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Lifelong learning and schools in the twenty-first century

Melek Demirel*

Faculty of Education, Department of Curriculum and Instruction, Hacettepe University, Ankara, 06800, Turkey

Abstract

The necessity to cope with the rapid changes in science and technology in the 21st century and the necessity to adjust to the prerequisites of the knowledge society brought about the need for lifelong learning. Schools create lifelong learning societies and in this sense their importance is not to be underestimated. The length and the quality of the education at schools assume a critical role for the ability and motivation which are targeted at prospective learning situations. Accordingly, the strategy of lifelong learning should also include school years. The aim of this study is, while taking the basic differences between educational perspective of the 20th century and the concept of the lifelong learning in the 21st century, to display the changing function of educational institutions and the interaction between schools and lifelong learning with a terminological analysis.
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1. Introduction

The dazzling changes in science and technology today gave rise to a rapid increase in the amount of information and caused some site-specific information to lose their up-to-datedness in a fairly short time. It is not considered enough to rely on a limited source of information and trying to apply this information in the future in this ever-changing world. In order to keep pace with this dazzling change, it is essential to bring learners in a series of information and some skills as well. Today, for an adult, the acquisition of correct and efficient learning experience seems to be most important treasure that s/he could bring from past life to today and bring to the future. In addition, there is a commonly held belief that compulsory educational activities might not be sufficient for supplying the individual with the necessary information and skills that s/he might need all lifelong and that education should be continued throughout one's life. For this reason, one of the new paradigms accepted both in higher educational institutions and -in general- in the entire educational system today is 'lifelong learning'. Lifelong learning is handled by various international institutions with a holistic approach and has the philosophy 'education from cradle to grave' and, has the following common general targets as such: generalizing the pre-school education both in quantity and quality, constituting a real learning basis in compulsory education, facilitating progression from school to business

* Melek Demirel. Tel.:+90 312 2978550 ; fax:+90 312 2992027.
E-mail address: melekdemirel@gmail.com

life, encouraging adults to learn, renewing the resources of the system and establishing consistency between the parts of the system.

1.1 The meaning of education in the twenty-first century

Rapid changes in information technologies both change and reshape societal structures. This process of rapid change, in turn, brought about new terms and facts. One of these new terms is the information age or information society. Information society is the one in which information is the basic power and the primary source of capital. Within the information society, information is not a target itself but an instrument, and is the primary force that enlightens and directs every aspect of social life. Similarly, information is a life style, a form of thought and life in an information society. In such a period, the production and use of valid information is important. One characteristic of the information society is the individual who is able to learn. Within the information society, the individual has to understand, interpret and use scientific data; produce new ones, and have the ability to solve problems.

It has been important to take precautions against the possible outcomes that the change process in an information society might produce, and to prepare both the individual and the society for the future in such a way to compete with the change itself. The integration of the individual to the rapidly changing information society and finding a place that s/he deserves within that society, gaining new information and enriching capabilities are rendered possible through lifelong learning and becoming more qualified (Yurdabakan, 2002). According to Crowther (2004:130), a lifelong learning individual has a continuous aspiration for learning and the responsibility for his/her own learning. A lifelong learning individual renews his/her life perspective, conduct and values. That person also has to 'learn learning'. To put it in other words, the individual should be equipped with the basic information and skills in order to better understand and process information, and should be able to render the learning process more productive for him/her. Without these skills, either the possibility of learning decreases; or one can learn less with more effort (Cornford, 2002).

Within the information society, teachers' judgment and perception of the students have been altered. From this time on, teachers should focus on the points where students perform better or successfully, but not on their defects. The social aim and responsibility of education for the new information society is under scrutiny. In this respect, some of the features of education are as follows (Drucker, 1996)

- Education will have a social aim for the information society. There will be no education devoid of values.
- The educational system under discussion should be an open system. Education should be a service that every section of society can have access to; and regardless of origin, source of income or previous education, competent and successful individuals should have access to education and individuals should move upwards in the society through education.
- There is no such concept as finished education. Even those who have an advanced level of education should also come back to school.
- Education should not be limited to the school now. Every institution, which is in the state of 'employer', should be a teacher. There should be cooperation between educational institutions and business enterprises.
- We should pay attention to regard diplomas as the appreciation of talent, and not to regard them as obstructions before individuals' talents. Children of well-off and well-educated families will always be more advantageous. However, this advantageous position should not be an impossible obstacle for others.
- Learning is personal like one's fingerprint. Individuals have different pace of learning, a different rhythm, and a different attention interval. For this reason, the role of teachers should be to identify appropriate learning styles for students' personal characteristics, and guide them to fields that are most appropriate for their learning profiles(Çalık and Sezgin, 2005).

Taking globalization and the dynamic and ever-developing status of the information society into consideration, the following terms should be re-evaluated: education, educated person, learning, school, school manager, teacher and student. In this new period of education, the advancement of skill-level, self-education, self-development and a full employment of individual skills will be in the foreground. Individuals are expected to have such skills as learning a knowledge-based life, analytical thinking, synthesizing, solving problems, and involving in an effective communication. The rapid spread of information will necessitate individuals who are able to know how and where to obtain information, and who are selective in their choice rather than all-knowing individuals, in other words, there will be a need for individuals who are able to learn learning (Numanoğlu, 1999). Individuals' own development in

the societal process played an important role in the development of the term *lifelong learning*. Specifically, the emergence of information society speeded up the development of the term.

The differences between the concept of 20th century education and the concept of 21th century lifelong learning are stated by Longworth (2003) as follows:

- *Objectives:* In the 20th century; education sets narrow academic objectives and targets and works to achieve these in the present. But in the 21th century; the concept of lifelong learning not only works to achieve present targets but also to impart future long term values and attitudes to learning. For this purpose; it is necessary that curriculums deal with life skills more and the link between school and life and the community between industry and society have to be widener.

- *Relationship with industry*: In the concept of 20th education there is rudimentary short term business plan usually around academic matters and little effort is made to keep every stakeholder informed and on-side. But in the concept of 21th century lifelong education there is a full written organizational strategy which is available to all. This strategy plan develops the school into lifelong learning and covers the all aspects of the school's activity. In this aspect in order to bring change in education concept, it is necessary to develop longer term school business plan and make it available to all. It is also necessary to create proactive information strategies to bring all stakeholders on-side.

- *In-service training of teachers*: Another point related to education concept of 20th century is some teachers go on educational courses according to their needs or desires and there are occasional seminars in schools only for teachers. But in the concept of lifelong learning of 21th century, every person in the school has a continuous improvement plan for academic and personal skill embedded into the management system and as a part they are related to the school development plan. For this purpose; it is necessary that not only students but also teachers and admin staff develop written continuous improvement plans for academic and personal development of pupils and it should be extended these to parents and community.

- *Role of the teacher*: In the 20th century, teachers are the only human resource for curriculum delivery and other resources are supplied from local government and school events. But in the concept of lifelong learning it is objected to add human resource by tapping into skills, talents and knowledge of governors, parents and everyone in the community by exploring funding. In order to do this, besides the human and other resources in the community it is necessary to use innovative strategies to involve the community in school development.

- *Curriculum:* One of the important differences between the education concepts of 20th and 21th centuries is the curriculums are based on discrete subjects and they are assessed on memorizations of facts with fail-pass philosophy. But in the 21th century, the curriculum is based on skills and knowledge, the enhancement of self- esteem and the acceptance of lifelong values. In this aspect the examinations are done as stock-taking part of the personal learning process. In order to change this concept, personal skills development has to be incorporated into the curriculum. Besides, the Notion of failure should be taken out of the system and replaced with the strategies for improving personal self esteem.

- *Support services:* In the 20th century the teachers are overworked and sparse support service is given to identify and solve individual learning and social problems. In the concept of lifelong learning, guidance, support and counselling systems are available for all learners and their families. The social problems are identified rapidly and there are rapid solutions for learning and social problems. In order to eliminate this difference, it is necessary to introduce individual learning guidance systems for all pupils frequently and the resources like mentors should be used in the school and community. The families should be involved the system and rapid response system should be initiated.

- *Evaluation*: In the 20th century, the curriculum and schools are based on examination success. The social curriculum dealt with an ad hoc basis. There are some special and community programs. But in the 21th century aspect; it looks outward to the world and it learns by contributing to the community in which it exists. A strong social curriculum is created to promote a sense of tolerance and understanding of different races, creeds and cultures. In order to enhance the tolerance and understanding in and out of school, an active social curriculum should be introduced. Internet Networks should be used in projects to link pupils to other pupils throughout the world.

- *Instruction methods and techniques*:   In the 20th century teacher has a role of passer of information through didactic teaching methods using chalk, talk and paper exercises. But in the 21th century; the teacher has a role of developer of learning skills using motivational power of the individualized active

learning programmes like ICT, multimedia and Networks. With the aim of achieving this system the teachers should be trained in the many uses of technology as learning tools.ICT should be heavily invested thorough innovative programs with industry.

- *Relationship with parents:* In the 20th century the parents are invited to school to discuss the child's progress once a term and there are occasional public information meetings. But in the 21th century it is objected to involve the family in to the life of the school through increased home-school cooperation and to develop their awareness about active participation in school events. So they play an active role in the life of school. For this purpose a family participation guide outlining all the things parents can do for the school should be written. To establish a contact with the parents an e-mail line can be opened.

- *School activities:* In the 20th century school, there is only one show or play once a year and the actives out of school are led by only enthusiastic teachers. Sometimes there are Annual School Fair and Presentation Days. In the 21th century it is possible to enhance the confidence, creativity and the cultural vision of staff, parents, children and community through a wide range of extra-curricular activities. For this reason, an impressive programme of school societies, out of school activities, cultures, events should be established and involve the community where is appropriate.

- *Vision of school***:** In the 20th century, in some countries it is concentrated mainly on high academic achievers in order to enhance attractiveness to parents through position in league tables. In the 21th century, it is concentrated on academic and personal success of all pupils as a means of enhancing the school's reputation and satisfying society's needs. Besides the public is invited to share it. For this reason the school should be marketed strongly. It is important to emphasize the positive learning opportunities for all children, staff and the community at large. The school should create its own league table of all round achievement.

1.2. The concpt of lifelong learning for all

Lifelong learning is a process in which individuals retain their development of knowledge, skills, and interest in their lives and opportunities of learning (Richardson, 1978). The meaning of lifelong learning includes a process from 'cradle to grave' without constraining it to specific time periods, years, certain organizations or institutions (Çolakoğlu, 2002). Lifelong learning is a continuous process in which individuals retain and develop their life-based conduct, knowledge and skills. The main aim of lifelong learning is to reinforce and improve the life quality of individuals by enabling them to bring their own potential to the utmost level. According to Reinsch (2007), lifelong learning can be defined in these three terms:

- The entire educational system should focus on raising lifelong students.
- In addition to the educational system; industries, business and organizations will also need lifelong learning processes.
- Individuals, within this respect, should be self-directed learners.

Lifelong learning is the process of learning which occurs throughout life. In this case lifelong learning refers to formal (sponsored) and informal (unsponsored) learning. Formal learning includes but is not limited to participation for, post high school education provided by colleges and universities; community, state, military or occupationally sponsored programs; Professional counselling and proprietary schools. Informal learning includes, but is not limited to, seeking advice from an expert, experienced peer or adult; using a library or other resource centre and setting up a self-directed learning project -leading toward valuing lifelong learning- (Pongratz, 1996).

Following are the necessary activities for strengthening lifelong learning skills: developing positive attitudes toward learning, reading, writing, speaking and listening, research and independent learning, study skills and learning strategies, higher-order thinking skills and thinking about thinking (Cotton, 1998).

There is no doubt that "Lifelong Learning for All" is an established part of everyone's agenda for the twenty-first century. The EC declared 1996 the "Year of Lifelong Learning". UNESCO has entered the third millennium with a new interdisciplinary Project, "Learning without Frontiers", in which the establishment of a culture of learning is the main focus. In the words of its Director General, Dr Frederico Mayor, "the purpose of learning can no longer be regarded as no more than an initial preparation for the remainder of one's life. Learning in the twenty-first century will be a continuous requirement. It will be the responsibility of societies to provide an environment, free of any barriers, in which individuals and social entities alike can satisfy their learning needs". In England, the authors of "Learning to Succeed", the Report of the National Commission on Education suggested that: Perhaps the most

critical task of all in the years ahead is to persuade a greater number of men and women that learning is for them, that it can improve their personal lives and that there are opportunities for them to seize. The goal in the end is to create a learning culture, a society in which learning is the norm and the question people ask when the possibility of education or training arises for hem is not, "why should I?" but "why shouldn't I?" (National Commission on Education, 1993). This theme is being echoed across the world in statements by governments, industrialists and educationists alike.

The findings of the Global Conference on Lifelong Learning (1994) also pointed the way forward and defined sharply a context in which, "in the twenty-first century those individuals who do not practice lifelong learning will not find work; those organisations which do not become learning organisations will not survive…". The 500 people drawn from 50 nations attending this conference were clear that the development of companies, schools, colleges and universities will be essential rather than desirable, if they are to survive; that "the challenge for individuals is to achieve and maintain their own employability through lifelong learning", that, "the key to successful learning is motivation", which "will not be achieved by means of tight centralised control". The bad news is that, according to the European Round Table of Industrialists report on lifelong learning "education has the lowest level of capital investment of any major industry today". Yet, it is by investing in teachers that the vision of a learning society is most likely to be achieved (Day, 2000).

1.3. Schools and lifelong learning

Key notions related to lifelong learning are as follows: individuals' ownership of the need for and the content of learning, learning is related to how to think rather than what to think about, teachers are role models and mentors for lifelong learning rather than distributors of information, the aim of evaluation should be to encourage students for self-development and a facilitator in this process rather than classifying them according to a norm, and learning is regarded as an enjoyable and essential part of the individual. In a lifelong learning oriented school, some of the basic factors are putting the student and his/her needs into the centre, a self-directed learning through learning how to learn, and life cycle (Bryce&Withers, 2003).

Today, one of the attitudes that the primary, secondary and higher education institutions try to impose on students is lifelong learning. Once they graduate from their rapidly changing departments, students are bound to update themselves mainly through retaining lifelong learning. In addition, once established this attitude in their school years, they are expected transfer this attitude to their own students when they become teachers. Developing and strengthening the attitude of lifelong learning in students entail some differences when compared to the other attitudes, skills and habits which students are expected to acquire. Developing the attitude of lifelong learning also entails the fact that students are expected to acquire new skills such as gathering information and as well as developing some specific attitudes and dispositions related to learning (Boynak, 2004).

In short, in the most general sense, schools should be organized in such way as to provide students with social skills, learning skills and life skills, and the skill of how to seize opportunities. In order to achieve this, a skill-based curriculum and supportive educational programs should be prepared as well. Teachers should be trained as those who are able to develop student potential, parent-teacher associations should be given enough importance, and there should be a continuous relationship between teachers, universities, industrial fields and the society. Specifically, in order to develop learning skills, the use of educational software and modern information and communication technologies at schools, and the use of national and international nets should be encouraged (Bryce, Frigo, McKenzie, Withers, 2000).

Schools, while providing educational service as an institution, should also teach the best ways of generating and presenting knowledge because criticism on the traditional school mentality claims that schools may not efficiently keep pace with change. Patterson criticized traditional approaches on the following points:

- Schools only give importance to academic success and thus constrict some inherent abilities of individuals
- As schools are restricted to superficial experiences which are devoid of emotions; they are not able to provide permanent and fundamental changes
- Schools have become arenas for competition for students and consequently create a sense of inability in most students and suppress feelings of mutual trust and cooperation (Kılıççı, 2000).

Lifelong learning skills at schools could be developed faster by paying attention to the following four points (Helterbran,2005):

1. It is important to use different educational strategies. As students may learn through various ways, educational processes should be in accord with this. Different strategies should be unified for an effective learning and active learning processes should be given more importance.

2. The planning, application and evaluation of education is critical for an effective teaching and learning. In-class evaluation system in a school should also be in accordance with the educational system. Otherwise, there would be a discontinuity between processes and learning attainments would be disrupted.

3. Feedbacks should be meaningful and motivating in such a way as to enable students to revise their own mistakes, and study and think again. Reinforcing the information that the students are expected to have is also included in this process. On a reasonable basis, this may not be applicable for all homework; however, it would be an efficient tool when used selectively. This is indicative of the value and respect cast on the student and the learning process.

4. Applicability also outside the classroom enables students to test their own skills and knowledge. When students realize the applicability of what they have learned, they will be more tended to invest on their self-learning. Applicability opportunities can be in different forms. Among these are social services, mentoring, performing, seminar, or an exhibition for a museum or a library.

There is an assertion that today's schools are not learning/learner schools. For this reason there is an insistence to develop alternative school models. The most favourite alternative school model is considered to be the learning/learner school model (Çelik, 2001). However, the role of the education system in the information society is to raise individuals who are able to learn learning; and the role of educational directors is to convert schools into the quality of learning/learner schools (Başaran, 2000). Modern schools should be places of knowledge organization which satisfy the learning needs of students, teachers, directors, other employees and people around as well. In the school model necessitated by the information society, the classical teaching-institution image of schools is replaced by learning/learner institution. This can be explained by the fact that education should not be limited to a certain time period. In other words, lifelong learning has taken a place among the most basic needs of the modern individual. Accordingly, the human model as necessitated by the information society is the learner individual, in other words it is the knowledge individual. Those institutions that are supposed to raise learner individuals should also be organizations of knowledge and consequently they should be learner/learning institutions (Fındıkçı, 2006).

For a qualified, satisfying and modern lifelong education, the individuals who will benefit from this education should have received a well-qualified education in the primary and secondary education years. For the adult education to be exciting, creative and fluent, the high level of past education and experience is considered an important advantage. Before children finish their school education, they should acquire the urge to 'learn learning' and the position to organize themselves. A lot of primary school children acquire basic skills such as reading, writing, mathematics and the like in order to be successful both at school and in life. However, compared to the existing ones, there is a need for more flexible curricula and instructional programs that lead to individual learning, that uses new technologies effectively, and that establish equality between technical teaching and academic learning. Various countries try to establish connections between technical education and academic education. The continuity of the desire for learning plays a unifying role in diversifying the function of the educational system (Çolakoğlu, 2002).

The key term in the realization of lifelong learning activity is information literacy, as information society consists of individuals who learn all their lives. Those who learn all their lives long are able to access the information easily that is needed for solving a problem or taking a decision. Information literacy is the skills of obtaining, using, and conveying information. Information literacy is the basis of lifelong learning. In order to put the principals of lifelong learning into practice, we need to encourage individual and social development, and also master a computer-based world (Knapper and Cropley, 2000). To sum up, for a lifelong learning, social environments should be created in which individuals are given the opportunity to develop themselves both personally and socially, and individuals should be rendered competent in computer literacy as dictated by the needs of information society.

Educationalists are supposed to have students acquire the skills of lifelong learning in general, and meta-cognitive and self-controlling learning skills in specific, in order to remain updated in their domains. In this context, such methods as problem-based learning, conscious learning, mutual teaching, cognitive apprenticeship are recommended, which would develop students' lifelong learning potential. These methods provide the meta-cognitive and self-controlling learning skills in order to be lifelong learners (Dunlap, 1997). That is, educational methods such as problem-based learning, conscious learning, mutual teaching, and cognitive apprenticeship, and such naturally motivating activities and similar teaching strategies as cooperation, reflection, and student autonomy are employed by individuals in order to remain updated in today's world.

The features of the schools which that take lifelong learning as a goal are emphasized by Bryce, Frigo, McKenzie, Withers (2000).

Such a school:

- has a written organisational strategy, available to all, for developing the full human potential of each student and member of staff;
- involves student and staff in the maintenance of a culture of quality and respect for high standards in everything it does, and in continuous improvement programs for staff;
- increases the resources available to the school by harnessing the skills, talents and knowledge of administrators, parents, business leaders and other members of the community, to create new learning opportunities and implement school strategies,
- makes links with the world of work which enrich students' knowledge and experience and facilitate a "learning" approach to adult life;
- develops a curriculum based on the enhancement of personal skills and values to improve knowledge and understanding, and to enable students to manage change through their lives,
- uses modern information and communication technologies widely across all disciplines, including the exploration of collaborative learning opportunities through networks;
- looks outward to the world, promoting a sense of tolerance, justice and understanding of different races, creeds and cultures in all students;
- stimulates home-school cooperation and involves the family in the life and work of the school;
- expands lifelong learning in all its students and staff by involving them in the development of personal learning plans, guides and mentors;
- broadens the vision of staff and students through a wide range of cultural experiences and extracurricular activities;
- celebrates learning frequently as a desirable, permanent and enjoyable habit for all.

2. Conclusion

The greatest reflections of the change in the twenty-first century, without doubt, have been in educational domains since the raison d'être of educational institutions is to raise individuals who are well-qualified for the new age. The concepts that form the traditional education are turned upside down in the information society. In the past, education meant formal educational institutions that served people within a certain time period; on the contrary, in the information age the existence of educational/teaching environment regardless of time and place prevails. The underlying cause for such an environment is the renewing of the available information and skills, and consequently the need for a lifelong learning. The rapidly developing technology and the intensive increase in the amount of knowledge have greatly contributed to globalization. Today, with globalization, the production of valid information and its application to new domains have been the basic power which determines the national and international competition. Information has been the major source of wealth for nations. The production and use of valid information, which will be a source of wealth, have accordingly loaded new responsibilities to both educational systems and schools. Today, one of the greatest responsibilities of schools is to raise individuals who have the knowledge, skills, values and conduct as necessitated by the globalized world, while transferring the available cultural heritage to new generations.

With the rapid increase of information, there will be a need for the individual who –instead of knowing all- is able to know obtaining which information from where and how, who is selective, or in other words, who is able to learn learning (Numanoğlu, 1999). A. Toffler's saying 'the ignorant of the future will be the person who does not know how to learn; not an illiterate one' clearly indicates the importance of knowing the ways and methods of learning in the new age (Boydak, 2001). For the educational system to keep pace with the requirements of the information society and globalization, its aims should be redefined in such a way as to meet the needs of the age. The most distinctive aspect of the educational programs in the information society is the principal of 'the continuity of learning'. Individuals will have to learn continuously in an information society. As a consequence, the basic function of school will be to increase the learning potential of students instead of teaching excess. To put it in other words, compulsory education should have the qualities of preparing students for a lifelong learning and develop their skills of self-learning. The most fundamental component of developing lifelong learning at schools primarily entails that educationalists themselves be lifelong learners. In this sense, educationalists should primarily review

their own features and proficiency of lifelong learning; they should not only believe that they are lifelong learners but also they should exhibit such qualities and be role-models for students by applying such knowledge. Educationalists have an unprecedented opportunity for implanting the skill of lifelong learning in students. In cases in which this opportunity is disregarded, there will be a school-long learning instead of lifelong learning. Teachers should also be aware of the power for lifelong learning. Thus, the integration of students into the process will become easier. One of the most urgent issues in a school is that students are supposed to acquire the skill of lifelong learning. Educational processes should be organized in such a way that students would learn all their lives long instead of school-long learning (Helterbran, 2005).

Schools in the twenty-first century should be restructured in a unity of system which allows for equal opportunities for all students without exception, which is production-based, suitable for the existing vocational standards, which allows horizontal/vertical transfers in all periods of education, and finally which teaches the ways and methods for obtaining knowledge with an approach of lifelong learning for all. Before leaving formal education institutions, learners should have the desire for learning how to learn, and the ability to organize themselves and direct their own learning skills. All in all, one of the and perhaps the most important behaviours that students are expected to acquire in schools is lifelong learning.

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