SELF-EFFICACY, PRINCIPALS' SUPPORT, STAGES OF CONCERN IN INTEGRATING E-LEARNING IN THE JORDANIAN DISCOVERY SCHOOLS

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by

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DEDICATION

To My Lovely Wife

Dr. Nagham AL-Madi

To My Lovely Two Sons

Amr & Samer

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IN THE NAME OF
ALLAH
THE ALL-COMPASSIONATE, ALL-MERCIFUL

"Read in the name of thy Lord who createth, createth man from a clot. Read and the Lord is the most Bounteous, who teacheth by the pen, teacheth man that which he knew not" (Alalak: 1-5)

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TABLE OF CONTENTS

CHAPTER 2 – LITERATURE REVIEW

CHAPTER 3-RESEARCH METHODOLOGY

LIST OF TABLES

Page

LIST OF FIGURES

EFIKASI KENDIRI, SOKONGAN PENGETUA DAN PERINGKAT KEPRIHATINAN DALAM MENGINTEGRASIKAN E-PEMBELAJARAN DALAM SEKOLAH 'DISCOVERY' DI JORDAN

ABSTRAK

Kajian ini menyelidik kesan daripada efikasi kendiri (self-efficacy), persepsi prinsip sokongan (perceptions of princpals' support) dan tahap keprihatinan para (stages of concerns) guru sekolah di Jordan tentang integrasi e-pembelajaran dalam pengajaran mereka. Pembolehubah moderator dikenal pasti sebagai gender dan pengalaman mengajar. Seramai 350 orang guru dipilih secara rawak daripada semua sekolah menengah yang terdapat di empat daerah di Amman, ibu negara Jordan. Model Pendekatan Berasaskan Keprihatinan dan teori Resapan Inovasi Rogers diaplikasikan dalam kajian ini. Data dikumpul secara kuantitatif melalui penggunaan 4 instrumen lapor – sendiri untuk mengukur (1) keberkesanan diri guru (2) persepsi prinsip sokongan, (3) tahap keprihatinan guru, dan (4) usaha guru mengintegrasi e-pembelajaran dalam proses pengajaran dan pembelajaran.

Respons bagi kajian ini dianalisis menggunakan statistik deskriptif (min, dan sisihan piawai), ANOVA dua-hala dan teknik regresi berbilang. Dapatan kajian menunjukkan

bahawa, pada keseluruhannya, guru sekolah di Jordan, mengintegrasi e-pembelajaran dalam pengajaran mereka secara sederhana sahaja. Di samping itu, mereka juga mempamerkan tahap keberkesanan diri yang sederhana, dan menunjukkan sikap positif yang sederhana dari segi persepsi prinsip sokongan. Dari segi keprihatinan, secara dominannya mereka menunjukkan tahap yang berbeza. Dari segi gender, guru lelaki dan wanita tidak menunjukkan sebarang perbezaan dalam mana-mana. kategori tersebut. Namun demikian, jika dilihat dari perspektif pengalaman mengajar, keprihatinan guru yang mempunyai pengalaman mengajar 1-5 tahun dapat dikategorikan pada tahap 'kolaborasi", dan yang selebihnya dikategorikan pada tahap 'personal'.

Berdasarkan statistik inferens, ditemui bahawa tiada perbezaan yang signifikan dalam kalangan min kesan utama, bagi kedua-dua pembolehubah (pengalaman mengajar dan gender) terhadap integrasi e-pembelajaran. Begitu juga, tiada kesan interaksi yang signifikan di antara keduanya. Dari perspektif keberkesanan diri, ditemui perbezaan yang signifikan dalam kalangan min kesan utama, bagi pengalaman mengajar dan gender, terhadap integrasi e-pembelajaran Di samping itu, terdapat kesan interakasi yang signifikan di antara pengalaman mengajar dan gender, dari aspek keberkesanan diri guru terhadap integrasi e-pembelajaran Ditemui juga bahawa, guru wanita yang berpengalaman mengajar 1-5 tahun (M = 3.66, S.D. = 0.423) mempunyai keberkesanan diri yang lebih tinggi terhadap integrasi e-pembelajaran dibandingkan dengan guru lelaki (M = 3.38, S.D. = 0.431) dalam kategori yang sama. Dari perspektif persepsi prinsip bantuan, tiada perbezaan yang signifikan dalam kalangan min kesan utama, bagi pengalaman mengajar dan gender, terhadap integrasi e-pembelajaran. Begitu juga, tiada kesan interaksi yang signifikan di antara kedua-dua pembolehubah.

Melalui analisis regresi berbilang, ditemui bahawa persepsi guru terhadap prinsip sokongan, tahap pengurusan, tahap bermaklumat dan tahap konsekuen (stage of consequence), menyumbang secara signifikan pada varians integrasi e-pembelajaran. towards. Pekali beta terbesar ialah 0.224, iaitu bagi persepsi guru terhadap prinsip sokongan. Apabila pengalaman mengajar dan gender dikawal, didapati bahawa persepsi guru terhadap prinsip sokongan, tahap pengurusan, tahap bermaklumat dan tahap konsekuen, masih memberi sumbangan yang signifikan. Sekali lagi, persepsi guru terhadap prinsip sokongan mencatatkan nilai beta tertinggi (beta= 0.225, $p < 0.05$), diikuti dengan tahap pengurusan (beta = -0.189, $p<0.05$), tahap konsekuen (beta = 0.170, $p<0.05$) dan tahap bermaklumat. (beta = -0.160, $p<0.05$).

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ABSTRACT

This study examines the effect of self-efficacy, perceptions of principals' support and stages of concerns of teachers in Jordan Discovery schools on the integration of e-learning into their teaching. The moderator variables identified were gender and teaching experiences. A total of 350 teachers were randomly stratified from all secondary Discovery schools in the four districts (strata) of the capital, Amman. The Concerns Based Approach Model and Rogers' Diffusion of Innovation theory were used in this study. Data was gathered quantitatively by the use of 4 self-reporting instruments to measure (1) teachers' self-efficacy, (2) perception of principals' support, (3) teachers' stages of concern and (4) teachers' efforts to integrate e-learning into the teaching and learning process.

The responses from the survey were analyzed with descriptive statistics (means, and standard deviations), two-way ANOVA and multiple regression techniques. The findings of this study indicated that overall, Discovery school teachers only moderately

integrate e-learning. In addition, they exhibit moderate levels of self-efficacy, and are moderately positive in their perception towards principals' support. Also they are dominantly at the stage of 'personal' on the different stages of concerns. Male and female teachers do not show any difference in any of these categories but taken from the perspective of teaching experiences, only teachers in the 1-5 years were placed at the stage of 'collaboration' while the rest were at the 'personal' on the different stages of concerns. From inferential statistics, it was found that there were no significant differences among the means for main effect for both teachers' teaching experiences and gender on integration of e-learning and neither was there any significant interaction effect between the two. From the perspective of self-efficacy, there were significant differences among the means for main effect for both teachers' teaching experience and gender on the integration of e-learning. In addition, there was a significant interaction effect between teacher's teaching experiences and gender from the aspect of teachers' self-efficacy on the integration of e-learning. Also, female teachers who have 1 to 5 years of teaching experience (M = 3.66, S.D. = 0.423) have higher self-efficacy on the integration of e-Learning in comparison to male teachers (M = 3.38, S.D. = 0.431) in the same category. From the perspective of perception of principals' support, there were no significant differences among the means for main effect for both teachers' teaching experience and gender on the integration of e-learning as well as no significant interaction effect between the two variables. Through multiple regression analyses, it is found that teachers' perception towards principals' support, stage of management, stage of informational and stage of consequence contribute significantly on the variance of the integration of e-Learning. The largest beta coefficient is 0.224, which is for the teachers' perception towards principals' support. Even when teaching experiences and gender

were controlled for, teachers' perception towards principals' support, stage of management, stage of informational and stage of consequence contributed significantly. Again, teachers' perception towards principals' support recorded the highest beta value (beta= 0.225, $p < 0.05$), followed by stage of management (beta = -0.189, $p<0.05$), stage of consequence (beta = 0.170, $p<0.05$) and stage of informational (beta = -0.160, $p<0.05$).

CHAPTER ONE

INTRODUCTION

1.0 Background of Study

The evolving industrial-based society into the knowledge-based society has made a big change in the social environment, at the same time, increasing the value of knowledge and together with it we witness the rising volume of information. The changes in the broader society have made its effect upon the educational sector as well. For example, the Internet is not only being used for communicational applications, but, for many other uses, such as in businesses where it commands the world with electronic business (AL-Assaf, 2006; Nadaf, 2002).

By reason of these rapid changes taking place, there have been extensive changes on educational practices worldwide (Braathen & Robles, 2000; Brown, 2000), and due to this information revolution; the educational practices have changed in new and unexpected ways. It is expected that learning will be more relevant with the emergence of information communication technologies (ICT) in the field of education not only for students but also for teachers as well. The presence of some technologies inside the classrooms brought to light what is called e-Learning. Spender (2001) ensures that e-Learning is the next generation in learning.

Different terms are usually used for this type of learning such as (e-Learning) which is considered the most used in the area of teaching and learning electronically, other terms also used are online learning, electronic education, virtual learning, and web-based learning. However, e-Learning is considered a broader concept than the concept of online learning. It is in which a wide set of applications and processes are flexibly using available electronic media to deliver vocational education and training (Davies, 1998).

e-Learning as a term is now used in order to capture the general intent to support a broad range of electronic media such as Internet, intranets, extranets, satellite broadcast, audio/video tape, interactive TV and CD-ROM and this will give more flexibility in learning (Eklund, Kay & Lynch, 2003). Stockley (2004) defines e-Learning as "the delivery of a learning, training or education program by electronic means. However, learning has changed to become more attractive with animations, visuals and sounds, playing games and full of other activities that are available any time and any place. Ballard (2000) claims that technology rearranges the system of education. It offers new ways of learning for students, in addition to new ways for the teacher to present and provide knowledge in the teaching process.

In short, computer technology is changing the whole process of teaching and learning globally (Embi, 2007). Together with this, the teacher's roles, the student's roles and the educational management have also been changed according to the new changes in the educational environments and in building, performing and introducing the educational performance under such circumstances. Therefore, the roles of teachers

have been changed from a dictator to the organizer for educational performance, where, e-Learning is being also exploited in conferences, where, there are a direct contact and conversations with the school colleagues (Al-Ghareeb, 2001).

Online methods are more effective education tools, which offer many important advantages over traditional teaching methods as argued by (Volery & Lord 2000). On the other word, teachers can offer constant educational support in the environment of e-Learning (McClelland, 2001). This is due to students who can easily communicate with classmates and teachers, visit web sites and view course material regardless of their time and location.

e-Learning serves as an alternative to traditional classes, so learning is not any more related to the location, but it can be taken anywhere outside the class. The process of learning is concerned with attitudes, values, skills and knowledge, and has the ultimate goal of effecting a change in performance and behavior, and so achieving the objective of adding worth or value to an organization or individuals. In this kind of setting, the true potential of e-Learning lies principally in its ability to provide on-tap learning that is, learning available anytime, anywhere and with the necessary network to enable collaboration. Therefore, the potential for an organization like a school or any educational institute engaged in e-Learning is that it can be in a state of continuous learning or continuous change. In other words, e-Learning can be a force or enable for changing the process of teaching and learning.

There have been other kinds of educational changes brought about by the needs and requirements of certain groups and governmental institutions such as decentralizing schools, home learning, school-based assessment and that of e-Learning integration (Fullan, 1993). In all these cases, the reforms have usually been imposed upon certain quarters by those in power and the introduction of e-Learning is no exception. Mackenzie-Robb (2004) pointed out that in almost every case; e-Learning has been introduced to an organization using to improve its performance. He further reminded that e-Learning and changes to an organization must be seen against a broader background of often conflicting issues and dynamics. In other words, an organization does not change simply by implementing the change as e-Learning projects go but require also a consideration for individual needs during the initiation, implementation and institutionalization of change in an organization.

According to Abouchedid and Eid (2004) in their study of faculty attitudes and experiences with online teaching in the Arab world, the educators question the efficiency and effectiveness of the online tools. In addition, the educators often find themselves forced to handle large portions of online teaching operations, without proper support and assistance from technical and pedagogical specialists. These situations were set to become major concerns for them.

In addition, Pajares (1992) found strong relationships between teachers' educational beliefs and their planning, instructional decisions, and classrooms practices and that educational belief of pre-service teachers plays a pivotal role in their acquisition and interpretation of knowledge and subsequent teaching behavior. In view of this, there

are multiple factors, which could influence decision making by teachers on the usage of computers such as the accessibility of hardware and relevant software (Albion, 1999). Also, there are substantial important factors affecting how teachers work effectively with technology, and that is their beliefs in their capacity in working with this technology.

Bandura's social cognitive theory states that self-efficacy beliefs influence the choices people make and the courses of action they pursue (Pajares & Schunk, 2001). Recently, in research studies it was found that the nature of teacher's role, planning, and consequently, curriculum and student learning is effected strongly by teachers' self-efficacy beliefs (Tobin, Tippins & Gallard, 1994). These findings verify that readiness of a community undertaking an innovation must be assessed and considered before success is more fully ensured and resources spent to do not go to waste. Rogers (1995) in his explication of the adoption of new innovations highlighted the importance of how a cultural and local environment should be understood, before applying an innovation in that environment. This he indicated is necessary when promoting the adoption of the new innovations.

In very recent times, Jordan embarked on an ambitious plan to make full use of the information technologies potential in order to maximize its ability to compete in local, regional, and global markets. This kind of initiative was also extended to the educational system when e-Learning began to be integrated in Jordanian schools as part of its national modernization and development plans (Al-Fayoumy, 2003; Toukan, 2003). An E-readiness Assessment Report was prepared to provide a high

level of ICT sector views with references to the use of ICT in the government. However, the assessment data are available to the government of Jordan but are not accessible to the general public.

The E-readiness exercise describes the ability of a country's economic stakeholders that is individuals, businesses and governments to capitalize on the opportunities that a strong environment brings. It requires appropriate access to e-Learning devices, be it PC, DTV or a mobile device, plus the skills and the desire to use it (JMOE, 2003). The main elements of E-readiness are costs of PC acquisition and connection charges. Others include having an adequate infrastructure like cellular lines penetration and bandwidth account and also usage. Usage describes the uptake of online services, and the volume and sophistication of use ranging from surfing and emailing through to publication of their own web pages. For business and government, basic use is the publication of a website.

While this kind of data exists for ICT initiatives in the government presumably for improvement, upgrading and expansion purposes, there are none available to the educational sector for this same purpose. Moreover, the considerations above do not look into the personal needs and concerns of the individuals involved in ensuring the success of the projects. Specifically, researchers have hypothesized that teachers had different kinds of concerns over time as they become more experienced in their teaching (Hall, George & Rutherford, 1979). More recently this has given way to the acknowledgement that these levels of users' concerns when faced by an innovation is known as the 'stages of concerns' (Hall & Hord, 2001).

The Stages of Concerns identifies four broad stages of concern involving the unrelated (concerns not related to the current innovation), self (concerns about how the innovation personally affects the individual), task (concerns about how the innovation is managed), and impact (concerns about how the innovation effect others (Hall & Hord, 2001). Moreover, these concerns which may present itself as emotions, perceptions, attitudes and feelings appear to be developmental in that the earlier concerns are lower in intensity while the later concerns are more intense (Fuller, 1969, Hall & Hord, 2001).

Teachers' concerns and teachers' self-efficacy beliefs are both important concepts to study the implementation of an innovation. There is a strong connection between teachers' self-efficacy beliefs and their concerns about the reform, and it has been shown that teachers who have low self-efficacy reflect intense self and task concerns in comparison to their colleagues who are highly efficacious (Ghaith & Shaaban, 1999).

As it could be seen, teachers when integrating technology into their teaching practice, have to consider themselves to be self-efficacious with its use (Ropp, 1999). In computer-aided teaching, in order to improve self-efficacy, a positive attitude towards computers and a strong sense of computer self-efficacy are some of the basic preconditions (Albion, 1999). Teacher' experiences in using technology at classrooms affect their confidence and efficacy to use and integrate computers in their teaching practice. Eachus and Cassidy (1999) reported that self-efficacy has repeatedly been reported as a major factor in understanding the frequency and

success with which individuals use computers. Albion (1996) stated that teachers' beliefs and self efficacy beliefs specifically, are considered as indicators very useful to levels of technology integration.

In the last three decades, there has been a wide research on two main areas, which are teachers' concerns and teachers' self-efficacy beliefs. These two domains are highlighted in part regarding the influence of teachers' attitude towards changes demanded by the reforms in teaching processes brought up from an innovation and their attempt to implement it (Piggie & Marso, 1997). This study shall explore the levels of e-Learning integration in Jordanian schools for informing a professional development program to make certain that the integration effort is optimized, effective and sustainable. By this is meant, that the individual needs, concerns, self-efficacy and how they develop as they learn about the innovation will be studied to be used by the relevant parties to set up a strong mentoring program so that Jordan can enhance its e-Learning culture.

1.1 Problem Statement

e-Learning with its incredible characteristics and features enables learning from anywhere and at any location other than the classroom. Its immense powers offer new possibilities in learning and have transformed the ways teachers teach and students learn. To enhance teaching and learning successfully, e-Learning should be integrated in a very precise manner because it has the potential to be a powerful tool if it is integrated in the right way (Singh, O'Donoghue & Worton, 2005). However, it has to be acknowledged that the success of e-Learning implementation is considered

as a real challenge. Teachers are considered the main significant factor in using a computer in education, so the teacher's satisfaction and his/her capabilities are considered to be primary elements to be taken into consideration, even though, there are adequate software and devices available.

What this means is that the teacher will not use it if he hasn't sufficient capabilities and satisfaction in realizing its importance in teaching (Al-Ghazo, 2004). It has been acknowledged that using computers throughout the educational processes be considered an innovation (Porter, 1997), which is defined as a practice, or object that is perceived as new, by an individual. Nonetheless, it is very difficult in any culture to accept or adopt a new idea right way without suitable readiness, although it has obvious advantages. The implementation of e-Learning can be understood in terms of the diffusion of technology, a process that involves not only logical reasoning, economic considerations and technical skills, but also, and perhaps decisively, the sentiments and frame of reference of the teachers, students and decision makers who are to be the end users (Simon, Helson & Jens, 2008).

Regardless of the increase in the number of computers in schools, Fabry and Higgs (1997) concluded from their study that despite the support and the huge investment public education has made in acquiring technology for schools, concerns exist that computers remain underutilized. In addition, Handal (2004) said that despite this strong evidence and the fact that governments are putting resources in place, there is a body of research suggesting that the technology has not been adequately adopted in schools. e-Learning has become an important human development tool in the Arab

world, especially in the educational system (Abdelraheem, 2006). Jordan, like many other developing nations is undergoing a period of change in the social environment in her bid to progress towards a knowledge-based society.

In line with this kind of developments and national initiatives, the Jordanian Ministry of Education (JMOE), have planned and initiated reforms in Jordan's educational system by undertaking a project to integrate e-Learning in the Jordanian educational system. This in part was largely encouraged and supported when in 1999 His Majesty King Abdullah II articulated his vision that the economic future of Jordan would be found through successful participation in the global knowledge economy, and more particularly in the value-added information technology industries (Al-Nahar, Chang & Koda, 2004).

In 2003, development of national initiatives in Jordan to the implementation of an educational project for the delivery of effective e-Learning to its citizens appeared (Abdullah, 2006, Alshunnaq, 2008). This project so-called the Discovery schools provide'' Jordanian youth with a development and supportive environment in which provides learners with self-discovery, experiential learning and self-determination. It is an initiative which officially was launched at the World Economic Forum at the Dead Sea in June. Through this Forum, global software and hardware giant's committed themselves to provide 100 Amman schools with technological tools and trainers that will transform these schools into model facilities in order to function as a pilot to eventually extend this experiment to the rest of the Jordanian schools (Abdullah, 2006, Alshunnaq, 2008).

According to Jaradat (2006) there are many obstacles for the integrating of e-Learning in Jordanian secondary schools. Nadaf (2002) emphasized the importance of paying careful attention on teachers' training and developing their technology skills. Moreover, (Almajaly, 2004; Abu-Samak, 2006) reported that teachers are still resisting the change and don't actually implement the technologies effectively although technology devices such as computers, laptops and other peripherals as well as internet access is readily available for them inside the classrooms. Other studies that confirmed the existence of obstacles include teachers' resistance towards using these technologies, low usage of technologies among Jordanian university educators and the overall weakness among Jordanian teachers in utilizing the internet (Al-Khateeb, 2006; Al-Assaf, 2007). Therefore, the problem addressed by this study is the lack of information regarding the level of integration e-Learning, and the factors affecting teachers' integrating e-Learning in the teaching and learning process, such as, teachers' self-efficacy, principals' support, teachers stage of concern and the integration of e-Learning.

Many studies show that successful use of technologies in education depends largely on teachers, who eventually determine how they are used in the classroom (Albirini, 2006). Researchers recognized many factors as a necessary component for effective use of integration e-Learning by teachers in the classrooms, including demographic factors, such as gender and experience (Jones, 2004; Yuen & Ma, 2002).

As in Tobin et al., (1994) self-efficacy became a value strategy for teachers' to work better. It is observed that the higher levels of computer self-efficacy increase the performance of tasks done by computers.

Principal's support as a vital part of the educational system is extremely important (Oberg, 1995). It is found that school principals' have an important role on teachers' integration of e-Learning. Furthermore, it was found the lack of direction from the principals' at school were one of the barriers in integration e-Learning (Khamees, 2003).

As preparation in e-Learning is an important indicator for the success of e-Learning integration in schools this perspective cannot be overlooked by the major stakeholders. A lot of resources have already been allocated and disbursed for the integration of e-Learning into the Jordanian educational system. Thus a study to gain greater insights on the readiness, needs and concerns of the teachers and other parties is deemed critical and necessary since there have been a dearth of studies in the Arab world regarding the readiness of teachers to integrate e-Learning into the teaching and learning process (Abu-Naser, 2003).

Naomi, Amos, & Zachi, (2004) in their study found that the extent of adoption of an innovation by a teacher in training can be expressed in terms of the teacher's personal ''concerns'', i.e., of her/his personal perception of the implementing task, and of her/his ability and readiness to perform accordingly. No doubt the subject of e-Learning is considered an innovation in the Arab region and a challenge for learning. In addition, it is to be known that there is a wide resistance from the Arab world to accept new technologies (Hamdy, 2001). According to Alsultan and Fantoukh (1999), realistically a human does not prefer changes and may resist these changes in different ways.

The Concerns Based Approach Model will be used in this study as both a theory and framework to understand the dynamics of the successful implementation of e-Learning integration in Jordanian schools. In addition to that, Rogers Diffusion of Innovation theory will be used theoretically to answer some of the research questions. The underlying perspective for this approach is that schools and its teachers and principal should be perceived as learning organizations instead of mere implementers of government policies and that for success to be realized the innovation must be seen as appealing and the organization or schools provide the appropriate incentives and support to facilitate this change.

1.2 Research Objectives

This study attempts to identify the integration of e-Learning in Jordanian schools, meanwhile it is designed to identify some factors that affect the e-Learning integration by teachers. The objectives of this study are as follows:

1- To determine the level of integration of e-Learning among teachers in Jordanian discovery schools

2- To investigate the significant difference of the integration of e-Learning based on teachers' teaching experiences and gender in Jordanian discovery schools.

3- To determine the level of self-efficacy on integration of e-Learning among teachers in Jordanian discovery schools

4- To investigate the significant difference of teachers' self-efficacy on the integration of e-Learning based on teachers' teaching experiences and gender in Jordanian discovery schools.

5- To determine the level of perception on principal's support on the integration of e-Learning among teachers in Jordanian discovery schools

6- To investigate the significant difference of perception on the principal's support on the integration of e-Learning based on teachers' teaching experiences and gender in Jordanian discovery schools.

7- To determine the most dominant stage of concern towards integration of e-Learning among teachers in Jordanian discovery schools

8- To investigate how well the self-efficacy, perception on the principal's support and seven stages of concern predict the integration of e-Learning among teachers in Jordanian discovery schools.

9- To investigate the ability of the set of variables (self-efficacy, perception on the principal's support and seven stages of concern) to predict a significant amount of the variance in the integration of e-Learning among teachers in Jordanian discovery schools if the possible effect of teachers' gender and teaching experiences are controlled.

1.3 Research Questions

This study thus seeks to answer the following broad research questions formulated with the intention of enabling us to improve our understanding of the internal factors that affect teachers concerning on e-Learning integration and diffusion in Jordanian schools, namely:

1- What is the level of integration of e-Learning among teachers in Jordanian discovery schools?

2- Is there a significant difference of the level of integration of e-Learning based on teachers' teaching experiences and gender in Jordanian discovery schools?

3- What is the level of self-efficacy on integration of e-Learning among teachers in Jordanian discovery schools?

4- Is there a significant difference of teachers' self-efficacy on the level of integration of e-Learning based on teachers' teaching experiences and gender in Jordanian discovery schools?

5- What is the level of perception on principal's support on the integration of e-Learning among teachers in Jordanian discovery schools?

6- Is there a significant difference of perception on the principal's support on the integration of e-Learning based on teachers' teaching experiences and gender in Jordanian discovery schools?

7- What is the most dominant stage of concern towards integration of e-Learning among teachers in Jordanian discovery schools?

8- How well do self-efficacy, perception on the principal's support and seven stages of concern predict the integration of e-Learning among teachers in Jordanian discovery schools?

9- If the possible effect of teachers' gender and teaching experiences are controlled, is the set of variables (self-efficacy, perception on the principal's support and seven stages of concern) still able to predict a significant amount of the variance in the integration of e-Learning among teachers in Jordanian discovery schools?

1.4 Hypotheses

This study is designed specifically to answer the above research questions, and is interpreted into the following hypotheses for a statistical purpose:

H_{01}: There are no significant differences among the means for main effect of teachers' teaching experiences on the integration of e-Learning in the Jordanian discovery schools.

H_{02}: There are no significant differences among the means for main effect of teacher's gender on the integration of e-Learning in the Jordanian discovery schools.

H_{03}: There is no significant interaction effect between teacher's teaching experiences and gender from the aspect of the integration of e-Learning in the Jordanian discovery schools.

H_{04}: There is no significant main effect for teachers' teaching experiences on the self-efficacy of the integration of e-Learning in the Jordanian discovery schools.

H_{05}: There is no significant main effect for teacher's gender on the self-efficacy of the integration of e-Learning in the Jordanian discovery schools.

H_{06}: There is no significant interaction effect between teacher's teaching experiences and gender from the aspect of teachers' self-efficacy on the integration of e-Learning in the Jordanian discovery schools.

H_{07}: There is no significant main effect for teachers' teaching experiences on perception towards principal's support on the integration of e-Learning in the Jordanian discovery schools.

H_{08}: There is no significant main effect for teacher's gender on perception towards principal's support on the integration of e-Learning in the Jordanian discovery schools.

H_{09}: There is no significant interaction effect between teacher's teaching experiences and gender from the aspect of teachers' perception towards principal's support on the integration of e-Learning in the Jordanian discovery schools.

H_{10}: There is no significant contribution of self efficacy, perception on the principal's support and seven stages of concern towards the variance of integration of e-Learning among teachers in Jordanian discovery schools.

H_{11}: There is no significant contribution of self efficacy, perception on the principal's support and seven stages of concern towards the variance of integration of e-Learning among teachers in Jordanian discovery schools, after controlling for the influence of teacher's gender and teaching experiences.

1.5 Rationale of the Study

This study comes as a response to the reports from The Jordanian Ministry of Education (JMOE) in Jordan, indicating that the use of computer technology in schools is still under an expectation despite the efforts of making access to computer availability in public schools for teachers and students (JMOE, 2002). The results of the many educational research studies emphasized that some factors influence teachers about the integration of computer technology. These studies indicated that teacher's self-efficacy, principals' support, and stages of concern are important obstacles, which affect teachers' decision regarding the e-Learning integration (Pajo & Wallace, 2001; Charambous, Philippou & Kyriakides, 2004; Wang & Ertmer, 2003; Embi, 2007).

Only little attention has been given to the structure and function of teachers' psychological factors that might affect the integration of e-Learning through the educational process. There have been wide concerns by the JMOE in Jordan about the under-utilizing of computers in teaching and learning (JMOE, 2002). Therefore, the study adds to the literature on the level of e-Learning integration in Jordanian Discovery schools, which might help the decision makers at the JMOE to develop their plan regarding e-Learning integration.

1.6 Significance of the Study

It will be expected that the results of this study would provide the JMOE in Jordan with current data that will help to have a better policy, decisions when applying educational innovations such as e-Learning integration in schools that may be seen to challenge the traditional way of doing things. In addition, it will offer clarifications for the Ministry of Education to facilitate change more effectively for the benefit of the teachers and students. Moreover, for school officials, policy makers, service providers, and educators, it will ensure that their level of computer usage for educational purposes are optimized and maximized.

Furthermore, it will provide information about some factors acting as barriers that could affect teachers from using computer technology. This valuable information could be used to enhance integration and utility of computer in schools, and to develop training programs to increase and improve teachers' self efficacy, principals' support and their concerns regarding the use of e-Learning. It is hoped that this study will contribute to reinforce technology acceptance theories, as well as, to provide a general view about e-Learning in Muslim countries and how it could be useful in the educational process.

1.7 Limitations of the Study

This study investigates the self-efficacy, principals' support and stages of concern in integrating e-Learning in the Jordanian Discovery schools. The present study has certain limitations these are as listed below:

1. This study was limited to investigating the level of the integration of e-Learning of teachers in the Discovery schools in four districts in Amman the capital of Jordan.

2. The results of this study only apply to the Discovery schools in Jordan therefore it cannot be generalized to other schools in other countries.

3. This study was limited to using only questionnaires methods for data collection.

4. This study was limited to the examination of selected factors (self-efficacy, principals' support and stages of concern) affecting the level of the integration of e-Learning of teachers in the Jordanian Discovery schools.

5. It is assumed that the teachers' understanding on the definition of the integration of e-Learning is similar. Thus, this study doesn't fate into account of different strategies of integration of e-Learning among teachers involved in this study.

1.8 Definition of Terms

Self-efficacy: The concept of self-efficacy lies at the center of psychologist Bandura's social cognitive theory. Bandura (1997) defined self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. It is concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses. For this study, the definition of self-efficacy is focused on teachers' capability to use e-Learning for teaching and learning process.

Computer Self-efficacy: The degree to which individual beliefs that he or she can perform specific task/job using a computer. According to Compeau and Higgins (1995) computer-efficacy is the general belief that he/she is capable of putting ICT technologies to use. Thus, computer self-efficacy refers to individual confidence in one's capability to use a computer and may help determine ease of skill acquisition.

e-Learning: e-Learning is the use of electronic technologies to support learning and teaching. Hall and Snider (2000) define e-Learning as the process of learning via computers over the Internet and intranets. E-Learning activities are learning activities facilitated and supported through the use of information and communications technology (ICT). As well as learning via internet and intranet, e-Learning involves the use of a computer or electronic device (e.g. a mobile phone, CD-ROM and DVD) in some way to provide training, educational or learning material.

Technology Integration: It refers to the incorporation of technology resources such as computers, software, network-based communication system, and other equipment and the usage of technology through different processes in work, teaching, and management of schools (Gifford, 2004; Christensen, 1997).

Concerns: this concept is described as "the feelings, thoughts, and reactions that individuals develop in regard to a new program or innovation that is relevant to their daily job" (Hord, Rutherford, Huling-Austin, & Hall, 1987). This study focuses on the teachers' concerns using e-Learning integration for teaching and learning.

Concerns-Based Adoption Model (CBAM): a model of change that was developed by Hall, Wallace, and Dossett (1973) to identify concerns that individuals experience during the change process (Hord et al., 1987).

Stages of Concern: seven stages describe the effective dimension of change: how people feel about doing something new or different, and their concerns as they engage with a new program or practice (Horsley, & Loucks-Horsley, 1998). It helps to identify teachers' concerns about an innovation they are expected to implement (Hall & Hord, 2001). These stages are (awareness, informational, personal, management, consequence, collaboration and refocusing).

Personal Characteristics: It refers to the dynamic and organized set of characteristics possessed by a person that uniquely influences his or her cognitions, motivations, and behaviors in various situations (Ryckman, 2004).

Gender: to determine whether the participant is male or female.

Years of Teaching Experience: It is the number of years the participant (teacher) has taught at school.

Discovery Schools: are a group of government schools chosen by the Ministry of Education of Jordan as a test bed to assure an effective deployment of the e-Learning

solutions at the Ministry of Education's Schools (Alhumran, 2006). Its aim is to introduce new approaches to learning that are conducive to acquiring the skills necessary for the 21st century knowledge economy.

Integrating e-Learning: in the context of the Discovery schools the characteristics in this study refers to the communication networks, laptops and computer sets equipped with printers, data show, scanners, and curriculum CD versions, high level skill workshops, using the electronic records for students' assessment, and instructing and teaching based on e-Learning tools.

1.9 Conclusion

E-Learning is almost integrated in all aspects of our lives. This will move the era to a modern computerized future full of knowledge and technology. E-Learning is considered an innovation due to its new development in the 1970's. One of the most important technologies that concerns the government of Jordan is integrating the e-Learning through different education stages, whereas, the two third of the population is the youth which on them lies the responsibility to raise and develop a new and knowledgeable generation. However, there are still some factors that influence the full integration of e-Learning among the Jordanian schools namely the teachers. In order to ensure that e-Learning integration is successful, teachers' needs and concerns should be given top priority in any change process.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, a review of the related works is presented. This review aims to understand and build the theoretical framework of this study. The concept of e-Learning integration will be discussed, following, educational reforms in Jordan and e-Learning in the Jordanian context will be presented. In that Jordanian context; changes in organizations, barriers to implementing e-Learning will be highlighted. Teachers' concerns towards e-Learning and teachers' self efficacy in e-Learning will also be respectively highlighted. Relationship between barriers and stages of concerns, and the relationship between concerns and e-Learning integration will be discussed. Finally, the conceptual and theoretical framework will be formulated and introduced.

2.1 Theories and Models of e-Learning Integration

With the emergence of information and communication technology in the field of education, several models and theories have appeared. These theories and models have been developed in the literature to facilitate understanding of the process by which new ICTs are adopted, in other words, these theories explained the users' needs and acceptance of the new technologies. Hence, for building the research