

## THE USE OF VIRTUAL LEARNING ENVIRONMENT SYSTEM TO IMPROVE MALAY LANGUAGE PROFICIENCY

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### ABSTRACT

*Virtual Learning Environment (VLE) Frog is an educational system transformation project implemented by the Ministry of Education (Malaysia) under 1BestariNet project since 2011. Through this project, schools are equipped with virtual teaching and learning (T&L) methods. Therefore, this study aims to examine the use of VLE Frog in Malay language learning. This study also looks at the level of knowledge, attitude and readiness of students towards the use of VLE Frog in Malay language subject. Quantitative studies are used in this study. This study involved 240 form four students in four schools in Tawau district, Sabah. In this study, the researcher used a questionnaire instrument with five scales Likert for data collection. Descriptive statistics are used to see the analysis of mean, standard deviations, frequencies and percentages. Data obtained were analyzed using SPSS 22.0 program. The findings are analyzed using descriptive statistics and inferential statistics. The descriptive analysis found that three means namely knowledge (4.10), attitudes (4.27) and readiness (4.32) of the students on the use of VLE Frog are at a high level. This indicates that students have a high interest in the use of VLE Frog in their learning in Malay Language subject.*

**Keywords:** knowledge, attitude, readiness, virtual learning environment, Malay Language, ICT

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### Introduction

In today's globalization era, education system in Malaysia is beginning to evolve in tandem with technology and communication developments. There are various new methods introduced and applied to make effective teaching as well as easy and fun learning. According to Zamri and Mohamed Amin (2008), multimedia capabilities in delivering information quickly, precisely and can be an attraction to create a fun learning atmosphere. Thus, in the field of education the use of ICT is seems interconnected with each other. This suggests that ICT has a huge impact on the changes in the education system worldwide especially to developing countries. The use of ICT enables students to access information using the internet and share the information with friends and teachers.

Burnett (2010) thinks that today's children are grown in textual landscapes that enable them to be exposed in various ways to interact and play actively in digital environments such as computer games and mobile phones in cyberspace. This shows that the use of ICT in learning is very effective in improving the ability of students to think creatively and critically. Students will be more innovative to achieve some knowledge. Therefore, the independent attitude of the students will reduce their dependence on teachers. Alessi and Trollip (2001) study shows that ICT's integration into learning can provide advantages such as learning materials can be accessed at anytime and anywhere, can be used with a variety of other learning resources around the world; faster, simple, and systematic learning materials management and update as well as various forms of communication can be used for teachers and students.

The study of Alessi and Trollip (2001) has resulted in the transformation of education in Malaysia. MOE made an initiative by providing virtual environment platforms or Virtual Learning Environment (VLE) for the use of students, teachers, school staff and parents. This is seen as a positive move towards making education in Malaysia as the equivalent of education in the developed countries in the world. Therefore, to achieve the goal of international education, VLE Frog is introduced in Malaysia. VLE Frog has been developed since 13 years ago in the United Kingdom. VLE Frog is an award-winning

and easy-to-use virtual learning platform, as well as specially designed to be user-friendly. VLE Frog which is developed in the United Kingdom with 13 years of achievement record will focus on efforts to facilitate the lives of teachers and students as well as to improve teaching and learning techniques at schools. In addition, VLE Frog is also integrated with other powerful educational content and educational partners, including Google Apps for Khan Education Academy, to further improve teaching and learning techniques. Although technological aspects in pedagogical techniques implemented, it is very significant to highlight the importance of relevant educational theoretical foundations (Awang, Jindal-Snape & Barber, 2019).

The main goal of VLE Frog is to facilitate the delivery of teaching. Presentation of teachers will be more interesting and easily accessible anywhere by students through the internet access. This methods and techniques of teaching are also more effective than traditional methods practiced by teachers. Through VLE Frog, teachers can prepare assignments for students, make revision and give scores quickly. Students can complete their assignment from home. In addition, parents can also monitor the development of their children's learning virtually through the VLE Frog app. In addition, parents can also see the activities of their children in school.

The target of VLE Frog is to produce Malaysians who are knowledgeable and able to compete internationally. Therefore, VLE Frog is built to help teachers and school management to work more efficiently and economically. VLE Frog can also help to establish rapport and collaboration among educators around the country. This allows teachers to share ideas and resources to improve education. Therefore, this study is conducted to see the extent of VLE Frog is able to achieve its goals based on the knowledge, attitude and interest of the student on VLE Frog in Malay language subject.

### **Problem Statements**

Traditional education is usually associated with the T&L process as one way, the teacher as the presenter and the student as the recipient of the information. In this case, a teacher will play a major role as a key presenter of education and the student acts only as a listener. Rabeah (2006) states that in general, the T&L process in the classroom only focuses on lectures; teachers deliver the contents through lectures. Therefore, this method is seen as no longer dominantly applied in the ever-growing information technology era. This is because this method will only prevent the proliferation of student's thinking.

Along with the development of ICT in this latest education, we need to be sensitive to the needs of students in using this facility. Children are currently growing in textual landscapes where they have various ways to interact and play actively in environments created through digital technology such as computer games, mobile phones and the visual world (Burnett, 2010). Therefore, to ensure that every student benefit from the sophistication of the existing technology on this day, the aspect of student's readiness in using this facility needs attention. The students' readiness aspect includes the knowledge and skills of students in using ICT facilities.

The generation of students today is a 'Net Generation' that is born and grown up in line with the Internet and ICT environment and is often exposed to the development of computer-based technologies and electronic equipment (Oblinger and Oblinger 2007). Therefore, it can be seen that the attitudes, interest and achievement of this generation are largely influenced by the use of computers and the internet. This is because, it is common practice for today's students to use the internet in their daily routine (Altun and Cakun 2006). The internet has now become the easiest and most popular method for students to use to search various information related to education, especially in learning such as finding additional reference notes, past year's questions, sharing views and asking questions about a task or training through the social space on the internet (Arthur and Brafi 2013).

In addition to students' readiness, teachers also need to master ICT skills. This is because there are still teachers who are unfamiliar with the use of ICT facilities at school. This situation needs to be addressed immediately so that the government's goal of fully implementing ICT in learning system at

school can be achieved. Honey, Mc Millan and Craig (1999) stated that teachers were not given emphasis on the use of this technology in T&L in the classroom. This opinion was also supported by Anderson and Ronal (1987) in Chin SakFatt (1993) which states that most teachers do not use computers at their schools. Therefore, emphasis should be given to teachers to optimize the use of ICT in their teaching. Thus, this is an interesting question to conduct this study.

In creating a virtual learning environment or online learning or virtual learning, there are some challenges seen as a barrier to successful virtual teaching. Among the key obstacles identified are internet access facilities. Norzilawati (2013) states that internet access issues are an obstacle especially to rural and remote schools with a very limited internet access and this situation is preventing teachers from using this facility optimally. It becomes a dilemma to teachers in implementing this facility. Additionally, according to MohdAizuddin (2013) in his study on the improvement of teacher professionalism in the use of VLE Frog found that teachers who master the use of VLE Frog conduct T&L activities easier. All information and content of the lesson can be communicated to students quickly and systematically. However, some factors become barriers to the teachers such as lack of computer access rooms and poor internet access. As a result, teachers are more likely to pursue traditional methods in their teaching.

The purpose of this study is to examine the extent of student's knowledge on the use of VLE Frog as a virtual learning environment in learning Malay language. In addition, this study also examines the attitudes and readiness of students towards this system introduced by the ministry. The findings of this study are important to see the extent of VLE Frog has achieved its goal.

### **Objectives of The Study**

This study is conducted to examine the students' perspective on their knowledge, attitude and readiness to use VLE Frog learning environment for Malay language subject. Specifically, this study has several objectives to be achieved such as:

1. Identify the level of student's knowledge of VLE Frog's virtual learning in Malay Language subject.
2. Identify students' attitudes towards VLE Frog's virtual learning in Malay Language subject.
3. Identify the level of readiness of students towards VLE Frog's virtual learning in Malay Language subject.

### **Methodology**

The design of this study is quantitative type survey using a questionnaire. A set of questionnaires is used for data collection purposes. According to Elangkumaran (2009), a set of questionnaires has scientific and specific characteristics and can include a large population size through small and logical samples. Primary data is used to study the level of knowledge, attitude and readiness of students towards the use of VLE Frog learning environment in Malay language through the questionnaires. While resources from reference books and reading materials from internet access are used to obtain secondary data.

This study was conducted in four secondary schools, two urban schools and two rural schools in Tawau district, Sabah. The population of the study is Form Four students in Tawau district, Sabah. A total of 240 students that represented the Form Four population which consist of science and humanity streams are selected as a sample of this study. The sample size is determined by reference to the sample size table by Krejcie and Morgan (1990).

This study uses a survey instrument adapted from previous studies and from the Technology Acceptance Model by Davis (1989). As used in the study of Shinta Eka (2009), Luh Putu Raja Ayu Ratnaningrum (2013), IkaDestiana et al. (2013), Saiful et al. (2014), and Norfazida (2014), in this study researcher build the questionnaire based on previous studies. In addition, the questionnaire in this study is also modified and adapted accordingly in accordance with the requirements of the study. Descriptive statistics are used to see the analysis of mean, standard deviations, frequencies and percentages. Data obtained were analyzed using SPSS 22.0 program.

### Research Findings

#### Student Knowledge Level on the Virtual Learning Environment

Table 1 shows the mean score for student's knowledge level on VLE Frog in Malay language. From Table 1, it is found that all items are at a high level and the overall mean of this part is 4.10 which are at the high level of student's knowledge in the VLE Frog learning environment in Malay Language. Items 6 and 8 have earned the same mean and the highest in this section of 4.18 which is at a high level.

Table 1: The mean distribution of students' knowledge of VLE Frog in Malay language

No.	Item	Frequency and Percentage (%)					SD	Mean	Level
		SD	D	LD	A	SA			
B1	I know how to access VLE Frog	-	2 (0.8%)	18 (7.5%)	189 (78.8%)	31 (12.9%)	0.48	4.04	High
B2	Learning using the VLE Frog environment improves my mastery of Malay language	-	3 (1.3%)	16 (6.7%)	185 (77.1%)	36 (15.0%)	0.51	4.06	High
B3	VLE Frog is suitable for Malay language learning	-	11 (4.6%)	5 (2.1%)	187 (77.9%)	37 (15.4%)	0.59	4.04	High
B4	I like to use SCORM "widget" found in VLE Frog to increase my knowledge	4 (1.7%)	6 (2.5%)	5 (2.1%)	167 (69.6%)	58 (24.2%)	0.70	4.12	High
B5	The use of VLE Frog can improve my computer skills.	-	6 (2.5%)	7 (2.9%)	167 (69.6%)	60 (25.0%)	0.59	4.17	High
B6	The use of VLE Frog can improve my skills in using the internet.	-	4 (1.7%)	6 (2.5%)	173 (72.1%)	57 (23.8%)	0.54	4.18	High
B7	I know how to use every "widget" to build a dashboard	1 (0.4%)	4 (1.7%)	11 (4.6%)	171 (71.3%)	53 (22.1%)	0.59	4.13	High
B8	I know how to send the assignment using VLE Frog	-	-	7 (2.9%)	172 (71.7%)	61 (25.4%)	0.55	4.18	High
B9	I am good at signing in and signing out of VLE Frog	11 (4.6%)	-	3 (1.3%)	168 (70%)	58 (23.2%)	0.81	4.09	High
B10	I know how to download pictures and videos in the dashboard	10 (4.2%)	1 (0.4%)	16 (6.7%)	175 (72.9%)	38 (15.8%)	0.78	3.96	High
<b>Total</b>							<b>4.10</b>	<b>High</b>	

#### Student's Level of Attitude on the Virtual Learning Environment

Table 2 shows the mean score for student's attitude towards VLE Frog. The overall mean of 4.27 is at high level and all the items presented had the high mean value. The highest mean value of 4.48 is for item "I like to learn using VLE Frog learning environment" with 122 students (50.8%) strongly agreed, 112 (46.7%) students agreed and only 6 students (2.5%) disagree with that statement.

Table 2: The mean distribution of students' attitude towards VLE Frog in Malay language

No.	Item	Frequency and Percentage (%)					SD	Mean	Level
		SD	D	LD	A	SA			
C1	I like to learn to using VLE Frog learning environment	-	-	6 (2.5%)	112 (46.7%)	122 (50.8%)	0.54	4.48	High
C2	I feel good when accessing VLE Frog learning environment	-	-	-	149 (62.1%)	91 (37.9%)	0.48	4.38	High
C3	I can easily learn Malay language using VLE Frog	-	-	12 (5.0%)	108 (45.0%)	120 (50.0%)	0.59	4.45	High
C4	I enjoy using VLE Frog because it is easily accessible anywhere	-	12 (5.0%)	23 (9.6%)	50 (20.8%)	155 (64.6%)	0.86	4.45	High
C5	"Widget" inside VLE Frog is fun for me to learn Malay language	-	-	8 (3.3%)	193 (80.4%)	39 (16.3%)	0.42	4.13	High
C6	I like to use VLE Frog learning environment to find learning materials	-	4 (1.7%)	12 (5.0%)	159 (66.3%)	65 (27.1%)	0.59	4.19	High
C7	I am responsible for using VLE Frog	-	4 (1.7%)	21 (8.8%)	147 (61.3%)	68 (28.3%)	0.64	4.16	High
C8	I love the interesting VLE Frog display.	-	-	-	182 (75.8%)	58 (24.2%)	0.42	4.24	High
C9	I like to use VLE Frog with my friends.	-	9 (3.8%)	21 (8.8%)	143 (59.6%)	67 (27.9%)	0.71	4.12	High
C10	I like to use the forum in VLE	-	4 (1.7%)	28 (11.7%)	133 (55.4%)	75 (31.3%)	0.68	4.16	High
<b>Total</b>							<b>4.10</b>	<b>High</b>	

### The level of readiness of students towards Virtual Learning Environment

Table 3 shows the mean score for student's readiness level towards VLE Frog in Malay language subject. All items received a very positive response with 10 items submitted obtained mean of 4.32 which is at a high level. D10 had the highest mean of 4.63 (sd 0.70) with a total number of students strongly agreeing to the item is 171 students (71.3%), 58 students (24.2%) agreed, 1 students (0.4%) less disagreed and 10 students (4.2%) disagree with the statement that students can access the VLE Frog easily because they have internet access at school.

TABLE 3: The mean distribution of students' readiness towards VLE Frog in Malay language subject

No.	Item	Frequency and Percentage (%)					SD	Mean	Level
		SD	D	LD	A	SA			
D1	I'm ready to use VLE Frog in Malay language learning	-	-	13 (5.4%)	161 (67.1%)	66 (27.5%)	0.53	4.22	High
D2	I have access to the internet	-	-	-	160 (66.7%)	80 (33.3%)	0.47	4.33	High
D3	VLE Frog makes it easy for me to interact with my friends about learning Malay language	-	-	-	194 (80.8%)	46 (19.2%)	0.39	4.19	High
D4	VLE Frog makes it easy for me to interact with teachers about Malay language learning	-	-	15 (6.3%)	175 (72.9%)	50 (20.8%)	0.50	4.15	High
D5	I am able to study using VLE Frog outside normal school hours	-	-	20 (8.3%)	183 (76.3%)	37 (15.4%)	0.48	4.07	High
D6	I used VLE Frog at school during Malay language lesson	-	-	-	196 (81.7%)	44 (18.3%)	0.38	4.18	High
D7	I can access the VLE Frog easily because I have computer at home	-	-	4 (1.7%)	100 (41.7%)	136 (56.7%)	0.59	4.53	High
D8	I can easily access VLE Frog because I have internet at home	-	-	27 (11.3%)	76 (31.7%)	137 (57.1%)	0.95	4.35	High
D9	I am able to access the VLE Frog easily because there are computer facilities at school	-	4 (1.7%)	5 (2.1%)	69 (28.8%)	162 (67.5%)	0.61	4.62	High
D10	I can easily access the VLE Frog because there is internet access in the school.	-	10 (4.2%)	1 (0.4%)	58 (24.2%)	171 (71.3%)	0.70	4.63	High
<b>Total</b>							<b>4.10</b>	<b>High</b>	

## Discussion

This study shows that the level of knowledge of the students on the use of VLE Frog learning is very positive with the overall mean of 4.10 which is at a high level. Students are very positive in using VLE Frog learning environment as they can improve their skills in using the internet. In addition, the use of VLE Frog also helps students to submit the assignment given to them. Students need to be the driving force and triggers for the transformation of ICT society and the formation of digital society by the year 2020. Students should be prepared to carry out new tasks to develop ICT in teaching and learning. Students should have shifted from conventional learning methods to dynamic learning in the context of information technology usage. In addition, students should also be prepared to improve their knowledge and skills to make computers as a teaching and learning technology instead of conventional approaches that are less technological innovation based.

This study is supported by Ida Norini (2013) study on the effectiveness of using the virtual teaching concept of VLE frog among students of SK Haji Mahmud Chemor Perak. His study found that all students which are 100% liked the computer laboratory because they had a new learning atmosphere and from teacher's observations, they also found that students are excited to be able to enter the computer laboratory and use this app.

This study also found that the attitude of the students towards this virtual learning obtained a mean of 4.27 which is at a high level. Students love to learn using VLE Frog learning environment and they feel that learning Malay language using VLE Frog is easy and fun because this app is easily accessible anywhere. This finding is consistent with the findings of Ida Hazira et al. (2012) in their study; "The Interest of Students on Information & Communication Technology (ICT) among Form 4 & 5 Students at Sekolah Menengah Kebangsaan Seri Sentosa". The findings show that positive student's attitudes will further encourage and mobilize the use of ICT smoothly, comprehensively and thoroughly in teaching and learning in secondary schools.

In the readiness section of students on VLE Frog virtual learning in Malay language shows that all items received a very positive response with the mean of 4.32 which is high. This study shows that students can access VLE Frog easily because they have internet and computer facilities in school. Rohani et al. (2015) stated that technology plays an important role in the life of educators and students. This paradigm shift has a huge impact on the relationship of educators and students, students and learning materials and among students themselves. The findings were supported by the findings of Rohani et al. (2015) on the level of student's readiness to use technology, pedagogy, and content (TPACK) in curriculum learning for technology knowledge sections, items such as self-solving technical problems, easy to learn new technology, like to try current technology and know about the new difference in technology; most items have positive respond.

This study is in line with the findings of Husin (2010) which shows the students' perspective on Information Technology is at a high level. In the post-test, the statistic increased compared to the class taught using traditional methods. This shows that students are willing to accept the change from traditional teaching to the more attractive teaching using information and communication technology.

## Conclusion

The phenomenon of information technology waves, especially digital and computing power is challenging the educational system, requiring changes in many aspects including the learning theory. The impact is nowadays, cyberspace and virtual universities provides distance or online learning via the World Wide Web (WWW) with the help of information and communication technology tools. Significantly, the speed of application knowledge and the evolution of communication technology have changed the pattern of the community in today's society. Computer-based communication is not limited to disseminating information, but the potential of the technology has become more sophisticated by providing, collecting and processing knowledge and information (Zahiah and Abdul Razaq, 2010). Therefore, information and communication technology through internet technology is an important medium in preparing this globally-capable community in the 21st century.

Virtual Learning Frog (VLE FROG) is a virtual learning medium that becomes one of the main agendas in today's education. Through the above discussion, it clearly shows the issues and challenges that need to be addressed by various parties. In addition, the existence of VLE FROG through teachers, students and parents has formed a concept of virtual community in the school environment. It is hoped that each party plays its role in achieving the transformation of national education to a higher level. In order to produce Malaysia's ICT generation and to compete at a global level, the findings of this study are important to note.

The results showed that students in four schools in the district of Tawau had positive attitudes towards the use of virtual learning among students. This is a good start for the students to take on the increasingly challenging ICT wave in education. It also shows that the use of computers as the main medium in the ICT teaching and learning process is acceptable to the students. A few changes in teaching and learning process approach occurred. Among them is the focus shift from teacher-centered teaching to student-centered learning. In this case the students become the focus of learning activities that are oriented to exploration and discovery process based on constructivism theory approach.

The development of ICT has created a new flexible learning environment in terms of time, place, method and learning material, as well as creating more opportunities for greater collaboration in the education process (Baharuddin 2000). Researchers assume that students are fully utilizing the use of virtual learning provided in school and can attract students to the use of ICT in line with the government's call to make a world class education in our country.

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