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CULTIVATING POSITIVE VALUES VIA ONLINE PROJECT-BASED MODULE (M-PAT)

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ABSTRACT

The purpose of this paper is to evaluate the use of the Online Project-based module (m-PAT) to cultivate positive values among students. Evaluation was made to the positive values used in this study based on the six constructs of Contextual Development Model for Positive Youth Development namely competence, confidence, connection, caring, character and contribution (6C's). The learning approach used by m-PAT is project-based learning which is applied as a School Based Assessment activity for Physics subject. A mixed method case study design was employed, where the findings of quantitative data were confirmed using the findings of qualitative data. A total of 42 Form 4 students were chosen based on purposive sampling from a secondary school in Klang Valley, Malaysia. The data were collected through questionnaire, student reflection, students' online learning activity and discussion, interviews with the students, as well as teacher's checklist after each participant generated a physic-learning blog by using the m-PAT as a platform. Quantitative data were analysed descriptively in form of mean scores and standard deviations to observe the distribution of students' feedback on the constructs being studied. Qualitative data were



analysed using thematic analysis related to the constructs being studied and confirmed by teacher's checklist. The results showed that m-PAT was able to cultivate all positive values of 6C's among the participants of the study. Overall, the findings has important implications for contributing to a new approach in learning which integrates the use of information technology and communication via project-based online learning as well as making it possible for the cultivation of students' positive values especially in relation to the use of the Internet. Further research with a larger number of participants is needed to support the present findings.

Keywords: *online project-based module, positive values, 6C's of contextual development model for positive youth development, education, Malaysia*

INTRODUCTION

In Malaysia, the integration of Information and Communication Technology (ICT) and the Internet has been a trend in education. It has been made as a medium to facilitate the 21st century learning approach in line with the goal outlined in the Malaysia Education Blueprint (2013-2025). However, findings of a research on use of the Internet's pattern among students in Malaysia, show that a lot of other activities which are not related to academic, are carried out while they are surfing the Internet (Multimedia Development Corporation (MDEC), 2006). The findings also indicate that most students learn to explore the Internet and online applications without any formal guidance (Abrizah & Zainab, 2004) from teachers and parents. Similarly, an initial survey on investigating the students' Internet usage by Ashfahani (2014) also demonstrated same findings. The absence of monitoring on use of the Internet by students and their ignorance regarding ethical and security issues while surfing the virtual world, may cause students to be exposed to a variety of information without restrictions as well as social interactions without guidance in the virtual community. This situation may cause symptoms of deterioration of good moral values due to the Internet abuse. Reviews conducted by Pew Research Centre (2015) found that use of the Internet is concluded as having a positive impact on education but impacting the moral values of developed and developing nations negatively. While Internet Filter Software Review Learning Centre (2009) has shown that there has been an increase in activities related to ethical problems

and cyber security threats when students use the Internet. Among them are; students watching websites that have sexually-explicit content which are increasing in number, students being contacted by unidentified virtual social partners, students being disturbed in the form of virtual bullying (cyberbullying) and students who provide their home and email address to strangers when interacting online. All these show that there has been an increase in activities which are related and would cause ethical problems and cyber security threats when students use the Internet.

Review of previous literatures show that most of the modules/learning materials which integrate ICT and cultivation of value have been developed via value-cultivation approach which is content-based oriented (Mohd. Arif, 2004; Mohd. Noor Azman, 2004; Norhayati & Siew, 2004; Kamaruddin, 2006). Through this method, values are taught directly or indirectly and become a learning outcome for the teaching and learning process. However, there are findings from previous studies suggesting that the inculcation of values using content-based approach cannot be implemented well in the subjects with lack of humanistic values in their contents (Abdul Rahman *et al.*, 1994) such as Science (Abdul Rahman *et al.*, 1994; Habsah Ismail, 2000).

Another approach that can be used to inculcate values via teaching and learning is through process-oriented learning activities (Ashfahani, 2014). Through this approach, values are cultivated among students through the experiences they undergo during the learning processes that use approaches such as project-based learning or problem-based learning. Review of previous literatures show that there are a few learning modules that integrate ICT applications online and the cultivation of positive values via process-oriented learning activities among students especially with regards to use of the Internet (Kamaruddin, 2006; Milheim, 2012; Ashfahani, 2014).

In this study, a process-oriented approach was used to cultivate positive values among students. Through this approach, positive values could be nurtured among students even though the content of the lesson lacked the elements of humanistic values in it. This is because value inculcation should be based on the positive experiences the students undergo during the learning process. Hence, an online project-based learning module known as *Projek Atas Talian Modul* (m-PAT) was developed to understand whether it

can serve as a platform for teachers to integrate ICT and inculcate positive values among students especially on the use of the Internet through a process-oriented learning approach.

The use of m-PAT is expected to enable students' interest and skills in ICT in the field of online applications to be channelled positively and guided through the implementation of online project-based learning. Therefore, m-PAT is expected to fill the gap because of the lack of learning modules that integrate ICT applications online and the cultivation of positive values via process oriented learning activities among students especially with regards to the use of the Internet. Hence, the objective of this paper is to evaluate the extent to which the cultivation of positive values occurs among survey participants while they were doing online projects using the m-PAT platform.

POSITIVE VALUES OF 6C'S AND PPNP PRINCIPLES

All positive values to be cultivated in this study are based on six constructs in the Contextual Development Model for Positive Youth Development (Eccles & Gootman, 2002; Mahoney *et al.*, 2002; Roth & Brooks-Gun, 2003a, 2003b; Lerner, 2004) which is known as 6C's namely competence, confidence, connection, caring, character and contribution.

The positive value of 6C's are the indicators to measure the Positive Youth Development (PYD) in adolescents in studies related to conventional/ face-to-face community/community programmes in western countries. For this study, 6C's are used to measure the inculcation of positive 6C's values among students which takes place in the online learning community. Table 1 shows the definition of positive value 6C's. Definition of the first five (5) positive values are based on the definition by Lerner (2004) and Roth and Brooks-Gunn (2003a) while the sixth positive value definition, Ready to Contribute is based on the definition by Lerner (2004) and Mahoney *et al.* (2002).

Table 1: Definition of the Positive Values of 6C's

Constructs to Measure Positive Development of Teenagers (Positive Values of 6 C's)	Definition of Positive Values of 6C's
Competence	Positive perspective towards someone's actions in the domains of social, academic, cognitive and vocational.
Confidence	Positive belief in oneself; self-appreciation / self-esteem and self-efficacy.
Connection	Positive bilateral relationship with other people and institutions such as peers, families, schools and communities.
Character	Having respect towards the rules and culture of other people, and able to distinguish the good from the bad and having integrity.
Caring	Feelings of sympathy and empathy towards others.
Contribution	The tendency of the students to spend time in a range of activities that may be able to measure their productive engagement and may be an indication about their potential contributions to themselves, family members, peers and community.

All six positive values of 6C's are expected to be developed in individual students when the environment is parallel and supportive towards the strengths of the individual. Based on the PYD Contextual Development Model by Lerner (2002 & 2004), the relationship between individuals with the context or environment that supports the individual's strength will result in positive development (Benson, 2003). Figure 1 shows the PYD Contextual Development Model:

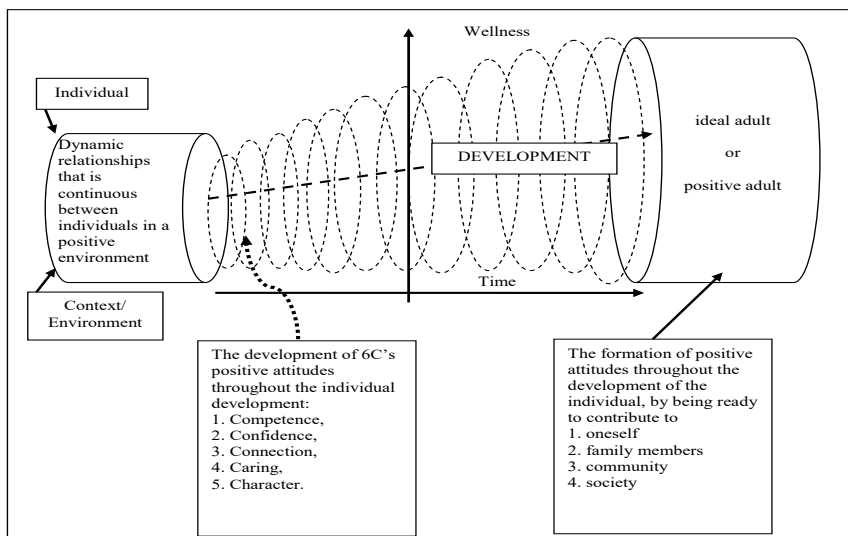


Figure 1: The PYD Contextual Development Model
(Lerner *et al.*, 2003; Lerner, 2004)

This model illustrates that when there is a parallel between individual assets/strengths with an environmental asset that supports positive development, the positive value of 6C's will develop within the individual. The development of this 6C's positive values will in turn produce an ideal adult and this situation is manifested through the willingness and action of the individual to contribute to self, family, community and society in its environment.

Lerner *et al.* (2005) further discussed their viewpoints regarding environment which supports the inculcation of positive values of the 4-H study. They argued that youth development programmes that are expected to inculcate positive values should have an environment of an ongoing relationship between adolescents and a committed adult. This adult should be the one who can teach certain skills to adolescents and promote healthy relationships between adolescents and their environment.

However, there are other views related to the environment which are expected to foster positive values among adolescents. As suggested by the Community Network for Youth Development (CNYD), Sam Piha Youth Development Guide which outlines the five (5) environmental guidelines

for youth development programme, would guarantee the effectiveness of inculcation of positive values among adolescents (Piha, 2001).

Another perspective on PYD studies was conducted by Bers (2001). This study is a development study aimed at creating a framework for designing and evaluating any research that integrates technology in the effort of fostering self-identity and positive values in adolescents. In his study, Bers (2001) produced several interactive software that are oriented to building identity and value and testing it against children, adolescents and kidney patients. As a result, ten (10) guidelines or environments as a framework for designing technology interventions that are expected to foster self-identity and positive values among adolescents were recommended.

For this study, a learning environment that supports the inculcation of 6C's positive values is called principle of PPNP (Environment for the Inculcation of Positive Values). The PPNP Principles used in this study were adapted from the Lerner Model (2004), five (5) environmental guidelines that promote the propagation of positive values (Piha, 2001) and ten (10) guidelines for the cultivation of positive values through technology intervention (Bers, 2001, 2006) as well as tailored to the needs of the study. The learning environment based on PPNP principles listed below is created in the m-PAT learning environment through the design of m-PAT activities based on appropriate learning theory, instructional model and platform/media:

- a. Providing mentoring support virtually and continuously from aspects of lesson content and aspects of technical.
- b. Providing a safe, online learning environment for students.
- c. Building virtual learning communities together to create and follow basic rules based on the ethics and security of Internet use.
- d. Providing platforms in the form of meaningful online project-based learning (active, constructive, collaborative, directive and authentic learning) which build ICT skills to encourage long-term student engagement.
- e. Promoting positive community involvement and positive support (mentors and peers).

THE ENVIRONMENTAL DESIGN OF M-PAT BASED ON PPNP PRINCIPLES

The m-PAT learning environment based on PPNP principles is designed and developed by adapting online learning environments in parallel with previous studies. This environment should be created in m-PAT to stimulate the inculcation of positive values among students (Piha, 2001; Bers 2001, 2006). Table 2 shows how the m-PAT online learning environment is designed to create five learning environments based on the principles of PPNP.

Table 2: Environmental Design Element Based on PPNP Principles in m-PAT Prototype

Construct virtual mentor support continuously from various aspects (Berge & Collins, 2000)	How it was manifested in the m-pAT prototype	m-PAT prototype screen related to learning environment aspect based on principles of PPNP in m-PAT
1. Providing virtual mentor support continuously from various aspects (Berge and Collins, 2000).	<ul style="list-style-type: none">• Facilitator (as a mediator, academic supervisor and virtual learning community members).• The mentor's role is expressed in the Teacher's Guide in the m-PAT User's Menu (online) and in the Teacher's Monitoring Manual. Mentors are trained first on these roles and monitored by researchers.• Teachers can offer guidance through chat rooms and forums.• Teachers can check activities done by students through student activity log in the tracking system.	Example of Teacher Monitoring Manual
<ul style="list-style-type: none">• Managing learning.• Subject matter experts.• Monitoring the work and discussions of students to be in the designated scope.• Helping students in technical aspects.• Providing emotional support.		

2. Providing a safe, online learning environment for students (Bers, 2006) and (Piha, 2001)

- Use of password for access.
- Assessment based on rubric that can be referred to in order not to have competition with others but with one self.
- Students know that there are online mentor who is monitoring.
- Creating a basic rule in a collaborative way.
- Providing positive support in a collaborative way.

Check in screen for m-PAT require a password.



3. Building virtual learning communities together to create and follow basic rules based on the ethics and security of Internet use (based on features of virtual communities (Preece, 2000)):

- Creating a virtual learning community -collaborating with fellow members on aspects of information or resource sharing and emotional support.
- Students having the same purpose.
- The interaction between students is based on the same rules.
- Students are exposed to the same hardware or media or technology.
- The role of the student will be stated in the Student Guide.
- Virtual rules are set together.
- Students are encouraged or authorised to make initiatives to support fellow members during online interaction by making interactions among fellow students as one of the criteria for scoring in the rubrics.

Module 2 activities: Virtual rules are set together.

modul 2: penerapan peraturan

Objektif:

Tujuan Modul 2 ini adalah untuk memupuk kemahiran mencari dan memilih maklumat yang sesuai

Hasil pembelajaran:

Di akhir aktiviti ini pelajar akan dapat:

1. Mendapatkan maklumat mengenai etika maya, peraturan maya dan keselamatan maya
2. Melakukan perincangan bagi menetapkan peraturan maya untuk komuniti pembelajaran mPAT

Aktiviti:

Kamu diberi 10 hari (4 - 14 Juli 2011) untuk melaksanakan tugasan ini:

1. Berincang dalam kelas untuk melantik ketua perincangan
2. Baca arahan mengenai cara perincangan forum dalam Forum.2
3. Perincangan: Menentukan peraturan maya, dan keselamatan maya
4. Berincang mengenai peraturan maya dan keselamatan maya berdasarkan rujukan panduan di bawah. Berincang pendapat anda mengenai maklumat yang telah anda dapati dalam Forum.2a
4. Mencari website baru berkaitan etika, peraturan dan keselamatan maya.

4. Providing platforms in the form of meaningful online project-based learning (active, constructive, collaborative, directive and authentic learning) which build ICT skills to encourage long-term student engagement. Using the m-PAT design elements that consist of the followings:

- Promote active, constructive, collaborative, directional, and authentic learning, which is a meaningful learning attribute (Jonassen *et al.*, 1999). The activities designed in m-PAT are:
 - o Searching for information
 - o Discussions through chat rooms and forums
 - o Construction of learning artefacts (blogs)
 - o Writing self-reflection

• Constructionist learning theories that support project-based learning (Papert, 1980; Resnick *et al.*, 1996) which consists of; (i) learning by actively inquiring & learning by doing, (ii) construction of artefacts as a material for reflection of student thought, (iii) collaboration process for the purpose of improving project outcomes and (iv) self reflection process (Bers *et al.*, 2002).

Examples of Student work (learning artefacts-blogs).



-
- E-tivities Model (Salmon, 2002)
 - The activity is designed using the learning tools available in Moodle.
 - o Chat room and Forum – collaborative learning
 - o Blog – encouraging constructive learning.
 - o Writing of reflection is carried out online (using Moodle LMS Survey module)
 - Using the Moodle Learning Management System platform that has available learning tools such as forums, blogs, surveys and tracking systems to facilitate teacher monitoring activities on student activities.
-



5. Promoting positive community involvement and positive support (mentors and peers) (based on Moallem Collaborative Learning Model (2003).

- The m-PAT platform supports searching information using the Internet because m-PAT is an Online Project module.

The student support factor is stated in the Student Guide and used as a criterion in the rubric.

- **Cognitive support** - The online project makes it easier for students to find information over the Internet.
- The student support factor to a friend was stated in the Student Guide in the m-PAT User Menu.

- **Peers support** available during forum discussions.
- The student support factor to a friend is used as a criterion in the rubric.

- **Virtual Community support** - carried-out continuously.

- **Emotional support** carried-out by peers and mentors.

Panduan Pelajar			
PERANAN PELAJAR SEMASA MENGIKUTI m-PAT			
1	Mencari dan menyiasat maklumat dengan menggunakan mesin carian.		
2	Berkerjasama serta bantu-membantu sesama rakan.		
3	Berkecanggihan maklumat dan sumber rujukan sesama rakan.		
4	Mencari maklumat dan menyiasat maklumat bagi membentuk pengetahuan berkaitan pelajaran semasa pembelajaran blog.		

METHODOLOGY

Research design

This is a case study design with triangulation mixed methods approach (Creswell, 2008). Findings from quantitative data were confirmed in triangulation with qualitative results to see whether they support each other to answer the same research questions. Comparison of the findings from both methods is seen as a source-based triangulation. Validation of data using triangulation mixed method is able to cover the weakness of data collected in one of the methods thus improving the credibility of this study.

The quantitative data from the questionnaire were analysed descriptively in the form of mean score and standard deviation to see the distribution of students' feedback on the existence of meaningful and guided learning attributes during the implementation of m-PAT. While qualitative data is collected using various methods i.e. through students' reflection texts, online students' activities and discussions and students' interviews. Qualitative data were analysed using thematic analysis to produce matrix tables related to meaningful learning attributes. The data from this thematic analysis was then confirmed by a teacher's checklist on the results of work and online student activity.

Research participants

The research participants consist of 42 Form 4 students who took Physics subjects in a secondary school in Klang Valley, Malaysia. The school was selected for having a computer laboratory with complete Internet infrastructure, having a technical assistant for computer labs, getting approval from teachers and administrators and most students had home Internet connections. The selected students have obtained parental consent to carry-out online projects using the Internet at home. This is because online projects are implemented by students outside school time using home computers, in accordance with the criteria of School-Based Assessment (PBS) activities implementation in the form of projects.

Contents of m-PAT

For this study, the m-PAT platform was used for implementing one of the PBS activities for Physics Practical Work Assessment (PEKA) in the form of an online project for Physics subjects. In this project, each student builds learning artefacts in the form of blogs on a topic in the secondary school Physics subject. Next, students share materials and collaborate with other teachers and students through online discussions for the purpose of improving their project (blogs). All of these activities are carried out according to five modules (Module 1 to Module 5) contained in m-PAT. Below is a summary of the activities contained in the modules.

- Module 1 – Introduction and access - This activity aims to train students to access and socialise online using chatroom and message space.
- Module 2 – Establishment of virtual rules - This activity is intended to foster search, find and choose information and discussions online using forums. At the end of the activities, the students will jointly determine the virtual rules they need to follow while following m-PAT.
- Module 3 – Development of Blog I - This activity is intended to inculcate technical skills such as uploading pictures, making animations and creating links. At the end of the activities, the students develop the following sections in their blog: Introduction, MyProfile and MyCyber rules.
- Module 4 – Development of Blog II - This activity was aimed at building knowledge related to the project title (Physical Form 4) that has been determined. At the end of the activities, students develop MyProject space in the blogs they have built in Module 3.
- Module 5 – Online collaboration discussions for blogging purposes (peer assessment). In Module 5, students need to open their blogs for other students to give and get feedback from friends.
- Reflection - Students rethink the learning process based on the questions given. Reflection was performed at the end of each m-PAT module (self-assessment). Students should write online reflection and send to the teacher. In the final week, students print their work as evidence for PEKA Physics.



Figure 2: Shows Screen Shot of the Home Page of m-PAT

Research procedures

The online project activity using m-PAT lasted for six weeks. m-PAT contains five modules i.e. Module 1 to Module 5. The sixth week had been allocated to students for blogging and blogging activities to be filed as evidences to PBS activities in the form of projects. Each module had to be implemented online for a week by the students. In the first week, only Module 1 was opened to the students. Students needed to complete module 1 activity during the week and send their reflection. This was followed by Module 2 which was opened on the second week and so on until the sixth week. Prior to the implementation of each module, students were briefed and trained by teachers face-to-face at the school computer lab. A Physics teacher from the same school acted as an online mentor while four Physics teachers from other schools acted as observers. When conducting an online project, students were allowed and encouraged to communicate with friends and teachers using chat rooms and forums to discuss or get help. In addition, user manuals were also provided in the form of printable online documents to assist students in technical aspects. The data were collected after the participant completed the activities in all m-PAT modules.

Research instruments and procedures for data analysis

The research instrument used to collect quantitative data is a questionnaire for the inculcation of 6C's positive values in m-PAT adapted from Lerner *et al* (2005) and was administered to 42 students. The 61 items found in the questionnaire measures 6C's positive values of competence, confidence, connection, positive character, caring and willingness to contribute using 5 Likert scale (1 = strongly disagree; 2 = disagree, 3 = less disagree, 4 = agree; 5 = strongly agree). The contents of this questionnaire were reviewed by three experts in the field of Moral Philosophy and Social Sciences to ensure the validity of the items being constructed. In order to ensure the reliability of the item, the researchers conducted a pilot study on 27 Form 4 students who took Physics as a subjects in schools other than the schools under study. The research instrument was administered after the students followed the activities in all m-PAT modules. Data analysis showed that each attribute in the instrument had an acceptable Cronbach's alpha value of more than 0.65 ($\alpha \geq 0.65$).

Subsequently, quantitative data from the questionnaire were analysed descriptively in the form of mean scores and standard deviation to see the distribution of students' level of agreement with the inculcation of 6C's positive values that were administered on them while following m-PAT. Qualitative data derived from reflection in texts and online student discussions, interviews and open questions were analysed using theme analysis to produce matrices table related to 6C's constructs. Theme coding was reviewed by three experts to verify the validity of the themes that had been analysed. The value of Cohen's Kappa, K obtained for each related theme is above 0.79 ($K \geq 0.79$). This value is within a substantial range based on the reliability index interpretation, K by Landis and Koch (1977). This shows that the qualitative data for this study has a relatively high reliability index based on the value of K. Hence, the data from the theme analysis denoted the teacher's checklist on students work and online activities during the implementation of m-PAT. This was to determine whether the 6C's positive values were found in the students from the point of view of the teachers.

RESEARCH FINDINGS

The data from the questionnaire were analysed descriptively to see the distribution of the participants, level of agreement to the existence of the positive value of 6C's within themselves during the implementation of m-PAT in the form of mean score and standard deviation (SD). Table 3 shows the mean score interpretation used to assess the level of agreement of the study participants on the assessment of m-PAT.

Table 3: Interpretation of Mean Usability Scores of m-PAT

Mean Score	Mean Score Interpretation
1.00 - 1.79	very low
1.80 - 2.59	low
2.60 - 3.39	average
3.40 - 4.19	high
4.20 - 5.00	very high

[Source: Education Policy Planning and Research Division (BPPDP)]

The inculcation of 6C's positive values is based on the application of positive 6C's constructs (Competence, Confidence, Connection, Caring, Character, Contribution) among the students while they followed m-PAT. Figure 3, 4, 5, 6, 7 and 8 show the graph of the mean score bar to evaluate the level of agreement of the study participants towards the inculcation of 6C positive values among themselves while following m-PAT.

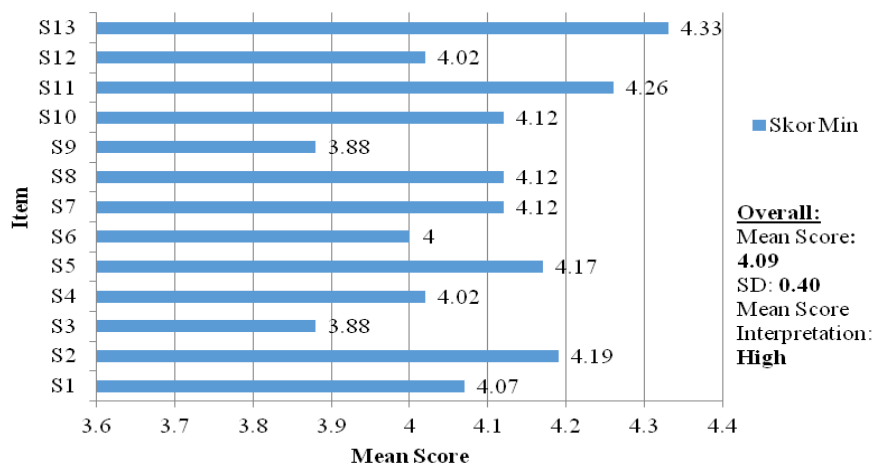


Figure 3: Evaluation of the Participants on the Cultivation of Value of Competence during the Implementation of m-PAT

Figure 3 shows students' assessment on the cultivation of the value of 'competence' during the implementation of m-PAT. From the 13 items, items show a mean score representing a very high level of agreement with the statements while the rest show a high level of agreement. Overall, the findings show that majority of the participants (mean score=4.09; SD=0.40) strongly agree that they have realised the value of 'competence' in themselves during the implementation of m-PAT.

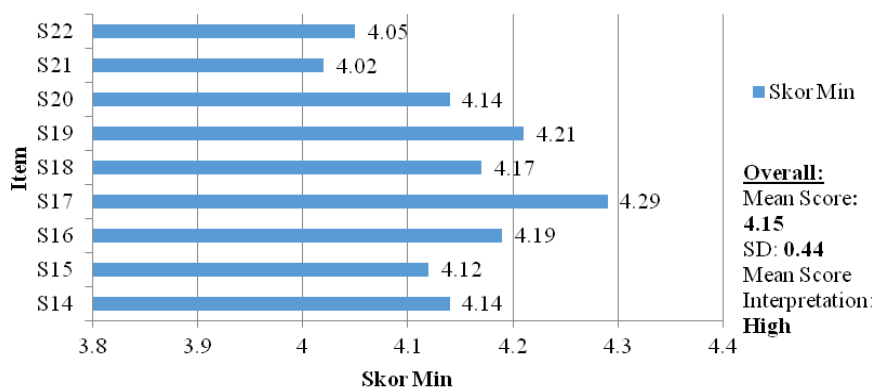


Figure 4: Evaluation of the Participants on the Cultivation of Value of Confidence during the Implementation of m-PAT

Figure 4 shows the students' assessment of the value of 'confidence' while following m-PAT. The results show a mean score representing a high level of agreement, while only two items (S17 and S19) presented a mean score of very high level of agreement. Overall, the findings show that participants involved in the study agree (mean score=4.15; SD=0.44) they have realised the value of confidence during the implementation of m-PAT.

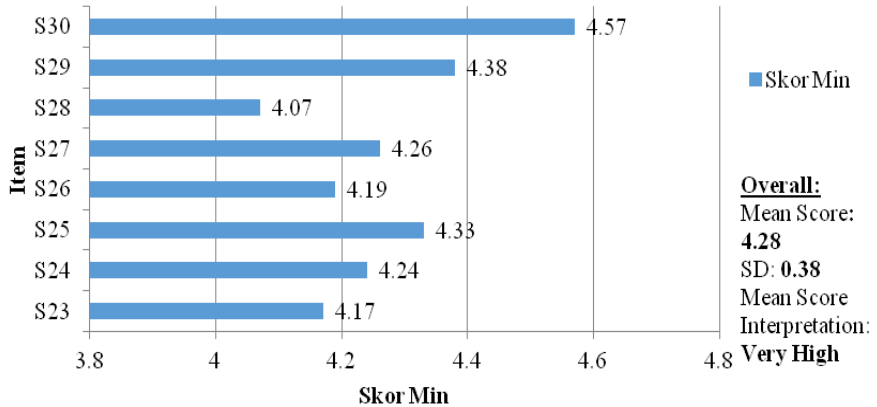


Figure 5: Evaluation of the Participants on the Cultivation of Connection Values during the Implementation of m-PAT

Evaluation of the participants of the study on the cultivation of connection during the implementation of m-PAT is shown in Figure 5. Findings show that five out of eight items have a mean score that represents a very high level of agreement with the items (mean score=4.28; SD=0.38) on the realisation of the value of connection in themselves during the implementation of m-PAT.

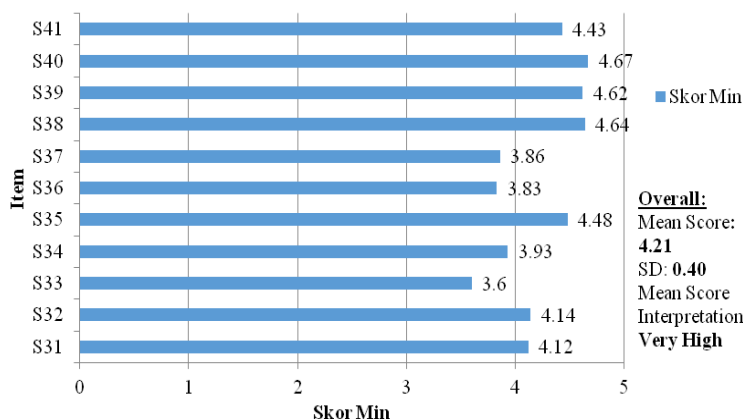


Figure 6: Evaluation of the Participants on the Cultivation of the Values of Positive Character during the Implementation of m-PAT

Figure 6 shows the students' assessment of the positive characterisation of positive values while following m-PAT. According to the result, five out of 11 items show a min score representing a very high level of agreement and the other six items showed a min score representing a high level of agreement. Overall, the findings show that the study's samples provided a very high degree of agreement (mean score=4.21; SD=0.40) towards the cultivation of values of positive character among them during the execution of m-PAT.

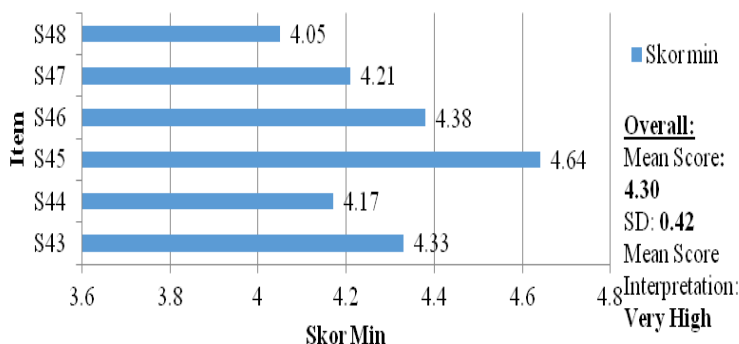


Figure 7: Evaluation of the Participants on the Cultivation of Caring Values during the Implementation of m-PAT

Results on participants' evaluation on the cultivation of caring values in the implementation of m-PAT in Figure 7 shows that majority of the items have a mean score that represents a very high level of agreement while only two items showing a mean score that represents a high level of agreement. Overall findings show that the study participants provided a very high degree of agreement (mean score=4.30; SD=0.42) towards the cultivation of 'caring' values in themselves during the implementation of m-PAT.

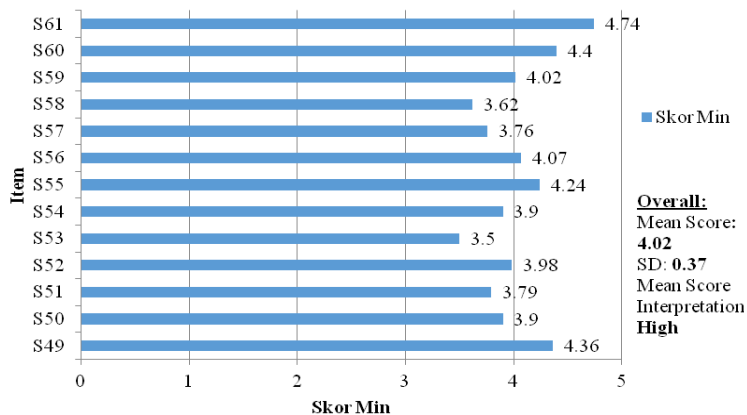


Figure 8: Evaluation of the Participants on the Cultivation of Value of Being Ready to Contribute during the Implementation of m-PAT

Figure 8 shows the evaluation of the study's samples on the cultivation of the value of being 'ready to contribute' during the implementation of m-PAT. Accordingly, four out of 13 items shows mean scores that represent a very high levels of agreement while the rest indicate a mean score which represents a high level of agreement. Overall, the findings show that participants involved in the study provided a high level of agreement (mean score=4.02; SD=0.37) towards the cultivation of the value of 'being willing to contribute' during the implementation of m-PAT.

During the implementation of m-PAT, the participants of the research were asked to write self-reflections at the end of each module. The participants also needed to discuss matters with teachers and friends through chat rooms and forums. Some students were also selected for interview sessions after they completed the activities in m-PAT. Self-reflection texts and discussions of study participants and interview findings were analysed

using thematic analysis to produce matrices related to the 6C's positive value constructs. Theme coding done in thematic analysis has been confirmed by three experts. The findings of the thematic analysis were in line with the findings of the teacher checklist on student work and online activities throughout the implementation of m-PAT. The findings from qualitative data were used to confirm the findings from the descriptive analysis of the questionnaire data. Table 4 shows an example of coding that has been encoded as the 6C's positive value constructs in the thematic analysis.

Table 4: Analysis of the Theme of the 6C's Positive Value Constructs

THEME (Operational Definition)	SUB-THEME (Operational Definition)	Example of Quotes
KOM – COMPETENCE (Positive perspective towards someone's actions in the domains of social, academic, cognitive and vocational)	VOK – Vocational (Competent in exploring the technical aspects of online applications such as inserting links, pictures, animations, videos, using chat rooms and forums)	<p>"In Module 1, something I have just learned is how to communicate with partners using the booth and in the forum. This is something new to me ..." (R1/e4/P19)</p> <p>"...I am already proficient in technical aspects such as entering links, changing the background colour of blogs, inserting animations, inserting pictures, changing the type of writing, changing the colour of writing and more ..." (R3/e4/P14)</p>
	AKD – Academic (Competent in running online projects based on scoring / scoring scheme for good grades)	<p>"I have checked the rubric during this project. This is because I want to meet all the criteria needed for me to get a high mark ..." (R4/e4/P17)</p> <p>"Surely I am checking the rubric when running this project because I want to build a good blog and get a high mark ..." (R4/e4/P4)</p>
	KGF – Cognitive (Competent in looking and selecting learning information accurately)	<p>"...this activity really made me more adept at looking for information related to the topic of my project ..." (R4/e4/P7)</p> <p>"I am also proficient to search for the correct learning by using the Internet versus before ..." (R5/e5/P38)</p>
	SOS – Social (Competent in communicating with friends online to solve learning problems)	<p>"...I have also learned how to share the problems I face when implementing this module 1 through chat rooms and learned to share opinions indirectly through forum talks ..." (R1/e4/P14)</p> <p>"My ability in getting help from teachers and partners is also getting better than before. Before this, I had not known that we could ask for help directly and indirectly. To me, m-PAT taught me to communicate with my teachers and other friends ..." (R5/e4/P14)</p>

YAK – CONFIDENCE (Positive belief in oneself; self-appreciation / self-esteem and self-efficacy)	HRG – Self-Appreciation (Positive belief in oneself; self-worth)	<p>“I now feel more confident because I did not think I could follow this programme so now and I feel proud because I have the chance to participate ...” (R5/e4/P11)</p> <p>“I am actually shocked that there is actually quite a lot I do not know about building blogs and things like HTML and so when I actually learned about these things I feel quite good about myself ...” (R5/e4/P10)</p>
	EFK – Self Efficacy (Belief in one sufficient ability to do online learning)	<p>“The m-PAT project has given me confidence in my ability to learn ways to search for the right information using the Internet ...” (R5/e5/P29)</p> <p>“...I feel more confident in myself and think about myself as IT literate. I feel that I can learn something new because this m-PAT itself is something new to me ...” (R5/e5/P31)</p>
HUB – CONNECTION (Positive bilateral relationship with other people and institutions such as peers, families, schools and communities)		<p>“...I rarely have the opportunity to help my friends. This is an opportunity for me to connect with them ...” (R4/e5/P38)</p> <p>“As a student, I feel that this project can help our classmates to connect closely together to seek information together through cyberspace ...” (R4/ e4/P15)</p>

<p>WAT – POSITIVE CHARACTER (Having respect towards the rules and culture of other people, and able to distinguish the good from the bad and having integrity)</p>	<p>HPR – Respecting Rules (The willingness to respect and adhere to cultural and community regulations includes virtual rules)</p>	<p>“...till then as long as I had been using the Internet I had never knew that the Internet has a cyber rule that needs to be obeyed to avoid from being a victim in the cyber space. Now I know the rules and I am willing to follow them ...” (R5/e4/P13)</p> <p>“Yes I am ready because by following the forum I was able to absorb as many cyber rules as possible. The forum helped me to learn more about cyber rules which is the rules and regulations of the Internet. Only now I realise how important the cyber rules are. And now I know how vital it is to follow these cyber rules ...” (R2/e5/P33)</p>
	<p>AGM – Religious/ Moral Values (Able to distinguish between good and bad (from religious and moral aspects) and integrity)</p>	<p>“In my opinion, the features of unscrupulous web sites that are not worth visiting are web pages that contain pornographic elements. Furthermore, the web has elements towards gambling that is deflected from Islamic law ...” (R2/e4/P3)</p> <p>“...websites that touch racial issues also need not be visited as it may cause racial riots. Websites that condemn leaders and religions should be avoided because they are not good for themselves, families and communities. Finally, websites that have black magic or magic and misleading elements like black metal, gothic and more need to be avoided ...” (R2/e4/P14)</p>

<p>SUM – READY TO MAKE CONTRIBUTION (The tendency of the students to spend time in a range of activities that may be able to measure their productive engagement and may be an indication about their potential contributions to themselves, family members, peers and community)</p>	<p>SUMd – Contribution to SELF</p>	<p>“My plans for the future may be that I will create a blog about cakes. I love baking cakes and maybe one day I will open a bakery for selling cakes and promote my cake in the blog ...” (R5/e4/P13)</p>
	<p>SUMk – Contribution to FAMILY MEMBERS</p>	<p>“...I want to build a blog on subjects that I'm interested in ...” (R5/e4/P4)</p> <p>“...I told my siblings about the importance of complying with virtual rules ...” (R5/e4/P1)</p> <p>“I share this etiquette and cyber rules with my mom, brother and sister. I showed them the consequences of being involved with cybercrime and how scary became victims of cybercrime. They accepted it well...” (R5/e4/P14)</p>
	<p>SUMr – Contribution to PEERS</p>	<p>“I have shared what I learned (Virtual Rules) with my friends at the hostel... because I know most of them staying in dorms have Facebook accounts and some of them are exchanging passwords as they're close friends...” (R5/e4/P12)</p> <p>“I have told my friends who are not my classmates about the virtual rules and their interests on the Internet. I know it because my friend is active in chatting as well as having blogs that show about activities in everyday life. I told her to be more careful with the information she shared. This is to avoid being deceived by an unidentified person and thus prevent her from becoming a victim of cybercrime...” (R5/e4/P13)</p>
	<p>SUMkom – Contribution to COMMUNITY</p>	<p>“I plan to continue my blog by uploading different types of useful information that everyone can use ...” (R5/e4/P11)</p> <p>“...My plan to use the Internet positively in the future is to use social spaces and blogs to share positive and good information to friends and communities...” (R5/e4/P16)</p>

In conclusion, findings from both qualitative (thematic analysis and teacher checklist) and quantitative data were supportive of one another. As a whole, data from this study indicate a high and very high level of students' agreement towards the inculcation of 6C's within themselves during the implementation of m-PAT. Thus, it confirms that the use of m-PAT can inculcate the positive 6C values of competence, confidence, connection, positive characters, caring and willingness to contribute.

DISCUSSION

Findings of this research show that positive values of 6C's were nurtured among students during the implementation of m-PAT based on the high level of students' agreement on the application of the 6C's positive values within them. This finding is further strengthened by the positive feedback of the students through thematic analysis. Moreover, it has been confirmed by a teacher checklist which found that there was a positive 6C's inculcation of values within most students as they followed the implementation of m-PAT.

This result was achieved partly due to the design of the learning environment based on the principles of PPNP in m-PAT, which has succeeded in promoting the inculcation of positive values of 6C's among students, especially in terms of Internet use and online learning. Some of the key features of PPNP created in m-PAT, namely the support of virtual mentors and meaningful learning (active, constructive, collaborative, directional and authentic learning) can stimulate students' competence. This is because a virtual mentor who played a role can provide assistance in all aspects of learning and this can add to the students' competence in the aspect of information retrieval, online technical aspects and social aspects of communicating online. However, the mentor needed to play a role and be trained in advance of their role as a virtual mentor. In meaningful learning, humanitarian assistance is provided in authentic collaborative learning activities through forum discussions. The assistance received from this forum discussion can increase student competence in the aspects discussed. Moreover, the guides and manuals provided in m-PAT are able to help students undergo learning in a directed way to increase their competence. In addition, activities that support active and constructive learning are also provided in m-PAT which is a learning blog development activity. This

allows students to explore their own abilities and thus enhance their own competence.

A literature review that relates to the positive aspect of inculcation of 6C's positive value via online learning activities shows that it has been poorly implemented. Some of the most closely related researches were the study by Milheim (2012) which relates to online learning designs based on Maslow's Hierarchy of Needs model. The study design of Maslow's model is in line with the study of m-PAT regarding the formation of student's competence. Moreover, the design of the present study shows the aspect of online pedagogy that can stimulate the student's self-actualisation by providing student guides (manuals), humanitarian (assistance) and learning tools. These online pedagogy help students to explore their own abilities which is in line with the design elements learning environment in m-PAT.

Subsequently, the principle of PPNP that stimulates the cultivation of confidence value is a safe learning environment and the construction of a virtual community. Feeling safe in online learning is created in m-PAT by pre-project (briefing), providing activities for accessing and exploring m-PAT as well as training on technical aspects of online learning. Moreover, consistent designs and formats (interfaces) of m-PAT were also provided in order to make it easy for the students to get familiar with the format. In addition, students were also given the opportunity to participate in creating collaborative basic rules through virtual community building activities. These activities provided an inclusive climate factor or sense of belonging to the virtual community group. All these aspects, provided a safe and comfortable feeling to the students and thus enhance their confidence in online learning. This finding supports a study by Milheim (2012) which discusses the aspect of students' self-esteem in the aspect of group acceptance. It can be created through an online pedagogy design that provides course preparation in term of briefing, feedback within the support group of learning community, evaluation and promotion of involvement of every member of the learning community within an inclusive climate.

Beside, connection with fellow community members and values of being caring can be enhanced through another aspect of the PPNP principle for example the positive support of the virtual community (including the support of virtual mentors). The positive support of the virtual community

in m-PAT was created through activities that supported social interactions between students with hardware, learning resources, partners and communities in m-PAT. Moreover, positive support among members in the virtual community can enhance the value of being connected and being concerned about in the m-PAT community. This support was able to create a sense of craving for individuals and togetherness in the learning community. This finding is consistent with the study by Abedin *et al.* (2010) who found that a sense of community can be measured based on the individual's sense of cohesion and the awareness of others in the community. Individual relationships emerge emotional relationships such as feelings of love, attitudes, and relationships among members of the learning community. Furthermore, the study of Grandzol and Grandzol (2006) also found that the most important thing in online learning is building a virtual community where the quantity and quality of interaction among members of the learning community can increase the participation of students in learning activities.

In addition, the inculcation of positive characteristic values among students during the m-PAT exercise may be applicable by the presence of cyberspace support which is one of the principles of PPNP embodied in the learning environment of m-PAT. The presence of a cyber mentor has guided the participants in conversations over online, for example, the Internet-related ethics (Netiquette) and cyber-safety references to rules of principle in top-tier communication. This may foster the positive value of the learner in respect of the interactions over which should apply in harmony, offsetting and respectful. In addition, learners were also mentored by a virtual mentor to judge something good or bad. This was also shown in results of previous studies by Bernard *et al.* (2000) and Salmon (2000) that found cyber mentors who play a positive community role by contributing counterfeit coaching can be role models and provide a good example to the learner. This is also in line with the opinion of Lerner *et al.* (2005) who pioneered the Contextual Development Model of PYD (Positive Youth Development) which is used for this m-PAT study. The model states that the necessary environment to foster positive values of 6C's among adolescents is the environment in which a viable relationship exists between teenagers with a committed adult (virtual mentor) who may teach certain skills to teenagers and can promote healthy relationships between adolescents and the environment. In addition, earlier studies by Conrad (2002), Brown (2001), Curtis and Lawson (2001) also found exposure to the Internet ethics (Netiquette) and

cyber safety referring to rules of principle in communication over online may foster values associated with harmonious interaction, toleration and respect among students.

Furthermore, the inculcation of values regarding willingness to contribute also happened among the students when all rest of the five values within the 6C's have been succeeded to be inculcated among the participants. This statement is based on the results of studies by Lerner *et al.* (2003) and Lerner (2004) that indicate, when a teenager showed the realisation of all five constructs of 6C's, then the sixth construct, which is the attitude of willing to contribute (Contribution) to the self and surroundings of the family, community and the surrounding communities, would also be realised.

The above discussion shows that the findings of the present study on the inculcation of 6C's positive values during the implementation of m-PAT are in line with the previous research (Lerner *et al.*, 2003; Lerner, 2004) findings. Even though, this study does not examine the direct relationship between PPNP principles and 6C's positive values, the previous research findings provide a considerable amount of overview about the relationship between the two variables as well as support the findings of the m-PAT study.

Overall, this study found that the competence value can be nurtured with the existence of virtual mentor support and meaningful learning environment. While confidence value is created through the existence of a safe learning environment and the construction of a virtual community. Connection and caring values are created with the presence of positive support from the virtual community. Positive characters values are created through the support of virtual mentors as role models and virtual community building activities that provide exposure to ethical and virtual security aspects. Furthermore, the willingness to contribute can be nurtured within the individuals when all other 5C's positive values have been nurtured within the individuals.

CONCLUSION

The findings of the m-PAT study confirmed that the Positive Youth Development approach based on the PYD Contextual Development Model which is often implemented in face-to-face community programmes, can also be implemented in a virtual community environment through an online project-based learning approach. Through an online project-based learning approach, learning environments that support inculcation of positive values (PPNP principles) are able to be created, thus inculcating the positive value of 6C's among students especially on the positive use of the Internet.

The development of such online learning modules can benefit from use of the 1BestariNet network and the VLE Frog platform introduced by Ministry of Education (MOE) (2003) across schools in Malaysia. Implementation of the Online Project-based module that is able to inculcate 6C's positive values using the VLE Frog platform enables the learning approach featured by m-PAT to be implemented extensively and continuously. It is hoped that this will positively influence the use of the Internet among students and indirectly address the problem of Internet abuse among students due to lack of guidance from teachers and parents.

Besides, online project-based learning approaches highlighted, m-PAT also promote student-centred learning and support authentic collaborative activities among students. This collaborative skill is one of the 21st century skills required by students to cope with life and career in the 21st century. The inculcation of 6C's positive values among students especially via Internet usage is expected to produce students who are competent in the technical aspects of online, information retrieval and online communication; confident in managing learning matters and dare to try new things as well as build positive relationships with friends at school and friends in a virtual learning community; have a positive character by following virtual rules and can distinguish good things from the bad in moral and religious aspects; be attentive to friends and be prepared to contribute to the family, the community and the surrounding communities. The positive values of 6C's that are nurtured among students regarding the use of the Internet indirectly develops student manipulative skills in the form of information, media and technology skills (Information, Media and Technology Skills) which is another aspect of the 21st century skills required by students in the face of life and career in the current globalisation.

Finally, findings of this study show an implication that the positive values which has been examined separately by other researchers in the field of online learning, has been successfully combined and nurtured simultaneously and planned in the form of 6C's positive values through online project-based learning module (m-PAT). With more data that can support this study in the future, m-PAT studies can be considered viable and have a bright future especially in the context of national education policies as intended by the Malaysia Education Blueprint (2013-2025). Among them is the implementation of a standard curriculum for primary and secondary schools that emphasizes project-based learning (Paradigm Shift 1); developing students who places significance on values (Paradigm Shift 3); as well as suggestions for educators to supplement learning materials (online) for best practice sharing goals (Paradigm Shift 7). Hence, the results of this study will contribute to enriching the collections of process-oriented online learning materials and integrating values and hence, to be applied in the education world in Malaysia.

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THE EVALUATION AND IMPLEMENTATION ON THE DEVELOPMENT OF STIMULATION SETTING USING CTML MODEL

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ABSTRACT

This research aimed to identify the possibility and opportunity to implement the stimulation room courseware for drawing studies method in additional and substitute for the outdoor learning and indoor learning method in the teaching and learning of Drawing Studies subject in tertiary level of art education in Malaysia. Thus, this research is conducted in order to develop the stimulation room courseware for drawing studies that will be an optional teaching aid for the subject. This courseware and method will be an integrated use of ICT in the Visual Art Education field. This research was conducted by utilising the design development research (DDR) that consisted of three (3) phases. Phase 1: Needs Analysis, Phase 2: Design and Development and Phase 3: Implementation and Evaluation. However, for the purposed of this article, the researchers will only discuss Phase 3, that is the Implementation and Evaluation phase. The data was collected by the usability test form that has been given to three (3) experts in different fields; one (1) expert on videography, one (1) expert on interface design and one (1) expert on graphic design. The purpose of having this three (3) experts was to evaluate and provide feedbacks on the stimulation room courseware for drawing studies. Pre-test and post-test were carried out by eight (8) students of Art and Design that have undergone the subject



of Drawing Studies using open-ended questionnaire. The feedbacks were then subjected to evaluation and assessment by two (2) experts in Drawing Studies. Based on the findings, the development of the stimulation method and the courseware is relevant and has possibilities for implementation in tertiary level art education in Malaysia.

Keywords: *stimulation room, CTML model, drawing studies, design developmental research, usability test*

INTRODUCTION

This research was conducted in order to develop a stimulation room courseware for drawing studies subject. The aim in developing this stimulation courseware was for it to be used in the stimulation method of drawing studies as a new teaching aid and as a substitute for the outdoor learning method. In this research, the researchers try to explore the possibility and opportunity of the implementation of stimulation method for the teaching and learning of drawing studies.

Nowadays in Malaysia, there are lots of private colleges offering art education based courses, like the schools of Art and Design. Thus, there will be plenty of art learning process that will be taught during this class. One of the main subjects that this student must undergo is a subject called Drawing Studies, which is the core subject for their foundation level. According to National Accreditation Board (*Lembaga Akreditasi Negara*, LAN), under The Malaysian Qualifications Agency Act 2007 (Malaysian Qualification Agency Act (MQAA), 2007), the programme offered to the student must cover the mastery of body of knowledge; practical skills; social skills and responsibilities. This indicate that the student must be able to master every subject that has been designed and created for the courses according to the syllabus. The MQA clearly stated that students must cover the knowledge of the subjects and drawing studies have become a subject that the student must excel. According to Karczmarzyk (2012), graphic design is a process of visual communication, and problem-solving through the use of type, space, image and colour. As art is now considered as a vital subject in Malaysia's educational system, the importance of learning art methods of teaching art should be discussing in order to find the best way on how the art educators

can really create the best environment for students to learn art (drawing studies). Therefore, many universities are trying to accommodate to the needs of today's society, prepare for the future challenges, the opportunities and benefits of new teaching technologies (Salinas, 2004) such as the use of Information and Communication Technology (ICT). The function of ICT is to enable the acquisition, production, storage and processing, reporting, recording and presenting information in the form of voice, images and data contained in nature acoustic signals, optical or electromagnetic (Duta, Rivera, 2014). This research will also try to test the implementation of stimulation room method through a courseware that will be used by the students, to see the different outcome from it and compare it to the other method that have been used previously.

The aim in this study is to determine the result of the outdoor and stimulation method and the usability of the stimulation room for drawing studies courseware. This objective will comply with the Implementation and Evaluation in Phase 3 of this research. The results of the findings will determine whether the stimulation room for drawing studies method has the possibilities of implementation.

LITERATURE REVIEW

Based on the researcher's observation and personal experience, there are currently two private universities in Malaysia that use different types of curricula for teaching drawing studies. This also shows that these two private universities tried two different methods in terms of finding the best way for their student to master drawing. Although these two curricular / methods of teaching have been used for some time now, there are still problems related to them. According to Anderson (2000), learners cannot learn something from imagination and that's the reason why creative classes must be done in a more open environment. They said that the environment of the classrooms has separated them with the mood and ambiance that relates with the subject matter. This relates to the theory of John Ruskin, the famous art critic, who argued that artistic skill is acquired through 'innocence of the eye' (Ruskin, 1856). Meanwhile the outdoor classes might pose safety concerns (Malone, 2008). Some of the students' parents might feel uneasy and unsafe for their children as found by (Dillon, Rickson, *et al.*, 2006). From these statements,

both methods have its strength and weaknesses. This is the main reason why the researcher came up with the idea of creating a stimulation room for drawing studies so that these students can have the sense of outdoor while drawing in a cosy and more conducive comfort of their classroom. With this stimulation room, the researcher hope that it can become an option of a teaching aid that combines the strength of the outdoor environment and a safe and a well-equipped drawing studies classroom through the stimulation process.

RESEARCH METHODOLOGY

For this study, the researcher uses the Design Developmental Research (DDR) that have been developed by Richey and Klien (2007) that involves both Qualitative and Quantitative approaches. With the use of DDR approaches, the researcher will get a systematic study of designing, developing and evaluating instructional programmes, process and products that meet the criteria needed by the researcher for this research. The DDR is divides into three phases; Phase 1: Need Analysis, Phase 2: Design and Develop, and Phase 3: Implementation and Evaluation. In this study, the researcher focused on Phase 3: Implementation and Evaluation stage to achieve the objective.

RESEARCH INSTRUMENT

This research is based on the single group comparison study. So, the entire respondent will be required to undergo the process of pre-test and post-test. After the pre-test, the students were given an open ended questionnaire to find out their perception on the experience of doing the drawing in an outdoor environment. In the questionnaire, the researcher also asked the students about which method of teaching and learning of drawing studies that they prefer. The objective of the questionnaire is to seek for the student's preferable method of teaching and learning of drawing studies. Then for the evaluation process, the researcher has selected two (2) expert to evaluate the drawings that have been done through the outdoor learning method and the stimulation process using the standard assessment rubric which is used in the actual drawing studies assessment. In order to get the data of the expert's panels (lecturers) opinions and perceptions, the researcher used semi-structured interview. Mason (2004) stated that semi-structured

interview has flexible structures and depends on the needs of the research. The targeted population involved in Phase 3: Implementation and Evaluation stage can be divided into two groups. The first group were the students that had undergone the process of pre-test and post-test (stimulation) while the second group consisted of two respondents (expert's panel) who are experts in Art based course field and in Drawing Studies subject. There are also eight students from Art and Design course that have experience in Drawing Studies subject to undergo the pre-test and post-test.

FINDINGS

Phase 3: Implementation and Evaluation of Stimulation Room for Drawing Studies, there will be a pre-test and post-test that has to be done to complete this research. This is due to the fact that this research, there will be a comparison of the actual outdoor drawing and the stimulation drawing in the studio that been done with the Stimulation Room for Drawing Studies courseware.

Usability Test

Based on the data gathered from the usability test form that was given by the expert evaluators, the stimulation room for drawing studies courseware were revised and redesigned to suit and comply with the expert comments and ideas. Improvements to the courseware were then carried out. Evaluator 1 found the quality of the video acceptable for drawing purposes as students can still capture the lighting of the scenery and the details required to draw the scenery. This is one of the main focused of the courseware. The main part of the courseware is therefore acceptable. On the point of the sound or audio, it was found to need full audio system and sound proof room, and this requires substantial financial support to implement. This has been recorded as the researcher's limitation in this research. But, still it will be taken as a note for the researcher as a room for improvement for this courseware.

The distraction by the bystanders is also acceptable from the expert Evaluator 1 point of view as the purpose of the video is to capture as actual environment as can be for the student to draw. In the second expert evaluator

comments, the expert stated that the page and the button design is good and acceptable. The flow of the interface is also clear. It is important for the flow to be clear as this will be easier for the lecturer's or art educator to manage the courseware. This will also save the time for the lecturer to use the courseware without spending much time reading the instruction manual on how to operate the courseware.

The second evaluator also commented on the crowded image on the background of the interface. He stated that it will be clearer if the researcher uses less image to give more impact to the courseware. He also commented on the use of colour of the background. He suggested the use of lighter colour to suit the concept of scenery. The third expert evaluator stated that the button and the icon used in the interface is interesting. The bright colour will attract the user (lecturers) easily when conducting the courseware. The layout of the interface is also clear and provides focus on the objective which is the video and the flow of the interface itself. He also stated that the colour harmony of every page is good and looked nice.

Scenery Drawing Pre-Test (Actual Scenery)

The student is required to draw the scenery of the waterfall in the duration of one hour. The duration of one hour is suggested by the researcher as the original time for the drawing studies is three hours. During this test, the researcher had the opportunity to see the actual impacts of the outdoor learning method. Unfortunately, the impacts that the researcher observed were rather negative impacts of outdoor learning. The students can't actually focus on their drawing. They were easily distracted and were not able to focus during the outdoor drawing session.

Evaluation 1: The Pre-Test Drawings

The evaluation of the pre-test was assessing by two (2) expert evaluators. The marks were given by the criteria stated in the marking rubric which is the original marking rubric for drawing studies subject. It consists of the use of medium, the quality of line, the use of proper shading, the differences between foreground and background, image composition, proportion, detailing, neatness and finishing for the drawings. The marks

given by the expert evaluators were in a range of 21 to 42 over 50.

Table 1: The Pre-Test Drawing Marks

Marks	No. of Respondents
21/50	1
24/50	1
27/50	3
28/50	1
29/50	1
30/50	1
32/50	2
34/50	1
35/50	3
40/50	1
42/50	1

Evaluation 2: The Post-Test Drawings

In the post-test session, the student will undergo the process of simulation by using the Stimulation Room for Drawing Studies courseware in the drawing studies classroom. The duration of the post-test will be the same with the pre-test. This will ensure there will be no issues of bias that can be brought up in terms of fair comparison. The marks that were given by the expert evaluators were in a range of 23 to 42 over 50. This shows that the students have performed better from using the stimulation room courseware.

Table 2: The Post-Test Drawing Marks

Marks	No. of Respondents
23/50	3
25/50	1
26/50	2
27/50	2
32/50	1
33/50	3

35/50	1
39/50	1
42/50	2

Evaluation 3: The Questionnaire

After the post-test session, the researcher has given the students/ respondent's a set of questionnaire which consist of open-ended questions on their perception and experienced from both the pre-test and the post-test. From the data gathered in the questionnaire, majority of the student vote for outdoor learning method rather than the stimulation room and indoor learning method. This is due to the facts that the student finds it interesting and fun to be outside the classroom. Most of them stated that the reason is to feel the new environment rather than in the conducive classroom surrounding. This point out the interest of the student is to feel more excitement of the open environment itself and not by the ability of the video and audio in the stimulation room courseware and the impacts of it through their drawing. Although the main idea of having this questionnaire is to find out their main ideas and perception on the courseware implementation and its effects on their drawing, the students answer is more based on the environment. But, the data is still acceptable, the students are really interested in having their drawing classes outdoor.

Evaluation 4: Expert Panels Evaluation Interviews on the Student's Pre-Test and Post-Test

Based on the response of the expert panels through the interviews, we can see that both of the experts have their own opinion and point of view regarding the Stimulation Room for Drawing Studies research. Both of them gave different opinions on the topic. For expert number 1, he stated that he believes that the outdoor learning method has much more to offer the students. He also believes that bringing the student direct to the outdoor can benefit the students more in terms of giving them the proper experience and more knowledgeable as the student can feel the real environment and see the real subject matter.

“From my evaluation, based on two different situations, there are couple of

factors that can influence whether the assignment was done in a building or outside in nature surroundings. So, I can see here that the factors of surroundings have influence an artist in the making of their artwork. From the perspective views, the focal point of the outdoor is much bigger. So they can choose any angle that they want to suits their desire. So I can say that the vibe in making drawing is better outdoor rather than inside a classroom or studio.” (Respondent 1: 29 April 2016)

However, he thinks that the stimulation room can only be as an option. To him, the stimulation room will eliminate the creativity of the student in a sense that the student will only perceive the scenery through visual perception and not really feel or see the reality of the scene. But for expert number 2, she finds the stimulation room as a good intention in art education purposes as it will give a new way and a diversity in teaching and learning of drawing studies. She also stated that from this stimulation room method, she saw that there is an improvement in the students drawing. She believes that through the stimulation room method, the distraction from nature itself can be prevented. She also said that the commitment of the student will be greater as the student will be more focused on their drawing as they will be occupied to the drawing without any distraction. Cost like travelling, food and all the time wasted for applying for consent documentation will also be eliminated due to the facts that the drawing session will be done in a classroom / studio.

“Okay. Actually it is a good intention for educational purposes. Because now when we bring the student for an outdoor activity, which especially related to art, we have to fulfil lots of documentation regarding the guardian consent. After that, it also the factor of financial and the nature’s weather. So, if we do the drawing indoor, the commitment of the student will be much greater compare to if we bring them to the outdoor. It is cheaper and the student participation will be more. They can give more commitment indoor compare to the outdoor from my point of view.” (Respondent 2: 29 April 2016)

The researcher has shown the process of Phase 3: Implementation and Evaluation. The process was broken down into a series of implementation and evaluation and the results were summarised accordingly. On the pre-test and the post-test evaluation by the expert, the comparison of the marks is as follows:

*Expert Evaluator 1:***Table 3: The Pre-Test and Post-Test Drawing Marks from Expert Evaluator 1**

Respondents	Pre-Test Mark	Post-Test Mark	Difference
Respondent 1	30	23	-7
Respondent 2	27	27	0
Respondent 3	32	25	-7
Respondent 4	27	23	-4
Respondent 5	35	35	0
Respondent 6	35	27	-8
Respondent 7	24	23	-1
Respondent 8	35	33	-2

*Expert Evaluator 2:***Table 4: The Pre-Test and Post-Test Drawing Marks from Expert Evaluator 2**

Respondents	Pre-Test Mark	Post-Test Mark	Difference
Respondent 1	27	33	+6
Respondent 2	29	42	+13
Respondent 3	21	26	+5
Respondent 4	34	26	-8
Respondent 5	32	39	+7
Respondent 6	40	33	-7
Respondent 7	28	32	+4
Respondent 8	42	42	0

From the tables above, it shows that there wasn't much of a difference between the pre-test and the post-test marks that had been given by the expert evaluators. This shows that the Stimulation Room for Drawing Studies method did not provide any difference with the actual outdoor learning method from the student's drawings. It shows that the Stimulation Room method is acceptable and have the opportunity and can be implemented at the tertiary level for the subject of drawing studies.

CONCLUSION

Through the Usability Test Form given to the three expert evaluators for the Stimulation Room for Drawing Studies courseware, the researcher managed to get expert feedbacks and comments that will provide the basis for future enhancements of the software. The main points that highlighted by the experts are distraction of the bystanders in the video, and that can be controlled. The sound can be improved with the use of full audio system and using sound proof room/studio, should use less images on the background to avoid confusion and became less attractive and use of lighter colour to suit the theme of scenery drawing. Overall, the expert evaluator gave a positive comment on the courseware. Some of the comments that the expert highlighted have been improved by the researcher. Although the test results show no glaring differences in the student's drawings, the researchers have also taken into consideration the questionnaire that have been given to the students after the post-test. The details of the results have been stated in chapter six. From the questionnaires feedback, it seems that most student prefer the outdoor learning method. They feel like the new experience that they will gain from the activities will widen their mind and can make them feel calmer and focused on their drawings (Beaudry & Pinsonneault, 2010)

The feedbacks by the students were supported by the first expert evaluator during the researcher in-depth interview with him. He stated that the best way of teaching drawing studies is by the method of outdoor learning. He added that by taking the students outdoor, their angle and view to draw will be wider, thus, making their drawing more realistic. He also stated that the process of simulation will only eliminate student's creativity they will only have visual perception and not going through the real and proper viewing. This is in contrast with the second expert as she thinks that the simulation process is a good way of creating a new method in teaching and learning of drawing studies. She believed with the simulation method, while having the class indoor, the student can give more commitment and more focused on the drawings. She also of the opinion that some students prefer outdoor learning more to the facts that they are looking for fun and excitement than having to be confined in the classrooms. She added that the students are not 100 percent committed to the process of drawing studies. The researcher had gathered the data findings from the expert evaluators from the usability test form, the pre-test and the post-test, the students

open-ended questionnaire and the expert evaluators semi –constructed interviews. Based on the data gathered, there are strength and advantages of the Stimulation Room courseware and method. However, there is a need for improvement to be done before the method can really be implemented in drawing studies for tertiary level in Malaysia.

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POETRICKS: A GAME TO ENGAGE MALAYSIAN SECONDARY SCHOOL ESL LEARNERS IN UNDERSTANDING POETRY

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ABSTRACT

Studying literature can be challenging for ESL learners. With the new cycle of poems introduced by the Ministry of Education in 2015, the teachers responded with great concerns over how to teach their students, who found poetry difficult and boring. Furthermore, the teachers found poetry less favourable compared to other literary genres. In order to fill the gap of a better understanding of the poems, in more engaging ways, the researchers designed a board game. The compulsory (new) poems for Forms Four and Five were used. 20 students and 40 teachers participated in this study. Data comprised the responses of the students and teachers, to the questionnaire and interview after the game. The game sessions were videotaped. The analysis of the data showed that the participants responded positively to the game. Hence, this game served as a supplementary tool in the teaching and learning of poetry in more engaging ways.

Keywords: *literature, poetry, board game, language game*



INTRODUCTION

As English is a second language in this region, students grapple with grammar and communicating meaning due to the lack in language proficiency. Added to this setback is the learning and teaching of the literature component. The literature component was added to the English Language Syllabus in the year 2000. It was also 'tested' in the major government examinations in the years 2001 (lower secondary system) and 2002 (upper secondary system), bringing greater concerns to both teachers and students. This is the context of the current research.

PROBLEM STATEMENT

Studying literature is challenging for ESL students in schools especially when it is a compulsory component of the English Language curriculum. Students find it difficult and boring (Doris Boo and Navinder Kaur, 2000). The students have problems in terms of understanding literary devices, jargon and identifying with the foreign cultural context. Studies show that success in literature depends also on the activities employed to attract students. Students prefer interactive teaching and learning environment literature lessons (Tina Abdullah *et al.*, 2007; Fauziah Ismail *et al.*, 2008; Vasuthayan & Kunaratnam, 2009) and interesting activities can foster love for literature. Moreover, students were also found to be passive in literature classrooms as lessons were teacher-centred (Sidhu, 2003; Suriya Kunmar, 2004). As such, there is a need to create interesting and fun activities such as board games which can make learning literature enjoyable.

LITERATURE REVIEW

The prose genre seemed to have been better received by teachers and students in comparison to the poetry genre. Wan Kamariah (2009) reported in her study that poems are not preferred because students were unable to understand, hence interpret, the figurative language found in literature. Students also found it difficult to understand the foreign contexts of the poems in the selection. Additionally, Wan Kamariah also stated that students had a negative attitude towards activities related to the memorisation of facts, drills and teacher-provided interpretations of the poems for the

purpose of answering questions in tests. Sidhu (2003) claimed in her study that students found the literature class activities to be teacher-centred which were uninteresting and uninspiring as teachers seemed to focus on written work and preparing for the examinations. A study by Siti Norliana Ghazali *et al.* (2009) found that students do not like literature taught in classes, in particular poems, as these are considered challenging due to the difficult language. In keeping with these findings, Fauziah and Jamaluddin (2009) reported that student-centred activities created a better learning environment and developed students' motivation in literature. Hence, having student-centred activities during literature lessons, such as a poetry board game, will not only be more interesting and enjoyable but also facilitate learning in an informal way. The next section shows how playing can facilitate learning without the formal and standardised ways of traditional teaching modes.

LANGUAGE LEARNING AND THE USE OF GAMES

Learning takes place through games and often children learn more before they begin school, when they have sufficient opportunities to play. Often with school, these games stop as performance and standard tests take precedence with their effects on learning. Gee (2003) claims that schools are in dilemma as to how to get young people to learn something that is challenging and to be able to enjoy it too. Perhaps schools should bring back games into the classrooms.

A group of panelists (experts on education) were optimistic about the promise of using games in pedagogy. Pea (2002), co-convener of a class and a professor in the Graduate School of Education, stated that 'gaming to learn' has been around Stanford for over a decade. Steinkuehler and King (2009) found that choice was critical for ultimate performance. Their research focus was on boys who were struggling to read and how they did a lot better if they could choose their texts to read and if the reading was via online games. This study also employed an innovative board game as they believed that games are architectures for engagement (Steinkuehler & King, 2009). In other words, engagement was an important feature for learning to take place.

Similarly, Bauer (1995) remembered how his youth was filled with

collaboratively building, taking risks and having fun while playing games. He also talked about variations in rewards, which he referred to as 'beyond simple star'. One way to achieve this was through better questions and more difficult tasks. In this study, the poetry board game had different types of questions with different levels of difficulty. Added to that was the variation in the reward and penalty system. The poetry cards had a simple reward and penalty system that is to either be able to proceed on the next round with a correct answer or to skip a turn if the answer was wrong. However, the 'Chance' cards were quite different as they gave students a chance to leap forward as a reward or alternatively, fall back with an incorrect answer. Thus, this game went 'beyond simple stars' which supported Bauer's (1995) belief.

Games also help to develop non-cognitive skills which are fundamental in explaining how we learn. Gee (2008) states that skills such as patience and discipline, which one should acquire as a child, happen when engaged in games. Hence, through games in the classroom, students are better prepared for both the cognitive and non-cognitive skills. The board game used in this study was found to develop these skills.

Motivation also plays an important role not only in engaging learners in any learning task, but also in ensuring that they are able to sustain their level of engagement until they are able to achieve a working knowledge of the specific task they are learning. Cohen (2010) stated that learners' motivation can be increased by employing methods that the learners respond positively to. It is therefore crucial for teachers to possess a wide methodological repertoire that they can use under different classroom environments and to students of different internal and external compositions.

According to Dörnyei (1998), motivation to learn a second language is both a highly challenging and intriguing affair due to the fact that the learners need to be encouraged to complete a particular language task. To this end, rewards are provided to keep these students interested. However, the teachers' ultimate aim is for the students to be motivated by the language learning tasks themselves as opposed to the rewards after the completion of the tasks. Therefore, finding the right balance between the learners' anticipation of rewards and the rewarding nature of a particular language learning task is of utmost importance in ensuring that the learners can be liberated from the extrinsic returns of a task.

THE THEORETICAL FRAMEWORK

Behaviourist Learning Theory

Behaviourism and its roots can be traced back to the 1880s and continues to be an ever-evolving theory that was developed by its proponents such as John Watson, Ivan Pavlov and B. F. Skinner (Weegar & Pacis, 2012). According to Ertmer and Newby (2013), learning is perceived by behaviourists to occur when an appropriate response is observed after exposure to a specific stimulus. Behaviourists are therefore especially concerned with how the association between the stimulus and response is established, reinforced and maintained for the same desired outcome to recur.

In learning, the use of instructional cues, practice and reinforcement can be attributed to strategies recommended by behaviourists as a means to build and strengthen stimulus-response associations (Winn, 1990, as cited in Ertmer & Newby, 2013). Language games of both traditional and digital varieties, in particular, employ positive and negative reinforcements that serve to provoke desired behaviours (Lepe-Salazar, 2015). These reinforcements help learners to remain motivated and emotionally invested in the language games that they play. In the poetry board game, the players are motivated to get to the finish line first. Hence, the need to get as many correct answers and the hopes and anticipation to get a 'Chance' card in order to make a leap forward. These then, enable the players to adopt strategies, within the stimulus-response associations, that would help them to realise their objectives.

METHODOLOGY

This paper is a case study involving 20 students and 40 teachers. The study involved qualitative and quantitative methods of analysis. Responses to the questionnaires filled by the participants and transcripts of the interviews with the participants, formed the bulk of the data for this study. All participants were briefed about the 'Poetricks' (Poetry Board Game) and its rules before they began to play it.

The 20 students were divided into five groups with four students in each group. Each student group was observed by four teachers. Hence, 20

teachers played the role of observers, of the students playing the board game. The other 20 teachers were divided into five groups with four teachers in each group, just like the student groups, as they played the board game.

After the board game was over, the students and teachers in both groups – the ones who observed the students play, as well as the ones who played the game, filled out questionnaires and were interviewed the next day. The game sessions were also video recorded to be reviewed later to corroborate the responses in the questionnaires and the interview transcripts.

Participants

The study included 20 students and 40 teachers. The researcher asked the teachers of the school to select ten students with a good language proficiency and another ten with poor language proficiency. Out of the 40 teachers, 12 came from the school where the students were from, and the 28 other teachers came from five other schools nearby. The teachers were willing participants and had taught the subject for over ten years. The only set back was getting time to participate in this study, which they were able to manage as this study took place at the end of the school year, when all the examinations were over and there were very few formal activities going on in the school.

Instruments

The first instrument used in this study was a board game called ‘Poetricks’ (Poetry Board Game). This game was created by the researchers as an alternative to the conventional ways of teaching the literature component in schools. ‘Poetricks’ (Poetry Board Game) set comprises two boards which are namely the Level One and Level Two boards that cater for students of two different levels of proficiency. A total of four poems from the latest cycle of literary texts for Form Four and Form Five were used for this board game which are namely ‘Charge of the Light Brigade’, ‘The Living Photograph’, ‘A Poison Tree’ and ‘What Has Happened to Lulu?’.

These poems provided the content for the questions on the cards. The players were required to answer the questions on the card whenever they landed on specific tiles along the board. The specific tile would have the

label of one of the four poems, to which the participant who landed there would have to pick a card from the stack of that specific poem. If the answer was correct, the participant could proceed to the next round. Otherwise, the participant would skip a turn in the next round. In addition to the poetry cards, a set of 'Chance' cards were also created by the researchers.

The 'Chance' tiles also appear along the board at various points of the board. The reward and penalty system worked differently for the 'Chance' questions. Where the question was answered correctly, the players had the opportunities to move several steps forward, whereas an incorrect answer would result in a penalty of moving back a few steps. This is where the players have a good chance to reach the finish point on the board, at a quicker pace. Alternatively, they could take a longer time.

The board has a 'Start' and 'Finish' point. The first player to reach the 'Finish' tile on the board would be the winner for the session. The game is suitable to be played by four players at any one time. All of the sessions (students and teachers playing the board game, as well the teachers observing the students playing the game) were video-taped to facilitate the researchers' observation of the game being played in real time, and to be able to review the event at a later time with another unbiased researcher to minimise researcher bias.

The second instrument was the questionnaire for both, the students and teachers who participated in the game as shown in Appendix A and Appendix B respectively. These questionnaires were perception-based questionnaires consisting of ten statements in which students and teachers were required to rate the statements across the five-point Likert Scale. The participants were asked to fill the questionnaires a day after they had finished playing 'Poetricks' (Poetry Board Game).

Finally, semi-structured interviews were also conducted by the researchers in order to allow the participants to reconstruct the details of their experiences while playing the board game, and to help triangulate the questionnaire and video data. The questions asked were built around the statements from the questionnaire. This is shown in Appendix D. The interview sessions also helped the researchers to get elaboration of ideas from all participants, which contributed to the rich, thick description of the data, pertaining to their responses to 'Poetricks' (Poetry Board Game).

FINDINGS

The findings for this study were based on data collected from the questionnaires, interviews and video recordings of both, teachers and students while they were playing and observing the ‘Poetricks’ (Poetry Board Game) being played. Appendix C illustrates the overall results obtained from the questionnaires with the three groups of participants: The 20 students and 20 teachers who played the game and another 20 teachers who acted as observers and provided their responses after ‘Poetricks’ (Poetry Board Game) ended.

Appendix C indicates the responses in the questionnaire among the three groups of participants – the students who played the game, the teachers who played the game and the teachers who observed the students playing ‘Poetricks’ (Poetry Board Game).

Question 1 responses revealed that both the students and teachers enjoyed playing the game. Even the weaker language proficiency students enjoyed playing the game. The teachers who observed the students play the game also enjoyed watching the game.

Question 2 responses showed that ‘Poetricks’ (Poetry Board Game) helped the participants to understand the poems. This was seen in both the students and teachers who played the game and those who watched the students play the game.

Question 3 responses were specifically directed at the ‘Chance’ questions and showed that the participants found this exciting as well as a help in understanding the poems better.

Question 4 responses referred to the poetry questions and the majority of the participants found that these questions helped them to think about the poems more deeply. Question 5 was on motivation and the majority felt that the game was motivating and engaging.

Next, Question 6 was on whether the participants re-read the poems after the game. The majority responded that they did. Question 7 was an extension of Question 6, where the focus was on looking at more details

during the re-reading of the poems, in looking for evidence to the answers. Though it can be said that the majority of the participants felt that they did, the students' responses to this was less than that of both the groups of the teachers. The student numbers were 15 out of 20 who strongly felt this but the teachers' numbers were 18 out of 20 for both groups – those who played the game and those who watched. This could be attributed to the fact that the students were new to the idea of checking out information on the poems on their own, compared to the teachers. This could also be because the teachers needed to be sure of the facts as they were teaching the poems to their students, and as teachers, they had to have the detailed knowledge.

Question 8 responses showed that the majority of the participants found the game exciting and challenging. This was seen more among the students (20/20) compared to both groups of the teachers (18/20).

Question 9 was about using 'Poetricks' (Poetry Board Game) in class and the majority responded positively to this (19/20 for the student group and 20/20 for both the teacher groups). Question 10 for the students was on the competitive spirit of the students and the majority responded that they became more competitive as they wanted to win the game. As for the teachers, the question was focused on the game as a useful teaching tool to use in the class, and the majority in both teacher groups responded positively to this (20/20 and 19/20).

In summary, it can be concluded from the responses in the questionnaire that 'Poetricks' (Poetry Board Game) was well received by the students and teachers alike. All the responses from the 20 participants of each group were either in 'agreement' or in 'strong agreement' of using 'Poetricks' (Poetry Board Game), echoing their positive feelings towards the game.

The second part of the data came from the semi-structured interviews which yielded results on a deeper level. The interview questions were worked around the statements found in the questionnaire. The purpose was to get elaboration of the participants' responses. The questions for the semi-structured interview are found in Appendix D.

The first question was on the feelings the participants had as they began playing the game. Both, the students and teachers confirmed that

they were excited to play the game. The observing teachers said that they looked forward to the game and wished that they played the game, rather than just observe the students playing.

The second question was if and how ‘Poetricks’ (Poetry Board Game) helped the participants. All the participants said that the board game helped them, as they looked for answers and re-read the poems in order to find the answer. Below is an answer from a student from a good proficiency level class,

“The game got me to re-visit the poem several times and in looking for the right answer, I realised that I knew the answers to the other questions but not the question that I had to answer ... that was unfortunate....and I wished that it was my turn to answer the questions which I knew.”

This showed that learning was taking place. The next excerpt is from an answer from a student in a lower proficiency-level class,

“I like... I look at poem, sometimes get answer; sometimes no. When no, I see answer card, and then I know.”

This was also a case of learning, where wrong answers led to the answer card and the students would pay attention in case the game continued and the cards went another round.

The third question in the questionnaire was on the ‘Chance’ questions. The students and teachers looked forward to this tile as the reward system was far greater than the ordinary poetry question tile. The participants hoped to land on a ‘Chance’ tile but they were also worried if they could not answer the question, as they would face a penalty that could leave them worse than before. Sample responses from the three groups included:

Students:

“I like but frighten also. Want to reach the end fast fast... Sometimes okay, sometimes not okay.”

Teachers who played the game:

“The ‘Chance’ questions were exciting as we wanted to go ahead quickly in order to get to the finish line. The questions also challenged us, if we knew the answers or not.”

Teachers who observed the students playing the game:

“Actually, we wished we were playing. Half the excitement was taken away from us as we could only watch and not say anything. We wish there were enough board games for us to play as well. Yes-lah, the ‘Chance’ questions were like a chance to win or lose. There was no draw.”

Question 4 was on whether the participants gave any thought about the poems during or after the game. The majority of the participants said that they did. Some responses from them:

Students:

“Sometimes think, sometimes forget. Mostly if play the game tomorrow, sure think, think, think. Maybe we play game more. Better than just listen to teacher.”

Teachers who played the game:

“The game was an eye opener for me. I thought of the poems more deeply. I wondered what could have caused the conflict between Lulu and her mother. Also, I wondered where the father was. I would find out more and pose these questions to my students.”

Teachers who watched the students play the game:

“I thought of the poems and some of the questions. From there, my thoughts went to other areas connected to the questions. I found that the questions triggered other thoughts and ideas for me to work on as I began to teach the poems.”

These responses show that the students found the game a more interesting alternative to just listening to the teacher teach in a lecture-style mode. The teachers found the game a trigger to further their explorations on their

own understanding and how they could bring a larger understanding of the poems, through the initial questions in 'Poetricks' (Poetry Board Game). This went into the area of pedagogy and their own learning process.

Question 5 was on how the participants found 'Poetricks' (Poetry Board Game). Some said it was exciting, others said it was fun and motivating for them. Some responses appear in the excerpts below:

Students:

"The game made me want to know more about the poem."

Teachers who played the game:

"The game was different – nothing of this has been in store for us. Very refreshing."

Teachers who watched the students play the game:

"The game was exciting for everybody else except us.... ok ok... we were excited but we wished we were playing too."

Question 6 was on whether the participants re-read the poems later. All the participants said that they did except that some of the students mentioned only re-reading the parts that appeared in the questions. As for the teachers, their re-reading confirmed and added knowledge for them as individuals and to be better equipped as teachers to teach the poems to their students.

Responses to Question 7 and 6 were similar, with the difference that some students and teachers, looked for more evidence to strengthen the answers while many re-read the poems to check if the answer given in the answer card was correct.

Question 8 was on how the participants felt during the game and again, the majority mentioned, 'excited, a bit nervous if cannot answer, want to win'.

Question 9 was on whether the participants would consider the game for class. The majority said, 'Yes, surely, better than reading and reading...'

Question 10, to the students, was on their motives of playing the game. The majority of the students answered ‘to win the game’. The question to the teachers was if they considered ‘Poetricks’ (Poetry Board Game) to be a useful tool and resource in their teaching. The answer was in the affirmative, unanimously.

In summary, it can be concluded from the responses to the semi-structured interview, that all the three groups – the students playing ‘Poetricks’ (Poetry Board Game), the teachers playing it and the teachers observing the game, enjoyed the playing the game and to some extent, watching the game being played. In fact, the teachers who were observing the students play the game voiced out their disappointment in not playing the game. More than the enjoyment of the game, learning was evident in all the three groups. The participants learnt and remembered new facts, they re-read the poems to check, confirm or add to their existing knowledge while considering the game as an alternative classroom activity.

The researcher noted that the participants enjoyed playing the game, were engaged and alert throughout the game. Another researcher was asked to view the video tape and some of her jottings included: “participants engaged, interaction going on, motivation to get to the ‘Finish’ tile, disappointment at wrong answers, great shrieks of joy when own answers correct, similar joy expressed when other players got answers wrong, competitive spirit, alert, took time to answer, a lot of noise....”

DISCUSSIONS

The main aim of this study was to gather responses from both, the students and teachers on ‘Poetricks’ (Poetry Board Game) as an additional resource for teaching and learning in classrooms. This was especially important due to the context of change - the introduction of the new cycle of literary texts. As mentioned earlier in the literature review, poetry is one of the least liked literary genres. As a result, the researchers worked round this genre by creating a board game.

The sources of data show that ‘Poetricks’ (Poetry Board Game) was well received and even enjoyable to all the participants. The teachers who

were observers were sorry that they did not get to play the game. One of the limitations of the research was the lack of 'Poetricks' (Poetry Board Game) sets, thus a constraint to include more students to participate in the game.

Some of the highlights of 'Poetricks' (Poetry Board Game) is the fact of the two different levels in the board game; one, for the more language proficient students and the other, for the less language proficient student. In this way, teachers could help the weaker students to gain confidence by playing level 1 before moving on to level 2. Even if the students could not play level 2, the fact that they are not excluded, and can still play the level 1 game, would be a learning experience for them.

Apart from the two different levels of the board game (which had questions of differing levels of difficulty in terms of language), the types of questions were varied. The question types were objective, fill in the blanks and subjective in nature. Such variations allow for space for the students to tackle questions within their ability as well, before moving on. Such questions also took away the routine in questions. Added to this was the fact that the Answers were provided in the Answer cards. Hence, this poetry board game served as a self-access learning cum teaching tool.

The 'Chance' questions provided a different and radical system of rewards and penalties. Hence, the 'Chance' questions posed a challenge to the participants – to make it quicker to the finish and win the game, or to go back and reduce the chance to win. This was an attraction in the game - for both, the students and the teachers.

In summary, the data showed that all the participants welcomed 'Poetricks' (Poetry Board Game) as a learning and teaching tool, which was engaging, interactive, fun and something that has never been done in literature in the past, more so, in the poetry genre.

The rewards and penalties that the students received after every correct or incorrect response to a question instilled the competitive edge within them. In addition, the two differing levels found in the game set ensured that the students had the opportunity to play it at levels suited to their language proficiency and comprehension of the poetry selections. Meanwhile, for the teachers, they now felt that they had an additional tool

to the conventional teaching methods that they employed when teaching the literature component. This game, to them was a 'supplement' to the formal lessons and at the same time, resulted in a high level of engagement among the students. It may not replace formal lessons as the sole source of understanding and appreciating poetry but would serve as an additional educational tool that can assist students and teachers in the learning and teaching process of the literature component, mainly, poetry.

Having said that, future research should look at how the Poetry Board Game has brought about measurable changes. This can be translated to the tests and examinations and is worth further research. A pre and post-test could be administered to students, before and after the engagement with the game. This would be another direction of this study.

CONCLUSION

This case study of 'Poetricks' (Poetry Board Game) and the feedback received from the participants shows that there is an additional and supplementary way of teaching and learning the literature component, for teachers and students in schools. This game zeroes in on the poetry genre, which is least liked by students. The game is also self-access as it comes with the answers in the answer cards. Teachers and educators are constantly looking for innovative ways to teach literature texts in order to engage their students in a fun way. Therefore, this poetry board game, with the necessary elements of learning in a more conducive environment, can provide a much-needed variety. The next direction of this study would be to measure the improvement of students' performances in actual testing and evaluation. This could be in terms of a pre and post-test as mentioned above.

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READING PROBLEMS AMONG PRIMARY SCHOOL REMEDIAL PUPILS IN ONE OF MIRI, SARAWAK

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ABSTRACT

Reading is a difficult skill to be mastered by children mainly remedial students prone to problems in basic reading skill. Remedial students are students with learning disabilities who have been selected to attend the Remedial Programme in their schools. This study was conducted to identify the problems faced by these students in mastering basic reading skill. Basic reading skill that is the focus of this article is the open syllables words; Consonant Vowel Consonant Vowel (KVKV). This study aimed to identify the main problems faced by students in reading open syllables words (KVKV). The study was conducted in one elementary school in the district of Miri, Sarawak involving 30 pupils in year two from remedial class. Data were collected through Diagnostic Tests, observations and interviews in the study group. The study found that the main problems were; students do not understand the basic concepts of reading clearly and the lack of motivation among the students. This study is expected to help teacher in particular remedial teachers in helping students overcome reading recovery KVKV word. To improve the reading skills of pupils, the study recommended that remedial students are taught by a variety of teaching strategies such as inserting games or songs in their teaching and learning in order to cultivate their interest in reading. Teachers are also advised to constantly motivate the students so that they are eager to learn the skills of reading.

Keywords: remedial students, reading problems, reading, consonant vowel consonant vowel words (KVKV)



INTRODUCTION

Education is one of the important assets for every individual in society. Emphasis on the importance of education, especially the literacy skills in children since the beginning of schooling should be able to help them achieve a better and balanced life especially in the workplace and community relations processes with their lives. Besides that, indirectly it will enhance economic growth and national development (Eunice Ong *et al.*, 2015). This statement is also supported by Lim & Sandiyao (2006) stating that the basic skill of reading, writing and counting are the first step that each pupils must master to help them in their daily lives such as reading signboards around them or purchasing items in the mall. Having a good foundation in literacy skills will benefit children's learning process and will provide them with a better future (Eunice Ong *et al.*, 2015). However, not all students can follow the skills according to their age in the mainstream curriculum prepared by the Ministry of Education Malaysia (KPM). This problem is because there are some students who have lower achievement level from their peers due to different hereditary intelligence which cause them to take a longer time to ponder, consolidate, understand and respond with facts for any events. However, it does not mean that the students are weak in all aspects. Therefore, every child in Malaysia has the right to have education that provides them with a productive human capital that contributes to the nation's prosperity (KPM, 2013).

ISSUES OF REMEDIAL STUDENT

In the Malaysia's Education Development Plan (PPPM), The Ministry of Education (KPM) has outlined its commitment to equip the younger generation who are in school for the needs of the 21st century. The 21st century learning skills require creative and critical way of thinking which are one of the elements in student aspirations (PPPM, 2013). Therefore, basic reading ability is the pre-requisite element that every student need to master if they want to progress well into higher education and subsequently function well in society. This is thus a challenge for remedial students to master the basics of reading in a short time in order for them to follow the teaching and activities provided by the teacher in the mainstream education. Nevertheless, it indirectly leads to the question of how far these students

can master the reading skills in the shortest time, which prove to be more challenging with the demands of getting them to pick up the 21st century skills along the way as outlined by Malaysia Education Blueprint 2, with the implementation period from 2016 to 2020.

Given the many facilities and assistance provided by the Ministry of Education, reading problems that existed among students should be minimal. However, according to the study by Zailani *et al.* (2012), there are two main issues that cause reading problems among pupils, namely lack of interest in reading and not understanding the meaning of their reading. It is also supported in the study of Tamam *et al.* (2011) who found that one of the factors which caused pupils to be poor in reading is the student's psychological state itself. These factors are claimed by Mohd Zainal Dirin, the Deputy Director of the Ministry of Education, to be associated to the motivation in attending school, alongside other factors such as socioeconomic background, indigenous status, geographical location, attitude and aspiration (Kang, 2012).

A study done by Tahar *et al.* (2010) warranted that students who have difficulties in learning should be identified as early as possible to help this group of students overcome their reading problems before they drop out of school. Early identification such as knowing whether the students are suffering from hyperactivity, autism, dyslexia or other learning difficulties will then provide teachers with an understanding of what kind of support and guidance they can offer to these students. These groups of students are more likely to require more specialised instruction (Noor Aini, 2015). Echoing these needs, the Ministry of Education, in 2010, has initiated programme for students-at-risk due to learning difficulties, termed the Literacy and Numeracy Screening (LINUS) programme. Linus is targeted at pupils of Year 1 to Year 3 who have difficulties in mastering the basic literacy and numeracy skills, who are then withdrawn from the mainstream and are guided separately until they reach the standards set by the Ministry of Education.

The following are the descriptors for each constructs and all students are expected to achieve all 12 constructs by the end of Year 3 (KPM, 2015):

- Construct 1: Able to identify and distinguish the letters of the alphabet.
- Construct 2: Able to associate sounds with the letters of the alphabet.
- Construct 3: Able to blend phonemes into recognisable words and segment words into phonemes.
- Construct 4: Able to understand and use the language at word level.
- Construct 5: Able to participate in daily conversations using appropriate phrases.
- Construct 6: Able to understand and use the language at phrase level in linear texts.
- Construct 7: Able to understand and use the language at phrase level in non-linear texts.
- Construct 8: Able to understand and use the language at sentence level in linear texts.
- Construct 9: Able to understand and use the language at sentence level in non-linear texts.
- Construct 10: Able to understand and give simple instructions and directions with guidance.
- Construct 11: Able to read and understand sentences with guidance.
- Construct 12: Able to construct sentences with guidance.

In the researcher's school, same scenario is being observed. Despite receiving formal schooling for the past two years, a group of students still face much challenge in reading KVKV words. Considering the background presented, this article aims to identify factors which cause basic reading problems of KVKV word amongst Year 2 pupils.

PROBLEM STATEMENT

Basic reading skill requires students to recognise small and capital letters well and then form the letters into words. However, these seemingly easy tasks can be challenging when a pupil suffers from hyperactivity, autism, dyslexia or other learning difficulties (Bernhard *et al.*, 2006). Statistics presented by Ministry of Education have shown that in 2008, about 54,000 Year One pupils have been identified with low literacy skills and were enrolled in early intervention reading and writing classes (KIA2M) while a whopping 117,000 Year 4 students who did not possess basic numeracy skills were placed on 3R Remedial Programme (PROTIM). These figures are alarming, especially to the state of Sarawak, as the recent report on Linus 2.0 programme 2015 presented that 702 pupils (1.76%) of Year 2 who are in that programme only attained Construct 1 and Construct 2. Construct 1 refers to the ability to identify and distinguish the letters of alphabet while Construct 2 involves the ability to associate sounds with the letters of the alphabet (Jabatan Pelajaran Negeri Sarawak Annual Report, 2015).

In the current school, which is situated in Miri, Sarawak, the same trend is being observed, where many pupils are falling under the standards and does not achieve higher than Construct 2. Given that the pupils have gone through a year of remedial classes and progress into Year 2, the pupils should minimally be able to achieve Construct 3, which is the ability to blend phonemes into recognisable words and segment into phonemes.

Therefore, this article aims to identify the level of mastery on reading skills amongst Year 2 pupils, and secondly is to probe deeper into the main factors which cause the basic reading problems amongst these Year 2 pupils. Basic reading skill that is the focus of this article is the open syllables words; Consonant Vowel Consonant Vowel (KVKV).

RESEARCH OBJECTIVE

In this study the objectives are as follows:

1. To study the status of mastering KVKV's reading skills amongst Year 2 pupils.
2. To identify the main factors that cause basic reading problems amongst pupils in Year 2.

RESEARCH QUESTIONS

1. How far has the Year 2 pupils mastered the KVKV's reading skills?
2. What are the main factors which caused the problem of mastering reading skills among Year 2 pupils?

METHODOLOGY

This study involved 30 Year 2 remedial students who were in the same class at one of the primary schools in Miri. Year 2 students were intentionally chosen as these are the group of students who should have mastered Construct 2 and Construct 3 before they move into Year 3. The selection of these pupils was based on the problems they have in reading the KVKV words. The result of LINUS screening done via the standard diagnostic test in 2018 showed that this group of pupils has problems in completing Construct 1 up to Constructs 3.

The data for this study was collected using Diagnostic Test, observation and interview. In attempting to answer research question one, the diagnostic tests was used and the research observed the pupils while they are sitting for the test. The researcher also jot down filed notes while observing the students during sitting of the test. The diagnostic test made up of oral and written component is obtained from the Special Remedial Student Teacher's Guidelines issued by the Special Education Department (KPM, 2013). This Diagnostic Test has been coordinated throughout Malaysia to test the Skill 4 (KV syllable) and Skill 5 (Merging KV and KV syllable into a word) as part of the 32 special teaching and learning skills of the Malay Language need to be mastered by pupils. This Special Programme aimed to look at whether there is a weakness in students' KVKV's reading skill.

Besides the diagnostic test, observation and semi-structured interview methods were also carried out in triangulating the findings from diagnostic test as the participants of this study are students who cannot read and write well. Observation intended to focus on the body language of the pupils and how the pupils construct two KVKV words. They are asked about the difficulties they face and their feelings while the teacher get them to spell the KVKV words.

The score from the diagnostic test was analysed using the marking scheme prepared by the Special Education Department, while the field notes and interview transcripts were analysed for categories which address the research questions.

FINDINGS

How far has the Year 2 pupils mastered the KVKV reading skills?

The result of the study showed that only 11%, or four out of 30 pupils were able to provide answers and score the minimum standard in passing Construct 2 and 3. The other 89% who did not meet the standard showed that pupils' performance was still weak in the skills of completing KV syllables and KVKV words. The analysis revealed that pupils find questions of Construct 2 as more challenging as they are required to write one KV syllabus to form the word KVKV based on the given picture, as compared to Construct 3 which test the pupils' skill in the open KVKV syllabus by selecting the existing KVKV word based on the given picture. These are aligned to the findings which revealed that the pupils answered wrongly for more items under Construct 3 rather than Construct 4.

The observation during the diagnostic test is congruent with what has been reported as it was noted that pupils seemed restless while answering Construct 3-related questions and looked at the teacher for answers when encountering most of Construct 3-related questions. Through observation and interviews with ten students, it was found that most pupils face problems in spelling KV syllabus and pronouncing KVKV words orally. Most students find the spelling words difficult and some do not respond directly when

queried. Furthermore, through observation, students were seen to be anxious when asked to spell and they started to lose focus even though interviews only test pupils' ability in spelling three KVKV words.

It was also found that most pupils had the problem of spelling words of *kuda* (horse) and *labu* (pumpkin) while students were more likely to answer correctly in items involving words like *gigi* (teeth) and *sudu* (spoon). This findings resonated with what was reported by Tiong and Zaidatun (2008), which advocated that pupils are more likely to remember words associated with things that they commonly encounter with in their daily lives, as opposed to things they rarely see. These familiar experiences contributed to the active learning process and allow information to be retained longer and retrieved faster.

What are the main factors which caused the problem of mastering reading skills among Year Two pupils?

The semi structured interview was guided by two fundamental questions which are as followed.

- Did you find completing the task challenging? If yes, can you explain what is difficult?
- Do you like reading?

The analysis of the interview data which focused on causes of mastering reading skills resulted in two categories namely; (i) the weak basic concept of reading and (ii) lack of self-confidence.

Category one: The weak basic concept of reading

The first category describes the findings on which the pupils explained that they find reading and spelling KVKV words as challenging due to their lack of understanding on constructing words and subsequently reading them. Instead of seeing a word as a combination of a syllable with another syllable, the students admitted that they memorised the entire words and not remembering the individual syllable. For example, one of the participants mentioned the following.

“Saya tak tahu, cikgu. Yang ni saya tak belajar. Saya ingat yang cikgu ajar minggu lepas sahaja.” (I do not know the answer to this. I did not learn this. I can only remember what you taught me last week.) (Pupil 8)

Another pupil who had the similar strategy in remembering words was also quoted as saying:

“Cikgu, yang ini saya tak hafal.” (Teacher, I did not memorise this.) (Pupil 3)

For other students, they tend to keep mum when asked to pronounce the KVKV words, but when asked if they do not know because they did not memorise the words, they simply nodded. The findings suggested an insight about the strategy of memorising words used by the pupils to answer the diagnostic test, which appeared to be detrimental to their learning if there has been no intervention on correcting their way of learning the words. Memorisation will not work when they need to pronounce words of other KVKV combinations.

Category two: Lack of Self-confidence

The second category describes the lack of self-confidence when it comes to reading. Apart from the observation that the pupils appear to be quiet throughout the test because of their inability to provide answers, the interview sessions suggest that these are caused by the lack of confidence when it comes to pronouncing words that they are not sure of. With deeper probing and encouragement, the researcher who is also their class teacher for two years, were able to find out that they are self-blaming for being slow. An excerpt of interview with one of the pupils is as followed:

“Tak tahu la, cikgu. Saya bukan pandai... semua orang cakap saya tak pandai. Buat apa susah-susah tanya saya. Saya tak tahu.” (I have no idea. I am not clever... everyone said that I am not clever. Don't bother asking me. I do not know.) (Pupil 1)

In the case of Pupil 1 and majority of the pupils, it was found that the remarks passed about them for being in the remedial classes challenges their belief about their ability. The lack of confidence in advancing themselves in learning, specifically in the KVKV word formation was apparent.

DISCUSSION AND CONCLUSION

As outlined by the Special Remedial Malay Language Teaching Guide (2012), pupils of Year Three need to master 32 basic skills in Bahasa Melayu in order to master good reading skills. Therefore, students who are taught to read should understand the concept of a built-in word rather than the concept of smooth reading by the teacher, as stated by Zailaini *et al.* (2012). At the basic level, the pre-requisite for mastery in reading are mastering the vocabulary of five vowels and 21 consonants. Then, pupils are required to understand the concept of word formation using vowels and consonant letters. However, there are students who memorise words given by their teachers without an understanding of how the words are formed. Additionally there are also some students who have dyslexic problems where they are mistaken for the letter b with d as well as j with g which cause problems in their reading.

Pupils have diverse intelligence in each of them. Therefore, teachers need to ensure that these weak students are interested in what they learn. Teachers need to be creative and provide a variety of teaching activities in order to attract students to reading (Abdull Sukor, 2012). Siti and Najeemah (2012) whose study is consistent with the findings of this study encouraged 'play' approach in teaching and learning. Additionally, teachers should motivate and communicate expectations consistently so that these pupils can gradually improve their self-esteem. It is also supported in the study of Rizalina (2014), which emphasized the role of teachers in promoting student motivation in which pupils should be given the opportunity to express their feelings and enhance their creativity in order to improve pupils' cognitive and psychomotor developments.

The basic problem of reading the word KVKV should be seen as a problem that has a major impact on the individual pupil. If it is not overcome, it will make it difficult for the student to master reading skills. In addition, knowing the weakness of each student, indirectly, teachers can also identify the characteristics of students with other learning disabilities in which the students of this category need special teaching method according to the level of their skills to ensure that they are able to maximise the benefits of knowledge delivered by teachers. Teachers also need to be proactive in identifying these remedial students so that they are not left behind which

will indirectly bring down their self-confidence. Additionally, it is necessary that teacher provide early intervention so that the student's shortcomings do not remain with the students until the end of their schooling years.

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THE IMPACT OF PAIR PROGRAMMING ON STUDENTS' LOGICAL THINKING: A CASE STUDY ON HIGHER ACADEMIC INSTITUTION

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ABSTRACT

Pair Programming (PP) is a well-known agile software development technique that has been widely implemented in programming classes. Through PP, students are able to share knowledge and expertise that will contribute to better programming solutions. Nevertheless, how PP can help to improve students' cognitive abilities has yet to be explored. Therefore, this study's aim was to investigate the impacts of implementing Pair Programming (PP) on students' logical thinking. Logical thinking is part of the cognitive ability claimed to be one of the crucial factors that determine the success or failure of novice programmers. To achieve this, 60 students who enrolled in Diploma in Computer Science programme in Universiti Teknologi MARA Perlis Branch, Malaysia, were asked to take the pre-test and post-test of Group Assessment Logical Thinking (GALT) Test in the beginning and at the end of the semester. These students were divided into two main groups; Control and Test in the Test Group, students with low logical ability will be paired with their high logical thinking friends. Meanwhile, in the Control Group, no pair programming or collaborative technique took place. Five programming tasks were assigned to both groups to solve either collaboratively or individually. The results obtained via paired sample t-tests statistical analysis shows significant improvements in students' logical thinking with $p\text{-value} < 0.05$ in the Test Group.

Keywords: *pair programming, logical thinking, introductory programming*



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INTRODUCTION

Computer programming generally involves design and engineering activities that are complex, and demands high level of intellectual capabilities (Valentin *et al.*, 2013). Because of the complexity involved, failure and drop-out rates were reported to be high in many academic institutions all over the world (Umi Hanim & Mahfudzah, 2015; Watson & Li, 2014). The high failure rates were more apparent among the first year students because of various reasons such as lack of prior knowledge, interest and motivation (Nurzaid & Zulfikri, 2015).

For many years, academicians have done many researches to investigate the causes that contribute to these high failure rates in introductory programming subjects. Among the factors that have been discovered are the lack of varieties in teaching strategies, differences in learning styles, detachment towards the subject in terms of interests and motivations, and lack of cognitive abilities, a trait crucial for Computer Science students (Kalelioglu & Gulbahar, 2014; Osman & Maghribi, 2015; Wong & Wong, 2016). Prior study suggests cognitive abilities such as critical and analytical thinking skills, problem-solving skills and logical thinking skills are the important traits required to become a successful computer programmer (Iepsen *et al.*, 2013). With these skills, students should be able to analyse the given problems logically and provide the correct solutions (Iepsen *et al.*, 2013). Previous studies have also revealed that deficiency in cognitive abilities among first-year students in Computer Science will lead to problems in comprehending the fundamental notions of programming, hence will lead them to be disengaged with the course or even dropping out from the programme (Iepsen *et al.*, 2013; Umi Hanim & Mahfudzah, 2015). Therefore, cognitive ability is seen as one of the important skills that need to be moulded and mastered in order to determine the success of novice programmers.

Over the years, many efforts have been made to help the students master their programming skills in a bid to improve their performance in this subject. While many were looking to relate the use of technologies such as the e-learning systems or mobile applications as interventions to improve the skills, some were still incorporating traditional way via group collaborations or team pairings in classes. For instance, pair programming,

an established agile software development practice widely implemented in programming classes (Nurzaid & Zulfikri, 2015). Nonetheless, there is still lack of studies that measure the effectiveness of pair programming on students' cognitive abilities. Therefore, this study focuses on investigating the impacts of pair programming towards students' cognitive abilities by measuring the changes in their logical thinking levels.

This paper is divided into several sections. The Introduction section discusses the background and motivation for the study. Next section discusses related works, materials and method used to perform the study. This is followed by a section on findings and discussion of the results. A concluding section ends the paper.

RELATED WORKS

Logical and Reasoning Skills in Programming

Bostro and Sandberg (2009) described cognition as the practice, which human beings use to systematise information that involves perception, memory, reasoning and coordination. Cognitive abilities can also be described as the abilities that are used to execute the simplest to more complex cognitive tasks, which require some mental processing (Bostro & Sandberg, 2009). For human beings, our cognitive abilities can be classified into attention, language, visual and spatial processing, memory, interpersonal and intrapersonal skills and logical and reasoning (Bostro & Sandberg, 2009).

In computer science studies, algorithmic thinking, critical and logical reasoning are some of the crucial skills that must be mastered by the students (Muller & Rubinstein, 2011). This is because; these skills will reflect the students' abilities to provide solutions using deductive reasoning through problem-solving strategies and techniques (Singh & Narang, 2014). The lack of logical and reasoning skills among Computer Science students will lead to other problems in their abilities to solve Mathematical calculations, computer programming or any other abstract learning (Singh & Narang, 2014).

One of the measurement tools that can be used to measure logical thinking and reasoning skills is the Group Assessment Logical Thinking (GALT) test. The GALT test developed by Roadrangka, Yeany and Padila comprises of six logical subscales; conservational reasoning, proportional reasoning, controlling variables, probabilistic reasoning, correlational reasoning and combinatorial reasoning (Roadrangka *et al.*, 1983). It has been widely implemented in various areas of teaching and learning and the Cronbach's alpha reliability coefficient of the logical thinking test has also been recorded at 0.52 which is considered moderate to be used in this study (Tuna *et al.*, 2013).

Pair programming can be defined as an agile software

Development technique used by two programmers who are working on the same task and sitting next to each other on one workstation (Beck, 2000). Each person plays important roles described as the 'driver' and 'navigator' and they will work together in designing and coding the same algorithm (Faja, 2013). The role of the 'driver' normally requires him/her to be in charge of the keyboard and mouse, while the 'navigator' monitors the 'driver' and offers suggestions, solutions or corrections to the algorithm or the programmes (Faja, 2013). While in the process of collaborating, designing, coding and reviewing the codes, each member can alternate their roles after certain duration of time (Williams & Kessler, 2002). This technique intends to enhance software productivity at a higher level of software quality (Winkler *et al.*, 2013).

Pair programming has been proven to be efficient in encouraging knowledge sharing and expertise, where the students will be more focused on detailed features when working in pairs (Wray, 2010). Besides that, pair programming has also helped to improve programming practices and students' programming skills (Wray, 2010). Through pair programming, students are more focused, have higher confidence levels when working in teams, and has helped them to develop better teamwork skills (Edwards *et al.*, 2010; Zacharis, 2011). A study also claimed that the students would learn more when working in teams and it has also helped to reduce their frustrations when their individual codes did not work out as expected (Brought, Walls & Eby, 2011).

Prior study has also proved that pair programming has helped to enhance students' learning effectiveness, efficiency and gratification in software engineering course (Akour *et al.*, 2013). By implementing pair programming in classes, students could achieve higher assignment grades when working in pair compared to solo programmers and will be able to complete the course with higher passing rates (Lai & Xi, 2011).

Furthermore, empirical evidences have also proved that pair programming practice has helped to improve students' programming abilities, productivity and helped them to produce more quality codes according to Zacharis (2011). Another study found that paired students happened to be more skilled, productive and able to accomplish the task in a shorter amount of time (Salleh *et al.*, 2011). Nevertheless, research is still lacking on measures of cognitive enhancements through the implementation of pair programming in the introductory programming classes. While the effectiveness towards students' performance has been proved from time to time, the enhancements of logical and reasoning skills have not yet been discussed widely. Therefore, the main objective of this study is to investigate whether pair programming has significant impacts on students' logical thinking abilities in introductory programming course.

MATERIALS AND METHOD

To achieve the objective of this study, the research method was divided into three main phases as explained below:

Phase 1: Pre-test of Group Assessment Logical Thinking Test (GALT)

The populations of this study are Computer Science students enrolled in the Diploma in Computer Science programme at UiTM Perlis Branch, Malaysia. The sample consists of 60 male and female students enrolled in two randomly selected first year computer programming classes where introductory programming course is taught to heterogeneous classrooms with no grouping or ability tracking. The students were asked to answer a controlled one-hour session of pre-test logical thinking in the beginning of the semester. The GALT test required students to answer twelve questions that measure the six subscales as illustrated in Table 1.

The results of the pre-test of logical thinking were calculated and recorded. Students who scored six marks and above were categorised as high logical thinkers (HLT), while those who scored less than six marks were categorised as low logical thinkers (LLT). These students were later grouped into two main classes, which represented the Control Group and the Test Group.

In the Test Group, the pre-test results were used to pair the students according to their levels of logical thinking where each pair consisted of one HLT and one LLT student. Meanwhile, in the Control Group class, no pairings or teams were created and students participated in the programming task sessions individually.

Table 1: Sub Scales Measurements in Galt Test

Sub scales	Item No.	Item Descriptor
Conservational reasoning	1, 2	Piece of clay, metal weigh
Proportional reasoning	3, 4	Glass size, scale
Controlling variables	5, 6	Pendulum length, ball
Probabilistic reasoning	7, 8	Square and diamonds 1, square and diamonds 2
Correlational reasoning	9, 10	The mice, the fish
Combinatorial reasoning	11, 12	The dance, the shopping centre

Phase 2: Programming Task Sessions: Pair Programming vs. Individual

In this phase, both Control Group and Test Group participated in the programming task sessions that were conducted by the lecturers throughout the whole semester. The programming tasks involved five separate one-hour programming sessions. The lecturer who conducted the session in the Test Group were made aware about the principles of the pair programming that requires interchangeable roles of the driver and navigator. In the Control Group, each student work independently on the programming tasks, where discussions among classmates were not encouraged.

Meanwhile, for the construction of the programming questions, there were five structured questions developed by lecturers with more than seven years' experience in teaching introductory programming course. The programming questions were carefully constructed based on topics found in the Fundamentals of Computer Problem-Solving course, and each question was constructed according to Bloom's Taxonomy Cognitive domain as depicted in Table 2.

Table 2: Constructions of the Programming Questions based on Bloom's Taxonomy Cognitive Domain

No	Name of Question	Topic Covered	Cognitive Level
1	Calculate the discount	Sequential Control Structure	C3 - Application
2	Calculate the profit based on the sales	Selection Control Structure	C4 - Analysis
3	Find and display the quotient and/or remainder	Selection Control Structure	C4 - Analysis
4	Divisible numbers	Repetition Control Structure	C4 - Analysis C5 - Synthesis
5	The tallest students	Functions	C5 - Synthesis C6 - Evaluation

Phase 3: Post-test of Group Assessment Logical Thinking Test (GALT)

At the end of the semester, students in both Control and Test Groups were asked to take the same GALT test again, where the results were recorded as post-test results. Both, pre-test and post-test results were compared and analysed using the paired samples *t*-test analysis to investigate whether there were significant enhancements of students' logical thinking.

RESULTS AND FINDINGS

Pre-test vs. Post-test GALT results

Table 3 shows the overall pre-test and post-test logical thinking results for both the Control Group and Test Group. For the Control Group, the pre-test results show 53.33% of the students have scored less than six marks. This results also indicates that about 16 students were identified as LLT and the other 14 students (46.67%) were HLT students. The mean score for the pre-test Control Group is 5.33, which indicates a low level of logical thinking ability. Table 3 also depicts the results of the post-test for the Control Group where there were only slight improvements on the students' logical thinking abilities with an overall mean score of 5.40, which is still in the low logical thinking zone.

Meanwhile, for the Test Group, based on the pre-test results, it shows that about 50% (15 students) have scored less than six marks in the pre-test logical thinking. None of the students could answer all 12 questions and the overall mean score for the pre-test logical thinking was recorded at 5.50, which also indicates a low level of logical thinking ability. After the pair programming sessions, post-test results have showed significant improvements in students' logical thinking abilities where about 63.33% (19 students) have scored more than six marks and the mean score for the post-test was recorded at 6.50, that represents a higher logical thinking score.

Table 3: Overall Pre-Test vs. Post-Test Logical Thinking Results

No. of questions answered	Control Group		Test Group	
	Pre-test (Frequency)	Post-test (Frequency)	Pre-test (Frequency)	Post-test (Frequency)
1	0		0	0
2	0		1	0
3	6	6	5	0
4	4	3	5	6
5	6	7	4	5
6	8	7	7	5
7	3	4	4	6
8	1	1	1	4
9	1	1	1	1
10	1	1	1	1
11	0	0	1	1
12	0	0	0	1
Total	30	30	30	30

For further investigation, a paired samples *t*-test was also conducted to compare the Test Group's pre-test and post-test logical thinking scores as shown in Table 4. There was a significant difference in the scores for the pre-test (Mean=0.458, Standard Deviation=0.180) and post-test (Mean=0.542, Standard Deviation=0.176) logical thinking levels; with $t(29) = 8.523$ and $p\text{-value} < 0.05$. These results suggest that the pair programming sessions does have significant impacts on students' logical thinking abilities.

Table 4: Paired Samples t-Test Analysis for Individuals' Pre-Test and Post-Test Logical Thinking

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Dev	Std Mean Err	95% Confidence Interval of the Difference				
				Low.	Upp.			
Pair Post-Pre Mean	0.083	0.054	0.009	0.063	0.103	8.523	29	0.000

CONCLUSION

As a conclusion, this study provides another piece of evidence that Pair Programming (PP) can adopted as effective method to enhance students' logical thinking abilities, particularly among first year Diploma in Computer Science students. However, the success of this study relies on two major factors. First factor was the formation of the pairs that took into consideration the pairings of HLT and LLT or high achievers and low achievers. This is to provide a way for the LLT to discuss and learn more from their HLT partner in solving the programming tasks given. The second factor was the structured programming questions that were carefully designed by experienced lecturers, based on the Bloom's Taxonomy Cognitive domains. Further investigations are required to investigate whether a least controlled environment or minimising the controlling factors can also boost the students' cognitive abilities in programming, such as using the online social networking platform such as the Facebook or Massive Open Online Course (MOOC). Furthermore, it has also been suggested that to ensure the successful implementation of the PP, peer or pair evaluations were also needed. The peer evaluation can become one of the influential factors that ensures the suitability and vulnerability of the pairings. Future in-depth investigation on the students' logical thinking enhancements in introductory programming will also need to include different types of technology-based interventions and assessments such as using gamifications elements and media visualisations.

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INTRODUCING A CONCEPTUAL FRAMEWORK FOR THE STRATEGIC CLASSIFICATION OF STATE-SPONSORED SOCIAL ENTREPRENEURSHIP: A CONCEPTUAL STUDY

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ABSTRACT

Scholars of social entrepreneurship have yet to propose a classification of strategies employed by states to promote SE. The paper's aim is to introduce a conceptual framework for state-sponsored SEs to fill this gap. Such a necessity rises out of the strategic study of the states' role in the promotion of SE intra- and extraterritorially. The paper not only propose strategic mix for the formulation of state-sponsored SE, but also presented a conceptual framework based on the tendency of states toward four orientations of internationalism, internalism, governmentalism and volunteerism for pursuing SE in a macro-scale. Finally, four comprehensive SE strategies namely Opened Door Strategy, Closed Door Strategy, Global Citizen Strategy and Country Citizen Strategy based on the four orientations were proposed. The theoretical implication of the framework is in its contribution to the classification of governmentally promoted SE for a more clarified study and teaching of SEs in the academic context. Its practical implication is in its application as a guideline for sound formulation of SE strategies by public organisations in the public and third sector contexts.

Keywords: *social entrepreneurship (SE), strategy, strategic classification, state-sponsored social*



INTRODUCTION

Entrepreneurship could potentially have strategic impacts, and must not be neglected by economically developed states. The Presidential Summit of April 26, and 27, 2010, held in Washington, DC, at the Ronald Reagan Building with the strategic focus on entrepreneurship is one of the examples of state consciousness towards entrepreneurship. Moreover, the existence of a governmental body or ministry for pursuing social affairs such as social security or fulfilling social needs effectively in any governments, logically justifies the necessity of having locally or nationally customised social entrepreneurship (SE) strategies by the governments. Setting aside the controversy that how government which inevitably must be run by bureaucracy could be entrepreneurial, governments all around the world are getting familiar with the power of entrepreneurship for running their states. When these governments release statistics on the number of job opportunities provided for their nations or number of social problems tackled by innovative measures, they are inevitably talking about the fruits of the entrepreneurship tree. SE, which could be defined as ‘a socially mission-oriented innovation which seeks beneficial transformative social change by creativity and recognition of social opportunities in any sectors’ (Forouharfar, Rowshan & Salarzahi, 2018) has a capacity to be looked as a strategic tool in the toolbox of governments for the promotion of public welfare. Social entrepreneurs as the communal change makers (Adetu, 2014; Drayton, 2002; Dees, Emerson & Economy, 2002) have the capability of contributing states to promote socially benefiting initiatives and enterprises under a well-defined state strategy. However, public SE strategies still do not have any overall strategic framework so as to be classified and understood within. To compensate this research gap, the following research question is posed:

What literature-supported variables should be included in a conceptual framework for the taxonomy of large-scale SE strategies?

LITERATURE REVIEW

Not only strategic entrepreneurship is still ‘an emerging concept’ (Kuratko & Audretsch, 2017) but also social entrepreneurship is a phenomenon ‘in the stage of conceptualisation’ (Sekliuckiene & Kisielius, 2015). This situation adds to the perplexity and ambiguity of what strategic SE concept means. Yet, numerous attempts were made from ‘conceptual understanding’ of SE itself (Choi & Majumdar, 2014, p.363) to the conceptualisation of social entrepreneurs’ behavioural characteristics (Weerawardena & Mort, 2006). Mort, Weerawardena and Carnegie (2003) ‘conceptualises social entrepreneurship as a multidimensional construct involving the expression of entrepreneurially virtuous behaviour to achieve the social mission, a coherent unity of purpose and action in the face of moral complexity, the ability to recognise social value-creating opportunities and key decision-making characteristics of innovativeness, proactiveness and risk-taking.’ Few however, have ever set forth to conceptualise strategic SE, thus a research gap that calls for strenuous efforts to be filled. Chandra, Jiang and Wang (2016) believe despite the burgeoning research on social entrepreneurship (SE), SE strategies remain poorly understood.

According to Dharani (2014) ‘conceptualisation is the formation of an abstract principle in the mind of a researcher in order to answer the question under observation, basing it upon the available evidence.’ By reviewing SE strategic literature we frequently face concepts such as social value making (Nicholls, 2006), social innovation (Mulgan, 2006), strategic social impact (Rawhouser, Cummings & Newbert, 2019); social mission (Forouharfar, 2018); volunteerism (Gandhi & Raina, 2018); impact scaling (Dees, 2008), etc. Therefore, any literature-based conceptualisation of strategic SE should be constructed upon the extraction of the most unanimous and frequent concepts in this realm. Although, numerous researchers have tried to conceptualise various strategic manifestations of entrepreneurship, e.g. from ‘developing a conceptual framework of strategic entrepreneurship’ itself (Luke, Kearins & Verreynne, 2011) to ‘conceptualising corporate entrepreneurship strategy’ (Ireland, Covin & Kuratko, 2009), the realm of strategic SE is under-conceptualised. Thus, one of the attempts in the conceptualisation of strategic SE was Customised SE Strategy, which intends the sustainable development of any country via customised and tailored SE practices, based on the priorities of each country’s social problems (Rowshan & Forouharfar, 2014).

On the other hand, in strategic approach to SE, two levels are identifiable: a macro-level and a micro-level. According to Nicholls (2009), these arenas of SE embrace a vast spectrum from a macro interference to compensate the gaps in 'institutional voids' (e.g. BRAC and Grameen Bank) or micro customised technical solutions to local communities (e.g. Kickstart's East Africa low-priced marketing of water pumps). Concerning the macro-level, SE has the capability of a social movement or a strong force behind 'societal cognitive frames' which are in 'sub-optimal' (or below satisfactory) circumstances and makes a satisfactory change by generating innovation on 'macro-political level' (Zald & Davis, 2005; Zald, 2000).

According to Forouharfar (2018), SE in the public sector is on a macro level. Governments have regulatory and policy-making roles and they could have a facilitating role for SE, as well. In other words, they pave the way for the not-for-profits, NGOs, social enterprises, benevolent entrepreneurs, etc. to play in the playground field which is beaten and prepared by the governments. Therefore, two types of strategies could be seen in SE. One type is the macro-strategies, which are applied by the governments and the other are the micro-strategies used by the operational social entrepreneurs.

Replication strategies and Scaling strategies are two major classes of SE strategies (Tracey & Jarvis, 2007; Bloom & Smith, 2010). Replication is 'the process by which a cell or DNA makes an exact copy of itself' (Longman Dictionary, 2007). In the strategic SE, it is letting the other SE to exactly copy the successful approach and techniques of a recognised example of SE. Scaling in strategic SE focuses on the amplification of the impact of SE, i.e. increasing the SE impact to be as equal as the social problem in degree and magnitude (Dees, 2008), and to be certain that a great number of people will receive the social services (Ahlert *et al.*, 2008). Reviewing the literature on SE strategies (e.g. Manton, 2005; Volkmann, Tokarski & Ernst, 2012; Dees, Anderson & Wei-Skillern, 2004; Grieco, 2015; London & Hart, 2011) the strategies would fall within one of the following:

- (1) Dissemination Strategy
- (2) Social Affiliation Strategies
- (3) Social Joint Venture Strategy
- (4) Social Licensing Strategy
- (5) Social Franchise Strategy

- (6) Social Price-Differentiation Strategy
- (7) Social Cross-Subsidisation Strategy
- (8) Social Microfinance Strategy
- (9) Base-of-the-Pyramid Strategy

For the strategic implementation of the abovementioned SE strategies on the large-scale perspective (i.e. countrywide impact), governments have a key role. Shockley and Frank (2011) believe: ‘...little or no social change resulting from social entrepreneurship could have become ‘large-scale’ without the enabling institutions, resources, and policies of government, even ones with reputations for inefficiency or corruption.’ While discussing ‘government as problem solver’, Dees (2007) truly accentuates that, ‘it has become clear that large-scale, top-down government programmes have serious drawbacks.’ Yet, governments should set national SE strategies and avoid propensity of socialist governments that is too much intervention in SE affairs. Volunteerism is a recurring occurrence in strategic SE since ‘social enterprises often rely upon volunteers to serve key functions, such as board members, to help with fundraising or to provide professional services, or as staff to deliver their services on the ground’ (Austin, Stevenson & Weiskillern, 2012). Moreover, a resource-based view in strategic management; hence strategic SE, looks inwards or internally, but too much insistence on strategic resource-based view would potentially lead to halo effect in strategic SE. Zander and Zander (2005) asserts, “Extensions of the resource-based view suggest that the inward-looking perspective has produced an overly narrow understanding of how firms may generate rents and secure long-term growth.” Concerning SE, Cheah, Amran and Yahya (2019) believe internal oriented resources (i.e., entrepreneurial orientation, social salience and business planning) under the moderating effect of ‘socio-economic context’ could influence the social performance and financial achievement of social enterprises. In contrary, instead of looking inwardly, some countries benefit from international SE organisations (Forouharfar, 2018) and ‘international for-profit social entrepreneurs’ (Marshall, 2011). Usually governments has close cooperation with the UN, UNHCR, UNESCO, UNDP, GEM, ECOSOC, World Bank, World Economic Forum, and world renown SE organisations such as Ashoka, Schwab, Skoll, for the promotion of SE intra- or inter-states, i.e. locally or globally. These international SE organisations usually have a strategic usage of bricolage in order to mobilise their resources in the target countries (Desa, 2012).

RESEARCH DESIGN AND METHODOLOGY

This paper is a non-empirical study of large-scale SE strategies in order to introduce a conceptual framework for the classification and study of state-sponsored SE strategies. As a conceptual paper the research intends to go ‘beyond summarising recent research, [...] provide an integration of literatures, offer an integrated framework, provide value added, and highlight directions for future inquiry. [...] not expected to offer empirical data’ (Gilson & Goldberg, 2015). Thus, by reviewing the highly cited Google Scholar-indexed literature on SE strategies, the study seeks integration of SE large-scale strategy literature in a conceptual framework. Hence, the integration to the authors means unification and consolidation of the large-scale SE in a logically literature-supported framework to provide conceptual value addition for the future classification and accordingly discussion of state-sponsored SE. Moreover, according to Whetten (1989) a conceptual paper should be judged and formed based on seven criteria: (a) what’s new? (b) so what? (c) why so? (d) well done? (e) done well? (f) why now? (g) who cares? Hence, (a) the newness lies in the taxonomy of large-scale SE strategies; (b) it introduces a framework for the strategic classification of macro-scale SE; (c) the underlying logic is filling the current research gap in strategic SE studies; (d) the completeness of the conceptualised framework rests in its reliance on relevant highly-cited literature; (e) the paper is shaped gradually based on a methodological flowchart presented in Figure 1; (f) the timeliness and need to such a study lies in coordinating SE researches with facts on the ground, since ‘a literature review of research on social entrepreneurship reveals that academics and practitioners seem to be operating in separate spheres’ (Hand, 2016) and finally (g) the paper potentially not only contributes to the state policy makers in the matters relevant to SE, but also makes a linkage between SE and public administration, that is the type of SE strategies which could be applied in the realm of public administration.

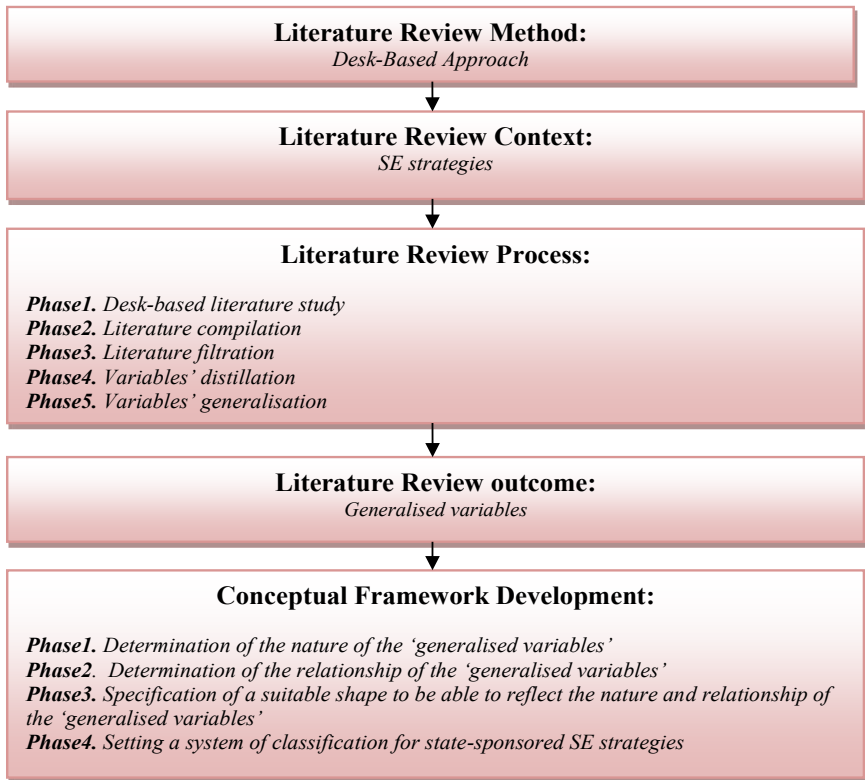


Figure 1: Methodological Flowchart of the Research

According to the research methodological flowchart; presented above in Figure 1, and based on the research question, which calls for a comprehensive study of the literature, the methodological approach is desk-based. Therefore, the research data are secondary non-empirical data. The research question determined the literature context; hence, SE strategies. In the next stage, the literature on SE strategies was reviewed in five phases:

Phase 1: Desk-Based Literature Study

The source for the selection of the relevant literature was Google Scholar because of its ease of access, comprehensiveness, and searching SE literature based on the literature context in this study.

Phase 2: Literature Compilation

Compilation of nearly all SE strategies' variables.

Phase 3: Literature Filtration

Filtration of the literature variables based on their relevance to strategic SE.

Phase 4: Variables' Distillation

Extracting the essential variable, which would potentially contribute the promotion of state-sponsored SE.

Phase 5: Variables' Generalisation

Generalisation of the extracted state-sponsoring SE variables presented in the following:

- (1) governmentalism;
- (2) volunteerism;
- (3) internationalism; and
- (4) internalism.

Table 1: Literature Review Method, Context, Process and Results

Literature Review				
Method	Context	Process		Final Results
		Phase	Purpose	
Desk-Based Approach	SE strategies	Phase 1: Desk-based literature study	Acquisition of secondary data	Four generalised large-scale variables for strategic SE
		Phase 2: Literature compilation	Compilation of SE literature	
		Phase 3: Literature filtration	Filtration of the literature variables based on their relevance to strategic SE	
		Phase 4: Variables' distillation	Extraction of the strategic and state-sponsoring SE variables	
		Phase 5: Variables' generalisation	Generalisation of the extracted state-sponsoring SE variables	

(Source: Authors' own work)

Later, the conceptual framework was developed based on the nature of the 'generalised variables', which stand at the opposite extremes. Table 2 has summarised the complete literature review process to reach the research 'generalised variables'.

Table 2: Research Literature Review Process

Literature Review Process			
Phases	Explanations	Derived Concepts	Reviewed Literature
Phase 1: Desk-based literature study	Led to the second phase's concepts	<ol style="list-style-type: none"> 1. Social value 2. Social innovation 3. Social opportunity seeking 4. Social change 5. Social welfare 6. Social results 7. Strategic social impacts 8. Social mission 9. Social volunteerism 10. Governmental social intervention 11. International social cooperation 12. Internally-oriented social services 	The following Google Scholar highly-cited SE literature.
Phase 2: Literature compilation	SE literature compilation	Social value	<p>Nicholls, 2006; Dees, 1998b; Hibbert, Hogg & Quinn, 2002; Austin, Stevenson & Wei-Skiller, 2012; Alvord <i>et al.</i>, 2004; Mort, Weerawardena & Carnegie, 2002; Sarasvathy & Wicks, 2003; Peredo & McLean, 2006; Anderson & Dees, 2002; Townsend & Hart, 2008.</p>

		Social innovation	van der Have & Rubalcaba, 2016; Mulgan, 2006; Nicholls & Murdock, 2011; Phillips <i>et al.</i> , 2015; Dawson & Daniel, 2010; Goldsmith, 2010; Franz, Hochgerner & Howaldt, 2012; Maclean, Harvey & Gordon, 2013; Westley & Antadze, 2010; Nicholls & Murdock , 2012; Tapsell & Woods, 2010; Tapsell, & Woods, 2008; Lisetchi & Brancu, 2014; Chalmers, 2013.
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		Social opportunity seeking	González, Husted & Aigner, 2017; Žur, 2015; Christianse, 1997; Ferreira, 2002; Timmons & Spinelli, 2003; Rwigema & Venter, 2004; Kuratko & Hodgetts, 1995; Berthon, McHulbert & Pitt 2004; Mair & Marti, 2006; Zahra <i>et al.</i> , 2008; Thompson, Alvy & Lees, 2000; Perrini, Vurro & Costanzo, 2010; Guclu, Dees & Anderson, 2002.
		Social change	Nicholls & Cho, 2006; Prabhu, 1999; Hoffman, Badiane & Haigh, 2010; Choi & Gray, 2008; Cohen & Winn, 2007; Waddock & Post, 1991; Stryjan, 2006; Picot 2012.
		Social welfare	Bugg-Levine, Kogut & Kulatilaka, 2012; Scheuerle, Schües & Richter, 2013; Alvord, Brown & Letts, 2004; Battilana <i>et al.</i> , 2012; Haigh & Hoffman, 2012

		Social results	Dees, 1998a, 1998b; Thake & Zadek, 1997; Emerson & Twersky, 1986.
		Strategic social impacts	Rawhouser, Cummings & Newbert, 2019; Ormiston & Seymour, 2011; Dees, Anderson & Wei-Skillern, 2004; El Ebrashi, 2013; Bacq <i>et al.</i> , 2015; Bacq & Eddleston, 2018; Jiao, 2011; Bloom & Chatterji, 2009; Westley & Antadze, 2010.
		Social mission	Brouard, Hebb & Madill, 2008; Lasprogata & Cotton, 2003.
		Social volunteerism	Adams, 2009; Greblikaite, Sroka & Grants, 2015; Gandhi & Raina, 2018; Volkmann, Goia & Hadad, 2018; Forouharfar, 2018; Austin, Stevenson & Wei-Skillern, 2012; Weisbrod, 1977
		Governmental social intervention	Auvinet & Lloret, 2015; Adams, 2009; Hervieux, Gedajlovic & Turcotte, 2010; Zietlow, 2002

		International social cooperation	Galera & Borzaga, 2009; Nicholls, 2008; Munoz, 2010; Kerlin, 2006; Kerlin, 2010; Forouharfar, 2018; Huda <i>et al.</i> , 2019; Zahra, Newey & Li, 2014; Davis, 2016.
		Internally-oriented social services	Cheah, Amran & Yahya, 2019; Forouharfar, 2018; Gras & Lumpkin, 2012.
Phase 3: Literature filtration	SE Literature filtration based on relevance to strategic SE	1. Social volunteerism 2. Governmental social intervention 3. International social cooperation 4. Internally-oriented social services 5. Social mission 6. Strategic social impact	
Phase 4: Variables' distillation	SE Literature distillation based on state-sponsoring variables	1. Social volunteerism 2. Governmental social intervention 3. International social cooperation	
		4. Internally-oriented social services	

Phase 5: Variables' generalisation	SE Variables' generalisation based on their strategic orientations	1. Volunteerism 2. Governmentalism 3. Internationalism 4. Internalism	
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(Source: Authors' own work)

Since governmentalism/volunteerism and internationalism/internalism orientations have contrary natures, then they stand at either extreme that is logically they must have inverse or negative correlative relationship. For example, by the increase in one of the extremes there should be a decrease in the other. Therefore, the generalised variables must have logically inverse correlation, which could be presented on a coordinate axis system (Table 3).

Table 3: Research Conceptual Framework Development Components

Conceptual Framework Development			
Variables	Nature	Relationship	Form (Visualisation)
1. Governmentalism	Contrary	Logically inverse correlation	Coordinate Axis System
2. Volunteerism			
3. Internationalism	Contrary	Logically inverse correlation	
4. Internalism			

(Source: Authors' own work)

In the final stage, based on the constructed conceptual framework and its variables, four classes of SE strategies, which could be applied by governments were proposed.

RESULTS AND DISCUSSION

Looking strategically at SE, two arenas could be assumed before it: a macro arena and a micro one (Figure 2). The macro-level orientation is outward since governments usually set some strategies for the promotion of SE not to be implemented by themselves but via SE organisations (SEO); in contrary, the micro-level orientation is inward, since SEOs set strategies for their own application and enforcement based on their predefined social

mission(s) and vision(s). Moreover, the states pursuing SE deal with the macro-level of SE with its necessities.



Figure 2: Strategic Views toward SE
(Source: Authors' own work)

On the other hand, each government could benefit from a strategic mix for formulating its state-sponsored SE. The SE strategic mix could be consisting of three items: (1) governmental strategic positioning toward SE; (2) possible SE strategies and (3) intended results (Table 4). By different mixing of these three items, the governments can customise their appropriate kind of SE strategy setting. For example in case of scaling strategy, by the strategic mix, a government can set an aggressive scaling strategy, a defensive scaling strategy, a proactive scaling strategy, a cooperative scaling strategy, a competitive scaling strategy, and a co-optative scaling strategy based on the conditions of the target community and its external and internal environments (strengths, weaknesses, opportunities and threats). Choosing different items from the strategic mix metaphorically acts as a dimmer. The governments can increase or decrease the social impact of the set strategy accordingly.

Table 4: Proposed Strategic Mix for State-Sponsored SE

Governmental strategic positioning toward SE	SE Strategies	Intended Results
Aggressive	Scaling Strategy	Either Scaling-up or Replication
Defensive	Replication Strategy	
	Dissemination Strategy	
Proactive	Social Affiliation Strategies	
	Social Joint Venture Strategy	Simultaneous Scaling-up and Replication
Cooperative	Social Licensing Strategy	
	Social Franchise Strategy	
Competitive	Social Price-Differentiation Strategy	
	Social Cross-Subsidisation Strategy	
	Social Microfinance Strategy	
Co-optative	Base-of-the-Pyramid Strategy	

(Source: Authors' own work)

While an SE strategy is going to be implemented at the macro-level, which must inevitably be formulated by government officials, four variables must be taken into consideration:

- (1) Degree of internationalism, i.e. how much the government intends to rely on international social organisations to implement its strategies.
- (2) Degree of internalism, i.e. how much the government intends to rely on national organisations, resources and capabilities for the SE strategy implementation.
- (3) Degree of governmentality, i.e. how much the government intends to interfere and meddle with the SE implementation?
- (4) Degree of volunteerism, i.e. how much the government lets the NGOs, SEOs and volunteers to do the job.

Answers to the above-mentioned questions would guide the governments to choose an appropriate strategic mix. The interplay of these four two by two contrary in nature variables, would logically in a conceptual

framework, appear as direct opposites, i.e. logically they must have inverse or negative correlative relationship, thus four classes of state-promoted SE are possible (Figure 3).

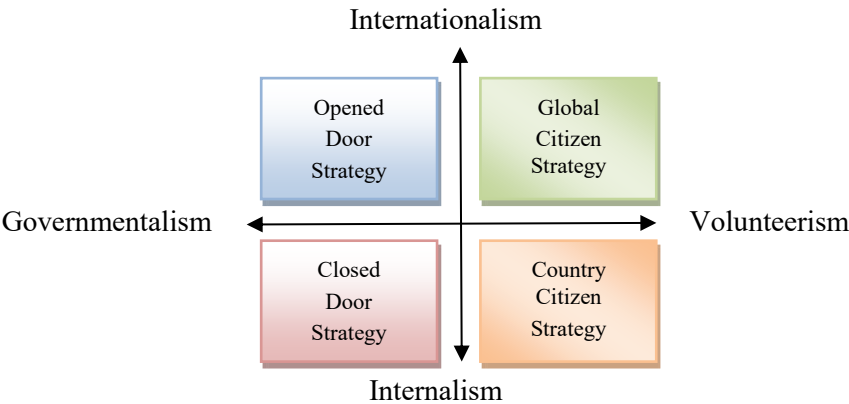


Figure 3: Classification of State-Sponsored SE Strategies

If a state pursues SE by close cooperation between the government and international organisations to answer social problems, it is a state-sponsored SE strategy which could be called ‘Opened Door Strategy’. Such a state tries to compensate its weak points and benefiting from international resources by some of the SE strategies, which are discussed previously, such as social licensing strategy, social franchising strategy and social joint venture strategy. In ‘Opened Door Strategy’ the social licensor, franchiser and partner is a foreign organisation, social entrepreneur or even a foreign government/state. Based on the proposed strategic mix in Table 4, the government pursuing ‘Opened Door Strategy’ would choose a cooperative positioning in relation to the international and foreign partners.

The second class of state-sponsored strategies could be called ‘Closed Door Strategy’. If a government completely or partially limits any volunteer activity by NGOs, national and international social entrepreneurs and organisations and on the other hand, tries to have a tight monopoly on any SE activities, it pursues a strategy based on governmentalist and internalist orientations. Such a state is not eager to accept any cooperation, or if it accepts, it is from a limited number of internal SE practitioners. The

positioning of the government is mostly aggressive and in some cases, a defensive one since it does not trust national and international partners. Since the government looks at the international organisations as its rivals, it could sometime show competitive positioning too. States with 'Closed Door Strategy' potentially could apply social microfinance strategy and show socialism/communism propensities toward SE.

The third quadrant, which is the most optimal state strategy for the promotion of SE, is 'Global Citizen Strategy'. Government in this strategy functions as SE regulator and facilitator. It tries not to interfere overly in SE activities and trust the national and international SE organisations and social entrepreneurs. Moreover, it respects volunteering activities and accepts NGOs as its partners and contributors not its rivals. Based on the proposed strategic mix in Table 4, these states would choose a cooperative positioning in dealing with active social entrepreneurs and in some cases proactive in dealing with future or emerging social problems. The proactive positioning of the government provides opportunities for scientific counselling with the SE experts and accepting their criticisms. Additionally, these states usually choose one or several of scaling strategy, replication strategy, dissemination strategy and affiliation strategies to promote, scale up and replicate SE.

The last quadrant is 'Country Citizen Strategy'. The state accepts Volunteerism but within and from the internal social entrepreneurs and SEOs. The state's positioning toward SE promotion is defensive and in some cases by aggressive measures limit the activity of international social entrepreneurs. Moreover, such strategies inevitably relies heavily on the national resources for the promotion of SE. Social price-differentiation strategy, social cross-subsidisation strategy, social microfinance strategy and base-of-the-pyramid strategy could be classified within this quadrant with two conditions, first if the government only accepts volunteering from internal resources and second if it limits its interference with their activities as much as possible.

CONCLUSION

The paper proposed and introduced a classification framework for state-sponsored SE strategies based on four large-scale orientations in dealing with macro-level SE within states. These orientations consisted of internationalism versus internalism, and governmentalism versus volunteerism. Furthermore, a matrix for the possible combination of state-sponsored SE based on three issues of 'governmental strategic positioning toward SE', 'SE strategies' and 'intended results' for scaling and/or replication of SE or its social impact was proposed. The strategic mix contributes governments in setting customised and localised SE to be as effective and tailored to the communities need as possible. Additionally, the classification framework not only will facilitate the clarification and classification of governments' orientation toward SE, but also potentially would lead to a framework for teaching of state-promoted SE strategies in the academic context. Finally, the current paper present a conceptual framework for future researchers in the realm of strategic SE. Especially; it would be fruitful if an empirical research can be carried out to shed light on the nature and inverse correlation of the variables in the conceptual framework.

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THE LIVED EXPERIENCE OF EUDAIMONIC WELL-BEING IN A RELIGIO-ECONOMICAL ROLE: A PHENOMENOLOGICAL STUDY

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ABSTRACT

This phenomenological study aimed to identify and describe the general meaning structure of eudaimonic well-being experience in performing the role of halal executive. We interviewed three halal executives about their lived experiences with eudaimonic well-being and analysed the data with Giorgi's descriptive phenomenological method. The general meaning structure describes eudaimonic well-being in performing the role of Halal executive as a phenomenon that interweaves three constituents: (1) awareness of an urgency for change, (2) striving for excellence in a malleable mind-set and (3) confrontation and intense involvement with inner potencies. We discuss these findings in relation to relevant literature on change, eudaimonic well-being, and inner potencies.

Keywords: *eudaimonic well-being, halal executives, inner potencies, growth mind-set.*



INTRODUCTION

Confronting a novel situation that questions one's autonomy and competence in a religio-economical role is a challenging life event, where one is pushed into a realm of intense uncertainty, a feeling of being threatened, and a need to move into a new desired state. *Halal* executives are Muslim personnel by virtue of their position (Jais, 2014), but are employees of companies largely owned by non-Muslims (Rashid, 2016) whose interest is in maximising profits by venturing into the booming *halal* business, but generally do not understand the depth of the concept of lawful and legal in the Islamic context (Soraji, Awang & Yusoff, 2016). *Halal* refers to something that is good and beneficial to a person's physical well-being and religion (Said & Hanapi, 2018). *Halal* in the context of the *halal* industry, is a value proposition that exists within the key elements of the supply chain of the intersecting industry sectors that relates to safety and hygiene while for the food and beverage sector, it demands the element of wholesomeness. The Malaysian standard (MS) 1500:2009 has standardise the *halal* definition as 'food and drink and/or their ingredients that are permitted to be consumed under the Sharia law and fulfill several conditions as stated in the standard.' Though the certification is voluntary in nature, many had opted for certification as a marketing tool (Dahlan & Sani, 2017). The *Halal* executives (HE) is Malaysia's way of ensuring integrity of the system in the wake of the Islamic revival and heightened demand for *Halal* compliant products and services. Today, HEs are the most sought after profession in the *Halal* industry (YADIM, 2019).

The significance of the *halal* industry in the Malaysian context lies in the fact that Malaysia is a Muslim country positioned to be the centre for the promotion, distribution and production of *halal* food (HDC, 2019). It has the best developed ecosystem for *halal* food and beverage (Superfood Asia, 2019), and aspires to be the Global Reference Centre for *Halal* Integrity, and Centre for Innovation, Product and Trade (SME Magazine, 2016). Cautioned though, that it may lose its lustre as a leading *halal* hub in the world if the local industry players do not move fast into a higher value chain (Yunus, 2019), and may also lose its position as the leading Islamic economy as more countries attach strategic economic importance to the Islamic economy (Tan & Tani, 2019). The spectacular growth of the *halal* industry according to Riaz and Chaudry (2018) brings with it concerns

about authenticity and safety, and requires the development of professional capabilities of food professionals competent to ensure integrity of the *halal* value chain. To develop a more sustainable competitive advantage, one that upholds integrity and excellence, Malaysia has to go beyond bureaucratic solutions in law enforcements, it has to look into the person of the *halal* executives, and to help them discover and empower their latent elements and inner potencies - of their eudaimonic well-being (EWB). When the religio-economic challenge is understood in this way, promotion and prevention initiatives targeting integrity and excellence of HEs can be essential. EWB is defined in this study as the identification of a person's best potentials in any of a variety of domains of identity concern, the development of skills and talents necessary for the realisation of those potentials, and the use of those skills and talents in pursuit of personally meaningful goals. Activities consistent with the development and expression of our best potentials are accompanied by a distinctive set of subjective experiences that I have termed 'feelings of personal expressiveness' (Waterman, 2017, 315-316).

An integral part of the concept of EWB are the Greek injunctions: 'Know thyself' and 'Become what you are' (Aristotle, 1998) interpreted as 'activity expressing virtue' (Waterman, 1995, 260) or 'activity of the soul in accordance with virtue' (Ryff & Boylan, 2016, 55). Viewing eudaimonism as 'a philosophy in which the moral priority is assigned to the individual in terms of promoting self-realisation', Waterman (1995, 255) contends that eudaimonia should be interpreted as the interrelated psychological processes by which one's potentialities are recognised and becomes personal goals to be actualised. In short, 'from an ideal to actuality' (Ryff & Singer, 1996, p. 16). The eudaimonistic activities can thus be translated into two sets of observable constructs, the aptitudes and talents of the person, and the purposes in living that he or she is committed (Waterman, 1995, 2011, 2017). Waterman's idea of EWB as the feelings of self-expressiveness is in Figure 1.

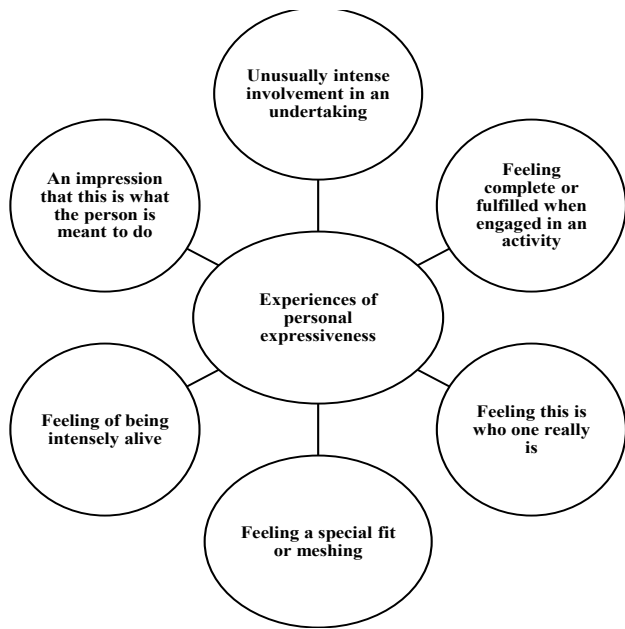


Figure 1: Waterman’s Experiences of Eudaimonic Well-being

While Waterman views EWB as the experience of self-expressiveness, Ryff opines that there is no feeling element attached (Thorsteinsen & Vittersø, 2018, p. 91). It is a trait focused at objectively realising one’s potentials and flourishing in the face of life’s existential challenges. Measured as psychological well-being, eudaimonic well-being comprise of six core components according to Ryff and Keyes (1995). These elements are personal growth, purpose in life, autonomy, environmental mastery, positive relations with others, and self-acceptance. Ryff (2018, 2019), believes that the time has come for the behavioural and social sciences and other sciences to broaden their purview about well-being by bringing the arts and humanities such as theology and philosophy into their endeavours as they will illuminate external inputs that nurture experiences of eudaimonic well-being. Carol D. Ryff (2018), whose research on EWB spans over 25 years refers to EWB as ‘well-being with soul’. It is also seen as a well-being capable of promoting the development of a fully functioning person (Straume & Vittersø, 2017; Waterman, 2017). Joshanloo (2018), who is among the negligible few with global well-being research that extends into

the realms of Muslims, suggests that thinking of well-being in the mode of EWB facilitates the design and evaluation of more efficient policies. The conceived causal link between EWB and psychological health (Fowers, 2017; Friedman *et al.*, 2019; Keyes, 2015; Carol D. Ryff, 2018), and creativity, change and personal enhancement (Bauer, Graham, Lauber & Lynch, 2018; Thorsteinsen & Vittersø, 2018; Vittersø, 2018) makes this an ideal research for initiatives aiming to enhance EWB competence of HEs.

To effectively promote integrity and excellence in HEs' important role, current research has been directed at describing HEs as a critical component of the halal assurance system (Ahmad, Rahman, Othman & Abidin, 2017), but there is no visible research on how their role affects their overall well-being or the effects of their well-being on their role performance. Some studies have demonstrated a significant need for *halal* food professionals with integrity and professionalism, such as the HEs (Shahwahid, Othman, & Saidpudin, 2017). Researchers such as Hashim and Shariff (2016), were inclined to look into supply chain management, while Noordin, Noor, and Samicho (2014) in the *halal* certification system, and Alina, Rafida, Syamsul, Mashitoh and Yusop (2013); (Jais, 2014); Nain *et al.* (2013); and (Othman, Md Shaarani & Bahron, 2017), in the areas of training. The most current is by Fujiwara and Ismail (2018) on supplier management, and from Idris, Anwar, Mastor, Sham, and Hassan (2018) on volunteerism among HEs. The case of HEs and the *halal* industry is only one of many questions so far almost totally disregarded in EWB or the *halal* industry research, even though eudaimonia is an opportune situation to move away from the heavily trodden paths of previous research on well-being (Frey, 2019).

The studies mentioned here have primarily investigated the *halal* assurance system or EWB using quantitative methods. Few have to our knowledge explored well-being qualitatively, more so with respect to an individual playing a religio-economic role. In this article, our interest lies in the qualitative understanding of EWB of *Halal* executives while performing their roles as *halal* executives. We used a phenomenological research approach that teases out the structure of psychological meanings that constitute this phenomenon.

METHOD

Participants

Halal executives serving three different *halal* certified food and beverage companies operating in the central region of Malaysia were recruited through personal contacts with *halal* executives in the researcher's line of duty. The researchers took heed of the suggestion by Englander (2012), that the choice of subject must be made after first asking, "Does he/she have the experience that I am looking for?". The researchers are also reminded of Waterman's notion that "everyone has experienced eudaimonic well-being in varying degrees at one time or another, and that the daimon is believed to be universal, possessed and expressed in widely varying forms and intensities" (Waterman, 1990, pp. 52-53). "In all humans there resides a kind of unique spirit, known as the daimon. Our central task in life is to come to know our unique capacities and then to strive to realise them" (Ryff, 2019) or to achieve the best that is within us. The challenge for the researcher thus, was to identify *halal* executives that had an intense experience of eudaimonic well-being so as to provide a rich and an in-depth description of the experience. Sampling was therefore highly purposive in nature. Even though every person would have experienced eudaimonic well-being one time or another, not everyone is able to describe it well. We spoke to many *halal* executives and conducted many preliminary meetings and interviews before deciding on the final three participants. Preliminary meetings provided the avenue for participants recall and the time to dwell and ponder on the experience thus facilitating the actual research interview session (Englander, 2012, p. 27).

As this was a phenomenological study to outline the meaning structure of EWB, we provided a written description of Waterman's *personal expressiveness* to potential participants and that they needed to have experience with the phenomenon in question. There was no way that we could determine that their experience were fresh in their mind, and as such, the resultant eight interviews conducted before we finally settled at three participants as data had reached saturation. Interviews from five potential participants were rejected for want of rich data. Our final selection of three participants consisted of two females and one male. There have

all served their present companies for more than six years and are highly experienced in their roles as *halal* executives. P1 used to be Company X's human resource manager who decided to champion the *halal* movement in the company and became their *halal* executive. P2 is a food technologist trained in halal and responsible for the company's *Halal Assurance System*, while P3 is a sharia scholar with a major in science and very much involved in training. All participants were auditors by virtue of their appointment as *halal* executives.

INTERVIEWS

Interview is by far the most dominant method for data collection in phenomenological research. It has its foundation in the presence of a subject as researcher to another subject. As suggested by Englander (2012, p. 26), the first interview question was phrased like this, "Can you please describe as detailed as possible a situation in which you experienced eudaimonic well-being." The remaining questions had followed the responses of the interviewee with a focus on the phenomenon researched. Englander's (2012) protocol for interviewing was adopted as he had used the same phenomenological theory for interviewing as the one used by Giorgi (2009) for data analysis. Here the researcher was reminded that the phenomenon is the subject of investigation and not the person, and collecting descriptions is an attempt at a discovery of a human scientific meaning of a specific phenomenon not only how it appears to an individual subject but also how it appears to an inter subjective community. Research is therefore an occasion to become acquainted with the phenomenon and not the person in all his complexities; an attempt to encounter the phenomenon via the person's description.

This study is part of a larger study that explores HEs' experiences of EWB in a religio-economic role. We first conducted a preliminary interview, and after a period of five to 14 days returned and conducted in depth phenomenological interviews. These latter interviews form the basis of this article. In the phenomenological interviews, we had one opening question as mentioned above, while intermittent reminders were the norm such as, 'can you please go back to the room/ the place or the time and describe as detail as possible the experience'. Other questions

asked were intended to solicit the meaning of words they said that were not well described. There were yet additional questions composed in a three-dimensional interviewing recommended by Bevan (2014) that began with (1) contextualisation of themes of experience (How did you first know that you were going to perform the activity?). This had assisted the researcher to get into accounts of places, events, actions and activities important to descriptive phenomenological investigation. This is followed by (2) apprehending of the phenomenon (What were the things you did prior to experiencing eudaimonic well-being?). This activity was intended to place the participant in the driver's seat and take the researcher all the way into the experience. The last stage is (3) clarifying the phenomenon (If it had been the same activity but the situation somewhat was different, would it have changed anything?). This involves the use of imaginative variation allowing the participant to concretise his or her experience, giving rise to new meanings and clarity of the elucidated experience. The questions were generated reflectively and was an aspect of the structure of the experience. It added consistency and dependability to the research and assisted the researcher to maintain her epoche, heightened her curiosity and interest and enticed the participants to provide richer descriptions of the experiences in their life world. What is important according Giorgi (2009, p. 122) is for the participant to describe it 'as complete a description as possible of the experience that a participant has lived through'. The interviews lasted between 45 minutes to 65 minutes.

Data analysis

The transcribed raw data from the interviews were analysed using Giorgi's (2009) descriptive phenomenological psychological method, a method largely anchored on Husserl's philosophical phenomenology and further developed and modified by Giorgi (2009) to fit into the demand for a scientific research method. The method entails the need for the researcher to bracket or suspend his or her personal experiences and any theoretical assumptions concerning the phenomenon in question or epoché, before attempting to analyse the data (Giorgi, Giorgi, & Morley 2017), thus providing a fresh lens to view the data, while at the same time allowing the researcher to study intentionality instead of causality. "Utilising the epoché does not mean that one forgets everything one previously knew to arrive at a kind of blank state, but rather that one brackets one's natural attitude; that

is, one invites a shift in attitude in order to look at the subject matter (i.e., the phenomenon) in a new way” (Englander, 2016, p. 4).

As proposed by Giorgi (2009), a phenomenological interview should meet the criteria of description, and this can be achieved by asking for a situation in which the participant has experienced the phenomenon. This question is very important since the discovery of the meaning of a phenomenon needs to be connected to specific context in which the phenomenon has been experienced, noting that a situation is not an objective time related situation, but an experientially determined concept. The interviewer had begun the interview by reiterating the meaning of eudaimonic well-being and bringing the participant into being present to the experience that he/she will be describing. The researcher is reminded that the “raw data is taken to be how the objects were experienced by the describer, and no claim is made that the events described really happened as they were described” (Giorgi, 2009, p. 99). This frame of mind was maintained throughout the analysis process. In previous publications, Giorgi had referred to his data analysis as a four step process, but had in more recent literature (Giorgi *et al.*, 2017, p. 182) given more emphasis on ‘scientific phenomenological reduction’ by highlighting it as a distinct step, and thus, the resulting five-step process.

The five steps are: (1) Read the entire transcription or description in order to grasp the basic sense of the whole situated description, (2) Assume the attitude of the scientific phenomenological reduction (SPR), (3) Remaining within the SPR, create parts by delineating psychological meaning units, (4) Still within SPR, the researchers intuit and transform participants’ lifeworld expressions into expressions that highlight the psychological meanings lived by the participant. This requires the use of free imaginative variation as well as rendering implicit factors explicit, and (5) Based upon the transformed meaning units, and still within the SPR, the researchers use the transformed meaning unit expressions as the basis for describing the psychological structure of the experience (Giorgi *et al.*, 2017, p. 182). Zahavi had taken issue with Giorgi’s method which he described as complex and unjustified (Zahavi, 2019), but we believe the tedious task underlined in the steps provide support for ensuring credibility of the research.

RESULTS

The descriptive psychological phenomenological method was able to illuminate a distinct general psychological meaning structure of EWB of HEs while performing their roles as HEs. This structure is a general description representing all of our participants' experiences with the phenomenon. Here we first present the meaning structure of the phenomenon and followed by the constituents of the phenomenon. Since phenomenology is concerned with attaining an understanding and proper description of the structure of our mental/emodied experience within a living context, and since intentionality is fundamentally relational (Gallagher & Zahavi, 2008), we invite readers to be mindful that the experience is found within a basic temporal structure of protention-primal impression-retention. Describing 'primal impression' as the component of consciousness that is narrowly directed toward the now, Husserl contends that it never appear in isolation but is accompanied by a 'retention'. Retention is the component that provide the consciousness of the just-elapsd and sinking in the past, and is accompanied by 'protention', the component that relates to consciousness of what is about to occur and is the unreflective anticipation of what is about to happen as experience progresses (Gallagher & Zahavi, 2014, p. 3). The structure of the experience is therefore interrelated and experienced as a flow. The structure, according to Giorgi (2009), is the relationship among the constituents. As practiced by Giorgi, we denote the compound person or participants in general by the letter 'P' while each participant is recognised by their participant number P1, P2 and P3.

The general meaning structure of HE's EWB

The general structure of an experience is generally determined through a slow reflective process that seeks to establish what is essential to each description. This is so because psychological essences are typical and not universal and there is no 'perfect descriptions' rendering the phenomenological analyses not only slow, but also challenging. Getting the descriptions to fit into one structure will be ideal but is seldom the case and must not be forced upon (Giorgi *et al.*, 2017).

For P, the experience of EWB begins with a preliminary alert that a threatening situation is unfolding due to uncertain and complex conditions

generated by significant other(s). For P1, her significant other(s) was the Mufti (a Muslim legal expert who is empowered to give rulings on religious matters) and officers from the state religious office of a state in which her company operates. For P2, it was the manager of her company's logistics agent, while for P3 they were trainees attending a course on *Halal* organised by his company. The situation had threatened P's integrity, autonomy, and competence and demanded that P re-evaluate their existing goals and develop plans to normalise the situation, and bring them to a new preferred state. This had involved conscious intense strivings and the anchoring of a malleable mind-set for P to appear competent, autonomous, and excellent in the eyes of their significant other(s). Amidst the strivings and anxiety, P found himself/herself thrown into an unfamiliar space that was both enchanting and delighting; a new autonomy manifests itself, a free will and a freedom to be; a new competence and potencies they never knew existed. The emergence of increased autonomy and competence solicit P's agency experienced as enlivening. The emergence of P's daimon left P to endeavour reliving the experience and developing their newly discovered potentials.

As the event unfolds in its opening phase, P realise a need to move into a new preferred state and position to take actions intended to normalise the situation within heightened awareness that existing limiting beliefs are impeding current goals. As P actualise the plan, significant other(s) appear to threaten P, and P respond with circumventing actions that normalise the situation, triggering P to lunge into self-expressiveness and engagement in inner potencies. P's self-expressiveness brings closure to the situation providing him or her with a sense of relief from the threat while concomitantly experiencing strong emotional responses from the ecstasy experienced in eudaimonia that culminates in the desire to relive the EWB experience.

Constituent 1: Awareness to an urgency for change

The HEs were quick to pronounce that the experience had begun with a state of anxiety and stress. P was alerted to respond to a highly unanticipated, challenging and novel situation. P1 responded to an unexpected invitation from a significant other who was the *Mufti* (a person in charge of sharia or Islamic religious matters) of State A by agreeing to conduct a briefing session within the next two days. The session was to enlighten the mufti

and the team from the state religious office on matters of an urgent and grave public concern regarding her company's *halal* status, as she was the head of *halal* affairs of Company X. The call had come at a time when she was in dire need of help to appease the overt distrust some quarters of the public have of Company X. P1 sensed that her current goal in ensuring public acceptance of her company's *halal* brand has been impeded due to strong opposing forces from the 'extreme public'. She believed that the novel opportunity presented by the Mufti was a way out and was therefore too valuable to decline. P1's description of the threatening situation and her concrete goal, "The day of the presentation, I wasn't too sure, mufti's office is all man I am a woman trying to convince the *ustaz* and all", but later contends, "No matter what, I need to attract and convince the *mufti*." The situation was very different for P2 whose mission had begun as any ordinary audit assignment that had suddenly turned ugly. As a *halal* auditor with Company B, P2 was assigned to audit a third party company that provided logistics services to Company B. Unlike previous assignments, P2 was at that time responding to an unresolved emotion about her role as a HE, a role that was no longer motivating and was unfulfilling, "Before this, when I got a task, I do, just do, but that time I'm just thinking from my house, the long journey, I kept thinking 'why me'? Why not other persons. I'm getting bored, because every supplier which is nearest by BBB, especially in BBB, they give to me." Discovering the need to address the immediate issue of serious non-compliance, she said, "I think, when I didn't do like that, they can do anything. Maybe they think just only Muslim. Maybe can bargain. No, not with me." P3 responded to a situation that appeared to impinge and frustrate his immediate goal of maintaining his status-quo and comfort as an auditor in company A that do not entail speaking in front of a crowd; something that he feared greatly. P3's manager had assigned P3 with his first trainer assignment a day before the training was to commence. P3 was reminded that it was an assignment tied to his career development. P3 describes the experience:

"... I am afraid ... I do not like to talk or speak in front of audience. [...] When I got the assignment, first thing was I rejected it, but my GM said, "Until when do you want to do the same thing, keep on doing only audits?" He asked me to try and do training, he said it is good for my career development." But, P3 found himself face to face with disinterested and bored participants, and was worried, "I was also worried about the

evaluation form. What if they gave me negative comments? Are they thinking that I am not good enough?"

P1 acknowledged that she was the head of *halal* matters for her company but had never had an audience with the *Mufti*, what more present before him or his team. Her role was to ensure that the *halal* assurance system works, and to ensure that requirements for *halal* certification underlined by the state religious office were fully adhered to. P2 and P3 were trained *halal* auditors with predetermined roles that were designed to work according to tight procedures and schedules. Nevertheless, contingent aspects of their situations called for some adjustments to P's roles as the events unfolded. P1 reflected upon the frustration of dealing with the public and saw the significance of removing the walls and developing collaborative efforts between Company X and the religious authorities.

P2 felt the incongruence between her held values and that of the third-party logistics company and was deeply frustrated as P2 was instrumental in their appointment. P2 identified with her role as HE as being crucial in ensuring integrity of the *halal* quality system throughout its value chain while P3 sought to provide interesting and valid knowledge on *halal* to trainees. P had extended the paradigms of their roles and redefined their parameters. P3's role quickly grew into auditor disseminator, P2 into auditor steward, and P1 into *halal* liaison. P's respective roles in their events shifted as new information came into perspective through communications and observations during the unfolding events. As initial roles emerged from the initial alerts, and information gathering activities became fully activated, P strive to appear competent before their significant others.

Constituent 2: Striving for excellence in a malleable mind-set

The threats became more apparent for P as the event unfolded. P strive to normalise the situation and master the environment while seeking to maintain sustained effortful activities and flow of feedbacks. The preparation for the event was highly effortful for P as it brings together extensive physical, mental and emotional strengths. P1 and P3 spent many man-hours to prepare their presentation decks both at the office and at home with their spouses. P2 spent unusually high physical efforts inspecting the grounds. The novel situation and the apparent threat appear to have jolted

P into a 'receiving mind-set' and an openness to possibilities. Because of her significant others' coldness, P1 believed that she needed to make them feel her presence and to solicit their feedback because throughout her life as HE of Company X, the public had persistently refused to listen to her explanations with regards to Company X's *halal* status. At that time, P1 greatly needed her significant other(s) to listen and she wanted them to tell her their concerns. The learning that happened when they finally listened was a new experience in the development of a distinct competence for P1. These 'strangers' had provided her with a fresh lens to view the world. P2 decided that the audit assigned to her that morning would not be another normal mundane audit. She felt 'the calling' that there was more to it and had intentionally declined her significant other's request to check the documents and proceeded to inspect the building instead, to the displeasure of her significant other. The meticulous inspection led to the discovery of a major non-compliance of the *halal* certification; the presence of empty alcohol cans among her company's goods. She was filled with guilt for failing to perform her role as an agent of the Muslims in general, that is to ensure food certified as *halal* are indeed *halal* according to sharia or Islamic law. P2 however understood the experience as a path to mastering her role as a HE. In the case of P3, faced with the threat of a stalled career and the chance of learning something new had literally made him 'think in the future' despite his self-limiting beliefs. Being forced into the assignment was challenging enough for P3, but facing a group of people who were not interested was derogatory for him. His significant others drooping off were indications of disinterest and boredom. P3 believed that the stakes were high and he cannot afford to foul out. The situation had been difficult since he started the session, but he was determined to make it work. He quickly took the break time as an opportunity to seek their feedback and worked on them. His future in front of him, his freewill in place, his knowledge and his significant others' needs clarified, P3 plunged in and found a mesh between his abilities and the needs of his significant others. The situations for P had unfolded in hard and effortful time-consuming activities and timely feedbacks, to which they were prepared to commit. In times of transition and uncertainty P appear to be able to tolerate ambiguity and to welcome others' dialogical offerings and those of their own. The striving for excellence structure of the process was concomitant with the participants' intense involvement in the activity and the discovery of their inherent potentials.

Constituent 3: Confrontation with, and an intense involvement with inner potencies

As mentioned earlier, there appear to be an initial practical level that P approached and responded to the situations before them. As the event unfolds, P became highly involved in the assignment. The assignment had provided P with a novel situation that was challenging and complex but appears to fit comfortably with P's abilities and skills spurred by newly discovered competence in a space and time when P can 'just be themselves'. Up to the actual encounter with their significant other(s), P had been open to, if not preferring, that they could be in control of the event and be able to mitigate the situation. Instead, they came face to face with anxiety, experiencing tension, apprehension, nervousness and worry. As soon as P interpreted the unfolding event as determined by the response of significant other(s), each took a proactive stance. P1 began soliciting for questions and felt the unusually intense engagement with the activity when she was able to answer her significant other(s) first question satisfactorily, while for P2, it was when she was able to get them to resolve the problem of the noncompliance immediately. As for P3, it was the time when he was able to get the full attention of his significant others. What followed from the intense engagement was the feeling of a special fit or meshing with the activity.

There seemed to be an enhanced awareness in P's abilities to perceive the effects of their actions. P1 described a clearer personal identity and the freedom to be herself. The situation also marked an achievement of a new potential and personal growth, and the thrill of success expressed as *"Somehow, I managed to be myself. With my character a bit tomboyish. It's like I'm with friends, I'm myself at that time. It's like, how do you describe ... ya ... I am me [...] then I am proud because I would be the pioneer in developing all halal procedures to Company X [...] The feeling is ahhhh it's like fireworks in Disneyland."* For P2, the magnitude of the feeling when she experienced autonomy was definitive, compelling and satisfying. Describing the feeling as *"I feel powerful like a ... only me. When I found the situation, I feel so brave, I feel nobody... brave ... I can talk, I can give instruction anytime. When you say no...I want" [...] like I have own power like authority body ... like JAKIM."* P2 believed that she was the first person who detected a case for non-compliance of that nature. She felt the freedom to act and believe that she could be herself without any fear. Like P1, P2

also found a new potential, that she was more than just 'normal'. She was an expert auditor and a referral for halal matters in the related areas. P3 shared the same feeling of success and meshing, and expressed his feeling of awe at the discovering of his potential in training as 'wow' and 'waaaah'. In all three cases, the participants experienced the discovery of a new potential that have eluded them thus far. P1 experienced enhanced understanding and appreciation of her significant others, specifically the overt respect for the Mufti and her personal transformation, and her enhanced belief system as regards to the position of man and women in Islam. Meanwhile, both P2 and P3 submitted to the belief that their position as HEs was the will of the Divine, a gift attached with clearly outlined responsibilities and must be upheld as such. These responsibilities for them are beyond the need for human supervision for they seek the pleasure of the Divine creator with hope, and feared His wrath. Therefore, the emotional, spiritual, and overall aspects of the experiences seem to have been the 'nerve centre' of P's emotional transformation. P seemed to have found themselves as 'new' people in a different life-world after the peak experiences. Perhaps it was a felt sense of discovery into greater possibilities about their religio-commercial roles as HEs. All the HEs described a desire to relive the experience and to regularly use their new found 'signature strengths'. P1 says, *"After the experience, I have met six or seven muftis. Moving forward I want all the 14 muftis to see us. I felt one part of my burden, the burden that I cannot convince people are all gone."* P2 believed the experience left her feeling useful and confident of herself;

"I am so useful, because before this I feel just normal person. Useful which is I can show my reputation, my skill in halal position, useful I can show everything in halal scope. I feel so wonderful because I can attend to new issues, because before this I don't have any experience on that issue, then I can share to my colleague. I feel so useful [...] when I got some tasks to audit supplier, I ask my lead auditor and my boss, I don't want anybody with me, I can handle, I can do myself. I like to do it again, since I saw the situation, I know how to handle, I know how to solve for the situation. I don't want to, I can go alone."

P3's desired to become a professional trainer and looked for opportunities to hone the skill by positively soliciting and looking forward to any training jobs, "The event really changed the way I feel about exploring

new things. Even if I need to give sermons also I am prepared to go but with time to prepare before it. I believe that I can reach another stage as a professional trainer. I think that I have a talent towards speaking. I have the ability to speak to people ... I have that skill actually.”

CONCLUSION

An integral part of the concept of well-being is the notion of ‘living well and doing well’, and thus the global awareness that “Well-being can and should be measured and then used as a bottom line for public policy” (Diener & Seligman, 2018, p. 172). The conceived causal link between well-being, health and performance says Ryff (2018) makes it ideal for establishing behaviours and initiatives aiming to enhance well-being of P. With the world giving voice to the importance of well-being, Malaysia must be mindful that well-being has far-reaching implications. Employment is one of the most important determinants of well-being and eudaimonia lends a more complete picture of well-being at work (De Neve, 2018). In this article, we have focused on HEs who are individuals performing religio-economic roles inherent to the Malaysian *halal* industry through the experiences of three *halal* executives. Their position in the *halal* industry is an ideal ground for promotion of integrity and excellence initiatives in general and EWB specifically. To enhance our understanding of EWB in such challenging role, we have in this study, bracketed established theories of EWB and set out to explore EWB from the perspectives of the HEs themselves. Based on their first-hand experience of EWB, a general meaning structure of EWB was developed. The structure had three interrelated constituents. We had separated them for the sake of presentation and discussion. Although the structure had observed similarities with other concepts and approaches, we argue that the structure contributes to the field with nuanced and rich descriptions the came from the HEs themselves. We conclude that the insights condensed in the general meaning structure and its constituents are valuable contributions to initiatives that aim to promote experiences of EWB of HEs. Future research may seek to develop measures for the constructs found in the structure of experience.

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‘PARTS OF SPEECH’ - ‘DROP A CARD’ BOARD GAME

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ABSTRACT

Learning grammar can be difficult for learners but this can be changed through interactive activities. Language games are an excellent way to make learning grammar fun among learners. Although the use of language games is not a new tool in the teaching and learning of grammar, employing the right game for a specific grammar item is vital. Hence, this study aims to experiment, using a language game - ‘Parts of Speech’ - ‘Drop a Card’ board game, in efforts to enhance the learning of the parts of speech more effectively. This game is designed to provide practice in identifying the parts of speech in the English language. By playing this game, it is believed that learners will be able to engage and learn grammar in a fun-filled way. Methodology comprised quantitative and qualitative methods, using questionnaire and interview, with the participants, who were college students. The results of the survey demonstrate the effectiveness of the game in the identification and learning of parts of speech. The pedagogical implications are that suitable language games can enhance grammar competence.

Keywords: *parts of speech, grammar games, board game*



INTRODUCTION

Due to the changes in the perspectives of English language teaching and learning on communicative approach in the last few years, grammar has been pushed to the background. The structural view in the early 20th century focused on linguistic competency. However, learners were unable to communicate in the language (Kolln & Hancock, 2005), hence giving rise to the communicative approach. The consequences of this, with regards to grammar teaching and learning is grammar is not important, it is boring and grammar rules are difficult to understand. Hence it is essential for teachers to have interesting activities to motivate students. For this reason, one such means is language games which can be a refreshing and engaging to introduce grammar into the classroom. The researchers of this study felt that students' knowledge of the parts of speech was particularly lacking. This inspired the researchers to design the 'Parts of Speech' (POS) - 'Drop a Card Board Game', in order to engage and provide the fun element for students to be able to identify and understand the parts of speech.

PROBLEM STATEMENT

Due to the changing curriculum backdrop of the education system with emphasis on different aspects, grammar got left behind and many students in school lack grammatical knowledge. Furthermore, grammar learning is always perceived as a boring lesson when taught using the textbook, chalk and talk methods. Hence, the traditional teaching and learning methods are not successful in motivating learners to engage actively in grammar learning (Matas & Natolo, 2010). In addition, Maros, Tan and Khazriyati (2007) found that learners from six rural schools had difficulties using correct English grammar in their writings. Furthermore, a study by Nor Hashimah *et al* (2008), showed that the most obvious weaknesses of the students' language ability lay in grammar. A study by Saadiyah and Kaladevi (2009), indicated that students generally have problems applying correct grammatical rules in their writings. Games have been found to make grammar lessons more interesting, enjoyable, motivating and effective (Metom *et al.*, 2016). This study proposes a board game where the focus is to help students to identify and recognise the parts of speech in a more engaging, motivating and competitive spirit. It is hoped that this would be a

step towards bringing grammar back into the classroom in a more engaging and fun way, through a board game.

LITERATURE REVIEW

Games are a useful strategy to promote students' language proficiency (Richard-Amato, 1996). Hadfield (1990) defined games as 'an activity with rules, a goal and an element of fun'. The 'Parts of Speech' – 'Drop a Card' Board Game has a set of rules, the goal of which is to be able to identify the parts of speech as required of them, according to what is stated on the tile of the board. The fun element is to get the correct part of speech card to match the tile and to quickly move to the finish line. Language games is an excellent way to make learning grammar fun among learners (Metom *et al.*, 2013; Eskandari *et al.*, 2014). Games also introduce an element of competition into language-building activities which provides valuable impetus to a purposeful use of language (Prasad, 2003).

An action research conducted by Huyen and Nga (2003) showed that the students liked the relaxed atmosphere and the researcher reported that the students seemed to learn more quickly and retain the learned materials in a stress-free and comfortable environment. When learners are placed in a game-based context, instead of focusing on the correctness of linguistic forms, learning shift their attention to winning the game, this eases the anxiety of negative evaluation and helps to generate the speech fluency (Chen, 2005). Among some of the benefits of using games in language learning, are the fact that these games are learner-centred, increase learning motivation, reduce learning anxiety, integrate various linguistic skills (parts of speech, in the current study), construct a cooperative learning environment and foster participatory attitudes of the students.

Hence, it has been established that traditional teaching and learning methods are not successful in motivating learners to engage actively in grammar learning (Matas & Natolo, 2010). Games have been recommended to make the grammar lesson more interesting, enjoyable, motivating and effective (Metom, *et al.*, 2016). Based on previous studies as shown in the literature, it can be concluded that learning grammar can be fun if there are interesting activities to motivate students.

METHODOLOGY

This research uses quantitative and qualitative methods. The quantitative part comprised a questionnaire, which was analysed via SPSS tools while the qualitative part comprised interviews. Hence, the research instruments used were the questionnaire survey and the interview. The questionnaire is found in Appendix 1 and the interview questions are found in Appendix 2.

The respondents were diploma students in semester one, taking English during the Interim session, in a local public university. Their English language proficiency grades were based on their SPM results as the students were a fresh intake taken in directly after the SPM (Sijil Pelajaran Malaysia) or Form 5 examination. All the students had achieved Grade A in their English language at the SPM level. The questionnaire consisted of three parts: Section A, B and C. Section A consisted of the respondents' demographic information (gender, age and faculty). Section B consisted of ten items relating to the respondents' perceptions on grammar (parts of speech), while Section C consisted of ten items on the respondents' perceptions on the Parts of Speech Board Game. The analysis reports and discusses Sections B and C of the questionnaire.

Before playing the board game, brief instructions were given to the players on how to play the game. The rules of the game were also printed on the box for them to refer to. After playing the game, all the respondents were given the questionnaire to fill. Participants' responses were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). After responding to the questionnaire, the respondents were interviewed individually.

RESULTS AND DISCUSSION

Findings of the Questionnaire

The questionnaire data formed the quantitative part of the research methodology. A total of 79 students participated in this questionnaire. Sections B and C are reported and discussed. For Part B, the researchers

will mainly report the data on the students' perceptions of grammar. This data is found in Figure 1.

Question 10 was on the preference of learning grammar through games and this was significant with a mean of 4.33. This showed that games were welcome in the classroom. The means on the participants' perceptions of their ability to identify the parts of speech are ranked in order of the highest means, though all were significant:

- Identification of verbs, showed significance of the mean, at 4.08,
- Identification of nouns, significance of the mean at 4.0,
- Identification of adjectives showed significance of the mean at 3.94,
- Identification of conjunctions showed significance of the mean at 3.86.
- Identification of pronouns, showed significance of the mean, at 3.73,
- Identification of adverbs showed significance of the mean at 3.67,
- Identification of prepositions showed significance of the mean at 3.54.

This shows that the participants were more confident with identifying verbs, nouns, adjectives, conjunctions, pronouns, adverbs and prepositions in that order. As for Question 1, the mean of 2.68, the lowest mean recorded but significant, was that the participants felt that learning grammar was difficult. Though significant, it was not as significant as the other items. Hence, it could be interpreted that the participants may have felt that they should not find difficulties in learning grammar.

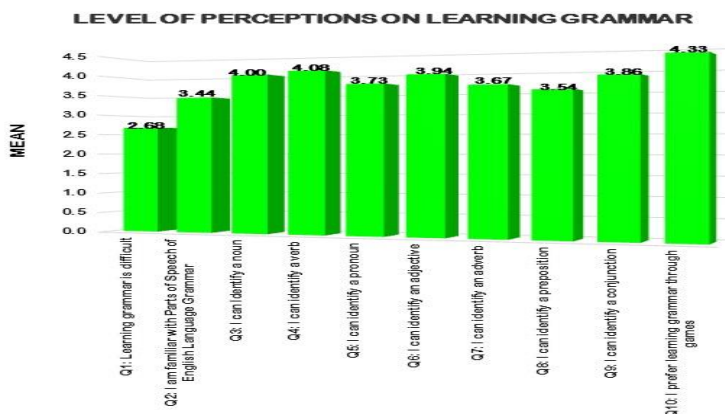


Figure 1: Mean Level of Perception on Learning Grammar

Part C as mentioned earlier focused on the board game. With reference to Figure 2 as shown below, for Question 1, the highest mean of 4.46, was significant in that the participants found playing the Parts of Speech Board Game fun and enjoyable. For Question 5, the mean of 4.44 was significant in that the participants found the rules of the game clear and easy to follow. This possibly contributed to their enjoyment of the game. Question 9 showed a mean of 4.43, which was significant in that the participants felt that the POS game motivated them to learn grammar. This contradicted with Part B, where Questions 3 to 9 showed the participants' perceptions on the identification of parts of speech to be positively rated. If this were so, the participants would not have needed the game to be a learning tool for them. It appears that Part B responses were possibly what the participants felt to be the 'correct' response to state, shying away from their lack of knowledge on grammar.

In Question 4, the mean of 4.43 was significant in that the participants found playing the game to have helped them to understand the parts of speech better, again, in contradiction with part B of the questionnaire as noted above, while showing their better understanding of the parts of speech, through the game. The next highest mean of 4.34 was significant in that the POS game improved communication between the participants. Hence, communication featured highly in the game where interaction amongst the participants was valued.

In Question 7, the mean of 4.27 was significant in that the participants stated that the answer key provided was helpful. The participants constantly referred to the answer key as they needed to confirm, clarify and counter check answers. This only confirmed that the participants' knowledge on the parts of speech was limited and they needed external help, in the form of the answer key. In Question 2, the mean of 4.00 was significant in that the participants found the POS game challenging. The game could be challenging due to the lack of knowledge and the search for the right cards and ultimately, the right answers.

In Question 6, the mean of 3.76 was significant in that the participants stated that the POS board game was time consuming. This could be either because they were unable to identify the parts of speech cards or didn't have in their hands, the correct cards required and had to keep on picking cards from the pack until they got the right card.

In Question 3, the mean of 3.68, was still significant, but not as significant as the above questions, in that the participants found the POS game easy to understand. The rules were straight forward and how the game was to be played appeared to be easily understood by the participants.

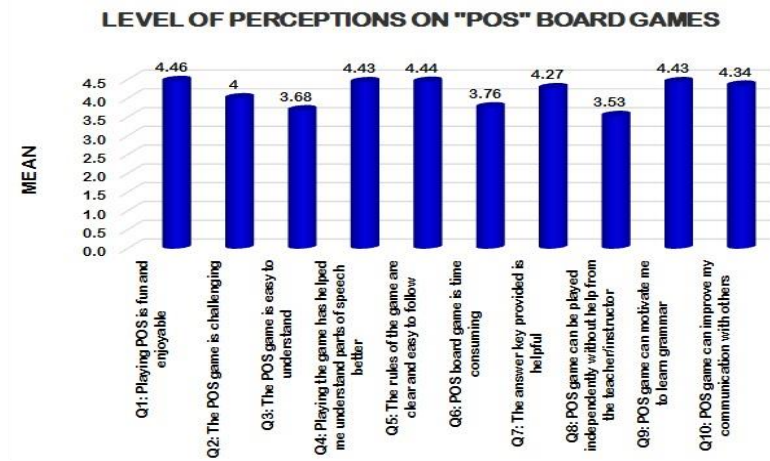


Figure 2: Mean Level of Perceptions on POS Board Game

Findings of the Interview

The interview data formed the qualitative part of this study's research methodology. 30 students were interviewed and the interview questions are found in Figure 2. The reasons why only 30 students were chosen for the interview were firstly, time constraints. Secondly, the interview data was used to triangulate the questionnaire data. Hence, it was felt that 30 would be sufficient, considering the study was conducted in a small scale involving only a small group of students. The interview was conducted after the students had played the POS game. The interview data were reported and interpreted as well as compared against the questionnaire data.

For Question 1, all 30 respondents stated that they enjoyed the game. The reasons for their enjoyment are seen in the subsequent questions. For Question 2, majority of the respondents elaborated and stated that the most interesting part of the POS game included the ways in which the game enhanced their ability to think, increase their knowledge of grammar and their ability to identify the parts of speech. Apart from that, some responded that what made the game interesting was getting the correct card to match the part of speech required and also winning the game. This healthy competitive nature is present where games are concerned, as opposed to traditional

ways of teaching. Hence, by playing games, a by-product is the learning made easier. Three students said that an interesting part of the game was the chance it afforded them in communicating with each other. This also shows that students like to talk to each other and not just listen to instruction, as passive recipients of knowledge from an authority. Discourse among peers is important where much learning takes place. Interaction among themselves was very much valued.

These comments were in line with Section C, Question 10 of the questionnaire where the mean was significant at 4.34 where the respondents agreed that the POS board game had helped them to improve their communication skills.

A cross reference to Question 1 of Section C, of the questionnaire, showed that majority of the participants found playing the game to be fun and enjoyable. This was echoed in the first and second interview responses. The interview enabled the participants to elaborate on their enjoyment and the reasons for their enjoyment, which are listed above.

Question 4 of Section C of the questionnaire also showed the mean of 4.43, was significant in that the participants agreed that the game helped them to understand the parts of speech, thus concurring with the interview responses to question one.

Question 3 was about the most challenging part of the game, where the majority responded that getting the correct answer posed such a challenge. This trend was expressed in terms of getting the right card to match the part of speech required, if it was not at hand. The picking up of cards from the central pile was challenging and frustrating during the instances where the respondents could not get the card they required. Having to pick up cards challenged them as it meant falling further away from the Finish tile, as one could not move along the board without getting the right card to match what is stated on the tile on the board. Yet, to some, it was challenging enough that they were unable to identify the part of speech required of them when their tokens landed on the tiles of the board. This confirms the research gap, that knowledge of and identification of the parts of speech are not well understood by students in the Malaysian context.

A cross reference to the second question in Section B of the questionnaire showed that the results were in conflict with the interview responses where the participants responded positively towards being familiar with the various parts of speech. This was not reflected in the interview responses nor in the observations of the researchers while the participants were playing the game. Questions 2-9 of Section B of the questionnaire showed a relatively high score of the respondents' perceptions of their ability to identify the specific parts of speech. This did not tally with the interview responses, where almost all the participants said that it was a difficult game to play due to the lack of knowledge. Once again, the reason for this data can only be inferred that these inaccuracies could be due to their own beliefs of what they 'should' know at this stage. Hence, they could have responded positively, in Section B of the questionnaire. Some of the participants may have shied away from being honest, on their lack of knowledge on the parts of speech. Some could have misunderstood the Likert Scale against the statements in the questionnaire. Furthermore, the second question in Section C of the questionnaire, showed a significant mean at 4.00, where the participants stated that the game was challenging. The interview questions allowed for the expansion of these 'challenges'. Hence, this data confirms that section B data for Questions 2-9 in the questionnaire, is erroneous.

Question 4 of the interview showed that majority of the respondents preferred learning grammar through games due to the following reasons: Games kept them alert, it was fun, interesting, enabled them to gain much, allowed them to play which they loved and hence, provided a platform for play while facilitating ways of learning for the visual learners. Games also helped them to remember better while 'socialising with friends'. Words and phrases used by the students included 'not sleepy', 'not so boring', 'more fun', 'more interesting *lah*', 'gain much', 'can learn more', 'a visual learner', 'help me remember better', 'interact with each other...helps our communication skills too'.

A cross reference to Question 10 of Part B in the questionnaire showed a mean of 4.33, which was significant in showing that the respondents preferred learning grammar through games. This data, tallied with the interview responses where the participants said that they preferred playing the game over traditional textbooks as they loved to play, socialise and be actively involved in the learning process, as opposed to being in a traditional

classroom context, as passive listeners to the teacher/ authority. It seems that only Question 10 of Section B was accurately answered by the participants. This opened up possibilities for the researchers to improve the questionnaire in considering other factors, including explaining the Likert scale, before the questionnaire is filled out by the participants.

Responses to Question 5 of the interview confirmed the research gap again, as majority of the students responded that the problems they faced playing the game was that they could not identify the parts of speech, which was the crux of the game. 14 students said that this was a problem while nine said that it was not a problem. Out of the nine students who did not state this aspect as a problem, one stated that friends had helped with the answers while another said that there were no problems, 'just not sure of the parts of speech'. The other seven did not elaborate. One of the participants said that she did not have the cards at hand to put down, as stated on the tile of the board while the other said that 'maybe the cards are not shuffled perfectly, that I don't have the cards to drop'. These responses could be a camouflage of a lack of knowledge or a technical problem of the game. When further queried, it was found that the participants were not sure of the parts of speech.

Some of the participants' responses included 'I couldn't identify which part of speech it is', 'when I didn't know how to identify the adverb', 'confusing', 'because I don't know which is noun, verb or something...', 'I am confused with the preposition and conjunction and adverbs', 'have problem in understanding the words [parts of speech]'. Others did not give a definite yes or no response, but sat on the fence, yet expressing their difficulties with the parts of speech. One of the participants said, 'a bit problem, the parts of speech that I can't understand'. She refused to give a definite yes or no to the question, which asked if there were problems encountered with the game.

A cross reference to the questionnaire showed that the responses on the perceptions on learning grammar were not accurately represented by the participants in Section B of the questionnaire. Some possibilities attributed for these inaccuracies have already been mentioned.

For Question 6, majority of the participants (21) said that they referred

to the answer key. The answer key did not just provide the listings of words and the categories of the parts of speech that they belonged to, but also provided a definition of the various parts of speech followed by sentences identifying the position of and how the parts of speech are used. Hence, it can be said that majority of the students did not have the knowledge required to play the game. This was the cause of the frequent reference to the answer key. Two of the participants mentioned that they did not refer to the answer key as one of the lecturers was there to help them.

Question 7 of the interview was on whether the participants (players) got any help from their friends or lecturers. 23 of the participants said that they did receive help, mostly from their friends, who were also participants of the game as well as the friends who were watching them play the game. Two students said that they did not get any help while one said that she did get help 'sometimes'.

Question 8, received a unanimous response- that all the participants found the rules of the game easy. Only one participant replied, 'not too easy and not too difficult'. The researchers can draw the conclusion that the rules of the game that they had devised were easily comprehensible by the participants.

Question 9 was on whether the participants preferred learning grammar through games or textbooks. 27 of the participants chose games. Some of the reasons listed from the participants' responses were: 'easy to remember and understand', 'much more fun and less stress', 'because I am kinaesthetic', 'don't like reading', and 'fun and easy to get knowledge'. Two students said that they preferred textbooks over games for the simple reason that they feared enjoying the game too much that they may not focus on the learning part. Their words, 'I can identify my mistake better, when I play through game, I am more enjoyed, I may not focus, I may not focus, I may not get enough information for my knowledge' and 'because I afraid I too enjoy the game that I can't learn'. One of the participants said 'prefer both ways'. Hence, games were a preferred way of learning.

The last question, Question 10 was on whether the participants thought that the present POS game and other such games would benefit them or not. All 30 participants responded with a 'yes' and their reasons

were encapsulated by the words and phrases such as these: 'fun, increased learning, don't like to read, textbooks hard to understand, boring textbooks, boring teacher, the class is sleepy with textbooks, everybody like to play games, if teacher beside me, I will be pressured...'. These responses show that the students were very happy with the game, and the fact that they learned either incidentally or purposefully, through the medium of play and enjoyment.

CONCLUSION

From the above analysis and discussion of the data, it can be said that students lack grammatical knowledge and one way of bringing grammar back into the classroom is by using games, where they would be more engaged and find the learning process more enjoyable. What this study showed and confirmed from other studies was that the ambience of the classroom and the spaces which provide for opportunities to learn via interaction between peers and the instructor, in less formal circumstances favour greater learning. This may not always be possible but infusing the classroom methodology with such games would facilitate learning in safer and less stressful circumstances, especially grammar. Learners anxiety of negative evaluation would be reduced and enable them to generate new and refreshing learning strategies to cope with grammar. Most games are played in pairs or small groups (Jacobs & Liu, 1996), as these small groupings provide opportunities for learners to learn from and apply what they have learnt, with each other. This experimental study confirms that games such as the POS board game, increase learners' understanding in grammar knowledge, in this case, the parts of speech.

Further research should push this game to a greater dimension of how the parts of speech feature in sentences and perhaps even move into the digital sphere of learning. The limitation in the present study was not teaching the parts of speech as a revision or re-visiting the grammar components prior to the study. This is because there may be students who may be familiar with the parts of speech but yet need revision to recall what they have learnt. Hence, future research should consider incorporating revision prior to conducting a study or perhaps undertake an experimental study by comparing pre-test and post-test results to determine the effectiveness of the

board game. These areas should be explored and more research conducted where the understanding of the parts of speech could go into the written and oral usage platforms.

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