

**DEVELOPING GUIDELINES AND STANDARDS FOR  
TEACHERS TO USE THE E-LEARNING SYSTEM IN DAR  
ALHUDA INTERNATIONAL KINDERGERTEN**

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DEVELOPING GUIDELINES AND STANDARDS FOR TEACHERS TO  
USE THE E-LEARNING SYSTEM IN DAR ALHUDA INTERNATIONAL  
KINDERGERTEN

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This thesis is dedicated to...

My mother and father whose love, encouragement and values

Will always guide and inspire me.

Hassan Arab

Kayria Felimban

And

To my love, my husband who supports and encourages me in my studying

life

Reda Samkari

And

To my daughter, who is the light of my life

Jamela

And

To all my loving siblings

(Ali , Suhaier,Mona ,Shereen ,Anmar)

In the hope that they will be encouraged to strive for the best

Throughout their lifetime studies and thank you so much for being

So patient and being there for me.

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## **ABSTRACT**

With the advancement of Information Communication Technology in the world, teachers should take advantage and upgrade their teaching techniques. Students should be allowed to learn anytime, anywhere and at their own pace. E-learning is the use of multimedia technology to deliver quality educational systems, The purpose of E-learning is to reward excellent teaching practice to further invest in that practice. But still these aims have not been achieved to the fullest in the kindergartens. Most of all E-learning needs to be compelling to the audience it targets, offering the learner and the teacher a resource that is seen as appealing, valuable and productive for their goals and aspirations. The objective of this research is to study the implementation of E-learning in Dar Al Huda kindergarten, and to assess the difficulties which are facing the teachers in the new project, then to provide suitable solutions for those obstacles.

## **ABSTRAK**

Sejajar dengan kemajuan teknologi dalam bidang informasi dan komunikasi , guru-guru seharusnya mengambil peluang ini untuk memajukan teknik pengajaran mereka. Kemajuan ini juga telah membolehkan para pelajar untuk belajar pada bila-bila masa sahaja tanpa mengira waktu, tempat dan mengikut rentak kebolehan masing-masing. E-pembelajaran adalah satu teknik pembelajaran yang menggunakan teknologi multimedia dalam usaha untuk menyampaikan pengajaran yang berkualiti. E-pembelajaran adalah satu anugerah yang dikurniakan untuk menghargai kejayaan dalam bidang pengajaran dan kaedah ini harus terus dipraktikkan. Malangnya kaedah E-pembelajaran ini tidak digunakan sepenuhnya di pusat-pusat tadika pra-sekolah. Penggunaan kaedah E-pembelajaran ini mestilah digunakan secara kreatif untuk memberi minat kepada pengguna dan tenaga pengajar dan hasilnya adalah amat menguntungkan dan merupakan sesuatu yang amat berguna dan produktif untuk mensasar objektif. Objektif kaji selidik ini adalah untuk mengkaji sejauh mana penggunaan E-pembelajaran dilaksanakan di pusat tadika pra-sekolah Dar Al Huda. Kaji selidik ini juga bertujuan untuk mengetahui masalah-masalah yang dihadapi oleh guru-guru dengan pelaksanaan projek-projek baru dan seterusnya mengemukakan penyelesaian pada sebarang masalah atau rintangan yang mendatang.

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## **LIST OF ABBREVIATION**

IT	Information Technology
ICT	Information and Communication Technology
WEBC	Web-Based Education Commission
CMC	Computer Mediated Communication
KSA	Kingdom Of Saudi Arabia
PC	Personal Computer
EMS	Electronic Meeting Systems

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## CHAPTER 1

### PROJECT OVERVIEW

#### 1.1 Introduction

This research project is developed to study the E-learning experience in Dar al Huda international kindergarten, as well as to assess the difficulties and obstacles facing the teachers in the Dar al Huda international kindergarten. This is the first E-learning system to be implemented in a kindergarten in Saudi Arabia. At the end of our research we should be able to develop a guideline which will help the teachers in using the E-learning system, so it will serve as a road map for the teachers.

This means that there are two key areas which will be addressed in this research:

- A study of the E-learning system and the teachers feedback about the system, and whether it's friendly and easy to use or not.
- Developing guidelines which will serve as a manual for the teachers to use the E-learning system.

So basically before we elaborate more about that, let us define and discuss the idea of e-learning.

Education in schools and kindergarten is moving away from the blackboard, the overhead projector and traditional schools' television to a world where the interactive whiteboard in the classroom complements desktop and laptop computers at school, at home and in the library. This is a world where the effective use of high quality, digital interactive materials can enhance the educational capabilities and focus on the talents and abilities of individual students.

The latest technology have changed and shaped the world to a new order, and this new order has affected everyone including the small kids. Teaching and learning used to be simple, students used to be only concerned about what is going on in the classroom, but with the new area where there is a rapid growth of information and knowledge, there should be some different ways that can help students to cope, and this has lead to the introduction of the E-learning system.

First of all before we go further let us define the term E-learning, what E-learning really means? When it was introduced? And why it was introduced?

We can define E-learning in simple words which are "E-learning is the use of new multimedia technology and internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration".

E-learning has had a great influence on the education system. E-learning started in the mid-1980's by a number of institutes in the United States. Some of these institutions are: Western Behavioral Sciences Institute, New Jersey Institute of Technology, New York Institute of Technology and Connected Education. Recently, an organization called Independent Student Media was established in order to organize E-learning institutes. By 2003, millions of students were enrolled in E-learning institutes for higher education and a huge population of it came from United Kingdom, New Zealand and Australia. It is estimated that E-learning student population increases at a significant rate of 25% every year.

There are specific features which made E-learning an interesting and desirable tool, and those features were the reason why so many schools and kindergartens have introduced E-learning as one of their academic tools.

Learning is self-paced and gives students a chance to speed up or slow down as necessary. So student will be able to speed up in the understandable concepts and slow down in difficult concepts.

- Geographical barriers are eliminated, opening up broader education options. This means there are no boundaries for a quality education, you could be in one part of the world and attending to a university which is in the other part of the world.
- 24/7 accessibility makes scheduling easy and allows a greater number of people to attend classes. This means easier distribution of course materials.
- Facilitate better student and instructor contact.
- Travel time and associated costs (parking, fuel, and vehicle maintenance) are reduced or eliminated.

Those and other features make E-learning a hot topic within universities, schools, kindergarten or any other academic institutions.

Kindergarten E-learning systems are developing children to achieve uttermost potential in a truly positive environment. Kindergarten E-learning system gets a great concentration of parents to educate their children from childhood. E-learning kindergarten is a free service for people to build encouraging learning environment with fun and full of commitment to studies. Kindergarten E-learning systems aim to help children remain active and participate in studies with clear goals in mind.



Dar al Huda International kindergarten is just like the other academic centers around the world, they wanted to become a leading kindergarten center in their region, and under their well educated management they wanted to be among the first kindergarten to introduce E-learning, but they are also well aware that there will be resistance against any change or new concept as it is part of the human nature, this resistance is expected to be from the teachers, students, parents and some of the administrative bodies. Some of the challenges could be:

- Some of the teachers are not well educated in computers and technology.
- Students are somehow not mature to realize the potential of the E-learning system.
- It requires big investment in technology and also in training the staff to maintain the system

This gives us a small glance of the obstacles which may face Dar al Huda International kindergarten in their E-learning implementation. However the key challenges that this project is going to address is the challenges which are facing the teachers in using the system, because teachers are a key component of the learning process, if the teachers are not able to give their 100% because of the new system, our job is to help them do better.

## **1.2 Background of the Problem**

Any new concept or technology carries an amount of difficulties, especially if this technology is dedicated to serve the kids in the kindergarten, let alone the kids, adult students and teachers have a lot of difficulties using this technology, and the main issue here is not to tackle the obstacles which face the kids but to facilitate this technology in a way that it will be more easier for the teachers to use.

With the introduction of E-learning students and teachers may face some unique problems which do not exist in the more traditional classrooms. Both of students and teachers need to be aware of the differences between online and traditional classes and be prepared to make the necessary adjustments. Significant challenges include the following:

1. Technical Problems

Computer hardware and peripheral devices such as printers, modems and routers are not indestructible, as with any other man-made device, they can break down or malfunction at the most inopportune time. In addition to equipment failure, an older computer may be incompatible with some software required for the course. Viruses, Trojans, spyware and other malware could infect a computer, causing it to run poorly or not at all. A slow internet connection might cause problems logging into class, retrieving and submitting assignments, and posting to threaded discussions. Any of these problems could cause a great deal of frustration for the student trying to complete course assignments. Therefore, it is important for the student to have access to a backup computer to use in case of equipment malfunction.

2. Staying Motivated

Going to school always requires a certain level of motivation from a student regardless of whether it is a "bricks-and-mortar" institution or online class. In a traditional classroom setting, a student has live, face-to-face interaction with the instructor and fellow students as well as a camaraderie that may help boost enthusiasm and motivation for the course. In an internet-based class however, there is no live contact with instructor and classmates, since the student works alone in a virtual environment. This lack of live contact may lead to a feeling of isolation, and make it difficult for a student without a high internal commitment or personal drive to stay motivated during the course.

### 3. Self-discipline

As with motivation, a student needs good self-discipline to succeed online. The freedom and flexibility of E-learning is what's so attractive to many people. There's no obligation to login to class at any particular time or place. You can go to class and do your assignments whenever it is convenient for you. However, this same freedom can lead to procrastination, and cause the unwary or undisciplined student to fall behind in his assignments. Once behind, it can be difficult to catch up.

### 4. Difficulty in Improving Oral Communication Skills.

There are many classes such as speech, drama, debate, teacher education and so forth that require the student to make oral presentations in front of a group of people. With online courses this is not practical, as the classroom is virtual, and the students are not all gathered together at one time in one room. A student wishing to improve oral communication skills may need to take these classes in a traditional classroom course.

Adding to these problems there are set of other problems that may face the instructors since the teachers are the primary group who will be affected by the E-learning concept, thus the other issues that they may face could be:

- a. The lack of support by the faculty.
- b. Teachers must change the teaching styles so they will meet the needs of distance students.
- c. Teachers may lack the basic skills or hardware to fully participate in distance education.

- d. Cultural acceptance is an issue. Since the students are using the net so there will not be any geographical barriers.
- e. One of the final barriers is the teacher's acceptance of distance learning programs. Some teachers prefer to use the old style and may see the E-learning as just a waste of time.

These are small samples of the issues which may face the teachers in the E-learning prospective, we will discuss it more in the upcoming chapters, and we will highlight it more, in order for me to develop a well organized catalogue so the E-learning system will become an easy to use system.

### **1.3 Statement of the Problem**

It is difficult to come up with only one sentence that describes this research, as it will cover a wide area of the E-learning concept, dealing with students and teachers, but we will try our level best to come up with one problem statement:

“To bridge the gap between the teachers and students in E-learning, in order to provide an efficient E-learning system for the kindergarten”

This means in simple words to overcome the difficulties that will be faced by the teachers, so the teachers will be able to provide a quality education for the students.

### **1.4 Research Objectives**

E-learning can be used as a complementary system in educational processes, and the standard of the new technologies play an important and smart role in the kindergarten educational system. The objectives of this project are:

1. To study and discuss the E-learning system in Dar Al Huda International kindergarten.
2. To highlight challenges that are faced by the teachers in E-learning in Dar Al Huda International kindergarten.
3. To suggest some solutions that can help in reduce those challenges.
4. To develop a new guideline to guide the teachers on how to use the E-learning system to teach the children in kindergarten.

### **1.5 Scope**

This project aims to identify E-learning in Dar Al-Huda International kindergarten. In addition, this project will study the challenges and obstacles that may be faced by the teachers using the E-learning system in the kindergarten and recommend some solutions that may help the E-learning body to overcome those problems, and especially to develop a new guideline that teachers can use as their manuals for using E-learning in a more efficient and beneficial manner.

So we can conclude that this project will cover the area of E-learning from the prospective of the teachers since the students in kindergarten are not mature enough to be part of this study, then after that based on the results and findings that we will come up with a highly structured manual for E-learning use and we will dedicate it to the teachers, so they will be able to do their noble job in a better way.

### **1.6 Importance of the Study**

This project offers practical ways of dealing with some of challenges faced by the teachers and can help shift the teacher's role to a guide and facilitator of

students' learning. The study of the Dar Al Huda E-learning system is important and beneficial in several ways:

- It will highlight the difficulties that teachers are facing when they deal with the E-learning system, and it will propose a solution for that.
- The study will assess the system in order for the management to know if the system needs some kind of configuration or update.
- It will provide a feedback for the kindergarten about the E-learning system functionality, and whether the system is fulfilling its purposes or not.

## **1.7 Summary**

The advancement of technologies provides significant opportunities to develop and enhance E-learning applications by creating schools and classrooms where physical boundaries do not exist anymore. This is accomplished through streamlining learner-learner, learner-teacher and parents-teacher interactions. But in some developing countries where there are gender segregations in any aspect of personal and public life, E-learning will seem to be the solution, but a strong attaché to the culture and religion may affect its implementation, cultural and social restrictions impose certain limitations on gaining the full benefits of the new IT-facilitated learning paradigm.

To conclude this chapter highlighted a few aspects of our project, and it is obvious by now to mention that this study is dedicated to learn more about the challenges that teachers are facing when they deal with the new system, and to propose workable and acceptable solutions for these challenges based on the findings.

## REFERENCES

- Alexandra T., D. and Gudela G (2006), ICT and Schools: Identification of Factors Influencing the use of new Media in Vocational Training Schools. Swiss Federal Institute of Technology Zurich, Switzerland
- Abdulmajid, H M , Ahmed and Rafa, M. Opportunities and challenges of the knowledge management approach to e-learning: a case study in al-bayan model school for girls, kingdom of saudi arabia, jeddah kingdom saudi arabia.
- B. Robin & J. Willis (Eds.), Technology and Teacher Education Annual, 1994, (pp. 764-766). Charlottesville, VA: Association for the Advancement of Computing in Education.
- Campbell. N (2001). A paper to inform the development of the ICT Strategy in New Zealand for the Ministry of Education. Unpublished note, University of Waikato.
- Clay, M. & Grover, R. (1995). Throw me a rope: A distance learning faculty guide. In D. A. Willis, B.
- Dale, S. and Fiona S. (May 2002), Embracing E-learning in Australian schools, sponsored by Commonwealth bank.
- Draves, W.A. (2000). Teaching online. River Falls, Wisconsin: Learning Resources Network..

Goodwin, B. N., Miklich, B. A. & Overall, J. U. (1993). Perceptions and attitudes of faculty and students in two distance learning modes of delivery: Online computer and telecourse. Orlando: FL. (ERIC Document Reproduction Service No. ED 371 708)

Hirschbuhl, J. (1994, May). Faculty uses of computers: Fears, facts and perceptions . The EDUTECH Report, 10, (2) 1, 4-5.

Katz & D. G. Oblinger (Eds.), The "E" is for everything (pp. 21-52). San Francisco: Jossey-Bass.

Kaye, A. (1989). Computer-mediated communication and distance education. In R. Mason & A. Kaye (Eds.), Mindweave: Communication, computers, and distance education, (pp. 3-21). Oxford: Pergamon Press.

LTSN Generic Centre (August 2003), A guide for Teachers, By Allison Littlejohn and Carol Higgison, United Kingdom. IntelE-learningDeployment Guide (2009), Intel Corporation.

Layton, T.G. (2000). Digital learning: Why tomorrow's schools must learn to let go of the past. [Online]. Available: <http://www.electronic-school.com/2000/09/0900f1.html>

Munson, D. E., Poage, J. A., Connors, D. & Evavold, J. (1994). Technology and faculty collaboration: Psychological and sociological factors and effects. In D. A. Willis, Organisation for Economic Co-operation and Development. (2000). Learning to Bridge the Digital Divide: Schooling for Tomorrow. Paris: OECD.

Oppenheimer, Todd. (1997). The computer delusion. [Online]. Available <http://www.theatlantic.com/issues/97jul/computer.htm>



- Palloff, R.M. and Pratt, K. (2001). *Lessons from the cyberspace classroom: The realities of the online classroom*. San Francisco: Jossey-Bass.
- Robin & J. Willis (Eds.), *Technology and teacher education annual*, 1995, (pp. 621-625). Charlottesville, VA: Association for the Advancement of Computing in Education.
- Rosenberg, M. J. (2001). *E-learning: Strategies for delivering knowledge in the digital age*. New York: McGraw Hill.
- Ruddick, J. (1991). *Innovation and change*. Buckingham, UK: Open University Press.
- Rutherford, L. & Grana, S. (1995, September). Retrofitting academe: Adapting faculty attitudes and practices to technology. *Technological Horizons in Education Journal*, 23, (2) 82-83.
- Thomson Sinkala Mr and Victor Muyatwa (2007). *Comparison of Face-to-Face Learning with eLearning*. first E-learning Zambia national conference. 15-17 March 2007. Lusaka, Zambia
- Wallhaus, R. A. (2000). *E-learning: From institutions to providers, from students to learners*. In R. N. Katz & D. G. Oblinger (Eds.), *The "E" is for everything* (pp. 21-52). San Francisco: Jossey-Bass.
- Web-Based Education Commission. (19 December 2000). *Web-based Education Commission Issues Urgent Call-to-Action To Harness Inter-net's Power for Learning*. [Online]. Available:  
[http://www.hpcnet.org/cgi-bin/global/a\\_bus\\_card.cgi?SiteID=203877](http://www.hpcnet.org/cgi-bin/global/a_bus_card.cgi?SiteID=203877)
- Web-Based Education Commission. (2000). *The Power of the Internet for learning: Moving from promise to practice*. [Online]. Available:  
<http://www.ed.gov/offices/AC/WBEC/FinalReport>

Wolcott, L. L. (1997). Faculty development issues in distance education. *Open Praxis*, 1, 34-36.