

**UNIVERSITI TEKNOLOGI MARA**

**IMPACT AND PERCEPTION OF E-LEARNING:  
PRE-POST SURVEYS AND EVALUATIONS**

**FAHMEEDA BINTI ADIB AZHARI**

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## **Abstract**

Nowadays e-learning is been actively practised in the tertiary education to provide a better learning environment for the students. E-learning was recently implemented in the Principles of Pathology, a core subject for second year Bachelor of Pharmacy programme. This new initiative is one of the ways to vary the student learning medium by doing away from face-to-face interaction in the classroom. The purpose of this research is to study the pharmacy student's perception on e-learning intervention in pathology subject and the effect of the student's academic achievement on the perception of e-learning. The Constructivist Online Learning Environment Survey (COLLES) was used to assess the student perception on e-learning application, while pre- and post-test design was used to study the effect of student's academic achievement following the e-learning intervention. Data collected from 196 second year pharmacy students, revealed that students had an optimistic perception of e-learning application in this course and there was significant increase in gaining knowledge following the e-learning intervention. Result showed, Reflection ( $3.98 \pm 0.47$ ) and Tutor Support ( $4.30 \pm 0.34$ ) are significantly increase in actual COLLES score. This might be due to the activities provided had develop their critical thinking and there are immensely lecturers' involvement throughout the e-learning session respectively. Statistical test indicated that the student's perception on e-learning is not correlated with knowledge gained post e-learning intervention. The students felt that e-learning can be beneficial for them in term of increasing their knowledge, building up teamwork and flexibility time of study.

# **Chapter One- Background of study and Significance**

## **1.1 Introduction (Overview)**

The upraising use of web-based technology and internet in the educational system is well known to the world especially in the tertiary education. One of the early application of web-based technology is the e-learning (electronic learning), where the learning process involved mostly the used of web-based technology. E-learning was first designed as to give opportunities for those who are unable to receive formal education along with working adult who are interested in continuing their study while working at the same time (1). Now e-learning has developed where it is applicable for all students regardless they are full time learner at the university or distance learner.

E-learning is not a new phenomenon in Malaysia, since the late 90's, universities in Malaysia have started to implement e-learning in their education system (2, 3). Even though there are difficulties during the implementation of e-learning, it is still actively being practiced in the universities mainly due to the benefits that come along with it including its' flexibility, accessibility and scalability to reach a wider audience (4).

Developing an effective e-learning can be a continuous process and the responsibility does not only fall on the shoulder of the developers. Effective e-learning requires a great contribution and cooperation from different parties such as the student, the academic staff, the government and the institutions itself. Through collaborative efforts from different parties, e-learning will certainly bring a positive impact to the students, institution and educational system.