# UNIVERSITI TEKNOLOGI MARA

# THE EVALUATION OF FROG VIRTUAL LEARNING ENVIRONMENT IMPLEMENTATION EFFECTIVENESS

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IT Project submitted in partial fulfillment of the requirements for the degree of Master of Science in Information Technology

**Faculty of Computer and Mathematical Sciences** 

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### **AUTHOR'S DECLARATION**

I declare that the work in this IT Project was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as reference work. This IT Project has not been submitted to any other academic institution on non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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#### ABSTRACT

Virtual Learning Environments (VLEs), are online systems supporting interactions between and amongst learners and teachers as well as access to resources and activities, have long been held to provide a range of benefits in further and higher education. Past studies have shown increasing usage of the VLE on students can increase their learning performance. This study evaluates the effectiveness of Frog VLE implementation; an initiative program conjunction between the Ministry of Education and YTL Network Sdn. Bhd. which has been in their five years of implementation in all schools in Malaysia in investigating how well the effectiveness of Frog VLE can contribute to the improvement of students' learning performance. The design of the study was conducted a survey method by using descriptive statistical comparison of the mean. The instrument used was an administrated questionnaire which has two main parts, part A is the demographic information of the respondents, while Part B is divided into five sections that is student perception towards Frog VLE implementation based on B (I) nature of students' self, B (II) teacher's expertise, B (III) usefulness and ease of use of the application, B (IV) existence of conducive learning environment and be (V) the effectiveness of a Frog VLE to improve learning performance. A total of 304 students participated in this study and the data were analyzed using Statistical Package for Social Science (SPSS 22.0). The instrument used consisted of questionnaire containing 9 demographic questions and 52 items using Likert scale questions. In addition, a guided written interview has been carried out among a group of teachers to examine their perception towards the effectiveness of the Frog VLE implementation in school too. Based on the analysis that has been made throughout this research study, the result has indicated that the factor of the usefulness and ease of use of the Frog VLE application has obtained the highest average mean which is 3.80 based on survey carried out on the students' perception towards the Frog VLE implementation effectiveness. While there are two factors which are teacher's expertise and the nature of student themselves has been defined as an important key factor that need to be given more focus in order to improve the effectiveness of the Frog VLE implementation. Furthermore, based on the Pearson Correlation Coefficient tested on the hypotheses statements generated in the earlier chapter, a two-tailed (2-tailed) test of the significance indicated there was a significant positive relationship between the teacher expertise and the effectiveness of the Frog VLE implementation where r (304) = 0.70, p (sig) < .05. Result of the relationship is most strong because the result for correlation coefficient has stated 0.695 compared to other factors. After the evaluation has been made based on the key factors influencing the effectiveness of Frog VLE, a guideline has been proposed to enhance the effectiveness of Frog VLE implementation in order to achieve better learning performance.

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