ABSTRACT

Options, accessibility and control have been provided by e-learning systems to promote the success of education process. However, there are many problems impeding the educational progress to satisfy everyone’s need. The reason for this is that e-learning is unable to cope with individual learning style. In terms of teaching and learning process there are similarities between traditional classrooms system and e-learning system, but technically they are totally different due to many issues. The most critical issue is that the learner is more independent in e-learning system, whereas in traditional classroom a teacher can monitor and react accordingly based on student’s response. Therefore, e-learning system needs to be adapted to the learner’s responses and presents information based on individual learning style. However, learners sometimes do not know how to learn and what approach suits them most. Although there are many learning style models, theories, and methodology that have been used for a long time in education, none of them have adequately covered all learning aspects such as personality, emotional issues, scale differences, and preferences. In e-learning when the learning style of the student is not compatible with the teaching style of the teacher; difficulties in academic achievement can result. Therefore, knowing what is the preferred learning style and favorite study environment supporting emotional intelligence enhance the success of learning and teaching process. This research investigates how personalized courses can be delivered to the learner in adaptive environment. This was done by analyzing the available learning style models and extracting the suitable activities for e-learning system based on individual learning characteristics and preferred e-learning environment. The learning styles are classified according to five learning approaches, namely sequential, mind map, problem based, inquiry based and gaming. In this research an e-learning model was developed together with neural network to improve e-learning system and accommodate learners based on their learning preference. Results from a survey conducted are used to validate the model. The system was tested on a group of students and found to be adaptable to their different learning styles.
ACKNOWLEDGEMENTS

\textit{In the name of God, Most Gracious, Most Merciful}

I would like to express my gratitude to my exceptional supervisor Prof. Dr. Mohd Sapiyan Baba for his guidance, support and his continuous enthusiasm and interest during my study. I am indebted to my previous supervisor Prof. Dr Khairuddin Hashim for his advice and suggestions.

As ever, my lovely husband Mufid M. Musrati is a constant source of support, unconditional understanding and encouragement. His efforts do not go unnoticed, and is greatly appreciated.

My gratitude also goes to my sons Mohamed, Taha, Nezar and Moaid, to my mother, sisters and brothers for their encouragement, patient and prayer throughout my study.

It is my pleasure to acknowledge the Libyan government that awarded a scholarship to finance my study.

Last, but certainly not least, I would like to thank all the staff of the Faculty of Computer Science & IT of University Malaya for their services, making my time pleasant one.

\textit{Hanan Etaher Dagez}
RESEARCH PUBLICATIONS


I would like to dedicate this work....

To my lovely husband Mufid, and my sons Mohamed, Taha, Nezar and Moaid

To my father’s soul and my mother, brothers Husam and Hatem,

and sisters Nesreen and Samah.
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