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Study of web-based learning and auxiliary training with vocational college students in applied technology acceptance model.

Chen, Shengyong (ed.) et al., New advances in multimedia systems and signal processing. Proceedings of the 10th WSEAS international conference (MUSP '10), Hangzhou, China, April 11–13, 2010. Athens: World Scientific and Engineering Academy and Society (WSEAS) (ISBN 978-960-474-177-9/CD-ROM; 978-960-474-176-2/hbk). Electrical and Computer Engineering Series. A Series of Reference Books, 143-149 (2010).

Summary: This study proposes the theories of the electronic learning and technology acceptance model to help promote acceptance rate of web-based learning and auxiliary training for technical and vocational college students. The study discusses the external factors, perceived ease of use, perceived usefulness, satisfaction toward E-learning tools and intention of use. A survey was conducted with technical and vocational college students, and 400 effective samples were received. The findings are as follows: 1. The perceived ease of use shows positive correlations with “frequency of internet use” and “function and interaction of web-based learning”. 2. The perceived usefulness shows positive correlations with “frequency of internet use” and “function and interaction of web-based learning”. 3. The perceived ease of use has a positive correlation with the perceived usefulness. 4. The perceived ease of use shows positive correlations with outcomes of using E-learning tools, content of E-learning tools and overall satisfaction. 5. The perceived usefulness has a positive correlation with the intention of use. 6. The intention of use shows positive correlations with outcomes of using E-learning tools, content of E-learning tools and overall satisfaction. 7. The perceived usefulness and overall satisfaction of using E-learning tools have a significant effect on intention of use with a predicted loading of 47.7%. Intention of use and overall satisfaction are the most influential factors. Therefore, the research suggests special emphasis on the enhancements of learners’ self-efficacy on the internet and of the interaction between the instructor and the student body in activities. The options of web-based learning and auxiliary training can make this process more flexible, and thus the features of E-learning and its goal can be maximized.

Classification: U50

Keywords: technology acceptance model (TAM); web-based learning; auxiliary training; vocational college students