TEACHERS' ATTITUDES TOWARDS VLE AND ITS RELATIONSHIP WITH THEIR TEACHING PERFORMANCE

BY

FARHANA ABD GHANI

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International Islamic University Malaysia

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ABSTRACT

Frog Virtual Learning Environment (Frog VLE) has been introduced in Malaysian schools. This is a comparatively new addition in the Malaysian Education System and its implementation had a positive impact on teaching and learning practices. Nonetheless, recent studies on VLE predominantly focuses on teacher and students' readiness and perceptions, and there is limited research focusing on teachers' attitudes towards this technology, especially in primary education. Hence, this present research attempts to discover teachers' attitudes towards their actual use of the Frog VLE platform. Besides, it is aiming to identify the current trend of the VLE's actual use among primary school teachers of Gombak district. Moreover, the study explores the relationship between teachers' attitudes towards Frog VLE, its actual use and its relationship on teachers' teaching performance. In order to conduct the study, a quantitative survey was carried out among the primary school teachers in Gombak District. The researcher had used the stratified sampling technique to choose the participants where 392 respondents have undertaken the survey. Descriptive analysis was used to address the first research question, "What is the current trend of Frog VLE's actual use among primary school teachers in Gombak District?" and the second research question, "To what extent do teachers show their acceptance of Frog VLE in their teaching practices?" whereas Pearson's Product – Moment Correlation test was employed to the third, "Is there any relationship between teachers' attitudes toward Frog VLE's and its actual use?" and the fourth research questions, "Is there any relationship between teachers' actual use of Frog VLE, and their teaching performance?". The findings of the study show that there is a significant relationship between teachers' attitudes and Frog VLE's actual use as well as the teaching performance. Thus, this study recommends active participation of teachers in utilising the Frog VLE environment in their teaching practice.

خلاصة البحث

Frog Virtual Learning Environment) في نظام التعليم الذي كان متوقعا أن يعزز تجربة التعليم والتعلم في المدارس. ومع ذلك، فإن الدراسات الحديثة على بيئات التعلم الافتراضية تركز كثيرا على الاستعداد والإدراك وهناك بحوث محدودة تركز على إتجاهات المعلمين وإتجاهات الاستخدام خاصةً في قطاع التعليم الابتدائي الماليزي. تهدف هذه الدراسة إلى إكتشاف إتجاهات المعلمين الابتدائية تجاه تنفيذ بيئات التعلم الافتراضية، بالإضافة إلى ذلك فإنها تستكشف آثار استخدام بيئات التعلم الافتراضية على أداء التدريس للمدرسين وتهدف إلى تحديد الاتجاه الحالي لاستخدام بيئات التعلم الافتراضية بين معلمي المدارس الابتدائية في تعليمهم وتعلمهم. ومن أجل إجراء البحث عملت دراسة استقصائية بين ٣٩٢ من معلمي المدارس الابتدائية في منطقة غومباك تم اختيارهم باستخدام تقنية أخذ العينات المريحة وتم استخدام التحليل الوصفي لمعالجة سؤال البحث الأول والثاني ، وتم استخدام اختبار معامل ارتباط بيرسون لاختبار الإجابة عن أسئلة البحث الثالثة والرابعة. أشارت أن المواقف المتفائلة للمدرسين تجاه استخدام بيئات التعلم الافتراضية لها تأثير إيجابي على أدائهم التعليمي. علاوة على ذلك، أشارت الدراسة إلى أن جنس المعلمين يؤثر على اختيارهم لاستخدام مميزات معينة من (ضفدع) بيئات التعلم الافتراضية من قبل المعلمين في منطقة غومباك كان في ضمن مؤشرات الأداء الرئيسية التي حددتها وزارة التربية والتعليم. تدعي هذه الدراسة، إذا كان معلمو المدارس يدعمون نظرةً إجابيةً نحو هذه الأداة التعليمية الجديدة فإنها سيحسن مستوى الأداء في تدريسهم وستعزز تجربة تعلم الطلاب تدريجيًا.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Education.

……..
Sulaiman Hashim
Supervisor

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Education.

……..
Sharifah Sariah Syed Hassan
Examiner

This dissertation was submitted to the Department of Curriculum and Instruction and is accepted as a fulfilment of the requirement for the degree of Master of Education.

……..
Adnan Abdul Rashid
Head,
Department of Curriculum and Instruction

This dissertation was submitted to the Kulliyyah of Education and is accepted as a fulfilment of the requirement for the degree of Master of Education.

……..
Ismail Sheikh Ahmad
Acting Dean,
Kulliyyah of Education

DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Farhana Abd Ghani

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This dissertation is dedicated to my beloved dad Abd Ghani Hussain

Ayah, you made my life complete.

Syukran Jazilan

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The availability of Information and Communication Technology (ICT) has placed a significant amount of information at the fingertips of educators. Malaysian education system offers access to ICT usage to enhance teachers' teaching performance and students' learning skills. Since its implementation in 1991 by the Ministry of Education (MOE) Malaysia, various initiatives for promoting the use of ICT in education have been taken. Such initiatives include the Computer Literacy Project of 1991, Jaringan Pendidikan Project of 1994, The Smart School Project of 1997 and Computer Education Projects of 2002 (Termit & Noorma, 2015). Back in 1994, the Jaringan Pendidikan Projects in particular had equipped 50 selected secondary schools across Malaysia with the internet using analogue lines of 14.4 KBs modem. This Education Web Programme was launched by the MOE to introduce Internet among Malaysian students.

In addition, between 2004 and 2009, the Ministry of Energy, Water and Communication (KTAK) in collaboration with the MOE had launched the SchoolNet project providing access with 1Mb/s for 9654 schools and by 2010 internet access with 4Mbps available in 579 schools. After running for two years, the project had been handed over to MOE and rebranded as Malaysian School Network Project (MySchoolNet).

The development of the educational web programme continued in 2012 with the launch of 1BestariNet to Malaysian education system and one of the components

of this project was a Virtual Learning Environment (VLE). 1BestariNet provided "End to End" (E2E) network service for the purpose of teaching and learning (T&L) for all 10,000 schools under the Ministry of Education. All the schools in Malaysia had been equipped with the Hi-speed internet connection that allows access between 4 to 10 Mbps via 4G technology or between 2 to 4 Mbps using VSAT technology. Most of the rural areas received VSAT technology whilst urban and sub-urban experienced 4G technology.

The VLE has gained its popularity as an educational tool due to its flexibility and variety of teaching tools included in it (Lyndon & Hale, 2014; Ho, Higson, Dey, Xu & Bahsoon, 2009; Dotterer, 2002). This educational tool allows teachers to customise the educational contents according to their learners' needs and their level of mastery. Moreover, VLE has been recognised for its features which offer accessibility for the teachers to upload and retrieve teaching materials such as lesson notes, videos, images and lesson presentations at anytime and anywhere.

Furthermore, VLE also allows access to a wide range of interaction with other users, which lead to collaborative learning environments that enhance teachers' pedagogical practices. With all these advantages, the VLE becomes more appealing to the teachers as it makes their teaching more effective and increases their teaching performance. In addition, the introduction of the VLE in education will ensure that the students and teachers have access to the best and most current technological tools in their hands. So, VLE in general facilitates access to various teaching materials and educational tools (Ho et al., 2009).

In recent years, the education system has seen the effects of modern technologies on education sector. Introduction of Virtual Learning Environments (VLE) in the Malaysian Education System in 2010, has brought a noticeable growth in

teaching and learning. The MOE has taken the project seriously and invested a great amount of money for the sake of improving the use of ICT in education. Continuous efforts have been undertaken by the MOE for implementing various ICT programmes through 1BestariNet which includes increasing the facilities and provisions of high speed internet netbook for all educators (Ministry of Education, 2012).

The MOE introduces the current version of virtual learning environment by adopting Frog VLE through 1BestariNet Project. It is a web-based virtual learning environment platform that offers an interface where learners can benefit from input or access various types of media content that can be delivered through the Internet. When it was launched in 2011, 351 schools throughout Malaysia have been selected to champion its uses (Termit & Noorma, 2015). Those teachers in the selected 351 Champion Schools received first-hand training by FrogAsia while the Non-Champion Schools only received training by FrogAsia at their district level conducted just for the school administrators. These administrators, in turn, were assigned to train other teachers in their respective schools.

Different in-built options of Frog VLE help teachers in organising their lessons, enhancing networking and organising tasks virtually so that it can be made accessible to students at their convenience using Hi-speed connection. Therefore, Frog VLE has been considered as a new form of e-learning which is able to deliver instruction virtually through its online Learning Management System (LMS). This is also known as a web-based learning platform which improves the learning experiences beyond the restricted classroom setting. In fact, this platform is also globally recognised where the content, as well as the tools are integrated, for instance, in Khan Academy and Google Apps (Rafiza & Farah Dina, 2013). This will help

teachers to collaborate not only locally, but also globally and widen their networking and further enhance their teaching practice.

Frog VLE also empowers educators with the freedom to control their decisions about the pedagogies they are constructing. They can design their teaching according to the interest of teachers and students in teaching and learning. Boticki, Baksa, Seow, and Looi (2015) have mentioned that both educators and learners will gain experience and knowledge through fun in a virtual environment. Educators can minimise their preparation time for teaching. It will take some time in the beginning to set up on the virtual platform, but later they can just access it at anytime and anywhere. Previous study by Haight (2011) has highlighted that besides personalities, beliefs and attitudes share important characteristics in integrating the current educational environment with the new technology. Thus, the following paragraph will elaborate on attitudes towards technology acceptance, exploring which is the main aim of this current study.

1.2 ATTITUDES IN TECHNOLOGY ACCEPTANCE

Previous studies on information system have discovered that no matter how sophisticated and powerful the state of technology is, the extent to which it is implemented depends on teachers having a positive attitude towards it (Huang and Liaw, 2005; Teo, 2005). A study by Normie Azura binti Abdul Jamil, (2011) also stated that the success of any initiatives provided in education practices depends on the attitudes of the teachers. This is supported by theories from Rogers (1995) and Davis (1989) that mention attitudes as the main variable of success of technology implementation.

The Rogers (1995) Diffusions of Innovations Theory supports that the key element towards technology integration is attitude. It has been further elaborated that

teachers' positive attitudes will trigger their intentions towards the use of technology in education. Davis (1989) described that new technology acceptance is influenced by perceived usefulness and perceived ease of use. This is supported by Kaur and Hussein (2015) in their study on teachers' readiness in utilising Frog VLE which concludes that the new technology that comes with sufficient knowledge, tends to encourage teachers to act positively in utilising VLE platform. These two theories indicated that attitudes associated with the decisions making towards any new system.

Different researchers gave different definitions of attitudes for example Aiken (1980) describes attitudes as a tendency to respond positively or negatively to a certain concept or situation. Similarly, Loyd and Gressard (1984) in their study categorised attitude into four different variable which are: (i) liking; (ii) computer anxiety; (iii) computer confidence, and; (iv) perceived usefulness. Zimbardo and Leippe (1991) defined that attitude is an evaluation towards some object based on affective responses, behaviours and cognitions. Albirini (2006) and Chao (2005) support that attitudes are defined as a tendency to respond to three domains, namely, affective, behavioural and cognitive. Therefore, this study was conducted based on the three constructs to examine teachers' perspective towards the acceptance of Frog VLE implementation.

1.3 STATEMENT OF PROBLEM

Previous studies on VLE have been focusing only on students' academic performance (Kirschner & Karpinski, 2010; Sandra & Beverley, 2014). At present , research on Frog VLE mainly aimed at investigating the perception and readiness towards the system rather than understanding the teachers' performance (Bahari, 2015; Hiong & Umbit, 2015; Kaur & Hussein, 2015; Siti Noor Farhana Zaipul Bahari, 2015) in

general. Furthermore, studies on performance are mostly conducted outside Malaysia that point to either higher educators' perceptions (Ugras & Cil, 2012; William et al., 2009; Yuan, 2014) or students' performance (Kirschner & Karpinski, 2010; Yuan, 2014). Any new system is expected to improve whatever weaknesses or flaws were left within the old system. Thus, Frog VLE should enable the teachers to teach better in the classroom. Despite that, studies conducted on the impact of VLE on performance mainly deals with students' performance (Ling & Ling, 2016; Chong, Mansor & Ho, 2015; Moy, Hoe, Hairi, Chu, Bulgiba and Koh, 2015) and teaching effectiveness (Azlim, Amran and Rusli, 2015; Hassan, Jani, Som, Hamid, and Azizam, 2015; Jani, Shahid, Thomas and Francis, 2015). Moreover, Mei Lick Cheok, (2016) and Kaur and Hussein (2014) conducted studies on Frog VLE focusing more on exploring the teachers' readiness and experiences.

Since its implementation in 2011, the Educational Technology Division of Malaysian's Ministry of Education (MOE) has been continuously promoting Frog VLE to all teachers and students attending the government schools. The Frog VLE is a platform that increases the level of teaching and learning with the accessibility and advancement of the learning tools and the upgraded internet accessibility. It is a platform that has received much attention by the government and has been highlighted in Malaysia Education Blueprint 2013-2025, (2013). Thus, it should be a common scenario that nowadays teachers are expected to utilise VLE in their teaching practices.

During the transition from the old system to the new system, the participants' attitudes have played a big role in ensuring that the process of using the new system goes smoothly within an organisation. Previous researchers such as Mohammed Ageel, (2015) ; Termit & Noorma, (2015) have also explicitly elaborated on the need

of positive attitudes in ensuring the effective implementation of VLE in teaching and learning. Moreover, studies conducted by Nurbaya, Nurazean, & Ganthan (2015) focus on teachers' perception and acceptance. In other words, those studies indicate that attitudes determined the acceptance of the technology in teaching and learning. However, there is still a lack of empirical research on the teachers' attitudes towards Frog VLE particularly in Malaysia. Thus, this study attempts to investigate teachers' attitudes towards using Frog VLE in their teaching practices because it determines the acceptance of this VLE platform.

1.4 RESEARCH OBJECTIVES

The study has been designed to focus on four objectives. The objectives were based on investigating the Virtual Learning Environment (VLE) among primary school teachers in Gombak district.

1. To determine the current trend of Frog VLE utilisation among primary schools' teachers in their teaching and learning.
2. To determine the teachers' attitudes towards their acceptance on the use of Frog VLE in their teaching practices?
3. To investigate the relationship between teachers' attitudes toward Frog VLE and their utilisation trend.
4. To investigate the relationship of Frog VLE utilisation trends towards teaching performance.

1.5 RESEARCH QUESTIONS (RQ)

1. What is the current trend of Frog VLE's actual use among primary school teachers in Gombak District?
2. To what extend do teachers show their acceptance of Frog VLE in their teaching practices?
3. Is there any relationship between teachers' attitudes toward Frog VLE's and its actual use?
4. Is there any relationship between teachers' actual use of Frog VLE, and their teaching performance?

The following null hypothesis relate to RQ3 and RQ4

1. H_{03}: There is no significant relationship between teachers' attitudes on Frog VLE actual use.
2. H_{04}: There is no significant relationship between Frog VLE actual use on teaching performance.

The summary of the research questions and hypothesis of the study are displayed in Table 1.1.

Table 1.1 Research Questions and Hypothesis

	Research Questions	Hypothesis of the Study
1	What is the current trend of Frog VLE actual use primary school teachers in Gombak District?	Description: No hypothesis is involved.
2	To what extend do teachers show their acceptance of Frog VLE in their teaching practices?	Description: No hypothesis is involved.
3	Is there any relationship between teachers' attitudes toward Frog VLE actual use?	$Hypothesis_{03:}$ teachers' attitudes have no significant relationship on Frog VLE actual use.
4	Is there any relationship between Frog VLE actual use and their teaching performance?	$Hypothesis_{04:}$ Frog VLE actual use have no significant relationship on teaching performance.

1.6 LIMITATION OF THE STUDY

This study focused on investigating the relationship of attitude's characteristics and teaching performance within VLE environment. Despite that, there might be some other variables that might affected the teaching performance which was not covered by this study. Therefore, for the current study, several limitation will be addressed. For a starter, the sample for this study was chosen among the teachers teaching at primary school within the Gombak District. Thus, the generalization of findings must be carefully addressed due to the different nature of discipline for each school. In addition, the researcher also did not consider the gender of the respondents as one of the variables. Therefore, the sample for this study unable to represent the whole population of teachers in Malaysia. Future study in this field should be conducted in a more comprehensive way by considering a larger population and other extended variables.

1.7 CONCEPTUAL FRAMEWORK

In this research, the third phase of Diffusion of Technology by Roger (1995) has been adopted. According to this model teachers tend to adopt teaching innovations according to a series of stages: knowledge, persuasion, decision, implementation and confirmation. At the stage of encountering and becoming familiar with the innovative elements in online course, they will examine the possibility of continuing to explore or stop investing efforts to understand the significance of the system. This decision depends on their characteristic such as peer knowledge on technology and acceptance towards new technology. The stage of familiarization with knowledge involved the facilities available for teachers willing to try new technology for teaching. Evaluation also include assessment of their impact on the target population, for whom they are

delivering the system. At the persuasion stage the advantages should weighed more against the disadvantages of new system in comparison with current teaching practices. Additionally, the complexity of online platform should be considered and the efforts that the teacher in order to learn innovations of this type of teaching, including the technology involved in online teaching environment. For this study, the decision stage of this phase is applicable because this phase will determine teachers' execution of technology and which attitudes will influence the implementation of the VLE utilisation.

There are three components of attitudes perform in the previous research model by Normie Azura Abdul Jamil (2011) on attitudes towards the blog usage among educators. In her study, the researcher highlighted that these three components that influence the teachers' attitudes in accepting the system in their teaching. Therefore, to study the attitudes for this current study, the researcher also has differentiated the attitudes into three main components towards Virtual Learning Environment (VLE).

Figure 1.1 is the illustration of the conceptual model created for the current study which is based on the previous study. In addition, some items were adapted from Unified Evaluation for Education Service Officer (PBPPP) in determining teachers' performance towards Frog VLE utilisation to the model. The conceptual model for this study was created based on the theories adopted from Rogers (1995) and the Research model by Normie Azura Abdul Jamil (2011). All the variables represented in this study will be tested through the construct included in the suevey questionaires.

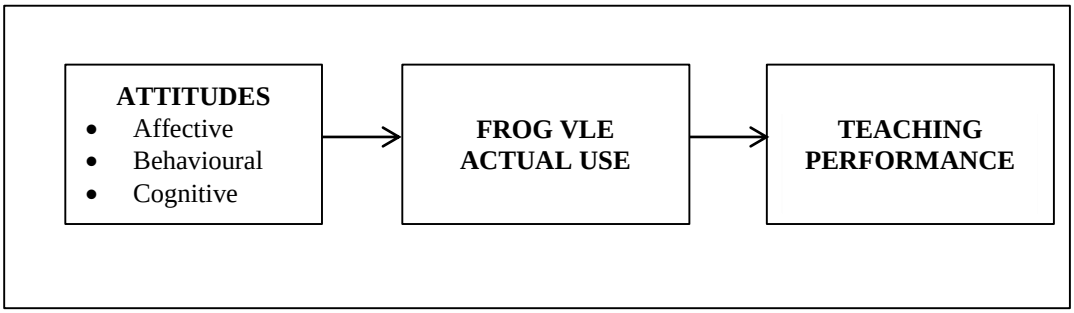

Figure0 1.1 Proposed Conceptual Model for the Current Study

1.8 SIGNIFICANCE OF THE STUDY

This correctional study was conducted to find and determined the linearity of the relationship between attitudes and Frog VLE actual use as well as the relationship between Frog VLE actual use and teachers' teaching performance. This study will lead future research to perceive the cause and effect for all tested variable. Hence, the gathered information will hopefully benefit the Ministry of Education indirectly to foresee the association of technology and teaching performance.

In addition, this study hope to provide the teacher with a choice of multimedia instruction in order to transform education in Malaysia corresponding to the revised Malaysian Education Blueprint (2013-2025) which encourages the collaboration and integration of virtual technology in education by using Frog VLE in their teaching practices.