

Factors Affecting Information and Communication Technology (ICT)
Integration in Jordanian Secondary Schools

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ABSTRACT

This study attempted to investigate the relationship between stages of concern, adopter categories, obstacles faced by the teachers and the strategies used by the teachers in integrating ICT in the teaching and learning process in Jordanian public schools, while attitude toward computers was used as a moderator variable. A concern-based adoption model and Rogers' adopter categories were used as basis for this study. The researcher distributed 360 questionnaires to teachers who taught English, Math and Science in the Amman area in Jordan only 345 were usable.

Descriptive and inferential statistics including one way ANOVA, independent sample t-test, correlation and hierarchical regression were used to analyse the data. Data showed that Jordanian teachers exhibited high attitude and moderate concern towards integration of ICT. In addition, the teachers faced many obstacles when they integrate ICT in their classroom such as time-related obstacle, training and insufficient equipment. This study indicated that there were no significant differences in teachers' stage of concern based on their demographic variables which include teaching experience and subject matter taught. But the study indicated that significant differences were found between subject matter taught with regard to obstacles and strategies in ICT integration. Similarly, significant differences were found between teaching experience with regard to obstacles and strategies in ICT integration. English teachers as well as the teachers who belong to the group with 1-5 years of experience were found to face lesser obstacles and integrate ICT more than the other groups. This study also revealed that there was a positive relationship between concern and strategies in ICT integration. On the other hand, there was a negative relationship between obstacles in ICT integration and the strategies in ICT integration. Moreover, this study showed that teachers' attitudes toward computer did moderate the relationship between obstacles in ICT integration and the strategies in ICT integration. But, attitudes towards computer did not moderate the relationship between concern and strategies in ICT integration. The results showed that out of the thirteen hypotheses only three were rejected.

Findings from the interview showed that the early and late adopters differed in terms of integrating ICT in the classroom. It also confirmed the results of the questionnaire that Jordanian teachers faced many obstacles when integrating ICT for teaching and learning purpose. On the contrary, the interview showed that most of the teachers still employed conventional teaching strategies.

Based on the findings, several recommendations are provided including the need to provide training for late adopters, to synergize between the early and late adopters and to plan properly for technology integration in order to enhance technology integration in Jordanian schools.

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CHAPTER I

INTRODUCTION

1.0 Introduction

The process of teaching and learning in the modern era has undergone radical and basic changes due to continuous developments in technological, instructional, and pedagogical domains (Bonk & King, 1998; Marina, 2001). Information and Communications Technology (ICT) is reported to change the traditional educational foundations that ought to facilitate and enhance learning. The use of ICT in Jordanian schools can be enhanced through effective continuing professional development (CPD). The Jordanian Ministry of Education feels that ICT should be integrated in teaching and learning.

ICT revolution has brought with it a variety of means, including productivity software, multimedia and network devices along with the diffusion of personal computers which opened new horizons of the development and implementation of new and innovative teaching strategies over the last decade. Integrating ICT in the learning process was motivated by the belief that this technology helps improve and prepare students to participate effectively in the 21st century workplace (Butzin, 2000; Hopson, Simms, & Knezek, 2002; Reiser, 2001).

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