



Fayoum University
Faculty of Education
Comparative Education Department

Education in Egyptian Smart Schools and its Activation Mechanisms in the Light of the Experience of Some Countries

A M. Ed. Thesis

By

Ibtesam Mohammed Mohammed Mohammed Abdel- Mageed

Demonstrator at the Comparative Education Department

**A thesis Submitted for the Partial fulfillment of the
requirements of Master degree in Education
(Comparative Education)**

Supervised by

Prof. Fatma Mohamed El Sayed

Professor and head of Comparative
Education Department
Faculty of Education
Fayoum University

Dr. Rania Abdel- Moez El- Gammal

Associate Professor of Educational Sciences
Faculty of Kindergarten
Fayoum University

2013

Summary

Introduction:

In the context of a changing world in which the knowledge develops and renews quickly, the function of education should not be only transfer information, but it should aim to pay attention to basic skills, in order to prepare future generations for tomorrow's society, which calls for in-depth reflection on the role of the school to face those challenges, According to some specialists in education, schooling can be productive through the use of new technology and technical modernization, which could lead to the development of the ability to learn, and improve productivity in the fields of work as well, and then increase the yield of schooling.

This is what makes contemporary societies seek to develop their educational structure and try to enter new formats of education systems, with new goals, philosophies and insights achieve the needs of Continuously changing society, and the exploitation what new technology offers enormous opportunities for the development of teaching methods and increase the effectiveness of its management.

In order to provide the requirements of the era, the Ministry of Education in Egypt has planned to develop and update all the elements of the educational process and to take with institutional educational structures which are prevalent in advanced countries, including (Smart Schools), which is taking by is considered of the most prominent new developments in educational policy in Egypt, one of the suggested alternatives to achieve the required paradigm shift in the Egyptian education system.

Problem of the study

The problem of the study can be summarized in the following main question:

" How can we benefit from the experience of some countries to put mechanisms to activate the smart schools in the Arab Republic of Egypt? "

This key question can be branched into a number of sub-questions, namely :

1. What is the historical development of the Smart Schools and what are their goals, philosophy, and their educational and physical environment?
2. What is the experience of both Malaysia and Australia in the Smart Schools
3. What is the reality of the smart schools in the Arab Republic of Egypt?
4. What are the main obstacles of activating the smart schools in Egypt?
5. What are the similarities and differences between Egypt and the countries of comparison?
6. What is the suggested perception of mechanisms for activating the smart schools in the Arab Republic of Egypt in the light of benefiting from the experiences of Malaysia, Australia that commensurate with the circumstances of the Egyptian society?

Aims of The Study :

The recent study aimed at:

- ❖ Recognizing the historical development of the Smart School, its objectives and philosophy, and its educational and physical environment.
- ❖ Identifying experiences of Malaysia and Australia in the smart schools.
- ❖ Standing on the most important features of the actual reality of smart schools in the Arab Republic of Egypt.

- ❖ Standing on the most important obstacles that prevent activation of the Egyptian smart schools by doing a field study to identify the actual reality of smart schools.
- ❖ Specifying the similarities and differences on the application of smart schools in the comparative countries.
- ❖ Conceiving proposal of mechanisms for activating the smart schools in the Arab Republic of Egypt in the light of benefiting from the experiences of Malaysia, Australia and commensurate with the conditions of Egyptian society.

Importance of The Study :

This study might be important for the following reasons:

- It derives its importance to keep pace accommodating technological changes in the teaching and learning processes, which stands out the value of smart schools.
- Scarcity of educational research and studies that dealt with the smart school project in the Arab Republic of Egypt, and then this study is rooting for these kinds of schools.
- It highlights the importance of benefiting from the leading experiences that have taken the smart school project.
- It is expected that the results of the current study would help the decision-makers and specialists in putting educational policies related to the development of the Egyptian education, as it sheds light on the most important obstacles that prevent activation of smart schools in Egypt, and proposes mechanisms to be activated until the experiment achieves its aims.

Method of The Study :

The study used the comparative method because it is the most appropriate and most comprehensive one for studying the various systems in a comparative way . Also , the descriptive and comparative analytical methods were used .

Procedures of the study

The procedures followed in the study are:

- **The first procedure**: introducing the general framework of the study which includes : Introduction , problem of the study , objectives , importance, previous studies , methodology , tools , terminology , limitations , and procedures .
- **The second procedure**: discussing smart school education.
- **The third procedure**: introducing the experience of Malaysia in smart schools.
- **The fourth procedure**: introducing the experience of Australia in smart schools.
- **The fifth procedure**: examining the reality of smart schools in Egypt.
- **The sixth procedure**: conducting the field study.
- **The seventh procedure**: carrying out a comparative analysis between the comparative countries concerning smart school systems in each.
- **The eighth procedure**: putting forward a proposal for the mechanisms of activating smart schools in Egypt.

Results of The Study :

The field study revealed a number of results, including:

A –There is a set of obstacles that prevent activation of smart schools, including the following:

- The shortage of the number of devices for the number of the pupils.
- There is no internal network to connect the classroom with each other.
- Lack of necessary time to do activities in the laboratory.
- Lack of budgets that is necessary for doing the activities.
- There is no specific educational CDS for each subject.
- Increasing the costs of using the Internet.

- The labs are not used as societal units after the end of the school day.
- Lack of maintenance processes for educational technological innovations
- Training period is not sufficient to acquire the necessary skills to deal within the smart schools.
- There are no external missions to any of the countries which applied the smart school system to benefit of their experience.
- The internal missions are not available to universities and specialized institutes to get a qualification in information technology.
- Lack of holding conferences and seminars in the field of information technology and communications.
- Inability of some teachers to integrate information and communication technology in the teaching process.
- Lack of suitable financial incentives to qualified teachers in the school.
- The weakness of some teachers' portability to use information and communication technology in teaching
- Some teachers still use the blackboard.
- The problem of stuffing curriculum.
- The shortage of the number of devices in the classroom.
- There is no Internet network linking the classrooms together.
- There are no computers in each classroom.
- Lack of the required time to prepare educational material electronically.
- Increasing the number of the pupils in the classrooms.
- The shortage of the number of devices in the library.
- The weakness of the pupils' portability to participate in the planning of the activities of learning centers.
- Lack of required equipment for the library.

- The inexperience of some teachers to use the electronic library.

B- Putting forward a set of proposals for activating smart schools in the Arab Republic of Egypt, including the following:

- Developing the positive attitudes towards the use of information and communication technology in the educational process at the level of all employees of the educational process, students and parents and all parties to the community.
- Providing high technological infrastructure in the smart schools, including computer labs and computers and modern technological equipment and high-speed Internet connections.
- Preparing qualified human persons to use information and communication technology in education.
- Increasing community participation and various institutions in strengthening the Smart Schools.
- Developing the faculty of education to be commensurate with the requirements of the times.
- Dissemination of technology and the application of electronic government.
- Benefiting from the research results related to the development and activation of smart schools in overcoming the obstacles that prevent their activation.
- Integration and cooperation between the Ministry of Education and other ministries, such as the Ministry of Culture and Ministry of Communications and Information Technology, and the Ministry of Scientific Research, the Ministry of Health and Population, in order to raise the efficiency of the teacher and students and promote the quality of education in Egypt.
- The legislation and organized rules for Smart Schools must be clear and detailed so as not to leave a field for

confusion, and they reach to all the relevant individuals at various levels, and describe in detail the duties, responsibilities and functions of the school administration.

- The existence of a supportive regulatory climate for innovation and creativity, that is not based traditionally on simulation organizations that emerged under the philosophy of traditional schools
- Taking of comprehensive quality standards in all aspects of the educational process within the smart schools, including (teachers, students, school services, management, principals of the school, etc.), through a group of experts in quality.
- These schools should be given a greater independence and freedom of movement through decision-making that is suited to their conditions, and it is suggested in this regard, encouragement turning these schools to decentralization and self-management.
- Increasing the budgets for these schools according to their nature and their potentials and the number of students.
- Increasing the number of school laboratories and devices in the smart schools to correspond to the number of classrooms and school pupils (a device for every 5 students).
- Increasing the number of laboratories that equipped with computers commensurate with the number of pupils according to the required rates of this type of schools.
- Providing computers for educational administration to enable them to follow what happens in school.
- Contracting with a maintenance company and preferably the community surrounding the school, with the advice of the Council of Trustees of the school to provide regular maintenance and good for school computers.

- Taking a manner was done in the state of Victoria, Australia, which is based on forcing teachers who do not want to deal with the computer to take early retirement and leave work.
- Increasing concern with the project and increasing teachers' awareness of its importance and its physical possibilities and the places and the specialists.
- Increasing the time allocated for electronic learning and increasing the periods' time so that the teachers can control the time and show the lesson well.

Other suggested researches: -

- ❖ A study on quality and adoption for programs of pre-service teacher's preparation to employ information and communication technology in education in the light of the experiences of some foreign countries.
- ❖ A study on quality and adoption for programs of in-service teacher's training to employ information and communication technology in education and how to benefit from the experience of the advanced countries in this field.
- ❖ A study for the preparation and training the leaders and principals of the schools to employ ICT in education in the light of the experiences of some countries.