

# The Structure of Smart Schools in the Educational System

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## ABSTRACT

General Education in schools in the country is a traditional education or audio only. The maximum of multimedia action about training issues is installation of some colored posters on the classroom's blackboard. In The visual - auditory training, we are trying to present training with film, animation, video clips and ... . In this method, Survival of Subject is almost 20 years, while the survival time of this transfer is less. In general schools, teacher's lesson plans include a set of guidelines, curriculum, extra practice questions, and class exams and... . But in multimedia schools in addition to these, the teacher uses multimedia training materials including films, photos, audio, slides, to improve education quality and Survival of training. This is the first step toward to the smart schools.

There are two different approaches about the impact of ICT on the educational system (and especially in schools). Some believe that the effect of new technologies is simply the gradual and makes efficient transfer of the traditional school program and in fact, information access is faster. Another approach is that new information and communication technology in schools changes the education and tools substantially. In This view, information technology surpasses on the borders of traditional education system. This change should be step by step and with tact and thought.

**KEY WORDS:** smart schools, educational system, information and communication technology.

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## 1. Introduction

One of the achievements of information technology and communication is Smart Schools Creation that in the following we will refer to it. Concept Definition: The smart school is a school that is designed to create teaching-learning environment and improve school management system and training inquiring students [3].

The smart School is a physical school that control and management of it is based on computer and network technology and the content of its courses is electronic and its evaluation and monitoring system is intelligent.

In this school, a smart student with spending time on subjects in a continuous and auditory way is up to 6 months. Also in The visual - auditory content, scientific contents change and develop in the attractive environment and operational capabilities. And this point is to allow school officials to replace Blackboard and traditional homework with computer and CD in smart schools. Students can use the Internet and get information about any topic they want. In this system, both teachers and students present electronic and course content in CD format [4, 5].

Education is not special for teacher in smart schools, but teaching and learning is highly interactive and students have a fundamental role in learning science topics. In Smart schools, using the electronic content teachers cause to improve learning and are saving time and students have the opportunity to reveal their ability and create content. In these schools, success is achievable and the amount of it depends on trying and follow-up and correct guidance and directional. In this method, the spirit of research is replaced with Spirit Causeless of students.

In this system, key elements for any change, is a change in thinking and tools and facilities are only a means to cover the thoughts. In Smart schools, teachers can work in schools rather than try to find own answers for students questions, they want them that find answer of questions on the computer and tell them to others. Smart School is a school of education systems with modern technologies and smart-looking digital part to speed the process of teaching, learning and improving management of the system that is fully then human of the information age capable to processing and category and make optimal use of technical-date knowledge for finding the wide range of talent and creativity[6].

Smart schools are schools that have developed based on the foundations of modern information and communication technologies. Students have a physical presence and its difference with the virtual school that is usually called a remote schools, , smart school are different from the virtual school, If smart school should want to be desirable , the students and teacher can be miles apart.

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Smart School's teachers should not be experts in the field of IT, so they should be aware of the school system and be able to use its features goodly. For example, a good teacher must know where the type of resources is in schools and help to goal resources when the students have raised questions [7]. this School is a physical school that its control and management are based on computer and network technology and the content of its courses is electronic and its monitoring and evaluation system is intelligent.

Smart school "student - based," and the teacher's role is Navigator. Students on school can access the available resources or external resources in information networks and are free to use them for their lessons. Student uses two types of content: the electronic content and the content that the teacher produces. Parent's relationship with the school is "online", and by connecting "modem" to a central computer at school, they have the possibility that find connections with the school principal or teachers and be aware of your child's education status. School database should be compatible with world standards [8]. The school library is an electronic library and student can use it online. Dialogue, discussion and Q & A simultaneous and asynchronous Environments are active in school and with increasing the level of information of students, they are prepared to get new information.

## **2. Smart School Goals**

- All-round development of students (physical, mental, emotional and psychological)
- Improving individual's promotion and abilities
- Training thinker and user of technology human resources
- Increasing public participation

The seven principles keys of smart schools are:

- A creative knowledge
- Talent to learn
- According to the understanding
- Learning with control and transfer goals
- Overcome difficulties
- Evaluation Learned
- Schools as an educational organization

## **3. Strategy and policy**

- Emphasis on thinking skills
- Teaching values and language through education
- Provide teaching-learning environments
- Provide a variety of training methods for different talents
- Awareness to parents about what is happened in the school
- Provide opportunities for collaboration with the school
- Components of the Smart School
- Teaching-learning environment

This area is being covered four areas:

### **3.1. Curriculum**

- Principles governing in this school's curriculum is as follows:
- Designing to help students for a comprehensive and balanced developing
- Integrating Students for all-round and balanced developing
- Integrating knowledge and skills through curriculum (with the project activities related to content)
- Order and continuity in education
- Make appropriate attitudes in the use of technology
- All students' accessing to appropriate educational

### **3.2. Teaching Method**

Teaching Method will be student-centered in this school. Governing Principles on the teaching method is as follows:

- Provide compound of learning methods to ensure holistic development of student's talent and abilities.
- Provide a variety of training methods to enhance learning.
- Control The class with different teaching - learning ways

Also with regard to student-centered schools in smart school, the role of student is more important, so:

In determining the educational goals, student shapes them with the guidance of their teacher.

In determining the educational duties, student's tasks are determined with offering of teacher.

In choosing resources, student considers the self-resources and takes opinion from teachers about them.

### **3.3. Assessment**

Assessment of some subjects in school is smart and intelligent and others course is not smart based on the type of course.

The characteristics of evaluation in school are integrity, running in various forms, multiple choice methods, timeliness, student-centered and continuity. The area of assessment in Smart School is comprehensive and In addition final evaluation; it includes two preparation and development.

### **3.4. Content**

Overall content are based on the four main indicators: High quality, educational quality, attractiveness and compliance with curriculum.

Management:

.He/she supports needed Commands and resources for teaching- Learning environment

Individual responsibility and the needed skills

In this role, the role of the students' teacher, manager, and their parents will change and they will play an effective role with abilities and knowledge in school.

### **4. Technology**

Make a teaching-learning environment management and external communications will require technology-based solutions.

In addition to this document, Education Organization of Tehran, Iran has developed an executive program of "The Smart School Project" at the beginning of 2002 for implementation in this school and has given to schools.

In this document, requirements of schools for stating and run projects has been determined in four sectors: infrastructure (LAN, Internet connection and hardware), software (Web, learning management systems, electronic content, other e-learning software, school automation systems), training for four groups of learners including: staff management, teaching group, students and parents), and staffing.

Also Staging and preparation of the project's plan is done in five stages: "plan", "mobilization", "training", "application" and "assessment" and described briefly and at the end of this document, the cost of implementing project, has been analyzed.

Reading activities in schools to pilot smart schools

Enforcement group was notified of their views about running the annual plan with presence in pilot schools and interviews with administrators, teachers and students.

The major activities of the school relate to the needed infrastructure in building project. These activities include: hardware equipment and make network facilities, providing software and training. The school is equipped with an internal network system, content production room, a computer site, and some classrooms equipped with computer systems and video projectors for education requirements.

Also the content of educational creation activities is done with training classes and encourage teachers and students in these schools. Some schools have signed a contract to build software and dynamic web site with private companies, that the above items are being completed. Characteristics of a smart school in school officials' view can be summarized in the following options:

- Training space as a physical space
- Training and education in face communication
- Provide All communications based on the network and electronic (office and educational relations)
- Change education base to Research based
- Do research activities in the team
- Use automation system in various parts of the school
- E-Learning facilities (Demand on school and region)
- Increase Speed of learning with ICT
- Create Knowledge in schools
- Problems and challenges posed by school authorities

#### **4.1. Laws**

Laws and regulations related to the final tests and exams should be changed to suit with the ruling ideology of the smart schools. Also there aren't certain rules for defining the position of Smart schools.

This problem causes numerous problems in the school. For example, teacher does not oblige to create multimedia content, and if a teacher does it based on a personal interest, there is not a legal content for paid and financial compensation.

#### **4.2. Content**

Content of the current education it does not fit with goals of smart schools that are student-based. Presenting traditional courses with new methods cannot change in the student training course if the goals of student are

developing in favorite subjects. attention to the same content, that goal will not be available, also there is not a clear field and consistent definition of research which it cause fading one of such schools goals to establish that is important.

#### **4.3. The role of student, teacher, administrator and parent**

The everyday role and tasks of students, teachers and administrator and their duties and powers and their interaction in the form of new schools are not defined and with Uncertainty state suspension faces the school with the problem. For example, if teachers in schools are not explained about smart schools correctly, it causes confusion and the mistaken impression with them.

#### **4.4. Education**

Teachers, administrators and students need special training to perform the entrusted duties .but there is not a targeted training for these groups, there is not a homogeneity in the use of school's facilities, people who have a good information in technology, so they use the facilities, but who cannot have a background in information technology are not adequate with goals of school and use tools perfectly.

#### **4.5. Supporting in Staff**

The plan is not supported enough from the education authorities. Non-financial support causes the loss of cohesion and creates difficulties in mobilizing and managing the schools. Also, using new technology need to encourage physical and spiritual (students and teachers) in making this work that it is not possible without the necessary resources.

#### **5. Obstacles in the way of smart schools**

The first and perhaps the greatest obstacle in the path of smart schools are cultural beliefs of our society, especially parents of students. Over several decades of the production of these technologies but unfortunately the culture of using it is not boom. There are many resistances in the path and in many families, these issues have led to false as this technology and they prevent from entering the electronic equipment into home. So the children of these families would be face difficulties hard.

Unfortunately, despite significant advances in this science, communication network is still limited because of very poor reasons and Internet communications is not easy to interact. Ordinary phone lines are not able to answer need of customers and Disruption in this system strips motivate from people, so the authorities should resort to solve this problem.

One of the main obstacles in the path to success in the smart schools is Economic problems of many families to provide at least one computer. This will be the most sensible that smart schools can be generalized in different areas Even now, a considerable percentage of students can not available computers possible in the good areas.

According to a new environmental era that information [1] is created in the society. Learning new skills is inevitable. Increasing volume of information is doubling every seven years, the capabilities of technology in various services' fields and need of market require the use of new technologies greatly. The skills training for working groups in coordination with the Information Age [2] create new special situations. The establishment of smart schools is one of the adopted strategies in response to today Needs. Malaysia is the first developing country that succeeded in founding the framework of this educational system in 1996 and has improved the quality of its educational system in teaching, learning and management using ICT.

Malaysian Smart School system follows five main objectives that include ensuring overall development of the individual, providing opportunities to increase individual strengths and capabilities, training of talented workforce, providing training in democracy format, increase participation of stakeholders in the educational process. Iran Educational system has attempted to use this system with today's information age in 1380. Smart schools act in the way of entrepreneurship, using new methods to improve the quality of education, training qualified people that have had any capacity and efficiency in the new industry. The purpose of this study, the use of ICT in Malaysian smart schools and compare it with smart schools in Iran.

The method of study is using of libraries, documents, websites and available electronic journals. This study shows that there are significant differences between the intelligent educational system and how using of ICT in these schools in Iran with specified standards in the leading countries like Malaysia. The results of this research can provide practical solutions to education managers.

#### **6. Conclusion**

One of the most important features of today is the growing momentum of scientific, technological, social developments and etc in it. When the only stability event is the change and instability, human societies and organizations are inevitable to create dynamic and constructive developments because of access to new trends in the future, according to Toffler, " only using innovative of change is for its direction, which can be spared the shock of the injury and to achieve a better future and more human. In other hand, almost all societies, the Institute of Education is expected to play in the transmission of culture and ancient methods of value to future generations, is a

source of social change and innovation as its mission the education of the main infrastructure personalities and social attitudes in this way it creates and the effort and seriousness to the conventional practice, the expectation of innovation in society will be easier. This means that the education system should be able to coordinate well with the changes and developments in society and the future changes and predict changes in order to create favorable developments in the future, the direction.

one approach that could be helpful to answer the needs of educational systems and today in many developing countries is being implemented, or being implemented, the use of ICT in educational systems and consequently the establishment and development of smart schools. These schools actually invented a new concept and philosophy of education and the abandonment of the traditional series of inhibitors; they try to use information technology to provide training. Effective education requires that students play new roles in these schools, so that are information seekers. So they can evaluate about the value of information is available on the internet for them. In such circumstances, the role of teacher will change from knowledge and skills transformer to the facilitator learning process, so they should also try that students gain the confidence, strategies and management information and skills in order to the necessary negation that they can run and use tools of technology in life and work successfully.

As was mentioned, like any other educational innovation in the education, there are barriers for establishment and development of these schools that the major ones are structural and cultural problems. In the last 50 years, many changes have done in human life, if you have a look around yourself, you can see that. But unfortunately classrooms have not changed from 50 years ago and the training is done with blackboard.

If the authorities and the custodians, teachers and people who repeat these traditional practices has been completed, it is not acceptable if it was not new methods, because the foundation of "change" and "make change" readiness and interest to accept it, otherwise it will not necessarily change, along with the results predicted, and the people associated with the strength and defensive modes. Therefore, for effective utilization of information technology, especially in developing approaches to improve the training needs, review of educational policies, reorganize the content, improvement of human resources, curriculum design and development of effective measures to provide for the cultural symbiosis with technology are new.

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