



# A Survey on Electronic Learning at Smart Schools

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## **Abstract**

The E-learning is a new technology in educational field in which transmitting and sharing the information is done by computers and computer nets, and some advantageous of applying such technology is: a more interaction between the student and teacher, consistency in teaching process, high rate of transmitting the information, augment of capabilities, and increasing the potential abilities of the students. A smart school is a physical school whose management and control is based on the technology and computer webs, and the content of most courses is electronic. Designing a smart school is to create such an environment of teaching and learning, and improving the system of education management of the school. Regarding the increasing importance of electronic teaching and learning, the educational system should be along with the changes of modern society, too. One of the functions in educational system, is improving the application of modern technologies of information and connections in educational systems, and consequently setting up and improving smart schools. The general aim, in this article, is a review on the way of learning by students in smart schools that analyzes electronic learning, its feedbacks, and outputs, in the idea of students.

**Keywords:**Electronic learning, teaching process, students, smart school, new technology of teaching

## **I. Introduction**

Connecting computers to global net of internet and benefiting from its services, uploading text, voice, and image on the net, there is a big chance of benefiting from this multimedia system, to improve teaching and learning. Considering the advantages, there is an increase in applying



online teaching and learning. We may benefit it in the best way, by combining different approaches of learning, such as text, voice, and image (Rastegar Poor and Gorji Zade, 2012). IT- base formed schools, the students are not who learn merely, and the teachers are not who teach as well, any more. Therefore, the material should be adjusted to the role of teachers and students, and present an especial way of learning for each student; as everybody can benefit from the material according to his/ her ability (Shafie Poor and Yar Mohammadian, 2011).

## II. E- Learning

It is any kind of learning achieved by computer technology, especially those internet base technologies (Zaman Poor and Mirza Beygi, 2010).

E- Learning term was coined for the first time by Kerass, refers to any kind of teaching through internet and intranet educations. The term is an extensive concept, covering a wide range of applications, processes, and expressions such web based learning, computer base learning, net learning, virtual or simulated classes, and electronic cooperation.

It is notable that there is no unity definition of electronic learning system among the specialists of this field, and there are 20 different definitions in the literature. Institutes, organizations, and specialists, propose different definitions based on their point of view and electronic learning applications. Some of them are mentioned in this article, to touch different definitions of electronic learning, finding the zone, and its nature.

"Stoke" believes that electronic learning, means to get literate through new ways of connections, computer nets, multimedia, content website, search engines, electronic libraries, far distance learning, and web based classes.

"Hamdi" believes that electronic teaching is the technology of net to design, assign the homework, and implementing an educational environment for the sake of consistency and continuity of learning. Chen et al name electronic learning base on net, electronic learning, and the approach electronic teaching turns true. The main goal of this idea, is a comprehensive self-learning of the learner by the web. "Waller and Wilson" believe that electronic learning is an effective process of learning that combines the presentation of electronic material, the services, and support. Australian national training authority announces that electronic learning has a wider concept than learning under the web, which contains a wide range of applications and processes that apply electronic media for presenting professional training and flexible learning. The final aim is of supporting a wide range of electronic media (internet, extranet, and intranet), is to provide the most flexible learning for the customers (Majidi, 2009).

Electronic learning can be defined as an interactive learning system which presents educational material or experiences through electronic technology, mostly by internet, and also there is a chance of receiving automatically feedbacks for the learners. Electronic learning is an interactive and constructional approach for teaching and informing the learners. It seems that it can't be constraint by IT, especially internet, but there should be an interaction between the teacher and the learner, and also the content or material of presenting media and learning references, and the virtual learning environment (VLE). Getting knowledge, growing up, and the development of the learners can be achieved just through such interactions. Under this educational system, occurring the learning is pertained to providing a convenient and learner based environment, which is independent of time and place (Majidi, 2009).



### III. Learning Management of Electronic System

Learning management system, is an applicable system of processing the information that the material are upload on, and supports any related educational material. Its common aspects are:

#### A. System Content Quality

The content of learning is the product of LMS. Lee and Hung (2007) persist on the content of learning as essential agent in successfulness and directing the teacher along with his/ her consent. In a research by Lee and Lee (2008), the quality of forming information (material) is the most important for the students (Zaman Poor and Mirza Beygi, 2010).

The quality of content in E- learning depends on the management and design of educational environment. The learners value the content, in fact they want well organized qualified content is presented in an effective way through a clarified interactive text (Ozkan and Koseler, 2009).

#### B. System Interaction Quality

In addition to how and to what extent an assessment and educational media is presented, the system of E- learning should be interactive. Based on Palof and Perat (1999) the main key of learning process in E- learning is the interaction between students and students, between teachers and students, and also participation in learning as a result of the interaction. The applied systems are from tools to represent the interaction: E- mail, advertisement boards, white board, conversation room, and so on. Interaction effect is searched in many works. It has a positive effect on the satisfactory and successfulness of the learner.

#### C. System Responsibility Quality

E-learning system, that is formed based on differentiate media and can interact, wouldn't have a system with a perception of the facility of application or being an advantageous, if can't be responsible as needed (Pituch and Lee, 2006). Kerka (1999) indicates that the concealed fault of an E- learning system is the limitation of bandwidth (the capacity of connection lines), and it's low rate of transmission, which can raise up a hindrance in transmitting the voice, graphic, and image. One of the works on System responsibility quality and the quality of internet is by Peter and Lee (2006) that shows the distinguished effect of the quality of internet and system responsibility quality on satisfactory and the facilitation of application found by learner (Zaman Poor and Mirza Beygi, 2010).

#### D. System Technical Feature Quality

Technical feature quality is the capacity of E- learning system to represent the educational media for facilitate achievement and their assessment; such features provide the student with on-line allowance to check the material of the course, the assignment and completing them (Pituch and Lee, 2006). In the research (Pituch and Lee, 2006) on 259 students of virtual National University of Sanyatsn, Taiwan, technical feature was found as a main factor with positive effect on the facilitation of application and application of electronic learning system in sake for a complementary learning.



### *E. Face to Face*

E-learning in Iran is such that they set some attending (face to face) sessions, maybe for registration or some special courses during a semester. This kind of face to face visit, is supported by recent researches. For example, Pitch and Lee (2006) suggested that the members of science board (the teachers of far distance classes), set some face to face sessions before applying LMS, to clarify this kind of education, so that teach the learners how to apply E-learning, and the students find it in a more touchable way as a far distance education. It has been shown in Lim et al (2007) work, whose data are from 151 workers of Samsung, Hyundai, and LG companies. The findings show that there is a positive effect on the function of learning (Zaman Poor and Mirza Beygi, 2010).

## **IV. The history of E- learning in the world**

Today, there are different technologies to eliminate geographical and physical distances, and also to provide E- learning programs. Klukas, considers the far distance teaching improvement in 4 eras. The improvement and progress of far distance and E- teaching, are based on internet generations as follow (Majidi, 2009):

### *A. The years between 1850- 1960*

The first generation of far distance education falls between the years 1850 to 1960. Within the time, the main technology for sharing educational information was printed document, that issued by post. In this time, called "Correspondence Far Distance Education", the lessons and assignment handed to the students by the post, after completing by the student, hand back to the teacher, and marked by the teacher. They did so for rest of assignment and trainings. This provides the student with the possibility to do his/ her education through the least interaction with the teacher and other students, in a far distance, and more convenient time. Considering this loss of interaction the student didn't have enough motivation under this way of education.

### *B. The years between 1960- 1985*

Far distance education continued by the second generation following the first one, which was one directional most of the time. In this time, voice technologies and video tapes, radio, and television, were applied as new possibilities and facilities in far distance education. Voice tapes was an expensive way of controlling the progress of education for the students. Still, the students studied independent from other students or the teacher. They could pause the tape, forward or back it, or pass it faster, and listen to the lessons wherever there were its hardware, for example in the car. Video tapes were presented as visual content of far distance education after voice tapes, and were greeted a lot. They provide the students with the possibility to pause, forward, or back them, or pass faster. Again, there was no interaction between the teacher and the student, and between the student and other student, like the first generation; however comparing the first generation, in aspect of interaction, this time was going to get better.



Later, radio and television developed in this time. These kinds of technologies let the student to learn alone. Voice and video tapes provide the students with the experience of listening learning, while their additional advantage was synchronous listening and watching the content.

#### *C. The years between 1985- 1995*

The first generation of far distance education was between 1985 and 1995. It contained different technologies like computer and computer nets. During this time, bidirectional interaction got fashionable, by computers and video conferences. This technology, allows the students and teachers to connect each other at the same time (bidirectional) or not. Teleaudio conferences could make voice connections, while telegraphic conferences with voice, transmitted written forms of the content, too. Televideo conferences make the transmission of voice, graphic, and image, too. Interactive television (ITV) set up a class for a plenty of time (during the semester) and transmitted visual and audial information wherever ITV systems are available and applicable, for the students and teachers, and also other learners.

#### *D. The years from 1995 to now*

The fourth generation of far distance education, includes the educations has been forming from 1995 to now. The distinguished aspect of this time, is the advent of extensive bandwidth computers that enable us to have visual and audial conferences with high quality on internet and web. Internet and web makes it possible to access to home and university pages, millions of textual and graphic pages, and also commercial nets through electronic post. Improvement of CD- ROMs let to record dynamic, graphical, and textual video classes, and to issue at the right time. Today, a plenty of tools and systems are provided on the internet for the interaction and connection between the appliers. Most applicable computer connections at this time includes electronic mail, computer conferences, and connected discussion and chat groups.

Taylor indicates to the 5th generation named "flexible and intelligent model". This generation services for the management of setting the net up, the possibility to access the workbook, libraries, and some other supportive and implementing services could provide a coherent system of implementing, supporting, and educational factors. In his idea, the 5th generation could add IA to the capabilities of the net.

In short words, far distance education isn't new, but completed continuously. Its methods and tools grow up along with the improvement of technology, and gets complication by passing the time. It is user friend and functional among the users. You may consider the evolution of the methods and tools in far distance education like this: "printed, correspondence, television and radio, fax, audial and visual tapes, CD-ROM, DVD, telephone, one to one video conferences, ..., computers, internet, web, virtual learning environment, management content systems, learning management systems, webCT software (a system known as commercial software in the world), and codifying the standards" (Majidi, 2009).



## V. The History and Statute of Electronic Education in Iran

Universities and virtual higher educational centers follow the common goals and duties in Iran. Higher capacity of admission the students, based on the need of the society and improving the quality of education are the most important goals and duties.

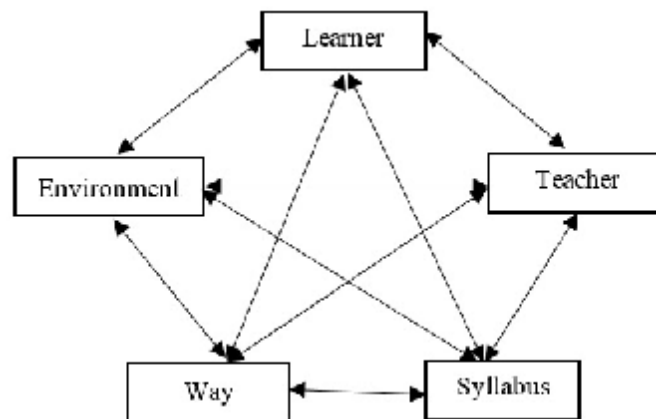
Payame-Noor university system, was set up based on Open University of Britain system, and its mission is to educate from a far distance, although it is notable that the improvement and growth of information technology and connections in all aspects of life, especially those related to education and learning process, and consequently the advent of electronic education, was set up for the first time and in a formal manner by presenting the first national proposal on the issue, named TAKFA (the functional development of information technology and connections), since late 2002. Consequently, many activities raised up in the field of universities or (virtual) electronic educational courses. However most of the pioneer universities in this field are industrial universities, and established subjects are in engineering department. The first electronic educational courses in the universities (electronic university) was began in a formal manner since late 2004 by Shiraz University, by one or more university subjects (discontinuous BA in instrumentation and control engineering), with about 200 students. By the next year, some other universities began such activities.

It is notable that Tehran University, is the first university who does researches and develops in the field, as set up electronic education center in 2002. As mentioned, in 2004, the center of electronic education in Shiraz University was established and followed by Science and Industry University, Xaaje Nasir-e-Toosi University, and Amir Kabir University.

Non-presence course divided into two groups: exam base courses (radio and television), and multimedia courses. Semi presence educational courses divides into two groups as well, conventional comprehensive semi presence courses and multiple divisions comprehensive semi presence courses (TABAN). Now, different universities from private and governmental departments are working on or establishing such courses. A while after the universities began to apply electronic education, the organization of education system, as the biggest department of education in the country, began some activities in the field (Majidi, 2009).

## VI. Educational cycle

Educational cycle is an effective model in educational researches; A field of science working with educational processes such teaching and learning, seeking to provide usable ideas for the teachers to design lessons, workshops, and so on. As shown in figure 1, this model assumes successful learning processes pertaining to five elements of the learner, the teacher, the content of the course, the environment, and the way of implementation, and also it clarifies their interrelationships (Ernst et al, 2014).



**Figure. 1.** Educational paradigm (Ernst et al, 2014)

## VII. Information technology and education system

Information technology plays an important and increasing role in the organizations. The information technology can help different types of jobs to improve their effectiveness, their work effectiveness, management decision making, and group works. We may help from information technology to support the teams working on the development the products, supportive activities for the customers, electronic commercial activities, or any other activity. Nowadays, there is a clear need for applying information systems, based on information technology for the managers, organizations, and their function. Information systems, provide the organizations and companies to access to far distance places, present their new product and services, reform the jobs, consider work affairs, and create radical changes in leading the companies (Mahmudi et al, 2008).

Information technology is developing in a high rate, and education based on this technology, is the increasing importance aim of most schools and universities in the world. Applying new information technology, creates a new potential ability in education based on technology, which can be fruitful in teaching- learning process, if used. These technologies leads to applying lifelong education in an extensive and deep way, too. The realities show that applying modern technology in 21st century, would have a deep effect on social life of human, and the education system wouldn't be an exception in aspect of the changes. Researches on education show that information technology is used in education system very much (Mahmudi et al, 2008).

In other word, the technology of information and connections is a tool that makes them more powerful to have equal chances to other peers in worldwide level. This is procurable through multi sake holder.

## VIII. Smart school

The definition of smart school in Iran is developed schools that applies information and connection technology tool to transmit conventional content. These tools include computer programs, like applicable software as presentation (Power Point), word, excel, and internet services. In smart schools the students access a large source of information by internet, and can



connect to other teachers, in addition to their own teacher, and other students, if they can't find the answer of their question. These schools apply more technology than conventional schools. The content is presented in an electronic manner, and the teacher plays a role as a leader. In such schools, they try to eliminate the problems related to education such less knowledge of computer, less general knowledge, and the problems related to conventional way of teaching (Zamani et al, 2010). Smart school, is an intelligent organization which exists really, (not virtually) where the students receive the lesson in a modern way. In smart schools, they control and manage based on computer technology and net, and the content of subjects are electronic and the assessment and controlling system is electronic, too (Mahmudi et al, 2008). Generally, such systems provide a clear level of feedback and control mechanisms, in a way that the teachers can have a general idea about the content, the student access, and the discussions that students are challenging with (Brooks et al, 2006).

Smart schools are those educational groups that work by using electronic learning, through the attendance and keeping physical environment, while teacher and student benefiting from a smart educational system, and by a combined and comprehensive approach they present educational services to the students. Smart schools have non separated elements, designed to motivate the curiosity of students, and their active participation, to adjust their effort of learning, with the effort of teachers and principals, in a comprehensive and combined environment, and meet all educational needs of people. These schools use electronic tools like computer, internet, ..., to educate. And provide a convenient bed for a blooming and affective growth of education and culture, in the country (Rezayee Raad et al, 2012).

Considering activating all potential abilities of students in all educational and extra educational activities in these kind of schools, the students learn corresponding to their trends and interests. And there is no limitation in the way of learning to continue and get progress. The teachers in such schools become capable professors that lead the students in learning. In addition, they play as a simplifier for the students in accessing knowledge resources for doing researches and surveys. Indeed, their conventional role as a source of knowledge gets change to a leader and simplifier for the students to learn by themselves, and have more access to huge sources of knowledge. The teachers show the students how to learn, and how to apply their knowledge to promote the quality of life (Mahmudi et al, 2008).

To establish such schools, we should consider a long term plan, firstly. For example, an smart school that established now, may take long time (more than 10 years) to complete the needed tools, containing connection structures, convenient content, teaching the teachers, changing the methods of teaching, and preparing the parents. The form of such schools is different in both physical aspects, meaning arranging the chairs and classes, and the architecture and form of the building, and the environment should be formed in a way that the student can have the lab by his/her chair. This way of education lead to understanding the target content by the student both practically and mentally. And also found that if would face any problem, where are the resources to use them for eliminating the problem (Mccullum et al, 2006).

The approach of smart schools is a combined and comprehensive one. It is "comprehensive" as meets the needs of students through different approaches of learning and applying multimedia tools tries to create a bed for the growth of their talents in all aspects, and it is combined as instead of taking information technology as a tool, combines the courses and methods and different approaches of learning, to make educational system more fruitful and effective. In addition, the educational models of smart schools needs active participation of the students. So,

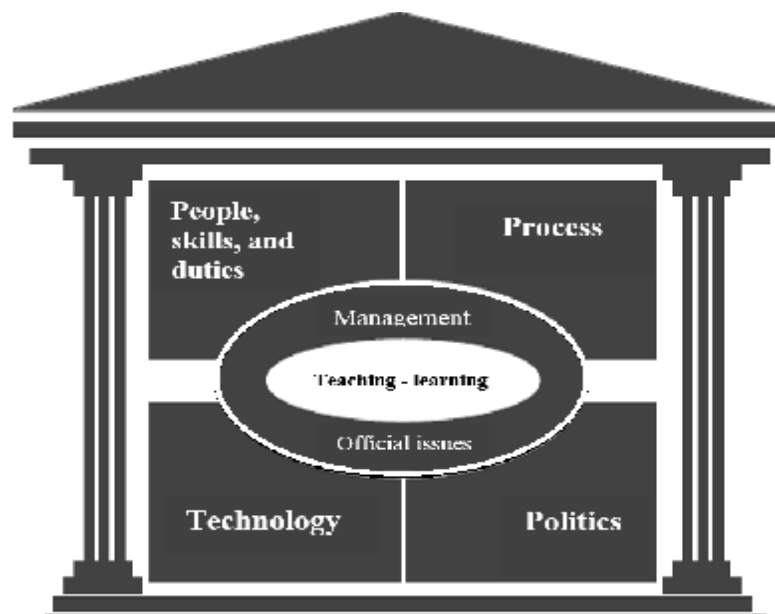




the final goal of activating smart schools, is to treat work force, equipped by computer skills and knowledge, that can meet the needs in new world of information (Rezayee Raad et al, 2012).

### IX. Key Elements of Smart schools

The main characteristic of these schools is turning from memory base method to a method base on creativity and thinking (Mahmudi et al, 2008). Along with this, we need to define key elements of smart schools in a different sense, and pronounce the functions in a new criteria. The key elements of smart school are as follow, shown in figure 2:



**Figure. 2.** The key elements of smart schools (Mahmudi et al., 2008)

- Management and teaching of learning
- Management and official issues
- People, skills, and duties
- Technology
- Processes
- Politics

### X. Characteristics of Electronic Education

Strong and weak points of electronic education discussed in many works. Generally, there is no method, especially in training sciences, which has no weak point. The rate of learning is important. For electronic learning the weakest point is lack of possibility to access the material and computer knowledge of trainers and learners. However considering different capabilities of electronic learning and its adjustment to digital environment, most organizations and institutes,



pend electronic education to train their employees. We will follow with characteristics and advantages of electronic education.

Researches on the causes of applying electronic teaching and education, there were three main reasons to apply such system:

- Promoting educational programs and consequently the knowledge of educated people
- Promoting availability of learning opportunities
- Reducing total cost of education

"Brondent" represents electronic education advantages for trainers and learners as:

#### *A. For learners:*

It is convenient for learners because of availability in any time and place; reducing the costs of trips and other expenses; choosing the content by own learners; providing additional contents; improvement of internet knowledge; encouraging learners to accept responsibilities; synchronous asynchronous availability of education.

#### *B. For Trainers:*

The possibility of availability for the trainers in any place and time; the possibility to dispatch the content for all the learners through internet; recording the deeds of the learners, chats, and discussions, and fast application of internet content.

Farhadi (2005) counted general advantages and characteristics of electronic education in aspect of some axis:

- The way of presenting the lessons to the students
- The interaction between teacher and student
- Access to information sources
- Changing the idea and knowledge of users
- Management

"Pawlowski" believes that the main aim and characteristic of electronic education is the predominance of geographical, cultural, economic, personal, and current systems limitations. In his idea, scientific dominance on the content, having a fair and equal point of view to the people who seek for knowledge, being flexible and high in tolerate, grouping the customers, and free education are the most important characteristics of electronic education.

Nasiri (2004) says that electronic education has some non-electronic advantages like reducing the traffic, helping environment protection, reducing air, noise, and space pollution (Majidi, 2009).

## **XI. Problems and Obstacles in Applying Electronic Education**

Nasiri (2004) talks on importing and applying new model of electronic education in the country that there is no doubt that the base and idea of electronic education in our country will face some disagreements, which is natural. As a new and modern system instead of a conventional one, would face some resistances, generally.

Electronic education is a huge revolution in educational system that has it's especial culture, consequently, and this may raise some resistances toward the base of this method of education.



However, cultural concerns are logical. And main resistances toward a technological revolution, doesn't seem logical; because the availability and dominance on the technology of connections and benefiting from that, a leading and important issue in education and training human forces, is one of the important elements for a government, and shouldn't miss it. On the other hand, continuous increasing low price growth of electronic education in the world, proves the essential need for this educational method. UNSECO says that the trainers of Massachusetts in America, will present all their lessons for interested people by a while. Based on this report, more than thousands courses will be present for teachers, researchers, and students all over the world, especially developing countries, by some future years (Majidi, 2009).

It is obvious that arriving and implementing new educational models will be difficult along with some resistances for all who teach and learn in a consistent and conventional way for some durations. In addition to this education and teaching and training theory is different in different countries. Therefore, there will be different approaches and methods. Revolution in educational models, needs such revolutions of functions. On the other hand, different countries are different in aspect of their access to information technology and connections. These kind of differences are a hindrance in implementing and setting up electronic educations.

Now, we set to some hindrances in electronic education in Iran, based on internal and external researches:

- Fear of not getting successful
- Feel of not being deserve for electronic learning and knowing it inconvenient
- Complex work affairs
- Not knowing or distinguishing educational needs
- Serious management control during the education
- Time
- Lack of managing support
- Monetary problems
- Interruption of work and activity in the middle of way (Majidi, 2009)

"Naywang" divides the hindrances to set up a virtual university to two categories. 1: limited knowledge of the environment of electronic education and virtual learning, and 2: less knowledge and understanding pedagogical issues and problems. "Darco" and "Mazibaco" says that some limitations of improving far distance education are as follow:

- Lack of high supports for far distance education by politicians.
- Lack of awareness about far distance education in governmental hiring centers to assess the employees
- Lack of available professional educated employees
- Lack of supporting plans
- Limitation of the budget
- Weak infrastructures (Majidi, 2009).

"Salim Abadi" (2006) named the main hindrance of improving electronic education and internet technology in educational system of Iran, some social, cultural, and economic causes. Now we consider some solutions to remove the challenges:

- Improving needed infrastructures for internet base activities, wants high expenses. The government should take right policy, and make related decisions.
- The culture of using internet should extend in the schools. Educational system of government should expand true application of internet and computer in the schools.



- The government and its council should approve a legal framework for supporting the development and implementation of internet and electronic education (Majidi, 2009).

## XII. **Effective Elements of being Successful in Electronic Learning**

Samadi et al., (2010) who did a comparative study on proposed models in the field of electronic educational system, e.x. The Electronic University of Turkey, the successful model found that different elements, based on circumstances, are proposed as key elements for the successfulness of electronic learning system, and come to an end with a conclusion based on the findings of this comparative study of key elements of the successfulness of electronic learning system: the learner, the trainer, the educational design, supporting services, technological infrastructure, the system of financial management, educational politics, standards, and the rules and laws of education. We will follow the discussion with four key elements of technology and done supports such as content, trainer, quality, and the methods of learning (Khorasani and Dousti, 2011).

- Applied technology and done supports
- Content
- Trainer
- Quality and methods of learning

## XIII. **Literature review**

### A. *Internal researches*

Zaman Poor and Mirza Beygi (2010), did a work titled "A survey on effective elements of the educational function of electronic learners in higher education, proposing the model of successfulness based on learner` viewpoint", proposed a model about electronic learning for employed virtual students in higher education. One of the main findings of the work is the effect of understanding the system on the successfulness of the learners, as the unique aspect affecting on the progress of education.

Zamani et al (2010) in their work named "A survey on weak and strong points, opportunities and threats facing the smart schools", research this concept. The statistical society of this research was from the students and teachers of four intelligent high schools in Tehran. The findings show that in the idea of students and teachers, the average of strong, weak, threats, and opportunities in intelligent governmental or private schools is more than the middle rate of 3, which shows the point that although there are some opportunities and strong points in such schools, there are some weak points and threats, as well. One of the most important points of such schools is increasing computer knowledge and general information of the students and teachers, comparing to normal and conventional schools, and also turning the role of teacher from a teacher base to a facilitator. From weak points and threats facing such schools is lack of a well-formed cultural structure for implementing and applying the technology of information and connections. In the idea of students, the rate of created opportunities and strong points in private schools is more than governmental ones.

Shafie Poor (2011) did a work titled "Presenting a model to evaluate the effective elements on educational schedules, responsible for what is known in smart schools". The statistical society of



the work is all teachers of smart schools in Tehran, in the educational year of 2009-2010. The findings show that among seven surveyed variables, regarding personal differences, learning to dominance, and paying attention to be research base, have the most effect on educational schedules, in order.

Rezayee Rad et al., (2012) on their work named "To know and prioritize effective elements on developing smart schools", knew and prioritized the elements. Statistical society of the work is from the principals and teachers of the schools of Saari. The results showed that technological elements, educational elements, cultural elements, leading elements, commercial elements, legal elements, and social elements are effective in developing smart schools, in order.

Rastegar Poor and Gorji Zadeh (2012) surveyed the relationships named in the title of their work: "Evaluating the effectiveness of electronic learning courses in Tarbiat Modarres University, in idea of users". The society is the student of MA in the university. The results cleared that the users of electronic learning system have a good accessibility to the system; they receive enough supports; they benefit from exams and evaluation; they don't get drills and assignments; they access to convenient sources; they don't have enough electronic content; they don't benefit from any medium of usage; and finally, they benefit from a good presentation of the lessons.

#### *B. External Researches:*

"Ozkan" and "Koseler" (2009) proposed a conceptual model named hexagonal evaluating of electronic learning (HELAM), in an article aiming to evaluate the students in a multi aspect way in electronic learning systems. The model has the a multi-aspect function toward electronic learning evaluation from six aspects: the quality of the system, the quality of services, the quality of content, the viewpoint of learners, the ideas of the teacher, and supportive issues. They provided a research tool based on the model and presented it to 84 learners. The analytical results proves a strong accordance between the proposed modeling in evaluating the electronic learning systems, through the consent of the learners. A subjective analysis show that all 6 aspects of proposed model have a meaningful effect on the found consent of the learners.

"Al-Sharhan" and "Al- Hunaiyyan" (2012), in an article aiming to present a model of a homogenous electronic learning system, presented a combined new model of electronic learning and a framework of quality warranty for effective implementation in middle school. In addition, they present a sufficient level for ensuring about the readiness of the teachers in a new environment of electronic learning (Al-Sharhan and Al-Hunaiyyan, 2012).

"Thowfeek" and "Jaafer" (2013), surveyed the effective causes on the admission of students of this system for The University in southeast of Sri Lanka, thorough an article aiming to survey effective elements on the motivation of students for the application of electronic learning. They noted that a successful implementation of electronic learning system by the admission of the system, defined by the students. They surveyed based on a model. The results of their survey showed that the expectations of the function, the expectations of the effects, and convenient conditions, are important elements on the motivation of the students to apply electronic learning systems.

"Rhema" and "Miliszewska" (2014) did a work and presented an article aiming to analyze different viewpoints of the students toward electronic learning, and also presented some findings of trade and understandings of learning based on technology, from two universities of



engineering students in Libya. They analyze the relationships between different viewpoints of students toward electronic learning and their demographic characteristics, access to the internet, applying technology for learning, skills of technology, and their consent of technology.

#### XIV. Conclusion:

Considering the importance of modern technology of information and communications in instruction system and operating and development of smart schools in education system, in this article we study the electronic learning of students, infrastructures needed for operating this technology and pros of using this kind of smart schools. The aim of designing smart schools is to prepare a teaching-learning circumstance and to improve instruction management system. Considering the increasing importance electronic teach and learn, the education system should match the evolution of modern technology and find a way to make desirable changes. One of the useful methods is to increase applying modern technologies. General aim of this article is to revise the methods of student electronic learning in smart schools. In this article we study electronic learning, feedbacks, and outgoing data of this instruction system in idea of teachers and students.

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