

DEVELOPMENT OF A BRING YOUR OWN DEVICE (BYOD) ELEARNING CONCEPTUAL FRAMEWORK FOR PRIVATE SECONDARY SCHOOLS IN DUBAI, UNITED ARAB EMIRATES.

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ABSTRACT

The objectives of this dissertation were (1) to study the impact of grade 9 students' achievement in Science and Mathematics in BYOD schools and Non-BYOD schools, (2) to examine the variation in grade 9 students' achievement in Science and Mathematics based on gender in BYOD schools and Non-BYOD schools, and (3) to develop a BYOD eLearning Conceptual Framework for private secondary schools in Dubai, UAE based on documentary research and confirm it with an empirical research.

The population of this quantitative non-experimental design included 21,127 students and 1,241 teachers. The sample size was 1,800 students and 120 teachers. Probability sampling method was used in this research study. The data collecting instruments were self-administered questionnaires. The data were analysed using both descriptive and inferential statistical methods such as percentile, mean, independent t-test, Chi-Square test and discriminant analysis.

Major Findings : 1) The student's achievement in Mathematics and Science in BYOD Schools vs Non-BYOD shows there was a significant difference in both subjects score with BYOD schools students score are higher (Mean score, Mathematics – BYOD School – 78.01, Non-BYOD School – 74.50, Science – BYOD School – 77.84, Non-BYOD School – 74.01) ; 2) On comparison of students' achievement in Mathematics and Science with their genders in BYOD Schools show there were significant difference whereas the Non-BYOD Schools shows the differences were not significant and ; 3) the BYOD critical factors such as Teaching Methods (TM), Learning Methods (LM), Technology Usage (TU), and Evaluation Methods (EM) of BYOD Schools have a positive impact on student achievement, and hence the BYOD eLearning Conceptual Framework found to be effective.

The “new knowledge” found in the field of eLearning Methodology was the detailed finding of the influence of TM, LM, TU and EM on student's Science and Mathematics achievements of BYOD schools. “Academic Progression” which is used as proof of the expertise of a researcher in the field of eLearning Methodology was the body of knowledge that the researcher acquired with regard to BYOD eLearning factors which can impact student achievement in Science and Mathematics with this empirical research.

Keywords: Bring Your Own Device (BYOD), Digital Content, eLearning, Technology Integration, Technology Usage, Virtual Learning Environments