspect, that contributes to students' having more Grade A and B in Business Management extended essay, ways of improving and how important is the role of supervisor in assessing the high grade in Business Management extended essay to be specific in this research process.

Keywords: *reflection; extended essay; International Baccalaureate Diploma Program*

NEED FOR THE STUDY

The aim of the research project is to explore the explore the experience of reflective practice among IB teachers being the examiner in extended essay papers. This research will investigate teachers/examiners experiences, feelings, outcome in overcoming the qualification test and being markers and also discussing issues related to how does the teacher practices their ways in marking for the students' performance in extended essay in related aspects. In order to answer the survey question, a survey was conducted to current teachers'/examiners of extended essay in various subjects at back up Kolej MARA Banting. Survey results have revealed that the teachers'/examiners practices and learning experiences can contribute in supervising and assessing students' in completing their extended essay regardless of subject areas to sustain Grade A and B in Business Management extended essay.

EXTENDED ESSAY IN GENERAL

This is a pierce of independent research on a topic chosen under a supervision consultation in the school. This mini-thesis is a piece of sustained academic writing containing not more than 4000 words followed by a reflection form of not more than 500 words. The extended essay is an independent, self-directed piece of research, finishing with a 4,000-word paper. One component of the International Baccalaureate® (IB) Diploma Programme (DP) core, the extended essay is mandatory for all students.

As has been laid out by the IBO, the essay should be completed by the students within approximately 40 hours of work. Furthermore, a recommended supervision process should be 3-5 hours, which include three mandatory reflection sessions. Students Are strongly recommended to carry out a research in a subject area they are currently studying in the Diploma Programme in order to ensure they have sufficient subject knowledge to complete the task. Areas of research they can do are World Studies, World Religion, Economics, Business Management and Digital Society.

Teachers' understanding, knowledge, assessment literacy are important in transmitting to students' on analysing data and demonstrating knowledge from the perspectives of IB learning process. The writing shows evidences on how experiences of teachers'/examiners as assessment practitioners contributes to the teachers' personal development, teachers' confidence and self-efficacy and definitely helping their students to better understand the subject and syllabus in IB very well and smoothly and these reflect in IB May/Nov examinations year in and out.

OBJECTIVES

The research paper seeks to achieve its general objectives of becoming a competitive advantages IB teacher by focusing on the following specific objectives:

1. The idea of this research is therefore to be contributed to new IB students intake and also for the new IB educators in the near future and indirectly it will be useful in reducing the number of students' obtaining Grade C and below in the IB examination.

OUTCOME OF BECOMING AN IB EXTENDED ESSAY EXAMINERS

1. Options to teach in this IB school since 2008. Being totally strangers and new to the system, thus having problem in understanding the new syllabus structure. One of late new colleague did mention about this, if you wana learn more, be an examiner. Definitely, it will lead you to something.
2. Capable of increasing knowledge on the subject and having better focus on the requirements of the subject assessment models.
3. Most of the teachers are too busy with their own chores, thus, learning new things will definitely.
4. Having more confidence, being passionate in teaching the subject and having more accuracy in predicting the students' predicted grades. It helps in preparing students' to get extra points in the May IB Exams.
5. Definitely like the idea or earning more USD since the exchange rate is attractive too.

CHALLENGES IN BECOMING IB EXTENDED ESSAY EXAMINERS

1. Though being an examiner, the teacher gets invaluable insights on how examinations being assessed. There are two qualification stages (Qualification 1 and Qualification 2), that requires each assistant examiner to past before being qualified as an examiner. The teacher or called as assistant examiner will therefore have to do the

qualification 1, if he or she passes then, will automatically be qualified as assistant examiner. This is an opportunity of using own skills and understanding from pre-marked answers from candidates of different writing abilities. And these papers have been marked by the principal examiner and team leaders of IB examination.

2. Having fear and lack of confidence when having to deal with seeding papers.. Seeding papers are given in between the process of doing the qualification 1 or 2. This is to check the accuracy of markers when giving marks on the actual IB extended essay marks in comparison to the team leader marks. If the marks are within the range it is called within tolerance or accurate marks, so the marker past the qualification test. Each qualification test set has 5 questions to be marked.
3. Have to juggle time within work, core responsibility with this extra marking job.

WAYS OF MANAGING THE CHALLENGES

The International Baccalaureate Organization (IBO) opens up any IB related staff to become part of the examination marker yearly. Since many local or international schools offering IB programs, the reputable brand name of IB schools have proven to produce many active learners, well-rounded individuals and excellent engaged world citizens (Hayden, 2006). IB has started its early education program in North America and Europe (Tarc 2009) and this is how IB has achieved brand recognition among Asia Pacific stakeholders (Doherty 2009) as a credible, international validated alternative to national public education systems.

Having the opportunity to be part of the IBO assessment members is definitely a great self-growth development and indeed a strategic way of supervising the teachers' extended essay students' in getting better in grade achievements especially towards Grade A and B.

CONCLUSION

The idea of being teacher/examiner IB extended essay for Business Management in particular or other subjects is definitely added-value for the teacher. This is not only for personal development, expensive exchange rate but, definitely for the teacher's satisfaction, valuable knowledge gained and experiences gained in giving accurate direction for the students' writing, research work and completion of their self-mini-thesis write-up and extra bonus point for IB.

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KAEDAH MODUL HAFAZAN MINI ULUL ALBAB MAKTAB RENDAH SAINS MARA (MRSM) SEMASA PENGAJARAN DAN PEMBELAJARAN DI RUMAH (PDPR)

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ABSTRAK

Program Mini Ulul Albab merupakan program hafazan surah al-Quran terpilih yang dirancang oleh Majlis Amanah Rakyat (MARA) kepada pelajar yang menuntut di Maktab Rendah Sains MARA (MRSM) selain daripada MRSM Ulul Albab. Kertas konsep ini bertujuan membincangkan kaedah modul hafazan yang sesuai untuk Program Mini Ulul Albab di MRSM ketika Pengajaran dan Pembelajaran di Rumah (PdPR). Metodologi kajian ini adalah menggunakan reka bentuk kualitatif dengan menggunakan kaedah kepustakaan. Untuk menguatkan kajian, mini kajian berbentuk soal jawab dilakukan kepada guru dan pihak yang terlibat. Hasil kajian menunjukkan tiada modul yang khusus untuk dilaksanakan dan majoriti guru Mini Ulul Albab tidak memiliki sijil tahfiz. Melalui dapatan ini, kaedah hafazan yang sesuai digunakan dapat dikenal pasti dan sesuai untuk menyelaraskan Program Mini Ulul Albab dengan satu kaedah hafazan. Melalui penyelarasan kaedah hafazan, pelajar dan guru bukan aliran tahfiz dapat melaksanakan aktiviti yang dijalankan dengan teratur semasa PdPR secara dalam talian dan luar talian. Semoga kaedah ini dapat dilaksanakan oleh semua sekolah yang menjalankan Kurikulum Bersepadu Tahfiz (KBT) pada umumnya dan Program Mini Ulul Albab / Ulul Albab secara khususnya.

***Kata kunci**: kaedah; hafazan; ulul albab; MRSM; PdPR*

PENGENALAN

Hafazan Mini Ulul Albab ialah satu program hafazan surah al-Quran terpilih yang dirancang oleh Majlis Amanah Rakyat (MARA). Program ini dinamakan sebagai Program Mini Ulul Albab Maktab Rendah Sains MARA (MRSM). Program ini merupakan kesinambungan daripada Program Ulul Albab yang mewajibkan keseluruhan pelajar menghafal 30 juzuk sebelum menamatkan pengajian. Terdapat tujuh MRSM Ulul Albab yang menjalankan program tersebut, iaitu: MRSM Ulul Albab Gemencheh; Negeri Sembilan, MRSM Ulul Albab Sungai Besar; Selangor, MRSM Ulul Albab Kepala Batas; Pulau Pinang, MRSM Ulul Albab Kota Putra; Terengganu, MRSM Ulul Albab Semporna; Sabah (iRujukan.My, 2020). Manakala dua MRSM Ulul Albab yang baharu memulakan operasi ialah MRSM Ulul Albab Bera; Pahang dan MRSM Ulul Albab Bagan Datuk; Perak (Syahidi, 2021).

MARA telah menggariskan beberapa objektif, antaranya ialah; kecemerlangan dan kegemilangan dapat dibentuk serta dididik kepada pelajar, melahirkan pelajar pintar soleh melalui pendekatan diri dengan al-Quran serta pembudayaan al-Quran dapat diwujudkan di dalam MRSM. (Unit Pendidikan Islam & Bahasa Arab, 2013). Sasaran program dikalangan pelajar tingkatan satu hingga tingkatan lima yang beragama Islam dengan sukatan yang telah ditetapkan seperti berikut: tingkatan satu; surah *al-Nas* hingga *al-Syams*, tingkatan dua; surah *al-Balad* hingga *al-Mutaffifn*, tingkatan tiga; surah *al-Infitar* hingga *al-Naba'*, tingkatan empat; surah *al-Sajadah* dan *al-Insan* dan tingkatan lima; surah *Yaasin* dan *al-Mulk*. (Unit Pendidikan Islam & Bahasa Arab, 2013).

Semasa era pandemik COVID-19, seluruh dunia termasuk negara Malaysia telah mengalami kesan yang buruk terhadap sektor pendidikan. Pada peringkat awal, penutupan institusi pendidikan telah dilakukan secara menyeluruh bagi mengekang penularan wabak ini dengan lebih meluas (Syahirah, 2020). Kementerian Pendidikan Malaysia (KPM) telah mengambil pendekatan melalui norma baharu agar Pengajaran dan Pembelajaran di Rumah (PdPR) secara dalam talian atau luar talian dilaksanakan oleh para guru sebagaimana surat pemakluman pelaksanaan PdPR mengikut kesesuaian guru dan murid yang telah dikeluarkan oleh KPM bertarikh 18 November 2020 (KPM, 2020a).

Sehubungan itu, program hafazan yang dijalankan kesemua MRSM turut terkesan. Inovasi diperlukan dalam membentuk pengajaran dan pembelajaran (PdP) kerana proses tersebut berlaku di tempat yang berasingan, seperti guru berada di rumah atau sekolah dan pelajar berada di kediaman sendiri, pusat pemindahan sementara, hospital dan sebagainya. Menurut Burhanuddin (2020), untuk meningkatkan perkembangan budaya inovasi, pendidikan perlu dijadikan sebagai satu hala tuju yang baru sebagai satu langkah kemajuan. Ini kerana kejayaan pelajar bergantung kepada penerimaan mereka melalui impak dan kesan berdasarkan strategi pengajaran yang digunakan oleh guru (Alizah & Zamri, 2015).

Dalam melaksanakan tanggungjawab mencapai objektif MARA di dalam pelaksanaan program hafazan, setiap guru perlu dibekalkan dengan pengetahuan, kaedah dan cara perlaksanaan yang sesuai dan mesra pelajar. Justeru, kaedah modul Hafazan Mini Ulul Albab semasa PdPR perlu dirangka agar guru-guru mempunyai panduan ketika melaksanakan program dan memberikan kemudahan kepada pelajar untuk menghafal melalui kaedah dan teknik yang diberikan oleh guru. Dalam masa yang sama, hal ini dapat meletakkan program hafazan mampu berdaya saing dengan mata pelajaran yang lain.

OBJEKTIF KAJIAN

Objektif kajian ini adalah membincangkan kaedah modul hafazan yang sesuai untuk Program Mini Ulul Albab di MRSM ketika Pengajaran dan Pembelajaran di Rumah (PdPR).

KAEDAH MODUL HAFAZAN MINI ULUL ALBAB MAKTAB RENDAH SAINS MARA (MRSM) SEMASA PENGAJARAN DAN PEMBELAJARAN DI RUMAH (PDPR)

Sebelum berlaku pandemik COVID-19, cadangan perlaksanaan Program Mini Ulul Albab di setiap MRSM diadakan secara bersemuka di dalam surau atau tempat yang sesuai seperti kelas semasa waktu pengajaran dan pembelajaran (PdP). Pertemuan selain waktu PdP di lakukan antara waktu Maghrib dan Isyak sebanyak tiga kali seminggu, manakala pertemuan semasa PdP berlaku ketika waktu akademik yang diambil dari satu sela masa mata pelajaran Pendidikan Islam (Unit Pendidikan Islam & Bahasa Arab. 2013). Masa yang diperuntukkan adalah untuk melakukan proses semakan (*tasmik*) dan menghafal (*tahdhiri*). Namun, tiada kaedah yang rasmi digunakan di dalam program ini dan cara perlaksanaan kaedah diserahkan kepada pihak MRSM untuk dimurnikan (Wan, 2021).

Semasa pandemik COVID-19, Program Mini Ulul Albab turut terjejas untuk dilaksanakan. Kekangan masa menyebabkan Program Mini Ulul Albab tidak diperuntukkan di dalam jadual waktu mengajar. Kesan dari itu, kebarangkalian untuk tidak melaksanakan Program Mini Ulul Albab adalah besar. Atas dasar ini, satu inovasi perlu dilakukan untuk menambah baik kaedah dan proses pelaksanaan Program Mini Ulul Albab semasa PdPR supaya semua pihak memandang kepentingannya. Secara saintifik, hafazan al-Quran mampu memberikan kecerdasan akal kepada pelajar ketika menuntut ilmu. Berdasarkan kajian yang dilakukan oleh Siti (2019), di Madrasah Ibtidaiyah Terpadu (MIT) Nurul Falah Depok, Indonesia bahawa kemampuan pelajar menghafal al-Quran mempunyai pengaruh yang baik terhadap pencapaian mata pelajaran Matematik. Ini membuktikan keperibadian dan pencapaian akademik mampu ditingkatkan melalui hafazan al-Quran.

Sehubungan itu, kewujudan kaedah modul yang sesuai mampu menerapkan nilai-nilai murni pelajar ketika berada di rumah dengan menjalankan aktiviti hafazan semasa waktu lapang. Menurut Muhammad (2020), aktiviti sekolah dan kerjasama daripada ibu bapa terhadap ketenteraman pelajar dan anak-anak dapat membantu mereka mengatur dan melakukan aktiviti sesuai di rumah. Ini akan mengelakkan pelajar melakukan aktiviti yang tidak berfaedah semasa di rumah walaupun ketiadaan ibu bapa. Kehidupan tidak sihat pelajar dan anak-anak ketika berada di rumah adalah hasil dari kelalaian ibu bapa mendidik ahli keluarga ke arah kehidupan yang baik (Salmah, Issraq & Norsimah, 2019).

Pada era pemodenan dan pandemik COVID-19, penggunaan teknologi tidak boleh dikecualikan sebagai alat penghubung dan proses pembelajaran. Kementerian Pendidikan Malaysia (KPM) telah mengeluarkan Manual PdPR versi satu pada tahun 2020 dan versi dua pada tahun 2021. Menurut KPM (2020b; 2021), capaian Internet dan alat peranti membolehkan pelajar belajar berdasarkan masa sebenar ketika PdPR. Oleh itu, Program Mini Ulul Albab perlu mendepani cabaran menjalankan aktiviti ini secara dalam talian dengan menggunakan alat peranti dan platform supaya proses hafazan yang dirancang tidak terputus. Diantara matlamat Pelan Pembangunan Pendidikan Malaysia (PPPM) ialah untuk melahirkan pelajar yang cendekiawan, mempunyai keupayaan menghasilkan produk yang banyak, petah dalam berkomunikasi, memiliki kemahiran berfikir aras tinggi dan mahir dalam penggunaan teknologi maklumat dan komunikasi (TMK) (Shanta & Jamalul, 2019).

KAEDAH HAFAZAN

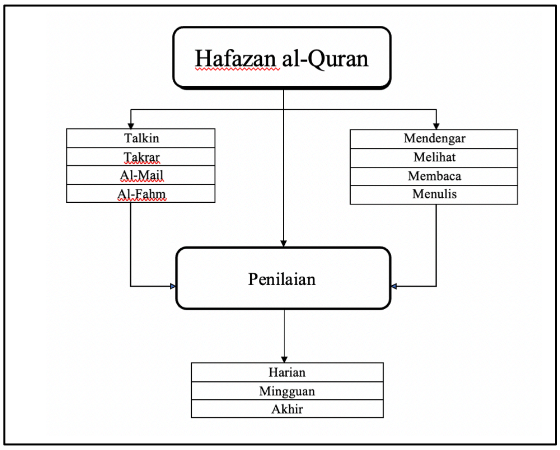
Menghafal al-Quran memerlukan kepada kaedah dan teknik yang betul supaya dapat membantu keberkesanan proses sebelum semasa dan selepas hafazan. Melalui teknik yang betul, hafazan dapat dipelihara, diingati, dijaga dan dikawal melalui apa yang dipelajari agar tidak lupa, rosak dan hilang (Siti, 2018). Terdapat banyak kaedah yang telah dirangka samada secara tradisional dan kontemporari. Namun semua kaedah ini tidak akan lari dari konsep asas hafazan seperti membaca, menghafal, menyemak hafazan, mengulang hafazan dan melakukan penilaian. Perbezaan hanya dapat dilihat dari unsur-unsur lain, seperti teknik, persediaan sebelum dan selepas.

Terdapat dua kaedah hafazan yang sesuai digunakan untuk melaksanakan Program Mini Hafazan Ulul Albab secara Pengajaran dan Pembelajaran di Rumah (PdPR), iaitu kaedah Modul Hafazan al-Qabisi (1955) dan kaedah Modul Latihan Intensif Hafazan Al-Quran (LIQA).

KAEDAH MODUL HAFAZAN AL-QABISI (1955)

Nama penuh al-Qabisi ialah Abu Hassan bin Muhammad bin Khalaf al-Muafiri al-Qairawani, dilahirkan di Tunisia (Abdullah, 1994). Beliau pernah dianugerahkan sebagai tokoh pemikir pendidik menerusi karya diterbitkan yang banyak menghurai teori tentang ilmu pendidikan (Ali & Abdul, 2002). Pandangan al-Qabisi dalam tujuan pendidikan lebih minat terhadap bentuk pembelajaran, bahan bantu mengajar, minhaj dan kurikulum (Abdullah, 1994). Rajah 1 menunjukkan kerangka teori pengajaran dan pembelajaran hafazan al-Qabisi (1955).

RAJAH 1: Kerangka Teori Pengajaran dan Pembelajaran Hafazan al- Qabisi (1955)



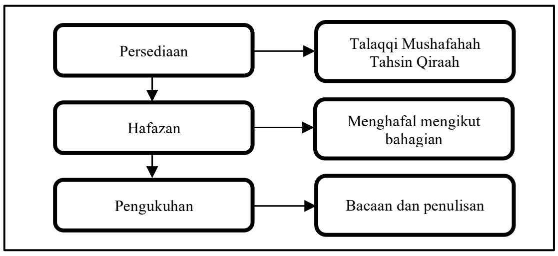
Melalui kerangka teori di atas, dapat dilihat bahawa kaedah yang digunakan oleh al-Qabisi tidak terkeluar daripada asas hafazan. Di dalam proses hafazan al-Quran, al-Qabisi (1955) menetapkan empat perkara yang penting, iaitu *talkin* (mengajar), *takrar* (latih tubi), *al-Mail* (cintakan al-Quran) dan *al-Fahm* (kefahaman al-Quran). Di samping itu, al-Qabisi (1955) menegaskan teknik penggunaan pancaindera secara maksimum perlu digunakan dalam pengajaran dan pembelajaran (PdP) seperti mendengar, melihat, membaca dan menulis. Setelah menghafal, penilaian perlu dilakukan dalam bentuk penilaian secara harian, penilaian secara mingguan dan penilaian secara akhir (al-Qabisi, 1955).

Diantara kaedah PdP yang ditetapkan oleh al-Qabisi (1955), mengulang kaji hafazan al-Quran perlu di lakukan secara kerap melalui pengajaran kepada pelajar yang disulami dengan hafazan. Selain itu, bekerjasama di dalam kumpulan untuk saling ingat-mengingati ayat yang dihafal, menulis ayat hafazan yang telah dihafal dan melihat ayat yang dihafal dengan teliti. Kaedah ini bertepatan dengan kehendak al-Qabisi (1995) bahawa penggunaan pancaindera secara maksimum digunakan dalam setiap peringkat. Dalam masa yang sama, teknik latih tubi juga berlaku secara langsung ketika bersama guru, rakan di dalam kumpulan dan kendiri.

KAEDAH MODUL LATIHAN INTENSIF HAFAZAN AL-QURAN (LIQA)

LIQA merupakan singkatan daripada Latihan Intensif Hafazan al-Quran. Kaedah modul ini hasil pemikiran daripada Mohd Hasdi Bin Mohamed al-Hafiz (Mohd & Rashidi, 2021). Melalui pendekatan yang mudah, sistematik, menarik dan dapat dikuasai dalam waktu yang cepat, LIQA menggunakan teknik pengajian al-Quran yang tersusun untuk membantu pelajar menguasai hafazan al-Quran (Mohd & Rashidi, 2021). Rajah 2 menunjukkan tiga langkah utama modul LIQA.

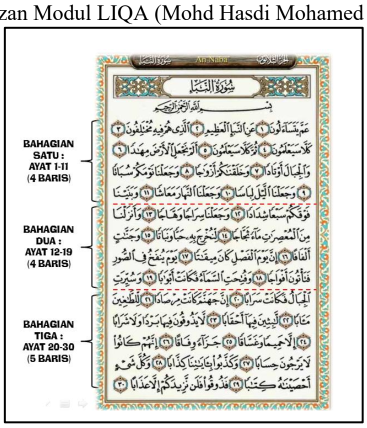
RAJAH 2: Pelaksanaan Modul LIQA



Kaedah modul LIQA disusun melalui tiga langkah utama, iaitu: pertama, persediaan sebelum memulakan hafazan melalui *talaaqi mushafahah* (memerhati gerak bibir) dan *tahsin qiraah* (memperbaiki bacaan). Kedua, proses hafazan menghafal mengikut bahagian yang dalam satu halaman kepada tiga bahagian. Ketiga, pengukuhan yang dinilai melalui bacaan dan penulisan pelajar. Modul LIQA telah berjaya membuktikan peningkatan yang positif. Menurut Mohd dan Rashidi (2021), modul LIQA berjaya mencapai peningkatan hafazan dan sasaran pelajar dari tiga juzuk kepada 15 juzuk dan ke atas dalam tempoh lima tahun bermula dari tingkatan satu hingga tingkatan lima sejak diperkenalkan di Sekolah Menengah Agama (SMA) Al-Maarif pada tahun 2012. Bahkan terdapat sebilangan pelajar berjaya menghafal tidak kurang daripada 23 juzuk dalam tempoh tiga tahun semasa berada di tingkatan tiga (Mohd & Rashidi, 2021).

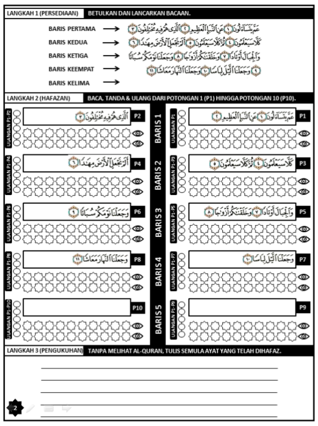
Modul LIQA yang digunakan oleh Mohd Hasdi tidak terkeluar dari konsep asas hafazan yang memerlukan kepada menuntut bacaan berhadapan dengan guru. Pada peringkat awal, pelajar akan melihat gaya bacaan dan gerak bibir guru menyebut setiap perkataan yang dibaca. Teknik ini akan memberikan keyakinan kepada pelajar untuk menghafal setelah guru memberikan kelulusan pada tahap bacaan. Terdapat inovasi dalam teknik hafazan yang disusun secara sistematik. Satu halaman al-Quran dibahagi kepada tiga bahagian supaya pelajar dapat menghafal secara teratur. Teknik ini dapat memberikan motivasi kepada pelajar aras sederhana dan lemah untuk menghafal sedikit demi sedikit. Rajah 3 menunjukkan tindakan pelajar akan melakukan hafazan mengikut pembahagian yang diberikan.

RAJAH 3: Pembahagian Hafazan Modul LIQA (Mohd Hasdi Mohamed & Rashidi Abbas 2021)



Melalui proses hafazan dan pengukuhan, pelajar akan menggunakan borang yang dibekalkan untuk menanda bilangan bacaan yang dibaca dan hafazan yang diulang. Proses pengukuhan akan dinilai melalui pengulangan hafazan secara lisan dan penulisan. Pelajar akan menulis semula ayat yang dihafal sebagai langkah latih tubi dan menguatkan daya ingatan selepas menghafal. Kaedah ini dapat memberikan kekuatan imaginasi sewaktu membaca di dalam solat. Rajah 4 ialah borang yang sediakan dalam modul LIQA untuk tindakan pelajar melakukan aktiviti.

RAJAH 4: Borang Modul LIQA(Mohd Hasdi Mohamed & Rashidi Abbas 2021)



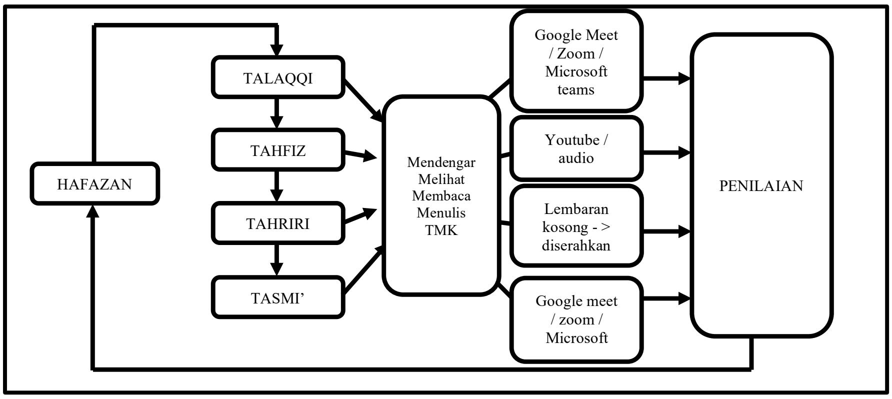
DAPATAN DAN ANALISIS

CADANGAN PELAKSANAAN KAEDAH MINI ULUL ALBAB SEMASA PENGAJARAN DAN PEMBELAJARAN DI RUMAH (PDPR)

Kaedah modul hafazan mempunyai pelbagai bentuk dan cara. Namun semua kaedah tersebut tidak akan lari dari konsep asas seperti mendengar serta memerhati gaya pembacaan guru, memperbaiki sebutan keluar huruf, menghafal ayat al-Quran dan melakukan penilaian. Di antara contoh kaedah yang lain seperti teori pengajaran al-Quran pada zaman Rasulullah, Sahabat dan *Tabi'in*, teori pengajaran al-Quran Ibnu Sahnun, teori kaedah hafazan Abu Mazaya al-Hafiz, teori kaedah hafazan Muhammad Asraff Ayob al- Hafiz dan teori gabungan kaedah hafazan (Siti, 2018).

Namun kaedah al-Qabisi (1955) dan LIQA menepati ciri-ciri yang mudah untuk digabungjalinkan diantara kaedah tradisional dan teknik zaman sekarang. Pada era pandemik COVID-19, manual Pengajaran dan Pembelajaran di Rumah (PdPR) telah dikeluarkan oleh KPM. Diantara kandungan perlaksanaan PdPR ialah melakukan aktiviti secara dalam talian yang akan melibat peranti dan platform untuk menghubungkan antara guru dengan pelajar dan luar talian dengan menggunakan tugasan berasaskan modul dan projek (KPM, 2020b; 2021).

RAJAH 5: Kerangka Teori Mini Ulul Albab Semasa PdPR diubahsuai daripada Teori al-Qabisi (1955)



Rajah 5 menunjukkan kerangka teori Program Mini Ulul Albab dilaksanakan semasa PdPR. Semua proses yang disenaraikan akan menggunakan pancaindera secara maksimum seperti yang disarankan oleh al-Qabisi (1955) dan teknik serta aktiviti akan menggunakan kaedah LIQA. Di samping itu, penggunaan Teknologi maklumat dan komunikasi (TMK) akan digunakan untuk melancarkan proses aktiviti. Proses hafazan akan berlaku mengikut tahap-tahap yang telah ditetapkan, seperti berikut:

TALAQQI

Dalam proses *talaqqi,* pelajar akan bersemuka dengan guru di dalam talian untuk mendengar bacaan guru, melihat gaya sebutan tempat keluar huruf dan mengulang bacaan seperti yang dibaca oleh guru. Pertemuan ini boleh dilakukan dengan menggunakan platform *Google Meet, Zoom, Microsoft Teams, Telegram, WhatsApp* dan platform yang sesuai dilakukan semasa pertemuan. Ketika proses penilaian, guru akan menilai pelajar dari sudut kelancaran bacaan, tajwid dan tempat keluar huruf sama ada pelajar diberi pelepasan untuk melakukan proses hafazan atau sebaliknya. Pelajar yang gagal untuk melepasi proses hafazan perlu diasingkan oleh guru untuk dimasukkan ke kelas pemulihan. Kelas pemulihan akan dilakukan oleh guru untuk memperbaiki kesilapan yang dialami oleh pelajar. Menurut al-Qabisi (1955) hukuman nasihat dan pengasingan pelajar yang melakukan kesilapan sebutan, penulisan dan hafazan perlu dilakukan. Hukuman ini akan meningkatkan kebolehan pelajar yang sederhana dan lemah untuk berdaya saing dikalangan mereka.

TAHFIZ

Proses *tahfiz* dikenali sebagai proses hafazan ayat al-Quran. Sebelum pelajar memulakan hafazan, guru akan membekalkan lembaran berbentuk tugasan yang perlu dilakukan oleh pelajar. Pelajar akan menghafal mengikut tiga peringkat melalui bahagian setiap halaman. Setiap halaman mempunyai 15 baris, maka pembahagian akan dibahagi kepada tiga bahagian. Proses hafazan akan diikuti oleh pelajar melalui teknik berikut;

i. Pelajar perlu membaca 10 kali dengan melihat ayat al-Quran pada baris pertama untuk proses mengingat dan menanda bilangan bacaan di atas lembaran yang dibekalkan.

ii. Pelajar perlu mengulang 10 kali tanpa melihat ayat al-Quran yang telah dibaca dan menanda bilangan bacaan di atas lembaran yang dibekalkan.
iii. Jika pelajar tidak lancar dalam hafazan, mereka perlu mengulang langkah (i.) semula sehingga lancar.
iv. Pelajar yang berjaya menghafal baris pertama perlu melakukan langkah yang sama pada (i.) untuk baris ke-2, manakala proses mengulang perlu diulang bermula pada baris pertama.
v. Langkah ini dilakukan sehingga pada baris yang ke-5.

Setelah pelajar berjaya melakukan hafazan sebanyak lima baris, pelajar perlu melakukan penilaian mengulang secara kendiri melalui lisan dan penulisan (*tahriri*). Penilaian kendiri melalui lisan boleh dilakukan ketika bacaan surah di dalam solat dan ketika waktu lapang. Penilaian kendiri melalui penulisan perlu dilakukan oleh semua pelajar dengan menulis ayat yang telah dihafal di atas lembaran dibekalkan oleh guru.

TAHRIRI

Tahriri adalah penilaian penulisan yang ditulis oleh pelajar setelah melakukan hafazan. Penilaian penulisan yang sempurna merangkumi tulisan *Rasm Uthmani*, kedudukan baris dan kedudukan ayat yang sama seperti di dalam al-Quran. Langkah ini untuk memudahkan pelajar menambah daya ingatan yang kuat. Selepas penilaian penulisan dilakukan, pelajar akan menghantar tugasan kepada guru mengikut tempoh yang telah ditetapkan melalui platform *Google Classroom, Microsoft Teams*, *Telegram, WhatsApp* dan pelbagai platform alternatif mengikut kesesuaian guru dan pelajar.

Proses penilaian perlu dilakukan dengan teliti oleh guru untuk memastikan pelajar tidak menulis ayat yang salah. Penemuan kesalahan dalam penulisan di peringkat awal boleh membantu pelajar memperbaiki hafazan mereka secara kendiri melalui lisan sebelum proses *tasmik* dilakukan bersama guru. Dalam proses penilaian *tahriri,* pelajar yang dianggap terlalu lemah dalam aspek penulisan huruf dan baris dalam penilaian guru perlu diasingkan. Pelajar tersebut perlu memperbaiki penulisan mereka sehingga berada di tahap yang memuaskan.

TASMIK

Proses *tasmik* merupakan proses penilaian yang penting kerana ia melibatkan tahap penguasaan pelajar dalam menghafal. Pelajar akan berjumpa dengan guru untuk melakukan semakan hafazan melalui platform *Google Meet, Zoom, Microsoft Teams Telegram, WhatsApp* dan sebarang platform yang bersesuaian dengan pelajar dan guru. Melalui penilaian ini, guru akan mengenal pasti pelajar yang culas semasa proses penilaian kendiri melalui penulisan. Pelajar yang mampu menghafal mampu untuk menulis kembali hafazan mereka dan mustahil untuk pelajar yang tidak menghafal mampu untuk menulis ayat hafazan mereka kecuali dengan cara penipuan.

Semasa proses penilaian *tasmik,* pelajar yang tidak lancar dalam hafazan perlu diasingkan dan memberi masa kepada mereka untuk melakukan proses mengulang secara kendiri. Pelajar yang berjaya melepasi proses *tasmik* dianggap sudah berjaya melakukan hafazan dengan sempurna. Namun, setiap pelajar perlu melakukan ulangan hafazan pada awal bahagian jika mereka melakukan *tasmik* pada bahagian dua dan bahagian tiga.

PENGGUNAAN TEKNOLOGI MAKLUMAT DAN KOMUNIKASI (TMK) SEMASA PENGAJARAN DAN PEMBELAJARAN DI RUMAH (PDPR)

Kementerian Pendidikan Malaysia telah mengeluarkan manual PdPR untuk rujukan guru-guru. Pelaksanaan PdPR boleh dilakukan secara dalam talian dan luar talian. Dalam menyahut cabaran arus teknologi, program hafazan perlu seiring ke hadapan bersaing dengan mata pelajaran lain maju dalam penggunaan teknologi yang bertepatan dengan kaedah pembelajaran abad ke-21 (PAK-21). Menurut Fazurawati (2019) untuk menambah keceriaan dan menarik minat pelajar, kaedah PAK-21 dapat membantu proses pengajaran dan pembelajaran (PdP) agar sesuai dengan jiwa generasi muda. Melalui minat pelajar untuk belajar, pelajar Maktab Rendah Sains MARA (MRSM) akan mudah untuk menghafal dan akan menjadi hafazan sebagai satu amalan harian serta berjaya menghabiskan silibus hafazan dalam tempoh yang telah ditetapkan.

Pandemik yang berlaku pada waktu ini telah memberikan kesan kepada Program Hafazan Mini Ulul Albab. Melalui penggunaan TMK, program ini dapat diteruskan walaupun guru dan pelajar berada pada jarak yang jauh. Dengan kemudahan peranti dan platform yang sedia ada, guru dan pelajar akan bersungguh-sungguh mencapai matlamat objektif yang dikehendaki oleh Majlis Amanah Rakyat (MARA). Antara aplikasi yang dicadangkan dalam menjalankan Program Mini Ulul Albab semasa PdPR, ialah;

i. Ketika proses *talaqqi* : Proses ini berlaku dengan menggunakan kamera sama ada di komputer riba atau telefon pintar. Aplikasi yang boleh digunakan seperti *Google Meet, Zoom, Microsoft Teams, Telegram* dan *WhatsApp*. Guru dan pelajar saling boleh mendengar dan melihat gaya dan cara bacaan guru. Kaedah ini menggunakan kaedah belajar secara dalam talian yang memerlukan peranti dan capaian Internet.

ii. Ketika proses *tahfiz* : Penggunaan audio rakaman suara daripada guru dan laman sesawang seperti *Youtube* akan dibekalkan kepada pelajar untuk rujukan sekiranya mereka ingin menyemak bacaan tanpa ketiadaan guru. Pelajar akan dibekalkan lampiran untuk ditanda setelah membaca dengan melihat ayat al-Quran dan tanpa melihatnya. Kaedah ini menggunakan kaedah belajar secara luar talian yang berasaskan modul.

iii. Ketika proses *tahriri* : Pelajar akan melaksanakan tugasan penulisan ayat al-Quran yang telah dihafal di atas lembaran yang dibekalkan oleh guru. Kaedah ini menggunakan kaedah belajar secara luar talian yang berasaskan modul.

iv. Ketika proses *tasmik* : Kaedah yang sama akan digunakan semasa berlaku proses *talaqqi,* iaitu penggunaan aplikasi seperti *Google Meet, Zoom, Microsoft Teams*, *Telegram* dan *WhatsApp* digunakan untuk menilai hafazan pelajar. Kaedah ini mengguna pakai kaedah belajar secara dalam talian yang memerlukan kepada peranti dan capaian Internet.

KESAN KEPADA PELAKSANAAN

Melalui perbincangan kaedah yang digunakan untuk menjalankan Program Mini Ulul Albab semasa Pengajaran dan Pembelajaran di Rumah (PdPR) dengan menggunakan teknologi maklumat dan komunikasi (TMK), akan berlaku kesan yang positif terhadap pelaksanaan yang dirancang. Secara umumnya, Program Mini Ulul Albab mampu dijalankan oleh semua guru di Maktab Rendah Sains MARA (MRSM) walaupun guru dan pelajar berada di tempat yang berasingan dan jarak yang jauh. Ruang yang ada dapat dimanfaatkan oleh guru dan pelajar berkongsi maklumat, berkomunikasi dan bekerjasama (Norlizawaty, 2019).

Walaupun perbincangan kaedah ini dikhususkan kepada kaedah Program Mini Ulul Albab MRSM, kaedah ini boleh diguna pakai oleh sekolah yang menggunakan pelaksanaan Kurikulum Bersepadu Tahfiz (KBT), Tahfiz Model Ulul Albab (TMUA) dan Kelas Asas Fardhu Ain (KAFA). Institusi pendidikan yang mengikuti pelaksanaan Kurikulum Standard Sekolah Rendah (KSSR) dan Kurikulum Standard Sekolah Menengah (KSSM) tidak akan keluar dari silibus kewajipan pelajar menghafal ayat al-Quran atau surah hafazan pilihan. Mata pelajaran Pendidikan Islam di sekolah rendah dan menengah, silibus yang telah ditetapkan oleh KPM terdapat ayat-ayat hafazan dalam bidang al-Quran. Pelajar perlu menghafal ayat-ayat hafazan pilihan sebagai salah satu penilaian Pentaksiran Bilik Darjah (PBD). Dengan penggunaan kaedah ini, PBD dapat dijalankan sama ada tahap sekolah rendah atau sekolah menengah.

Menurut Siti (2018), terdapat hubungan antara aktiviti menghafal al-Quran dengan latar belakang guru yang memiliki sijil tahfiz. Ini bermakna, latar belakang guru yang tidak memiliki sijil tahfiz akan menyukarkan perjalanan hafazan pelajar. Kaedah Hafazan Ulul Albab yang diutarakan ini dapat memandu guru-guru yang diamanahkan untuk melakukan *tasmik* kepada pelajar walaupun mereka bukan guru Pendidikan Islam dan tidak memiliki sijil tahfiz lantaran teknik dan kaedah telah diberikan sebagai panduan kepada guru untuk melaksanakannya. Di samping itu, pelajar-pelajar yang tidak mempunyai latar belakang keluarga sekolah agama atau tahfiz dapat dibantu dengan dorongan dan tunjuk ajar guru untuk menyelesaikan hafazan yang telah ditetapkan.

CABARAN PELAKSANAAN

Di dalam merancang untuk melakukan inovasi terhadap Program Hafazan Ulul Albab, cabaran dalam melaksanakan program ini tetap ada. Bersikap adil dalam mengemukakan isu cabaran, mini kajian telah dilakukan agar cabaran ini bersifat menyeluruh tidak tertumpu kepada satu Maktab Rendah Sains MARA (MRSM) sahaja. Kaedah kajian kualitatif telah dilakukan dalam populasi guru-guru MRSM selain daripada MRSM Ulul Albab. Sampel yang dipilih adalah secara rawak tidak tertumpu kepada negeri-negeri tertentu. Cadangan sampel yang dipilih seramai 10 orang guru sebagai wakil daripada guru-guru Pendidikan Islam di MRSM yang berbeza kawasan negeri. Sebelum sesi temu bual dilakukan, persetujuan untuk disoal selidik telah dilakukan agar hasil mini kajian menerima jawapan yang jujur dan bernas. Namun penyelidikan ini hanya sekadar enam sampel kerana jawapan yang diperolehi dari temu bual adalah tepu. Keseluruhan sampel memberikan jawapan yang kurang jurang perbezaan.

Ketika pelaksanaan Program Mini Ulul Albab secara bersemuka. Pelaksanaan guru-guru *tasmik* hanya dikalangan guru-guru Pendidikan Islam dan tidak memiliki sijil tahfiz. Hanya segelintir guru sahaja yang memiliki latar belakang tahfiz dan memiliki sijil tahfiz. Mengikut dari temu bual bersama responden, pelajar-pelajar MRSM mempunyai bilangan ramai antara 600-800 pelajar bergantung kepada kapasiti yang disediakan. Guru Pendidikan Islam yang mempunyai bilangan yang sedikit akan menghadapi kesukaran untuk melakukan proses *talaqqi, tahriri dan tasmik* melalui ratusan pelajar di dalam MRSM masing-masing. Kepentingan nisbah antara guru dengan pelajar amat penting kerana ia melibatkan antara komitmen guru dalam kerjaya dengan pengurusan lain seperti kokurikulum, amal islami dan masalah peribadi seperti pengurusan keluarga. Menurut Mohd et al. (2017), Pengarah Eksekutif Maahad Tahfiz Negeri Pahang (MNTP) telah membentangkan 14 strategi kecemerlangan pelajar untuk diteliti dan dilakukan oleh pihak Darul Quran agar kecemerlangan pelajar tahfiz dapat diperkasakan, antaranya 14 strategi tersebut ialah nisbah guru dan pelajar. Jika masalah ini berterusan ketika perlaksanaan berlaku ketika Pengajaran dan Pembelajaran di Rumah (PdPR), ia akan menambah kesukaran untuk guru Pendidikan Islam untuk memantau bilangan pelajar yang terlalu ramai.

Proses PdPR yang dijalankan semasa pandemik COVID-19 mengikut masa yang telah ditetapkan. Jadual telah dikeluarkan oleh unit jadual setiap MRSM mengikut mata pelajaran yang dipelajari oleh semua pelajar. Walau bagaimanapun, Program Mini Ulul Albab tidak disenaraikan di dalam jadual mata pelajaran. Cabaran yang dihadapi ini sukar untuk guru Pendidikan Islam melaksanakan proses kaedah Hafazan Ulul Albab kerana pertembungan silibus mata pelajaran Pendidikan Islam dan kekangan masa untuk menyelesaikan dua tajuk dalam satu pertemuan kerana mengejar silibus. Jika guru Pendidikan Islam mengambil masa 30 minit dalam seminggu, tempoh ini amat mustahil untuk mengendalikan jumlah pelajar yang ramai semasa proses *talaqqi.* Oleh sebab itu, faktor ini menyebabkan terdapat MRSM tidak dapat menjalankan Program Mini Ulul Albab dengan sempurna secara rasmi. Maka terdapat kesan yang tidak sihat berlaku, antaranya;

i. Terdapat dikalangan guru hanya berjaya melakukan *talaqqi* kurang daripada lima pelajar.
ii. Gagal untuk melaksanakan Program Hafazan Ulul Albab secara sempurna.
iii. Gagal untuk mencari masa yang lain kerana kekangan masa guru dan pelajar terlibat dengan aktiviti dalam talian selain dari masa PdPR seperti pertemuan *Homeroom* dan Kokurikulum.
iv. Tiada kesungguhan daripada pelajar untuk menghafal kerana tidak terdapat dalam jadual dan kekangan masa PdPR dari awal pagi hingga petang.

Jika Program Hafazan Ulul Albab dilakukan di luar waktu PdPR, masalah akan dilihat dari sudut guru yang mempunyai kekangan masa. Majoriti guru sudah berkeluarga dan mempunyai komitmen dengan anak-anak untuk membantu mereka melakukan tugasan yang banyak diberikan oleh pihak sekolah. Mariani (2021) Pakar Psikologi, SEGi Universiti berkata di dalam temu bual bersama pihak astro awani secara dalam talian, guru terlalu banyak memberi tugasan kepada pelajar dan guru dinasihatkan agar mengurangkan bebanan tugasan tersebut. Bebanan tugas sekolah anak-anak menyebabkan ibu bapa menjadi guru 'bidan terjun' untuk memastikan pendidikan anak-anak tidak ketinggalan (Rohana, 2021). Sehubungan itu, pengurusan keluarga adalah faktor yang menjadi kekangan untuk guru-guru melaksanakan aktiviti Program Mini Ulul Albab.

Di dalam hafazan, perkara paling penting sebelum memulakan hafazan ialah persediaan pelajar. Diantara persediaan pelajar ialah mampu membaca al-Quran dengan baik. Pembacaan yang baik mempengaruhi kelancaran hafazan al-Quran. Senario yang berlaku dikalangan pelajar MRSM terdapat segelintir pelajar yang lemah di dalam pembacaan al-Quran. Namun jumlah ini tidak membimbangkan kerana peratusan yang diperolehi adalah kecil. Walau bagaimanapun, ini akan menyebabkan sasaran guru untuk memastikan pelajar menyelesaikan hafazan dalam tempoh tertentu tidak tercapai. Antara faktor kelemahan pelajar di dalam pembacaan al-Quran kerana faktor keluarga tidak memberikan penekanan dan dorongan kepada anak mereka semasa dibangku sekolah rendah dan kurang menghadiri Kelas Asas Fardu Ain (KAFA). Jika program ini berlaku semasa PdPR, guru perlu menambah masa untuk melakukan kelas intensif kepada pelajar yang lemah dalam pembacaan, dalam masa yang guru dan pelajar mempunyai kekangan waktu pada waktu petang kerana pertemuan *homeroom* dan aktiviti kokurikulum. Manakala waktu malam guru sibuk menguruskan pengurusan keluarga dan pelajar mengambil masa untuk melakukan tugasan sekolah.

Proses PdPR melibatkan peranti dan capaian Internet. Mengikut temu bual dikalangan responden. Majoriti responden memaklumkan bahawa masalah capaian Internet bukan masalah yang utama kerana majoriti pelajar mampu melayari Internet ketika pertemuan dengan mata pelajaran Pendidikan Islam. Namun, hanya segelintir pelajar sahaja yang memiliki masalah capaian Internet kerana faktor penempatan di luar bandar dan pedalaman. Walaupun faktor capaian Internet adalah sedikit, namun pelajar berhak mendapatkan pembelajaran yang sempurna dari sekolah walaupun Program Mini Ulul Albab bukan dalam mata pelajaran yang terdapat di dalam sistem peperiksaan. Di dalam pelan Pembangunan Pendidikan Malaysia (2013-2025) telah menetapkan bahawa setiap pelajar perlu mendapatkan pendidikan agar dapat memperoleh potensi diri supaya bersedia melangsungkan kehidupan pada masa hadapan, justeru setiap pelajar mempunyai hak mendapatkan peluang mengikuti pendidikan walaupun mereka tidak dapat hadir ke sekolah (KPM 2020b; 2021, Abdul & Zuraini, 2021).

CADANGAN MENGATASI

Program Mini Ulul Albab merupakan program rasmi dari Majlis Amanah Rakyat (MARA). Justeru, semua pihak perlu bekerjasama dalam menjayakan program yang telah disenaraikan oleh pihak MARA. Guru-guru yang tidak memiliki kelancaran dalam bidang tajwid dan bacaan dicadangkan agar diberikan surah-surah pilihan dikategorikan yang berada di aras rendah seperti surah pilihan tingkatan satu iaitu surah *al-Dhuha* dan *al-Nas*. Ini akan memberikan semangat dan keyakinan kepada guru untuk melakukan bacaan dan semakan kepada pelajar. Namun kelas intensif perlu diberikan guru sebagai persediaan mereka menjalankan aktiviti. Kesan dari itu, kelas intensif yang diadakan boleh dijadikan sebagai pertemuan kursus yang wajib dihadiri oleh guru selama tujuh hari dalam tempoh setahun. Di dalam surat edaran Kementerian Pendidikan Malaysia (KPM) menyatakan bahawa jumlah mata kredit umum yang perlu dicapai oleh Pegawai Perkhidmatan Pendidikan (PPP) sebanyak 42 mata atau bersamaan dengan tujuh hari dan tempoh setahun atau seperti dinyatakan dalam Dasar Latihan Sumber Manusia Sektor Awam (DLSMSA) Bil.6 Tahun 2005 atau mengikut ketetapan yang ditetapkan oleh kerajaan (KPM, 2018).

Selain itu, pihak MRSM boleh menjemput guru luar selain daripada guru MRSM untuk melaksanakan aktiviti Program Mini Ulul Albab seperti hasil temu bual dengan responden bahawa terdapat MRSM yang menggunakan khidmat guru luar dari MRSM untuk menjadi guru *tasmik* kepada pelajar di MRSM tersebut dengan bayaran. Ini akan mengurangkan masalah kekangan masa yang dialami oleh guru untuk menjalankan Program Mini Ulul Albab pada waktu malam. Guru boleh memberikan fokus terhadap proses *talaqqi* kepada pelajar semasa pertemuan Pengajaran dan Pembelajaran di Rumah (PdPR) jika disenaraikan dalam jadual mata pelajaran.

Untuk menjayakan Program Mini Ulul Albab, program ini perlu diletakkan di dalam jadual mata pelajaran sebaris dengan mata pelajaran yang lain. Waktu yang sesuai adalah pada waktu yang pertama. Tenaga guru perlu digunakan selain daripada guru Pendidikan Islam. Jumlah pelajar yang ramai perlu dibahagikan kepada nisbah guru yang sesuai agar guru Pendidikan Islam tidak terbeban. Perbincangan dengan pihak pengurusan seperti Pengetua dan Timbalan Pengetua Kecemerlangan Akademik perlu dilakukan agar kata sepakat dan masalah dapat diatasi. Terdapat hasil temu bual bersama responden memberikan maklum balas bahawa terdapat di MRSM tempat bertugas menggunakan khidmat guru *homeroom* untuk menggalas tanggungjawab ahlinya menjalankan hafazan. Ini akan menjadi nisbah antara guru dengan pelajar menjadi lebih kecil dan tumpuan dapat diberikan dengan sepenuhnya. Secara kebiasaannya, setiap *homeroom* memiliki 15 ahli dan dijaga oleh seorang guru. Jika terdapat guru *homeroom* bukan dikalangan bukan Islam, pihak pentadbiran dicadangkan agar menyerahkan tugasan kepada guru yang tidak memegang jawatan guru penasihat *homeroom* seperti Ketua Guru Asrama atau Ketua Jabatan dan sebagainya yang difikirkan rasional.

Masalah pelajar yang lemah dalam bacaan al-Quran perlu diambil kira untuk dikecualikan daripada melakukan hafazan. Pelajar yang berada pada tahap ini perlu dinilai melalui peningkatan tahap pembacaan agar golongan ini tidak rasa tersisih dan malu. Namun, usaha untuk melakukan penambahbaikan bacaan dan hafazan perlu tertumpu kepada surah-surah pilihan aras rendah seperti surah pilihan tingkatan satu.

Masalah pelajar yang mengalami capaian Internet akan mengalami ketinggalan dalam pelajaran mereka. Justeru, kaedah PdPR secara luar talian berasaskan projek atau modul perlu dilakukan kepada golongan ini agar mereka tidak terus ketinggalan jauh dengan rakan-rakan yang lain. Pertemuan dengan mereka perlu dibezakan seperti seminggu sekali dengan menyelesaikan silibus yang telah ditetapkan.

KESIMPULAN

Al-Quran merupakan panduan utama untuk umat Islam. Dalam bidang pendidikan, sekolah bukan aliran agama tidak terdapat mata pelajaran al-Quran secara khusus diajarkan. Namun, ia terdapat di dalam mata pelajaran Islam seperti Pendidikan Islam dan Pendidikan al-Quran dan al-Sunnah. Menurut al-Qabisi (1955), al-Quran merupakan mata pelajaran yang wajib yang perlu diajar dalam setiap sekolah. Pendekatan yang dilakukan oleh Majlis Amanah Rakyat (MARA) menjalankan Program Mini Ulul Albab merupakan satu tindakan yang perlu dipuji kerana program hafazan yang dilakukan ini serentak mempelajari al-Quran.

Berdepan dengan cabaran pandemik COVID-19, sektor pendidikan perlu menjalankan Pengajaran dan Pembelajaran di Rumah (PdPR) sama ada berbentuk dalam talian atau luar talian agar seluruh pelajar tidak ketinggalan dalam pendidikan pada tahun semasa. Program Mini Ulul Albab selaku program berasaskan hafazan al-Quran perlu diberi perhatian yang khusus walaupun program ini tidak dinilai di dalam ujian dan peperiksaan semester. Dengan kaedah dan teknik yang dirancang, program ini tetap dapat dilangsungkan walaupun guru dan pelajar berada di tempat yang jauh dan berasingan.

Secara umumnya, kaedah dan teknik yang dicadangkan menggunakan kaedah PdPR secara dalam dan luar talian. Kaedah secara luar talian pula tertumpu kepada berasaskan kepada modul. Melalui penggunaan kaedah yang telah dirujuk melalui manual penggunaan PdPR yang dikeluarkan oleh kerajaan, Program Mini Ulul Albab mampu berdaya saing dengan mata pelajaran yang lain dalam mendepani cabaran pembelajaran di rumah dan penggunaan teknologi yang serba canggih.

Harapan dari perbincangan ini, di harap pihak yang terlibat dapat menerima pandangan dengan terbuka dan terdapat usaha untuk melakukan inovasi dalam sistem pendidikan Program Mini Ulul Albab. Dengan pelaksanaan tersebut, semoga ada pihak melakukan kajian terhadap keberkesanan Program Mini Ulul Albab semasa PdPR untuk mengukur keberkesanan kaedah dan teknik yang dicadangkan dan hasil pelajar dapat dilihat.

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THE IMPACT OF CYBERBULLYING ON EMOTIONAL DEVELOPMENT OF UNDERGRADUATE STUDENTS AT MARA INSTITUTE OF EDUCATION (IPMA)

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ABSTRACT

The Internet plays an essential role to improve our quality of life for all generations nowadays. Despite the internet helping us to produce more knowledge and solve our problems in a living society, it also has its negative implications. Using the internet, society is more likely exposed to cyberbullying either as perpetrators or as victims. Therefore, this conceptual paper examines the impact of cyberbullying on the emotional development of undergraduate students in MARA institutions. The study aims to investigate the prevalence of cyberbullying and its effects on the emotional development of undergraduates. Mixed-method research will be employed in this study. For the qualitative approach, ten students from IPMA will be selected using purposive sampling for a focus group interview, and for the quantitative approach, a Five-point Likert scale survey will be disseminated to MARA undergraduate students via Google Forms. The data will be collected based on the Cyberbullying Adjustment Scales, which evaluate the conformity of cyberbullying and its relationship to emotional development. The collected data will be analysed through statistical analysis. It is believed that there will be a significant relationship between cyberbullying and emotional development among undergraduate students. In future research, this population needs to be focussed. The analysis of this study will shed light on the significant influence of cyberbullying on the emotional development of undergraduate students.

Keywords: *Cyberbullying, Emotional Development, Undergraduate*

INTRODUCTION

Dissemination of communications nowadays is common via online technology, especially in social media which can cause undesirable and hurtful behavior. One of the behaviors is cyberbullying. Cyberbullying is the use of electronic communications to harm or frighten someone. The term can refer to targeted online aggressions, such as obscene or ridiculing messages, or entire websites devoted to tormenting someone (Ghada, 2020). According to United Nations International Children's Emergency Fund (UNICEF), portrays cyberbullying as bullying using digital communications and posts it on social media, gaming platforms, messaging platforms, and mobile phones. Cyberbullying also defines as any harmful act to other users by posting offensive materials such as vulgar text messages, videos, and photos. Cyberbullying normally happened on social networking sites, personal websites, cell phones, instant messaging chat rooms, or emails (Lai et al., 2017). Nurul and Nazli (2022) stated that internet users have a high risk of cyber threats and online offenses such as virtual harassment, bullying, and annoying texts. A number of scholars have given some conceptual meaning about cyberbullying. Basically, cyberbullying is described as using communication gadgets by individuals or groups to impose repeated harassment or threat via harmful text or graphics to dominate other individuals or groups. The rise of social media and internet usage has exposed the increase of cyberbullying which has affected the users and caused severe negative impacts, especially on children and young adults. Nonetheless of the various explanations offered by past research, cyberbullying has greatly affected users particularly children or young adults which impacts their emotions that they could not bear from the cyberbullying. Some research has been conducted globally to investigate the prevalence of cyberbullying and its impacts on cyber victims. This is because according to Pew Research Center in USA (2022), almost half of U.S. teenagers aged between 13 to 17 (46%) report ever experiencing cyberbullying. In China, according to Huang (2021), almost 10% are involved in cyberbullying. Park (2021) in his journal Cyberpsychology: Journal of Psychosocial Research on Cyberspace states that East Asia such as South Korea, Japan, Taiwan, Hong Kong, and China cyberbullying is notable and gives an impact on academic performance, relationships with parents and teachers, and social-cultural. Malaysia, there have been a few incidents that occurred due to cyberbullying. Saharrudin et al. (2022) have done research on 400 youths in four districts in Selangor. The study found that young adults in Selangor have low-level involvement in cyberbullying activities. Besides, a study on the scenario of child cyberbullying by Saharrudin et al. (2022) has been conducted. The objective is to identify related legal provisions that exist in Malaysia. Meanwhile, a study among 712 public and private college and university students has been conducted by Lai et al. (2017), about the prevalence of cyberbullying. The past research that was done by scholars in Malaysia is about the prevalence of cyberbullying, platforms of cyberbullying, and its impacts, especially on mental health.

PROBLEM STATEMENT

Cyberbullying has greatly affected particularly young adults, which impacts their emotions and leads them to commit suicide as they could not cope with mental distress. Since there is a lack of comprehensive studies on the impacts of cyberbullying on the emotional development of young adults, this study aims to address this gap by looking into the impact of cyberbullying on MARA undergraduate students' emotional development.

OBJECTIVES

1. To determine the level of cyberbullying engagements among undergraduate students at the MARA Institute of Education (IPMA).
2. To investigate the impact of cyberbullying on the emotional development of undergraduate students at the MARA Institute of Education (IPMA).

LITERATURE REVIEW

CYBERBULLYING

According to UNICEF, cyberbullying is a nuisance act using digital communications. Normally, it takes place on certain platforms such as gaming, messaging, and mobile phones. This intention is done by cyber bullies to scare, express anger, or shame the victims. For example, sending harmful, threatening, and abusive messages, and posting shameful or fake photos via using fake accounts on social media. Watts et.al. (2017) in Peled (2022) stated, there are seven main types of cyberbullying such as online harassment, denigration, trickery and outing, masquerading, exclusion, flaming, and cyberstalking. Online harassment is repeatedly sending offensive or hurtful messages in person. Denigration happens when bullies post fake or cruel chats about a certain person to other people. Trickery and outing occur when bullies trick the victims by providing shameful, sensitive, or personal information for the public to view. Meanwhile, masquerading is about the combination of harassment and denigration whereas cyberbullies will disguise themselves to be someone else and post offensive messages about a certain individual to other's view. Besides that, **e**xclusion is purposely excluding a person from an online group. Apart from that, flaming is about sending rude and angry messages directly to a person or in a group via text or email. Cyberstalking is when bullies send threatening or harmful messages continuously to their victims.

PLATFORMS TO COMMIT CYBERBULLYING

Peled (2022), and UNICEF, state that the common social media which occur cyberbullying are instant messaging, chatrooms, text messaging (SMS), electronic mail (e-mail), and social networking sites.

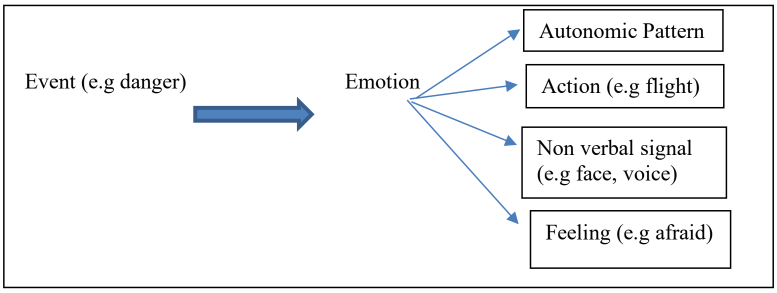
In Malaysia, according to Lee et.al (2023), a study found that 24.6 million Malaysians especially the youths were social networking. The most common platform of social networking sites is Facebook and followed by Instagram and YouTube. Apart from that, a survey involving 14,000 school students has been conducted by Malaysia Communications and Multimedia Commission (MCMC 2020). The report states that 70% of users of social networking sites proclaimed they have been bullied through posting inappropriate pictures, videos, or messages and being called offensive names. In 2019, 260 cases have been reported of cyber harassment provided by MyCERT (Malaysia Computer Emergency Response Team). According to Lai's (2017) analysis in his research, 65.7% have reported being cyberbullied on Facebook, and 60.2% on mobile phone applications. Besides that, the most popular platforms used by bullies among adolescents were 57% of instant messaging and 26.5% of text messaging (Mohd Fadhli et al.,2022).

EMOTIONAL DEVELOPMENT

Malatesta et.al (1989), states that emotional development involves a cognitive, physiological social, and behavioural process. The study states that there are four theories of emotional development but this study will focus on three theories which are (i) discrete emotion theory (ii) cognitive /constructive theory (iii) functional theory which will be related to the cyberbullying impacts on emotional development.

Darwin's discrete emotion theory (1872) "reflects some emotions correspond to specific brain systems. The system contains instructions for generations of distinctive changes in the organism. "The changes will affect the autonomic nervous system (ANS) activity, experience, facial and vocal expressions, and behaviour (including action tendencies)". (Giovanna 2009)

FIGURE 1: Russel's representation of Discrete Emotion Theory (adapted Russel, 2003 p.151)



Overall we can define Discrete Emotion Theory as emotions corresponding to specific brain systems which contain instructions for the generation of distinctive changes in the organism. These changes will affect face and vocal expressions, autonomic nervous system (ANS) activity, behaviour (including action tendencies), and experience.

Cognitive/ Constructive theorists of emotion emphasize the cognitive process that impacts feelings and experience of emotions (Izard 2009). According to this scholar, the theory states that emotions emerged from physical, cognitive, and subjective feelings bound to sociocultural contexts. The scholar added that emotions are initially undifferentiated states of distress and nondistress that later differentiate into specific emotions as a function of development.

The functionalist theory defines emotions as "bidirectional processes of establishing, maintaining, and/or disrupting significant relationships between an organism and the (external or internal) environment." (Barrett & Campos, 1987, p. 558). According to Izard (2009), this theory focuses on a person's daily activities, the impact of emotion on behaviour, and the relation between emotion and action. Besides that, functional theorists reflect emotions as adaptive consequences because they act as signals or threats to the self and to others.

METHODOLOGY

Mixed-method research will be employed in this study. A total of 57 undergraduates from IPMA will be selected through a simple random sampling to participate in the survey. This sample will be representatives of MARA undergraduates. 20 five-point Likert scale items are designed to find out the respondents' experiences involving cyberbullying. These items were developed and extended by Erdu-Baker and Kavsut (2010). The other 20 items are meant on emotional development based on College Adjustment Scale (CAS) (Anton & Reed, 1991). The frequency will be investigated on a 5-item scale: never, rarely, sometimes, often, and always referred to as 1,2,3,4 and 5 respectively. For factor analysis, Kaiser-Meyer-Olin Measure (KMO) will be checked via SPSS. Pearson Correlation will be conducted for analysing the relationship between cyberbullying and undergraduates' emotional development.

Research on cyberbullying necessitates varied research methodologies to understand the density of the issue as it is a complex situation (Horton et.al 2022). Although the quantitative method plays a crucial role in this research, it may not be able to capture the full continuum of respondents' experiences of cyberbullying and its impact on their emotional development. Therefore, the researchers will employ a qualitative approach to increase the robustness of the research results. According to Tenny et al. (2022) the qualitative approach will be useful for better research on the aspects of interactions, experiences, perspectives, and motivation. In this research, ten students from IPMA will be selected using purposive sampling for a focus group interview. The participants of this study are more likely to be exposed to the internet for more than hours in a day. The interview questions will be adapted from the quantitative questionnaires.

IMPLICATIONS AND CONCLUSION

This finding is to indicate the impact of cyberbullying on the emotional development of undergraduates in IPMA. All related parties such as the Higher Education Department (MARA), Skills and Technical Department (MARA), college administrations, teachers, and parents should be aware and create a positive environment that is able to prevent cyberbullying. The results of this study are expected to help the authorities from MARA and school administrators to make considerations so that it can be used as a guideline to draw up preliminary plans in order to prevent this issue. Parenting awareness is essential to ensure the children's safety. More efforts and plans or laws should be implemented in order to prevent factors of cyberbullying.

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TVET EDUCATOR TRAINING PROGRAMME FOR QUALITY EDUCATION: A CASE STUDY AT A VOCATIONAL COLLEGE

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ABSTRACT

Malaysia Education makes significant efforts to centralize the educational system through the adoption of Technical and Vocational Education and Training (TVET), resulting in the production of skilled workers in various disciplines. However, past literature has highlighted several issues in regard to the quality of TVET educators that have detrimental effects on TVET graduates, particularly those from vocational colleges. This case study aims to analyze the state of TVET educator training programs, the challenges faced in TVET educator training programs, and the strategies to curb the issues at a vocational college. Using a case study approach, a semi-structured interview was developed to gather in-depth interpretations from three participants from a vocational college, which further highlight several issues faced that include lack of collaboration with industries, unaligned training programs, an insufficient budget, as well as a lack of exposure to training programs and competency skills, which are among the main findings. Despite increasing the fund allocation for teachers' training programs, it is also suggested that teachers be provided with greater autonomy to participate and apply practical skills. intention. Understanding the nature of teacher training programs in vocational colleges by noting the influential domains is particularly important in order to ensure quality TVET education.

Keywords*: TVET educators; teacher training programs; in-service training; vocational colleges; quality education*

INTRODUCTION

Manpower and skilled labour have been a core to developing countries like Malaysia as well as other ASEAN countries to boost the industrial sector and economic growth (Grosch, 2017). Hence, technical and vocational education is placed under the spotlight in order to develop and produce a highly skilled workforce (Razali, 2010). In 1960 under Rahman Talib Report, Technical and Vocational Education and Training (TVET) systems started gaining attention and slowly becoming one of the national agendas in producing the local manpower and human capital development with the aim to produce skilled workers in the industry sector (Omar et. al, 2020).

Unlike general education, TVET prepares individuals for specific jobs, and it is associated with a broader scope that includes personal, general, and entrepreneurial skills to help individuals in their lifelong learning, improve their employability, and facilitate their overall involvement in society (Haolader et.al, 2017). As such, Kingombe (2012) defines TVET as learning practices that focus on skills, knowledge, and attitudes, and these practices are placed under various educational processes in relation to economic and industrial sectors. To ensure TVET achieved its objective and meet the aim of the country to produce a highly skilled workforce, standards are applied. There are four purposes (Spottl & Becker, 2016): a) to define the quality of education; b) to guide the development of curricula, including the selection of content and methodologies; c) to define the quality of teacher training programs; and d) application for assessment.

However, TVET and its standards for learning and outcomes have been under discussion, especially how TVET graduates meet the demand and needs of the industry sector. This discussion has led to the role of teachers being called upon the necessity to employ a range of standards and accreditation to ensure TVET graduates meet the demand and needs of the industry sector (Omar et. al, 2020). An article released by Forbes (2022) reveals the top 10 most in-demand skills for the next 10 years, which are digital literacy, data literacy, critical thinking, emotional intelligence, creativity, collaboration, flexibility, leadership skills, time management, and curiosity and continuous learning. These in-demand skills now act as to-be-practiced skills in education, especially TVET, and hence, more work has to be done not just on the teacher training program but the quality of each of the training programs to ensure these in-demand skills are instilled into the students directly or indirectly throughout the lesson (Jailani et. al, 2016). To completely prepare the next TVET graduates fully equipped with these skills, TVET educators and their competency have become one of the challenges as training competent teachers can train out competent graduates to meet the needs and demand in the industrial sector and economy.

BACKGROUND OF THE STUDY

The growth of the economy has increased the demand for skilled laborers and manpower. Compared to countries like Germany and South Korea, which provide a successful model for getting more skilled labourers, Malaysia faced problems with a shortage of skilled labourers to fulfill the needs for economic growth (Chang, 2018). Statistics from MOHE show that the graduate marketability rate for TVET surpassed the national figure in the past three years (Sofea, 2022), and in 2021, the marketability rate for TVET graduates was 88% compared to the national figure of 85.5%. Even though efforts have been made, it is still obvious that TVET in Malaysia is far behind its objective of producing more skilled labourers to boost the economy. In addition, TVET was often criticised for its negative perception and the quality of the education it provides.

The unemployment of vocational and technical students in Malaysia was caused by ineffective professors (Ismail et. al., 2018). Sofea (2022) highlighted that there were 42.8% of TVET graduates on the market in 2021, but people still think TVET education is for those with lower academic grades. Furthermore, the competencies of TVET instructors are a main concern too. Ismail et. al (2018) in an interview with lecturers, teachers, and industrial workers, TVET teachers lacked competency skills, and their classroom management was also in debate. TVET graduates found it hard to fit into the demanding working society and could not meet the industrial requirements once they completed their TVET education. This issue has brought about another debate on the quality of TVET teacher training. TVET teachers lack pre-service preparation or professional development opportunities to ensure they are competent and deliver instructions well in the classroom (Omar et. al, 2020). Hence, this paper will discuss the issues and challenges faced by teachers, institutions, and ministries, as well as the strategies to overcome this situation.

PROBLEM STATEMENT

The main challenge in the field of TVET is to produce students who have high quality and meet the aspirations of the country's educational philosophy. This issue is a challenge that needs to be overcome by technical lecturers because, as is already known, TVET education is a trend that emphasizes practical education. Therefore, the task of the educator is to ensure that the goals of the national educational philosophy are achieved by delivering creative teaching methods in the classroom (Nurul et al., 2011). However, the teaching delivered at the vocational college has the concept of practical and technical teaching, so it is quite difficult to generate such elements. Therefore, the teaching staff must be wise to actively deliver teaching methods to ensure that students can recognize their true selves and find the truth at the highest level.

Furthermore, another issue and challenge that arises is the responsibility of Vocational Colleges in producing students who are skilled in accordance with current technological changes and industry needs. Lecturers who teach outside the field of technical education options will face problems mastering the field of technical skills (Roslan, 2014). If the teaching staff who teach the skill stream at the Vocational College consists of lecturers with different areas of expertise, then the teaching process given cannot be delivered smoothly. Thusm, they are often worried and have less confidence because they don't have a deep understanding of the subject they need to convey to students. Hanapi et al. (2015) highlighted that incompetent teachers are one of the factors that contribute to the unemployment of vocational and technical students in Malaysia.

Apart from that, vocational college lecturers do not have knowledge and skills in line with the latest developments in the industry. Therefore, joint training with the industry needs to be implemented to ensure that teaching staff do not fall behind in the current of change in the industry (Dadang, 2013). This is because there is a relationship between the effectiveness of a lesson and the level of competence possessed by the teaching staff (Kamaruddin et al., 2010). The issue of teachers being less professional in performing their role as educators is a form of threat that can have a negative effect on the education system where there are weaknesses in professional development practices from various aspects that cause the teaching implemented to be less effective (Sulaiman & Ahmad, 2018). Despite the number of studies that focuses on teachers lack competencies, there are limited studies on the effort of enhancing teacher's professional development at vocational colleges to ensure teachers' continuous development.

METHODOLOGY

From a methodological point of view, as there are limited studies on professional development, particularly regarding the in-service training for TVET teachers in vocational colleges, a case study in Kajang, Selangor, will be conducted to determine the state of in-service training for TVET teachers in a school. In addition, the study also intends to investigate the challenges in providing effective training as well as identify the strategies that can be implemented to solve the issues. Three participants were selected of different position in the institution as according to Creswell & Poth (2018) and Merriam (1998), there is not any specific answer as for number of participants in qualitative research. However, the number of participants depends on the qualitative research approach. The sample size for qualitative studies is small because participants who are able to provide more information are selected so that the study is conducted more regularly (Bailey, 2006). The sample size for the study was small because only three people were selected from the organization. Sampling for this study involves several parties who hold different positions in this organization.

The participants were selected through purposive sampling. The participants interviewed consisted of three participants from both the administrative and academic sector of the institution. They are the senior management staff member, a junior management staff member, and a teacher. Purposive research sampling is done to enable the researchers to gather comprehensive, quality data. Building the criteria for selecting the samples for purposive sampling is generally based on retrieving the insights from the group chronologically and identifying potential participants that share demographics or context from different perspectives (Hammersley & Atkinson, 1995). Besides that, Palinkas et.al (2015) also echoed this notion whereby this type of sampling is extensively used in qualitative research to connect and select cases that can provide the researchers with the related field of interest and environment. Participants of the interview are chosen by the researchers based on the necessity, judgment of the researchers and to keep the validity and reliability of the data collected. The participants' diverse work backgrounds as well as the utilisation of various empirical findings as the foundation for this study, enabled the data to be triangulated by confirming these evidences, supporting the themes identified, and developing a credible report.

As for the data collection method, several steps have been taken to adhere to the ethical concerns of conducting a qualitative study. A letter of request to conduct the study was given to the principal of the school for approval after the case was identified. Once the request is permitted, the participants are contacted by a researcher to discuss their availability and coordinate with researchers to conduct the interview. Hereafter, the interviews were carried out with three participants on three different days via Google Meet. Each interview took approximately 20 minutes to complete. The interview was recorded and then transcribed by the interviewers. A "back translation" strategy was not used in the transcription of this research to maintain the authenticity of the interview. The interview was carried out in both Malay and English as there were participants with different preferences for languages. The data collected for this study were analysed using a thematic approach. The four stages in this method are segmenting the main themes, classifying them, relinking the themes' components, and presenting them as final data (Matthew & Ross, 2010). The responses of participants were identified and coded according to themes and sub-themes. The exploratory aspect of our case study lends itself to thematic analysis.

THEORETICAL FOUNDATION OF THE STUDY

The theoretical foundation of TVET in-service teacher training is built on two theories: a) Theory of Pedagogic Discourse by Basil Bernstein (1990); and b) The KSAVE Model by Binkley et.al (2011).

TVET IN-SERVICE TRAINING (IST): THEORY OF PEDAGOGIC DISCOURSE BY BASIL BERNSTEIN (1990)

Fundamentally, in-service training, or IST, is known to be part of employees' professional development activities that take place in formal and informal organizations. According to empirical data, the ultimate aim of gaining such experiences is to increase knowledge and skills as well as generate positive behavioral change. In turn, it will help enhance employees' abilities to perform tasks more efficiently and effectively (Norwani et.al., 2018). In terms of the education sector, the scholars further denote that attending IST may also indirectly influence a teacher's teaching skills and the students' achievement.

Hence, in relation to Bernstein's Theory of Pedagogic Discourse, he defined "'pedagogic discourse" as *"a principle for appropriating other discourses and bringing them into special relation with each other for the purposes of their selective transmission and acquisition"*. Bernstein stated that in order to construct one's own knowledge, the process usually derives from other external attributes. From this point of view, Sakkoulis et.al (2018) built their arguments by stating that IST functions as a medium for the dissemination of recontextualized discourse among teachers, which helps to further refine the legitimate standards of their professional identities while reinforcing and consolidating the existing ones. The basically emphasized that the strategies and approaches used in the IST sessions are a form of acquisition and recontextualization of knowledge that allow teachers to enhance their inadequacies and transform their pedagogical practices. In line with this notion, the three hierarchically structured principles that formed the core concept of Bernstein's pedagogic governance theory are: a) distribution; b) recontextualization; and c) evaluation, which became the basis of our in-depth analysis.

DISTRIBUTION: FROM INDUSTRY TO INSTRUCTOR

According to Bernstein, the distribution principles influence institutional activities and the highest levels of government. It profoundly governs the interaction between power, social groups, forms of awareness, and practice, as well as their reproductions and products. Bernstein demonstrated this notion through the deallocation of the secondary school's physics subject, which he claims is the result of recontextualizing its curriculum from its primary location in higher education institutions to relocating and refocusing its content to suit secondary school education. Thus, from the standpoint of IST, it is perceived that the knowledge and skills gained throughout the training are distributed and relocated within the teacher's personal setting to help improve their profession. This idea is also echoed by Singh (2015), who describes the distribution principle as a pedagogic reformation process that governs the entire population through training and retraining programs to adapt to the continually challenging environments in work and daily life.

RECONTEXTUALIZATION: TEACHER'S ENHANCED KNOWLEDGE – DEVELOPING EFFECTIVE PEDAGOGICAL STRATEGIES

Moving on to the second principle, recontextualization is referred to as the rules that govern the transformation of schools. Bernstein theorized that what constitutes the content of a subject is defined by what individuals who regulate and manage the curriculum do to benefit society at large. Hence, under this principle, it is argued that the enhanced knowledge gained from teachers' engagement in IST can actually contribute towards the development of effective pedagogical strategies, resulting in a better T&L process. This is because, as Bernstein stated, the effectiveness of how a subject is taught is not intrinsically linked; it is dictated by the power of those who regulate and control the delivery of its content. And since the goal of education is to generate stronger and highly skilled human capital, the recontextualizing principle can help teachers in assessing as well as developing advanced versions of existing curriculum knowledge that will serve to attain the goal set (Chiang, T. H., & Thurston, A., 2022).

EVALUATION: DEVELOPED EFFECTIVE PEDAGOGICAL STRATEGIES – IMPLEMENTATION OF IMPROVED PEDAGOGICAL PRACTICES

For the final principle, this principle works in governing the pedagogical practices employed by the teachers. According to Bernstein, evaluation is the process of realizing learning resources in specific pedagogical practices. Through the evaluation principle, it provides support for teachers to determine the most suitable approach that can be utilized for each of their selected contexts. Bernstein further refined this principle into two distinct rules: a) recognition; and b) realization. The scholars define "recognition" as the phase whereby teachers are able to recognize as well as distinguish different contexts from the practice they have implemented.

As for the rule of realization, it is the subsequent phase in which teachers can create and produce new pedagogical approaches adequate for each of the contexts identified. And this rule can be viewed from two perspectives, which are: a) passive realization; and b) active realization. Passive realization indicates that the teacher is *aware of his or her capability* to resolve any difficulties that may emerge. Active realization happens when the teacher *physically creates the text or presents the solution* to an issue that has occurred. In relation to IST, the current study asserts that when teachers participate in IST, it will help to generate a balanced matrix of both passive and active realization. This is due to the fact that the knowledge and skills transferred from the IST will not only improve teachers' ability to develop effective pedagogical strategies but will also allow them to distinguish which practice is the best to implement as well as the best ways to overcome any challenges that they may face while delivering curriculum content. This chain of connections is also in line with Chiang and Thurston's notion (2022), where the key purpose of the evaluation principle is to conclusively ensure that the academic content of the curriculum can be mastered by all students.

TVET TEACHER COMPETENCIES: THE KNOWLEDGE, SKILLS, ATTITUDES, VALUES, AND ETHICS (KSAVE) MODEL BY BINKLEY ET.AL (2011)

With the rapid change and development in the 21st century, teachers are now more demanded than ever to equip themselves with various competencies to survive in the increasingly tough environment. According to Lima et.al (2019), these competencies can be categorized into three specific domains: a) cognitive: thinking abilities such as critical thinking, reasoning, and problem solving; b) interpersonal: ability to communicate effectively with others through activities such as collaboration, teamwork, and leadership; and c) intrapersonal: development of their own values and psychological aspects such as emotions, feelings, self-monitoring, and self-reinforcement. In their study on teachers' perceptions of the implementation of the KSAVE model for English language courses and training, the scholars reinforced that the teachers must reflect on how these domains can be commensurately served and presented in 21st century classrooms.

As aforementioned, this current study also built its foundation on exploring TVET teacher competencies using the same perspectives as elaborated above. This is due to the fact that the KSAVE model is known to be one of the most relevant frameworks that can be used in setting the curriculum or learning purposes that fulfill the need to learn 21st century skills. In line with the Occupational Competency movement initiated by David McClelland in the 1960s, this initiative sought to move away from traditional attempts to describe competency in terms of knowledge, skills, and attitudes and to refocus on those specific values, traits, and motivations (i.e., relatively enduring characteristics of people) that are found to consistently distinguish outstanding from typical performance in a given job or role. The construct of the KSAVE model was also done based on extensive analysis on other competencies and skills development models such as the Key Competencies for Lifelong Learning – A European Reference Framework and the USA Department of Labor Competencies Model.

Thus, reflecting back to the setting of the Malaysian educational system, our Ministry of Education (MOE), under the Malaysia Education Blueprint 2013-2025 (preschool to post-secondary education), also consistently emphasized on the development of ethics and values-driven Malaysians. Through this framework, the government aspires to inculcate strong ethics in every child, allowing them to employ sound judgment and principles in facing the inevitably challenging adult life. Additionally, they also target nurturing strong universal values such as integrity, compassion, justice, and altruism, in order to guide future generations in making ethical decisions. Therefore, this present study argues that TVET teachers, as the key actors in the T&L process, must first and foremost possess the required skills described in the KSAVE model before they can bring about change to the educational world and provide their students with quality education. Under the KSAVE model, Binkley et al. highlighted four core concepts, which are: a) ways of thinking; b) ways of working; c) tools of working; and d) living in the world.

WAYS OF THINKING

According to Binkley et.al (2011), *ways of thinking* represent a push forward in the conceptualization of thinking. One of the major characteristics of this concept is that it emphasizes higher order thinking skills that require greater focus and reflective thinking. The scholars further magnified this concept into three specific cognitive skills, which are: a) creativity and innovation; b) critical thinking, problem solving, and decision making; and c) learning to learn, or metacognition. Based on the stated skills, this current study contends that teachers possessing the cognitive abilities listed are able to think and collaborate creatively with others, use systematic thinking to reason effectively and make good decisions, as well as implement a self-assessment and self-regulated learning process in acquiring new knowledge. As indicated by Yaacob et al. (2021), one of the benefits of reflective thinking is that it enables teachers to not only reflect on what, why, and how things are done, or how to improve their practices, but also to strengthen their overall professionalism via analytical reflection.

WAYS OF WORKING

For the second concept, Binkley et.al (2011) put emphasis on the importance of effective communication and collaboration skills due to rapid technological changes caused by globalization. The scholars further reinstate two behavioral skills that 21st century individuals must have, which are: a) communication; and b) collaboration, teamwork. Hence, aligning with these perspectives, the present research also echoed the same beliefs that 21st century teachers must possess full competency in their mother tongue as well as other language skills in order to not only communicate effectively but also enhance their awareness and comprehension of societal or cultural variability that occurs during the communication process. In addition, these skills allow teachers to work and manage projects interactively, while responsibly guiding and leading others in achieving the common goal.

TOOLS OF WORKING

Under the third concept, Binkley et.al (2011) underpin two distinct skills: a) information literacy; and b) ICT literacy, the latest set of skills that marks a major shift in how future generations will access and evaluate new information efficiently. The scholars also believe that acquiring such skills is important due to the impact ICT advancements have on formal and informal education. Thus, their ability to do so allows them to fully utilize available and relevant data to perform their tasks at hand. Furthermore, the importance of possessing competent ICT literacies is also presented in our MEB 2013-2025 framework under shift seven, in which the Malaysian government aims to enhance quality learning across Malaysia through leveraging ICT. Hence, to ensure successful integration of ICT in the T&L process, it demands the development of a set of skills by the teacher in order for them to internalize teaching techniques that make the most of technological resources (Hernandez R.M., 2017). According to the scholar, ICT-related teacher training is among the first solutions that can be used to assist teachers in enhancing their ICT skills. Therefore, the empirical findings further support the current study's premise that enhancing information and ICT competencies among teachers is crucial, as it may improve the pedagogical practices employed, resulting in more positive educational outcomes.

LIVING IN THE WORLD

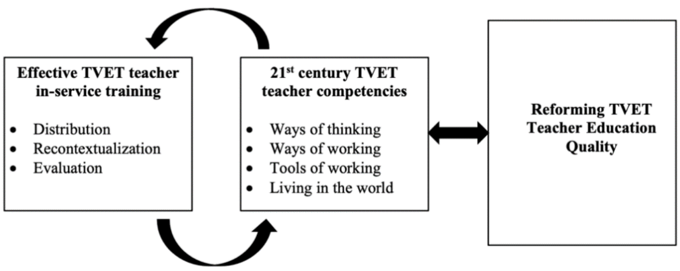
For the fourth concept, "*living in the world,*" it revolves around an individual's ability to adapt to the constant change in their lives. Essentially, in the 21st century, people are always competing, collaborating, and connecting with one another. Hence, the KSAVE model suggests that each individual must learn to embrace people's uniqueness and adapt to all aspects of citizenship. The scholars reinforced that it is not enough to assume that what goes on in your own country is how it is or should be all over the globe. Thus, under this concept, Binkley et.al (2021) highlighted three life skills that individuals must possess: a) citizenship, global and local; b) life and career; and c) personal and social responsibility. These competencies put forth the importance of having high awareness of local and global issues, practicing flexibility in negotiating and balancing diverse views to reach workable solutions, as well as demonstrating commitment to expanding one's own professional development and lifelong learning. Caena and Redecker (2019) also supported this concept because, according to their study, in order to boost students' learning processes, teachers themselves need to be excellent lifelong learners, both individually and collectively. Therefore, considering all of the empirical evidence, the current analysis contends that one of the most important qualities for 21st century teachers is the ability to flexibly adapt their knowledge, skills, and performance to meet the demands of every challenge faced.

PROPOSED FRAMEWORK OF THE STUDY

Based on all the theories, models, and evidence between the variables in the literature review presented in the earlier section, the proposed framework to guide this present research is developed in Figure 3.0 below. In this framework, there are two main variables, which are; a) TVET teachers' in-service training, and b) TVET teachers' competencies. Under the first variable, TVET teachers' in-service training was based on the theoretical framework of Basil Bernstein's Theory of Pedagogic Discourse, which focuses on three core concepts: a) distribution; b) recontextualization; and c) evaluation. For the second variable, TVET teachers' competencies were grounded by the KSAVE model developed by Binkley et.al (2011) which highlighted four domains: a) ways of thinking; b) ways of working; c) tools of working; and d) living in the world.

Therefore, the proposed framework of this study is as demonstrated in Figure 1 below to further enhance the relevancy between each of the adapted frameworks.

FIGURE 1: Proposed framework of the study



LITERATURE REVIEW

STATE OF TVET TRAINING IN MALAYSIA

Since 2004, the national dual-training system has been the base for TVET in Malaysia. As TVET students spend more than two-third of their training via industrial placements, this dual-training system has also led to greater chances of TVET graduates getting employed (Sofea, 2022). A deeper look at qualification, accreditation, and quality assurance is essential to ensuring TVET graduates get employment. Two agencies, the Department of Skills Development (DSD) and the Malaysian Qualification Agency (MQA), were in charge of the accreditation and quality assurance matters. According to MQA (2019), TVET graduates were offered various programmes from certificate (level 1 to 3) to bachelor's degree (level 6). DSD, which is under the Ministry of Human Resources (MOHR), undertakes the accreditation process for the skills sector based on NOSS, whereas MQA, under the Ministry of Education, accredits vocational and technical certifications.

Other than that, negative views from the society have influenced student and parent's choice to opt for TVET programme and hence, a professional body named the Malaysia Board of Technologists (MBOT) was formed to register the technicians and technologist of the country to enhance TVET (Chang, 2018). With MBOT registration, these technicians and technologists are recognized as professional personnel. Data from UNEVOC (2019) shows that TVET is outlined in the Malaysian Education Blueprint as an important pathway for vocational education, skills development, and lifelong learning. Therefore, to raise the quality of the existing provision, collaboration with the private sector will be looked into to develop industry-recognized qualifications, offer more hands- on practicum opportunities, and upskill teachers (Malaysia Education Blueprint, 2013).

Currently, a person can learn technical and vocational skills in Malaysia through informal apprenticeship, on the job training, private TVET institutions, and public TVET institutions (Chang, 2018). In the past, informal apprenticeship was popular and one of the ways communities learned through hands-on experience. This was practiced by Chinese and Indians. Some employers also provide on the job training, internally or externally, to acquire certain skills, and the training provided is based on the company's needs. Unlike informal apprenticeship where the individual works under a skilled person without any curriculum, course syllabus or no certification, DSD will award on the job training trainees with certificates upon completion of training. Certification has also led to parents sending their children to a private TVET institution for a more structured technical and vocational course. For Chinese students, some may also choose the course offered by the Chinese Independent High Schools or the Overseas Youth Technical Training Program sponsored by the Taiwanese Government. However, some of these certificates are not recognized by the local authorities. Hence, some parents send their children to the public TVET institutions, as all of these institutions are funded and accredited by government agencies.

Teacher education, on the other hand, has been the subject of much policy contestation between public universities and institutes of teacher education (UNEVOC, 2019). To offer teacher-training programs or modify existing ones, many frameworks and qualification processes have to be undergone. Like TVET teachers, normal teachers are required to have at least a bachelor's degree to teach. The MEdSi (Malaysian Teacher Education Selection Inventory) test is used to recruit candidates to the degree program offered by the Ministry of Higher Education (MOHE). Candidates are selected based on their ranking on components like academic achievement, MEdSi score, and their performance in the interview. Those selected will start their degree program, and once they have successfully completed the teaching course, they will be placed in schools for practicum and begin their teaching journey.

As for TVET teachers, their teacher training can be defined as the main role in providing the knowledge and skills to be used immediately or in the near future (Mimi et.al, 2017). As mentioned earlier, teacher training is conducted by universities and institutes of teacher education, MARA and UTHM offer vocational courses to teachers. Each course duration, which varied from one and a half years to three years, was based on the training the teachers had when they registered. Within the training duration, they have to attend industrial training for 6 months in order to get more knowledge and skills in their fields. This situated learning experience enables teachers to view and solve issues that are real or live, which is definitely helpful when they become teachers.

From time to time, teachers must attend different courses or workshops to adapt themselves to the current demands of the world. This is to prepare teachers to instil the necessary knowledge and skills in students. SPLKPM is one of the systems that manages the professional development of teachers and MOE staff members in general. With SPLKPM, teachers can keep track of all the information and data related to their professional development (Noradlina & Masrah, 2022). However, research by Omar, Farah, and Abdullah (2020) reported that TVET teachers lack pre-service preparation or professional development opportunities where these skills and knowledge competencies are important.

CHALLENGES FACING THE PROVISION OF TVET TEACHER TRAINING

The lack of technical expertise, such as lack of clarity in the practical work process, affects students' understanding because, since instructors only have good theoretical knowledge, they are more likely to provide explanations without demonstration; this is also due to a lack of confidence and less skill in the operations of the machine and equipment. Moreover, TVET instructors also lack mastery of the learning and methodology aspects as well as the humanity and social aspects. Based on the discussion in the background of the study, there are three important elements that are still under discussion in terms of technical, learning, and methodology, as well as humanity and social. In a study conducted by Ali, 2014; Md. Harun, 2014; Mustafa et al. (2010), the focus was only on three competency elements, namely attitude, knowledge, and skills, during the practical teaching in the workshop.

Based on their interviews with lecturers, teachers, and industrial workers, the issues of incompetent teachers reside in their teaching methods, weak classroom management, lack of industrial experiences, lack of competency skills, and disinterest in teaching the assigned subjects (Ismail et al., 2018). The competency gap among teachers or lecturers in TVET, particularly in higher institutions, resulted in disparities in graduates' practical skills. This has been highlighted as one of the factors that hinders graduates from meeting industrial requirements effectively (Chang, 2018). Ismail et.al (2018) claimed that the unemployment of vocational and technical students in Malaysia was caused by ineffective professors who lacked industry expertise and had little interest in teaching the given courses. This issue is not only being addressed locally, it has also been highlighted in global studies on the quality of TVET teachers (Yeap, 2021; Ismail et al., 2018; Chang, 2018; Mahazani, 2015; Liu, 2020). The Economic Planning Unit has been raising this issue of the teachers' competency gap since 2009 (Yeap, 2021).

The problems with incompetent teachers are found in their teaching strategies, poor classroom management, lack of professional experience, competency skills, and disinterest in the subject area. Technical students are influenced by the instructional abilities and professional experiences of these vocational teachers. Even in the recent global pandemic, Thangaiah et.al (2020) stated that TVET educators struggled to shift their conventional teaching methods into online teaching due to poor literacy in adapting pedagogy to digital learning. From the findings, it shows that the teachers are less exposed to the current teaching and learning methodologies that could benefit them with the sudden shift in teaching mode.

Mustafa and Othman (2011) found that working experience was not a factor that influenced the quality of the instructor. The study also found that long-term educators were less likely to receive benefits than those who had recently served. This may be because they feel that training in the service is not comparable to their experience or due to the burnout of the instructor itself. According to Suki et al. (2018), these burn-out instructors, despite being given good training, do not give the impression to them compared to an instructor who does not experience burn out symptoms. Findings of a study on self-efficacy, workload, and mental health among lecturers in vocational colleges have shown that the teachers' self -efficacy and mental health problems were at a high level (Tien et al., 2022). The overall workload was also high level but the curriculum area load has now changed to a moderate level, unlike previous research studies where the curriculum area has always remained high.

According to Ismail et al. (2018), there are opportunities for vocational teachers to participate in professional development programs (courses, workshops, industrial placements, etc.) to enhance their knowledge, skills, and professionalism in their fields. However, the participants revealed several challenges that hinder the vocational teachers from participating in such programs, such as limited course places, budget allocation, a rotation system among teachers to attend these programs, and their daily commitment to other tasks.

STRATEGIES TO IMPROVE

Considering all of the empirical facts provided previously, the following component of this study will continue to exhibit literature that emphasizes improvements to enhance TVET teachers' in-service training on three distinct levels, which are: ministry level, institutional level and teacher level.

MINISTRY LEVEL

From the ministry perspective, this present study contends that they implement initiatives to strengthen their overall TVET management system. The first strategy that they could employ is to address the issue of lack of coordination among ministries and overlapping courses from multiple institutions by establishing a standardized quality assurance (QA) framework that applies to all aspects of TVET. Paryono P. (2015) also emphasized the need for Malaysia to have new national TVET teacher qualification standards and training policies in conjunction with the transformation of the vocational education system. This is due to the global focus today on strengthening quality assurance at all levels. As denoted by Chinyere Shirley et.al. (2015), there is currently a strong move in many countries towards having rigorous, internationally recognized TVET quality assurance processes. This initiative is also highly tied to the reforms in TVET sweeping the globe. Hence, the scholars reinstate that many countries have initiated various steps for establishment of quality assurance mechanisms keeping in view the provision of TVET.

Secondly, the ministries could also improve on their TVET budget allocation. Based on the European Commission's (2015) report on TVET education in South Africa, stable and sufficient funding is one of the prerequisites to achieving the goals of TVET policies, such as accessible and relevant TVET teacher education provision. And because vocational teachers in public skills training institutions require continuous training in order to ensure that their knowledge and skills are on par with the industries, it is critical that ministries develop a strategic plan that includes adequate funding for TVET institutions to use in providing their teachers with opportunities to continuously develop their professionalism by attending relevant courses such as seminars and industrial attachment programs.

INSTITUTIONAL LEVEL

Moving to the institutional level, one of the effective ways that the management could implement is to provide better support to TVET teachers to enhance their qualifications. According to Ismail et.al (2018), unsupportive management is one of the challenges that hinders innovative efforts among TVET teachers. Hence, when institutions provide greater autonomy to their teachers and are more transparent regarding any TVET training programs that are being offered, these teachers feel more encouraged to participate in the development programs. By employing this approach, it can also be considered as part of the institution's initiatives to align their curriculum content and pedagogical practices with the industry, as well as strengthen teachers' professional qualifications to be relevant with the demands of the current market (Paryono P., 2015). In turn, it will ultimately benefit both the teachers and the institution collectively.

Besides providing better support, institutions should also increase teachers' job motivation. Adding with other unrelated working loads such as clerical tasks, scholars agreed that the integrity of teachers has become questionable. This is one of the side effects of the low motivation that TVET teachers are experiencing right now (Yunos et al., 2016). With low motivation, TVET teachers are risking losing their identity. The empirical findings further revealed that TVET teachers are not aware of the important skills that they have embedded in their teaching, including soft skills such as problem solving and critical thinking, resulting in low self-esteem as well as low self-efficacy. Hence, it is important for TVET institutions to build a culture of pride among their teachers so that the "2nd class" perception will be exterminated. To do so, they can establish award programs as a form of appreciation for their teachers. According to Olushola and Adewumi (2021), an essential component of performance management is ensuring teachers are sufficiently motivated through intrinsic and extrinsic means, such as providing appropriate recognition for their hard work. Based on industry accreditation, the awards presented by the institution's management will be one of the strategies to boost job motivation by honoring teachers' talents, competencies, and achievements.

TEACHER LEVEL

As for teacher level, the strategy that could be implemented is to perform a training needs analysis, or TNA. This is done to identify any practice gaps or incompetence among the teachers that requires further training. Based on Kim et.al (2019) study on Rwanda TVET trainers' instructional competencies, the scholars concluded that an important aspect of running successful TVET courses is to improve teachers' instructional skills, and they identified that the training module used by the Rwandan government to improve its TVET teachers' competencies did include training needs assessment. Through this assessment, the Rwandan government is able to identify the types of training needed as well as develop an effective training plan that can combat the targeted issue. This recommendation is coherent with the findings by Mulang (2015), which revealed that the main purposes of TNA are; a) to assist the organization in systematically identifying employees' requests for the training they need, and b) to help the organization in efficiently utilizing their resources and preventing unnecessary training activity. Therefore, it is also very crucial for any TVET institution to thoroughly analyze their techniques in providing impactful training programs, as this will also improve the quality of the courses and enhance their overall human resource development.

Last but not least, the Malaysian Ministry of Education (MOE) also believed that the participation of academicians who are experts in teenage psychology and pedagogy is one of the critical factors for ensuring successful implementation of the curriculum for vocational college. Thus, to achieve these goals, TVET teachers must exert tremendous effort to collaborate with educators and experts from other TVET institutions as well as disciplines (Yunos et.al., 2016). According to scholars, this collaboration may be developed through a variety of academic venues, such as conducting Training-of-Trainers (ToT) workshops among TVET teachers, engaging in academic research, or attending any educational conference (Kim et.al., 2010; Yunos et.al., 2016). The knowledge exchanged as a result of the established collaboration will lead to a better understanding of the students' psychological characteristics and what is required to further improve their educational performance.

DISCUSSION

Based on the initial purposes, the current research intends to explore the TVET IST in a selected vocational college, the challenges facing the provision of TVET teacher training, as well as the improvements that can be implemented by the institution or related agencies in order to enhance the training provided. Hence, through the data gained from the semi-structured interview sessions, the researcher identified the informant's criteria, which are discussed intensively below in order to provide a comprehensive insight into the study. Simultaneously, the researchers also constantly referred to the guiding research questions in the development of themes. Therefore, in exploring IST among TVET educators, there are six themes developed from the thematic analysis done, which are; a) lack of collaboration with other industries ; b) unaligned training programs; c) insufficient budget; d) lack of exposure to training program and competency skills; e) increase fund allocation; and f) provide greater autonomy to participate and apply practical skills. The thematic analysis was carried out because this coding technique has the ability to minimally organize and describe the data set in rich detail (Braun & Clarke, 2006).

RESEARCH OBJECTIVE 1: TO EXPLORE THE STATE OF TVET TEACHER IN-SERVICE TRAINING

From the interview, it is noted that the state TVET teacher training programs often lacked collaboration and involvement from other industries. Teachers pointed out that training was given, but most of the training was in-house, and this training seemed insufficient in its context and skills for better improvement. Though other industries do involve and collaborate, the frequency was less than 3 per year. With the low amount of training given and the collaboration with other industries, it has been proven that vocational teachers have limited course spaces (Ismail et.al, 2018).

Participant A: "*There is, for example, Proton...So I could not say how many days in a year as there are 2 sems a year in KV.. but I can say at least..once a year.*"

Participant B: *"Most of the time were in-house training or based on needs. We'll be charged if we propose and invite industry to come and teach."*

Participant C: *"Yes but it depends on where the training programme is executed...Here, ILP will sometimes offer programmes to colleges and a few teachers were sent for training. But in terms of frequency, not so often unless in-house training."*

According to the Economic Planning Unit under the Prime Minister's Department of Malaysia (EPU), one of the strategies to counter this issue is to allow for industry-led programs for both teachers and students. As part of an endeavour to enhance the curriculum as well as the outcomes produced by this part of our educational system, EPU suggested that under the Sectoral Training Committee (STC), new partnership models should be formed between TVET institutions and the key players of the industries, as this engagement will help to ensure that the delivery of TVET is up-to-date and able to meet the demands of the labour market. Furthermore, Hussain et.al (2021) noted that in order to increase industry engagement in Malaysia's TVET system, the legislative framework used in the governance of TVET should also be modified so that corporations are legally obligated to contribute to the country's human capital development. From the engagement that was formed, the scholars further believed that it would benefit both parties and contribute to the overall development of Malaysia.

In addition, unaligned training programs were also one of the key factors affecting the quality of teacher training programs among TVET teachers. Findings showed that the TVET training program is divided into two aspects, theories and practical, but more emphasis is placed on the theories. This has brought to the issue where teachers lack experience and could not solve real situation problems or could not handle the machines. Other than that, some teachers were also assigned subjects they were not familiar with, and they struggled to perform as these subjects were out of their context. This is aligned with Beinstein's passive rule of realisation (1990), where teachers are aware of their capabilities, but the difficulties faced by them are out of their capability to solve as decisions are made by the management.

Participant A: *"Based on my opinion, we know that in order to produce quality students in KV, it involves skills, right? So the teachers have to be skillful, not just on theories but practical as well...If teachers themselves couldn't perform, for sure students couldn't perform as well. So for me, teachers have to be skillful too."*

Participant B: *"During 'vocational schools' time, the teacher has to teach everything from changing tyres to wiring for one vocational subject. Today it is by semester, with one limitation. When I was assigned to teach other subject which is not relevant to my specialization, I couldn't and revealed my weakness."*

Participant C: *"Training programme for TVET teachers is unlike normal teachers. Apart from attending theories lesson, more practical trainings were given. This is because TVET subject is more towards machine handling, like Surviving Skills...Most of the teachers were from MARA and also UTHM, but mainly MARA...We can see that their performance is alright but lack of experience as what they have learnt is unlike real situations."*

This issue is most likely linked to the highly diversified governance of TVET in which multiple ministries and agencies are directly involved in governing and providing TVET programs as well as trainings in Malaysia. This is supported by Halik Bassah (2022), whereby the scholar denotes that there are two main factors contributing to the uncoordinated governance, which are; a) overlap of eight governing ministries; and b) uncoordinated accreditation bodies – MQA and DSD. The scholar's qualitative findings further emphasized that these factors often lead to ineffective resource management and utilization. Hence, EPU believes that the fragmented TVET delivery that our education system is currently implementing can be strengthened through the establishment of a single accreditation system. They believe that this approach can further help facilitate coordination as well as monitor the quality of TVET institutions across the nation. Additionally, the empirical findings on quality assurance in higher education in Spain have proven that this method can in fact improve the quality standards of universities. The alignment of Spain's universities' degrees and credit systems with the European Higher Education Area has resulted in an increase in international mobility among practitioners. Consequently, this also led to the enhancement of the country's international collaborations and partnerships (Rios, 2015).

RESEARCH OBJECTIVE 2: TO INVESTIGATE THE CHALLENGES FACING THE PROVISION OF TVET TEACHER IN-SERVICE TRAINING

Based on the findings, it is identified that the **budget is deemed insufficient** for teachers to join their desired training programs or industrial training, such as programs offered by CIAST. Teachers agreed that training is often conducted internally, and the opportunities for teachers to venture out into higher fees training programs that allow external collaboration with industries are limited due to the constraints in budget allocation. This finding is in line with Ismail et al. (2018), who also stated that one of the issues that limits vocational teachers' participation in such programs is **limited course space and a lack of budget allocation**. Given the limited investment for their professional development, TVET trainers are often situated to use outdated or irrelevant teaching materials and skills that will not necessarily transfer into students' adequate skills development (Kim et al., 2019).

Participant A: "*..the budget allocation for us is very much limited. All of us are really keen to join any courses or training programmes, however the fund is limited for us .. or should go through a thorough process that may take longer time. But we are not sure when it comes to higher management..*"

Participant B: "*For teacher training, we are aided with training that we are assigned to teach in that particular semester. But usually, it would not be tally or in accordance with what we have requested based on what we lack- because it requires longer time to get the best fit.*"

"In terms of training needs analysis. So far, if the content is lacking, the first training budget cannot cover the required training"

From the management perspective however, the emphasis of in-house training is further highlighted despite the need for industrial based training.

Participant C: "*..most of the training programmes were conducted internally, hence in- house trainings have always been done. So in terms of budget or time, it is not a problem because this internal training is conducted during the semester break and involves only internal people but the knowledge that is cultivated is less and is only within the college environment.*"

The next emerging theme for the challenges faced by teachers is the **lack of exposure to training programs**. Teachers have less exposure to training programs during in-service time. Despite the availability of SPLKPM system and MySpike system that manage training at vocational colleges, each college will have a coordinating committee for the staff training and development unit to monitor, coordinate, and manage staff training data. However, the training needs of each teacher are not sufficiently met. Issues also arise as novice teachers struggle to keep up with the demanded competency skills both required by the institutions and industries. Immediate training is needed to cater for the lack of skills. As all participants stated, there is an absence of pre-service industry experience, therefore, providing training that is in line with teachers' specific needs is necessary.

Participant A: *"In a year, we cannot surely say how many days.. For vocational college, we have two semesters in a year. So, we have to attend at least once in a year.. At least once. Because we have to teach four subjects in a semester, and for that four subjects, we have more than eight teachers teaching, so we can just take all trainings, we need to divide the allocation with others too."*

Participant B: "*..when we asked about other training programmes, for example- other trainings for other subjects that are not related to our teaching subjects of the particular semester, the weakness is that the skills are not applicable to other subjects offer in other semester. The opportunities offered are rare, for courses in your own field, you have to find them yourself"*

Participant C: " *In-house training is usually carried out during the semester break, there are no students and only teachers are working. Additional training outside the college is usually conducted during school holidays. Maybe at that time, the teachers had family matters and could not attend the training."*

These findings are also supported by Ismail et al. (2018) and Chang et al. (2018), who further emphasized that although training is provided, it is hindered by teachers' own competence, and teachers might attend these sessions in shifts depending on their daily commitments to other duties. Despite the presence of a developed system that focuses on teachers' training needs analysis, which is crucial for information management as well as upskilling and reskilling staff (Wan Ngah & Buniyamin, 2021), the aims of the developed systems are not fully utilized and well-practiced to enhance teachers' human capital, which eventually benefits TVET students' development.

RESEARCH OBJECTIVE 3: TO GAIN IN-DEPTH INSIGTHS ON THE STRATEGIES TO IMPROVE TVET TEACHER IN-SERVICE TRAINING

The next major theme that emerged throughout the interview sessions was the necessity of **increasing funding for in-service training**. This theme is aligned with the third research objective, whereby it intends to identify the improvements that may be implemented to provide higher training quality. According to one participant, while the content of the training is relevant to the demands of the industry, the amount of training offered is still insufficient. This is due to the fact that vocational institutions provide a wide range of subjects. Hence, better fund allocation is necessary to provide a better range of training. Besides that, by not confining the training to only certain teachers within a specific subject, it may also result in greater knowledge exchange and stronger collaboration. As expressed by the participant:

Participant A: *"..it is relevant..it is satisfying..it's just that if there are more activities, more allocations will be allocated, so more teachers can explore the skills..because vocational colleges have many programs, there are cooking, there are automotive, there is welding..so the more trainings, the better.."*

Participant B: *"The training system is quite satisfactory, just lack of upskilling especially for SKM 5, because they have this stigma that it is only for the seniors"*

This recommendation is coherent with the report by the European Commission (2015), in which stable and sufficient funding are one of the prerequisites to achieving the goals of TVET policies such as accessible TVET teacher education provision. And because vocational teachers in the public skills training institutions require continuous training in order to ensure that their knowledge and skills are at par with the industries, prior scholar also denotes that it is vital that ministries and agencies provide support and adequate funding for TVET teachers to continue to expand their knowledge and skills, as well as to improve their professionalism (Paryono P., 2015).

To do so, one of the strategies that can be employed is **increasing financial management efficacy**. Efficient financial management involves many aspects and is considered as the heart of an organization. Mansor et.al (2020) suggested that educational institutional leaders as well as their committee need to be strategic thinkers in planning, diversifying, and utilizing their institution's financial resources. This trait is evident in one of the study's respondents, who voluntarily learned to master Mandarin in an effort to approach the Chinese community to gain additional funding for their school. As a result, the funding received has allowed the respondent to provide new and high-quality teaching materials for the teachers. Apart from that, Willis et.al (2019) also highlighted four principles of effective resource allocation to support educational institution's improvement, which are: a) **equitably distribute resources**: identify inequities in current resource distribution as well as achievement gaps. Once these gaps have been identified, the institution's management can determine how to intentionally allocate staff and other necessary resources; b) **consider resources beyond just funding**: leaders should consider the quality and variety of existing investments in people and programs and align those resources with turnaround priorities; c) **blend, braid, and layer resources**: maximize funds received from the government as well as additional ones by combining and coordinating the budget to support challenging financial situations; and d) **establish priorities through stakeholder engagement**: engage with every stakeholder to gather feedback on what needs to be improved and how to do so. Thus, the scholars believed that with the adoption of this continuous improvement approach, the leaders would have the ability to maximize the effectiveness of their institution's financial management process and overcome issues related to limited budget allocation.

The last theme under research objective three is the need to **provide greater autonomy to teachers in selecting and participating in the training sessions** that are being offered both within and outside the organization. Unlike regular teachers, TVET teachers are practically oriented instructor-type teachers with a strong hands-on knowledge of the trade for practical instruction. Thus, it is also imperative to provide opportunities for teachers to utilize the information and skills acquired to improve their comprehension and the pedagogical practices employed. In regard to this matter, following are the evidence gathered from two of the participants:

Participant A: *"...need to give freedom to the teacher, if the teacher wants to join external training programs.."*

Participant C: *"We need to know that TVET teachers are more hands-on...we can still impart theoretical knowledge, but TVET teachers need more opportunities to get involved in the real workplace and experience working scenarios for themselves. More time spent in the actual world helps them to properly comprehend certain issue and which applicable theories may be applied to address the problem.."*

The suggestion lends support to a prior study in which teachers who can best meet the needs of students in this learning environment are those who not only have the appropriate professional qualifications but, most importantly, the relevant industrial experience combined with pedagogic training (Paryono P., 2015). This is because, according to Heppt et.al (2022), **promoting collaboration among teachers in any form or capacity**, such as discussions, industrial experiences, or group work that reflect on their newly acquired knowledge and skills, can also be considered one of the aspects of constructive professional development, resulting in an improved T&L process. Besides that, the findings above are also theoretically consistent with previous literature; by creating a working environment where teachers have actual influence over the planning and implementation of their professional development, it may generate a substantial impact on their motivation to actually participate in the programs offered (Nir & Bogler, 2008).

IMPLICATIONS

Continuing on to the implications of the study, this research has identified its contributions in three particular contexts; a) practical, b) managerial, and c) theoretical. First, for practical implications, the study intends to empower the teachers to go beyond their pedagogical responsibilities, whereby, through this study, they can re-assess their awareness, strengths and weaknesses, skills, as well as knowledge, in relation to their expertise. In addition, the findings of this research will also provide the teachers with a greater understanding of their rights as employees and what can be done in order to further improve their working conditions. In doing so, these teachers could explore opportunities that would further enhance their existing practices and increase the quality of services they provide. In turn, these benefits both the organization and its stakeholders.

Second, for managerial implications, the exploration conducted provides a greater comprehension of the institution's management as well as the practices of respective agencies within the field of TVET education in providing effective training to improve their teachers' professional development and overall performance. Furthermore, the findings also provide insights for the management to develop new policies or enhance existing ones in order to promote stronger IST among their TVET educators. As a consequence, this will generate possibilities for related division to further refine their work process in providing impactful training for its educators.

Last but not least, from a theoretical contribution perspective, this study is ultimately in line with the Twelfth Malaysian Plan 2021-2025 second focus, "strengthening growth enablers", in which one of the government's aims is to enhance the national TVET ecosystem by increasing the program's quality through accreditation, recognition, collaboration, and certification by international bodies. Additionally, the validity of this present research can be further determined from the investigation of the variables according to constructs and items established based on valid domains reviewed from empirical evidence. Therefore, the interconnections between effective IST and TVET teachers' quality can indeed be proven through the execution of this study.

LIMITATIONS

This study has potential limitations that may affect the transferability or confirmability of the findings. Identifying and acknowledging these restrictions, on the other hand, is a key component of sustaining the quality, transparency, and integrity of this qualitative investigation. It also serves as a foundation for future exploration (Creswell & Creswell, 2018). The first limitation is number of samples used. As discussed above, the participants interviewed consisted of only three participants which are a senior management staff member, a junior management staff member, and a teacher. Although Creswell and Cheryl (2018) once denote that this technique can best enlighten researchers on valuable insights into the matter under investigation, it however limits the statistical power and generalisability of the research findings. It should be noted, however, that the strength of qualitative research lies in its ability to delve into detailed, realistic data about the individuals studied rather than providing numerical data that can be generalized across the population.

The second limitation identified is the research tool used which relied mainly on semi-structured, open-ended interview questions. This may have affected the reliability of the data gained as the participants are more susceptible to be biased, inconsistent with their answers, and leads to a much smaller scope of discussions. However, the one-to-one interview sessions conducted provided better space for the researchers to ask sensitive questions or provide comments that go beyond the initial questions. This then led to a high response rate as the participants felt comfortable to openly discuss related matter, whereby all participants managed to reflect and provide ample feedbacks on the state, challenges as well as strategies of in-service training for TVET educators. Prior to the interview sessions, the researcher also carried out necessaries procedures to gain access from the gatekeepers of the institution. As Orb et.al (2001) denote, embedded in qualitative research are the concepts of relationships and power between researchers and participants. Hence, by the informed consent gained, the participants can exercise their rights as autonomous persons to voluntarily accept or refuse to participate in the study. This helped in balancing the protection the participants the burden of administrative ethical reviews and procedures. All steps taken nonetheless to ensure that the quality of social interactions between researchers and the participants, as well as the data received are more secured.

CONCLUSION

To summarize, in-service training is a long-term investment in developing teachers' competencies and professionalism to face today's ever-challenging VUCA world. In this regard, TVET reform supporters and other stakeholders developed in-service technical education training, which appears to be extremely successful for the growth of in-service teachers. Nonetheless, new teaching-learning paradigms also should be offered alongside in-service teacher training programs to make the TVET education system even more effective and successful. Therefore, the findings of this present research consistently highlighted the importance of respective ministries, agencies, and TVET institutions, who act as the key providers for in-service teacher training, continuing to develop a variety of training activities with various teaching perspectives in mind, as well as improving their mechanisms for providing these training programs to our TVET educators. In turn, it will encourage teachers, particularly vocational teachers, to learn new techniques and skills, thereby improving the quality of vocational education in Malaysia.

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EXPERIENTIAL LEARNING IN ENTREPRENEURSHIP ELEMENT IN CHEMICAL AND ENERGY ENGINEERING EDUCATION

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ABSTRACT

This paper presents on the integration of the entrepreneurship element in chemical and energy engineering undergraduate programme at Curtin University Malaysia. The entrepreneurship element is essential to equip the undergraduate students the necessary skills and mindset to thrive in today's ever-changing world. The incorporation of the entrepreneurship in chemical and energy engineering education aids to help students to explore inventive solutions, measure calculated risks, and develop the important skills. Hence, this incorporation of entrepreneurship element into CHEN 4016 Process Economics and Management unit is a strategic response to meet the industry demand, where innovation, adaptability and business acumen had been the primarily emphasized recently. Hence, this paper discussed the application of entrepreneurship element approach in the CHEN 4016 unit. This approach does not only prepare the undergraduate students engineers in the technical skills in this engineering field however, allows them to be a well-rounded, resourceful, and adaptable individuals before they join the workforce.

***Keywords**: Entrepreneurship; Business Pitching; Chemical and Energy Engineering; Process Economics and Management unit*

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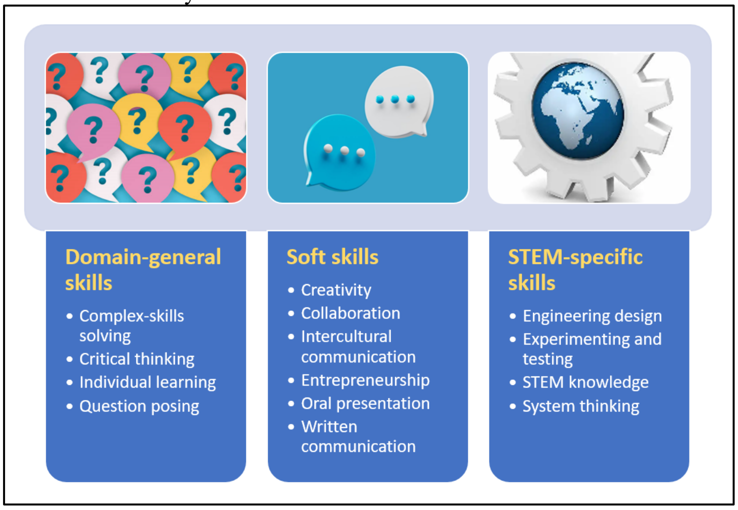
INTRODUCTION

Science, technology, engineering, and mathematics (STEM) was first initiated in the 1990s by the National Science Foundation (Bybee, 2010). As the results, there is an increment trend on the enrolments in STEM disciplines at universities and higher education institutions after that. Furthermore, relevant financial and academic supports were provided from both private and government sectors to students who instill interest in pursuing STEM related courses. From the implementation of STEM education, the 21st century skills also referred to as generic skills, are gaining increasingly significant in the contemporary world (Lavi et al., 2021).

Figure 1 summarized the three main skills which is categorized under the 21st skills which consists of domain-general skills, soft skills, and STEM-specific skills. Few researchers had concurred that such skills are essential for the advancement of the student learning and education teaching (Bentur et al., 2016; Marbach-ad et al., 2016). Regrettably, nurturing such skills in undergraduate programmes for engineering and science remains a difficult task (Winberg et al., 2019). While the challenges of mastering STEM knowledge are acknowledged, there is a concurrent acknowledgment that students '*epistemological access*' to STEM disciplines is greatly enhanced when the educators who teach them possess strong pedagogical competence to do so (Tenenberg and McCartney, 2010; Morrow, 2009).

By analyzing the 21st century skills prompt a series of inquiries which are (1) Which skills, traditionally challenging for the education system to instill in students, remain crucial, and which have lost their significance? (2) What novel skills are emerging as indispensable in the 21st century? (3) What changes are imperative to ensure that the pertinent skills are effectively adapted to meet the demands of the 21st century? (Lavi et al., 2021). Dede (2010) conducted a research study related on the 21st century skills had emphasized that traditional skills in education would need to be re-looked to make the necessary adjustment the requirements for this current century. This is because the paradigm shift in technology related to the spread of knowledge and communication has led to an increase in the use of equipment to do activities for us (Levy and Murnane, 2004).

FIGURE 1: The 21st century skills



Entrepreneurship element in engineering programme had been an emerging engineering education recently which have significant practical implications and aid in providing numerous job opportunities for graduates (Shuli et al., 2018). Few main factors on the importance of implementing the entrepreneurship elements in engineering education are enlisted in Figure 2. The main factors consist of (1) innovation and problem-solving, (2) economic development, (3) interdisplinary skills, (4) adaptability, (5) start-up culture, (6) leadership skills, (7) commercialisation of ideas, (8) ethical consideration, (9) global perspective. (10) career opportunities, and (11) life skills.

It encourages creativity and problem-solving, preparing engineering students to face contemporary problems and offer original solutions. Additionally, it stimulates economic growth by supporting entrepreneurs, who are frequently important forces behind the establishment of new businesses and jobs. Engineering graduates' overall well-being is improved by the addition of multidisciplinary abilities, which include knowledge of business management, marketing, finance, and law. A critical talent in the constantly changing work market is flexibility, which is promoted via entrepreneurial education. It gives the knowledge and abilities required for commercialising engineering discoveries, emphasises the growth of leadership, and equips students to flourish in startup settings. The importance of entrepreneurial thinking in engineering programmes is further highlighted by ethical issues, global viewpoints, a variety of job prospects, and crucial life skills.

Hence, this article discusses how Curtin University Malaysia's undergraduate degree in chemical and energy engineering has included an entrepreneurial component. The entrepreneurial component is crucial for giving undergraduate students the knowledge and outlook they need to succeed in the rapidly changing world of today. The inclusion of entrepreneurship in the teaching of chemical and energy engineering supports students in exploring original ideas, weighing measured risks, and developing crucial skills. In light of the contemporary emphasis on innovation, flexibility, and business acumen, the inclusion of an entrepreneurial aspect in CHEN 4016 Process Economics and Management is a deliberate reaction to market demand. Therefore, the use of the entrepreneurial element method in the CHEN 4016 unit was explored in this study. This approach enables the undergraduate engineering students to be well-rounded, resourceful, and flexible persons before they enter the industry, in addition to preparing them with the technical abilities required in the engineering sector.

FIGURE 2: Factors for entrepreneurship elements to be implemented in engineering education

UNIT OVERVIEW OF CHEN 4016 PROCESS ECONOMICS AND MANAGEMENT

Chin et al. (2020) had provided the summary of the undergraduate chemical engineering programmes at Curtin University Malaysia on the basis of the outcome-based education (OBE) and aligned with the Curtin's Graduate Capabilities (CGC). The CGC consists of 9 graduate attributes which are the (a) apply discipline knowledge, principles, and concepts; (b) innovative, creative, and entrepreneurial, (c) effective communicators with digital competency, (d) globally engaged and responsive, (e) culturally competent to engage respectfully with local First Peoples, and (f) industry connected and career capable (Curtin University Malaysia, 2023). In this unit CHEN 4016, the student will learn about project evaluation using discounted cash flow analysis in this session, along with how risk assessment is incorporated. Additionally, the student will be able to use basic Net Present Value ideas to condensed investment situations. This subject also introduces project management within the sector, including project planning, execution, and the handling of typical uncertainties. In addition, you'll learn about issues including direct foreign investment, international legislation, and ways to cope with sovereign hazards and reduce risk.

Table 1 summarised the unit learning outcomes (ULOs) for this unit, CHEN 4016. For each unit as Curtin Open Universities Australia (OUA), the student would be need to fulfil the graduate qualities through a precisely defined set of learning objectives that possess a essential role in meeting the learning process. Students must be familiar with the ULOs, comprehend, and accomplish to pas this unit. The learning and teaching structure for this unit consists of 6 hours in a weekly basis of workshops for 12 teaching weeks. In another words, a total of 72 hours of workshops for this particular unit. The assessments involved in this unit are test (30%), syndicate assignment (40%), and reflective journal (30%). Both test and reflective journal are individual assessment meanwhile the syndicate assignment is a group assignment.

TABLE 1: Unit learning outcomes (ULOs) for CHEN 4016 unit

	Unit Learning Outcomes (ULOs)
	Analyse the structure of national and international engineering industries
	Analyse and evaluate the factors, and relationships between the factors, that contribute to effective management of an engineering plant
	Evaluate elements within industrial relations and people management with respect to plant management
	Work effectively in a team to achieve common objectives
	Use systems thinking as a means of assisting the development of an organisation

EXPERIENTIAL LEARNING IN ENTREPRENEURSHIP ELEMENT IN CHEN 4016 UNIT

In this unit, there are 12 workshops throughout the 12 teaching weeks in a semester. This unit is normally offered in the second semester of the year. Table 2 displays the list of activities throughout the whole semester. These workshops are facilitated by experts from various fields in process economics and management. The workshop sessions were conducted in transnational teaching whereby the teaching approach is conducted across national borders. For this case, two branch campuses (Australia and Malaysia) from Curtin University were involved in delivering the transnational teaching. This approach had provided benefits to enhance the international collaboration in learning and teaching, executes the cross-border delivery, focused on the cultural and global perspectives, and incorporating the teaching and distance learning. After each workshops, each individual student would be requested to submit 100 words reflective journal on what they had learnt and how they can benefit the knowledge shared by these experts for their future career preparation.

During the process of participating the workshops by the students, the students would be required to submit a syndicate assignment which is a group project assignment (a members of 4-5 per team) to work on a business project proposal and delivering a business pitching to the assessors who act as the potential client of the potential project pitched by the students. In this syndicate project, the students would be exposed to be involved in the business pitching project as part of the academic exercise to showcase their skills in a real-world business venture. Each student members in a project have a specific role and responsibilities such as manager, project engineer, procurement and contracting specialist, financial analyst, and others.

TABLE 2: Workshop activities designed to include entrepreneurship elements in CHEN 4016 unit

Workshop Number	Activities
1	Introduction to economics and management and cost estimation
2	Project management framework and processes Project planning and control
3	Introduction to evaluation to discounted cash flow modelling
4	Project risk management Project development from carbon management perspective
5	Cost of capital and policy implication
6	Fiscal considerations and modellings
7	Business and the engineer Project management in practice
8	Organisation and the accounting process Financial accounting for decision making
9	Resource law and foreign direct investment risks
10	Workforce of the future International trade and international dispute resolution
11	Diversity in workplace Industry expectations from engineering graduates
12	Industrial writing and communication skills Entrepreneurial engineers – taking an idea to business and Green energy economics

SYNDICATE ASSIGNMENT DESIGNING FOR CHEN 4016 UNIT

In Semester 1, 2023, the syndicate assignment involved evaluating two options in which the first was to produce 50 GW of renewable energy in Australia, and the second was to export electricity to Singapore using High Voltage Direct Current (HVDC) or High Voltage Alternative Current (HVAC). For this project, an initial report was given to students, outlining the feasibility of constructing the project and assessing its value. The project design was centered around an electrolysis plant that could deliver 1 GW of power, with construction and commissioning costs set at USD 1,600 per kilowatt of capacity in 2018 currency.

Additionally, the project required an initial working capital investment equivalent to half a month's operating expenses during the first year of production. To address this challenge, students were tasked with including the following points in their business pitch proposal i.e. (a) identify the suitable variable capital costs (WACC) for calculating the discount rates applicable to this project, (b) calculate the project's value for the company, (c) conduct a comparative analysis of the discount rates selected in the first step with the option of using a consistent discount rate for the entire project duration, and (d) prepare a business pitching presentation for potential funding consideration. Table 3 shows the criteria evaluation of the business pitching of the syndicate assignment. The evaluation criteria are divided into 3 main parts namely the (i) presentation order and content, (ii) quality of slides, and (iii) delivery and engagement.

TABLE 3: Criteria to evaluate the business pitching of the syndicate assignment

Criteria	Evaluation description	Marking weightage (%)
Presentation order and content	Information provided in a logical, easy to follow sequence Main project issue are clearly stated and able to link to the main ideas. Covers all the necessary areas with appropriate balance Decisions clearly presented, well-supported by context and method Technical work reliable and within quality	20
Quality of slides	English language is appropriate, report formatting is in a professional manner.	20
Delivery and engagement	Student must be able to demonstrate good body language, eye contact, audience rapport, and business pitching is engaging.	20
Answering questions	Quality of answers provided during the questions and answer session	20
Timing	Business pitching to be completed within the given duration i.e. within 10 minutes	20

STUDENT LEARNING PERFORMANCE AND UNIT EVALUATION

Table 4 summarized the student performance on the CHEN 4016 unit syndicate assignment and business pitching evaluation. Based on the analysis, the average marks scored by the students for the syndicate assignment is in the range of 76.6 % - 80.5% which considered to be ranged of distinction and high distinction for year 2021-2022. Meanwhile, the average marks for the business pitching evaluation scored by the students are in the range of 72.4% - 74.4% for year 2021-2022.

TABLE 4: Student performance on the CHEN 4016 assignment and business pitching evaluation

Semester and Year	Syndicate Assignment Performance	Business Pitching Evaluation
Semester 2, 2022	Minimum marks: 68.5 % Maximum marks: 89.8% Average marks: 80.5% Standard Deviation: 7.11 Passing rate: 100%	Minimum marks: 63.5% Maximum marks: 88.0% Average marks: 74.4% Standard Deviation: 12.1 Passing rate: 100%
Semester 2, 2021	Minimum marks: 61.0% Maximum marks: 91.0% Average marks: 76.6% Standard Deviation: 8.0 Passing rate: 100%	Minimum marks: 61.3% Maximum marks: 88.3% Average marks: 72.4% Standard Deviation: 11.8 Passing rate: 100%

Table 5 enlisted some of the common comments provided by the students on the teaching evaluation for this unit for year 2021-2022. In Semester 2, 2021, the students show their appreciation towards their lecturer for her support and helpfulness. The course sessions were said to be engaging and relatable, with real-life experiences. In addition, some students found the economics aspects challenging for an engineering students. In Semester 2, 2022, it was mentioned by some students that the economic part of this unit is too complex for an engineering degree. It was suggested by one of the students to have a local entrepreneur for an-in person sharing session in Miri campus instead of virtual sessions with entrepreneurs and experts from Perth. Generally, the feedback from students is positive.

TABLE 5: Qualitative student feedback on CHEN 4016 unit

Semester and Year	Student Feedbacks
Semester 2, 2022	The economic part is too complex for an engineering degree. To request to have local entrepreneur to give a sharing session for Miri campus rather than doing it virtually using the entrepreneurs from Perth campus. Overall, it is good.
Semester 2, 2021	Lecturer are helpful, provide support and encourage students. Session is rather engaging and relatable with real life experiences. A tough unit for engineering student especially the economics aspects.

CONCLUSION

The incorporation of the entrepreneurship element in chemical and energy engineering undergraduate programme at Curtin University was recently initiated and it is considered to be a new learning and teaching approach for the undergraduate students from chemical and petroleum engineering students. The implementation of the entrepreneurship element in the syllabus for CHEN 4016 Process Economics and Management is to enhance the learning and teaching experience and emphasizing the 21st century skills for the students.

In this paper, the unit overview, activities, and assessments involved in the CHEN 4016 were discussed in order to achieve the stated unit learning outcomes (ULOs). The assessments for this unit is specially designed to expose the students' academic exercise to showcase their skills in a real-world business venture when given a specific project with preliminary information. It is evidently shown from the analysis that the entrepreneurship element had provided a positive satisfaction towards the student learning experience. Such implementation had improved the student engagement and motivation on the educational outcomes in addition to enhance the educational experience. The incorporation of employability skills is equally important since it gives students the tools, they need for a smooth transition into the working world.

ACKNOWLEDGEMENTS

This research was funded by the Curtin Malaysia Teaching Innovation Project (CMTIP) 2022 on the learning and teaching project entitled, 'Implementation Classroom-based Innovation Pitches in Chemical and Energy Engineering Education'.

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