

PART 1

Social Studies Education with Information Technologies

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1. Introduction

We may define information technologies as the means that enable us to create, collect, accumulate and process, retrieve, disseminate, and protect information (Karahan, 2001; Aktaş, Alioğlu and Vardar, 2007). The fast development in information technologies has influenced all the dimensions of our daily lives at a significant level, and its importance has increased as an indispensable element of especially educational systems (Aktürk, 2006). Computer, which is one of the most important technological advances of informatics, has become indispensable because of its functionality and speed in transporting information when compared with the other systems. While this indispensability is valid in all areas of economy, the decrease in profit rates of the capital in private sector and the increasing competition conditions have made it compulsory to find new technological innovations (Kazgan, 1997). This situation increased the importance of informatics in economy, and accelerated the new economy process.

In universities, which are the most important institutions of education, one of the factors that *pushed* the change is the new technology, which is constantly evolving (Aktaş, Alioğlu and Vardar, 2007). Among these developments, especially the fast and intense developments in information technologies have influenced higher education institutions more. In this context, it is obvious that the effects of technological development on universities are increasing with each passing day. These effects have positive sides as well as some negative sides. For example, technological developments facilitate research processes, but weaken the university concept

that is based on *place* (Yılmaz and Horzum, 2005). We may claim that the increasing effect of information technologies on educational places have brought with them several innovations in education. We may also claim that the developments in information technologies in the whole world have influences in many fields, and have made it compulsory to make some different activities in these fields. One of these fields is education, and information technologies have had important influences on educational programs, in institutions where education is provided, and on administrators and teachers who are the executors of education.

1.1. The Use of Information Technologies in Education

With the global age, information accumulated and increased in a fast manner, and this was reflected in the technology, which has a close relation with information, and technology gained a fast pace in developing. As of the scientific enlightenment period, many technological developments have been witnessed through time. Educational sector also received its share from the technological opportunities that evolve and develop with each passing day. Educational institutions have important duties in developing a society in terms of social, cultural, technological and economic sides and in determining the place of the society among other societies. Teachers, who are the executives of the educational processes in these institutions, must use all possible opportunities to fulfill their responsibilities in raising students in an efficient, creative and constructive manner (Küçükahmet, 1994; Demirli, Kerimgil and Donmuş, 2012). As a matter of fact, technology has become a strong part of the lives of individuals and of societies. It is possible to claim that ensuring that people make use of this strength in realizing themselves and obtaining the qualifications required by the present age are among the duties of educational institutions.

When the issue is using the technologies in educational institutions, the first thing that crosses the mind is computers and Information Technologies. These technologies help teachers, administrators, families and students in monitoring students, organizing class materials, developing environments that are suitable to the “*real*” life situations, and in making evaluations and managing educational institutions, which are all important educational processes (Zarotsky and Jaresko, 2000; Demirli, Kerimgil and Donmuş, 2012).

Information Technologies (ITs) enable us to transfer technological advances to daily life in a fast manner, and access information in a short time thus influencing all dimensions of life (Karasar, 2004; Seferoğlu and Soylu, 2007; Topu and Göktaş, 2012). One of the systems affected by these developments is -no doubt- the educational system (Akkoyunlu, 1996; Göktaş, Yildirim and Yildirim, 2008a, 2008b; Topu and Göktaş, 2012). For this reason, the use of IT in education is an important topic that deserves detailed research (Seferoğlu, 2007; Topu and Göktaş, 2012). In order to keep pace with the changes and developments on efficient use of IT, many efforts

have been made in our country. These efforts have been continued until our present day by updating the principle of being relative to students. In this context, the works based on the FATİH Project (Increasing Opportunities and Improvement in Technology Movement) in Turkey still continues in the student and teacher dimensions and attracts attention because it shows the importance given to IT in education in Turkey. Using the ITs in transferring activities that are based on the acquisitions in learning and teaching process in education influences enhances the interaction between the teacher and students in education. Using the information and communication technologies in educational institutions increases the proximity between students and technology (Demirli, Kerimgil and Donmuş, 2012). The teacher has the key role in using the technology in educational institutions. In this context, it is important that teachers understand the effects of technology in teaching and learning process (Zhao, Hueyshan and Mishra, 2001; Demirli, Kerimgil and Donmuş, 2012). Especially the teachers who work as specialists in technology act like a bridge between technology, educational institutions and students (Valcke, Rots, Verbeke and Braak, 2007; Demirli, Kerimgil and Donmuş, 2012). In performing this duty as the bridge, teachers who work in educational institutions in Turkey have to obtain adequate competency in Information Technologies Teachers Special Field Competencies, which was adopted by Turkish Education Board. The properties that form this quality consist of performance indicators grouped under 6 main themes, which are as follows (Arıkan, 2009).

- ✓ Designing, planning and organizing the educational process and the medium
- ✓ Technological concepts and practices
- ✓ Teaching-Learning-Program
- ✓ Monitoring and evaluation of the developments
- ✓ School, family, social relations, ethics and social issues
- ✓ Professional development.

Certain behaviors and activities come to the forefront in teachers who have the above-mentioned qualifications or who develop themselves in this field with certain criteria. Some of these may be listed as follows;

- ✓ The possibility of encountering discipline problems in educational environments may be reduced to a minimum level
- ✓ It may avoid the distraction of students in classes in educational environments
- ✓ Communication may be established with students who can think in empathy, who are open to critics and who can renew themselves
- ✓ Teaching by entertaining and being up-to-date may be cared more in classes.
- ✓ This may help students in their self-realization processes
- ✓ An efficient awareness may be created in students in learning-teaching process
- ✓ Social problems may be handled in educational environments by giving examples

1.2. Use of Technologies in Social Studies Education

The primary aim of Social Studies classes is to train citizens that are well-trained, effective and equipped, and willing to participate in democratic life (Braun, 1999; Kaya, 2008). This type of a citizen is an active participant in individual and social activities according to the conditions of the day, and can answer the questions asked to him/her by filtering the information coming from the social environment (Sunal and Haas, 2005; Kaya, 2008). S/he does this by performing the cognitive and affective aims mentioned in Social Studies program. The aim of Social Studies classes is to revise the social planning with a careful manner, and make students become ready to meet the society. For this reason, it is necessary that teachers and students are ready to the *informational revolution* and the effects of computer in the society (Nelson, 1998; Kaya, 2008). Right at this point, we may claim that using technology -just like any other educational resources- support the targets of Social Studies and the results of its education (Sunal and Haas, 2005; Kaya, 2008). We may claim that using technology in Social Studies education has become important especially in Fatih Project learning environment in recent years. Bolick (From 2002:184, Narrated by Kaya, 2008) handled the integration of Social Studies and technology under three main categories, which are Cooperative Communication Activities, Data Collection Activities, and Multimedia Activities. These categories are;

1.2.1. Cooperative Communication Activities

These activities are the ones that are performed without considering any kind of differences in the communication activities between teacher, student, parents, and administrators. These activities have varied through history according to the growing needs to ensure an efficient learning-teaching process. Right at this point, we may claim that although the communicative world of student, which was narrow and limited in the past, has had an unlimited quality with the help of Information Technologies through time, and the *spatial distance concept* disappeared in communication. In other words, teacher and student, who were stuck between four walls in the past, may work in a cooperative manner -no matter where in the world- by using the opportunities of video-conferences, e-mail or web sources, solve the emerging problems, provide new learning areas in every field, and share knowledge with ease (Bolick, 2002; Kaya, 2008).

In Social Studies teaching, although many technological means are influential in sharing the works and problems of students, we may say that using computer is much more influential. Especially through computers, students have met databases on the Internet, and this increased the effect of Information Technologies during the learning process (Nelson, 1998).

We may also claim that the activities intended to increase the technology-based communication skills of students at primary and secondary education level had an increasing accel-

eration as of 2005. Especially, when the Social Studies education program, which was used in 2005, and the draft Social Studies program that will be used as of 2017-2018 academic year are considered, it has been influential in learning field, acquisitions, content, and skills.

1.2.2. Data Collection Activities

In studies or assignments conducted on Social Studies teaching, we may claim that the most important means in collecting data is the Internet. The Internet (the international network) was developed in 1969 by the Ministry of Defense (the Pentagon) of the United States of America for the purpose of accelerating the sharing of information on military issues in the whole world (Martorella, Beal and Bolick, 2005; Kaya, 2008), and today, it emerges before us with the questions “Why don’t you search on the Internet?”, “Why don’t you ask the Internet?” or “The answer for this question is on the Internet” (Braun, 1999:346).

When the effects of the Internet on the development of students in doing the assignments given in Social Studies education classes are considered, we may say that teachers must provide certain privileges and freedom for students to use the Internet for the purpose of performing efficient learning or teaching, because students are now aware of the fact that Internet develops the critical thinking, problem solving, written communication skills and cooperative working skills (Chapin and Messick, 1999, Kaya, 2008). This awareness has arrived in our present world as of 1993 when the Internet had a revolution in the whole world. In those times, nearly 130 websites sought the answer to the question “Where and how to teach?” while today, hundreds and millions of websites seek the answer for the same question (Martorella, Beal and Bolick, 2005).

Teachers and students, who reduced the reliability and being up-to-date problems in data collection processes to a minimum level with the help of the Internet in Social Studies education, can make use of other Information Technologies and the functions of them (Tablet PCs, mobile phones, teleconferences, etc.). In recent years, students make use of internet-assisted Information Technologies not only in Social Studies classes but also in many other subjects in primary schools and secondary schools. When the Social Studies education program, which was used in 2005, and the draft Social Studies program that will be used as of 2017-2018 academic year in 5th grades are considered, we may claim that internet-based Information Technologies are used in intraschool and extraschool assignment activities under the title of “Data Collection Activities”.

1.2.3. Multimedia Activities

Teachers and students, who are the most important variables in learning-teaching process in Social Studies education, use several software to enable them perform learning-teaching

activities in a qualified manner. Such software helps teachers and students to develop Social Studies concept and the related disciplines by using multimedia descriptions. The learners, who are encouraged in this way, have the opportunity of constructing their information in a meaningful manner, and the teachers have self-confidence when they teach their classes by using the software (Bolick, 2002).

Depending on the Social Studies education study field, after the learning process formed as based on using Information Technologies and the relevant software in teaching-learning process, students assess the data sources they collect and organize their knowledge in order to test the hypotheses or interpret the answers of the questions. In the end, students reach definitions and results that may be necessary for future studies (Garcia and Michaelis, 2001; Kaya, 2008). However, not every software may be used in Social Studies learning environments. The software that may be used in Social Studies classes must meet certain criteria and standards. When these standards are considered, it is seen that the facility and prices of the software that may be used in Social Studies classes are important criteria in choosing the software. Meanwhile, the facility of the manuals of such software is another important factor in choosing the software. Applying to *listservs* discussion groups (Newsgroups) for the purpose of finding solution for the problems about the software is an important method in obtaining information on the compliance of the software (Braun, 1999, Kaya, 2008). In 1980s, when softwares first emerged, they were constructed on drill and practice just like electronic workbooks. Today, on the other hand, the software is classified as educational software, problem solving software, simulation software, word-processor and database software, and aims to develop upper-level thinking skills (Kaya, 2008). It is clear that students that have upper-level thinking skills can analyze new situations easily, create new ideas or understand complex things (Mukherjee, 2004; Kaya, 2008). It is also an important issue that software may serve different purposes. Some Social Studies software, for example Tom Snyder's Timeliner Program or Mapping Softwares may be used in many different areas at many different educational levels. This is similar to the facility of using the same database or the same spreadsheets both by the teacher and the students, which brings an important positive aspect to the Social Studies education (Kaya, 2008). Using software programs for multiple purposes also brings saving time and money opportunities. This situation is one of the most important qualities of a software in Social Studies. Right at this point, the question of "According to which criteria should we choose the software to be used in Social Studies learning environments?" becomes important (Kaya, 2008). We must consider several criteria in order to be able to answer this question. These criteria are;

- ✓ Special Education Principles (being suitable for student, openness, transition towards the unknown from the known, from the concrete to the abstract one, integrity, being economic etc.).

- ✓ General Education Principles (the course books used, materials, class hours, etc.).
- ✓ Social Studies Educational Program (the acquisitions).
- ✓ Teacher Competencies (Field, vocational and general knowledge).
- ✓ Program Development Basics (Individual, Social, Philosophical, Psychological, Economic, Topic Area).

We may again claim that although using Information Technologies in Social Studies learning environments brings variety to the learning environment, it is also influential on learning-teaching process. This learning medium and process, the number of the means of information technology and their functions vary according to the development levels of countries. Educational field received its shares from the negative environment created by the economic conditions in the early years of the Republic in Turkey (Aydın and Aydın, 2011). In order to be rescued from this negative environment, there were several attempts and developmental works, which ensured that the technology-based education reached our present day in the field of Social Studies learning environments in Turkey.

The use of technology in Social Studies is the most meaningful structural method that may be used to cover the needs of students and to increase their interest in classes (Heafner, 2004). However, not using this structural method within certain and suitable criteria may bring with it several negative aspects. Such negative aspects may be;

- ✓ Increasing discipline issues
- ✓ Using Information Technologies for different purposes
- ✓ Distraction during learning-teaching process
- ✓ Reaching ready-made information or content with the help of Information technology
- ✓ The lack of awareness in students

In order to save students from the abovementioned negative aspects, teachers, who are the narrators of the class subjects, must take certain precautions, which are;

The teacher must introduce the Information technologies that will be used in Social Studies classes, and tell the functioning of them in a meaningful manner.

- ✓ Social Studies teachers must use Information Technologies in classes for the purpose of attracting the attention of students, to motivate them, to make them learn in a meaningful manner, to concretize, and reinforce the subject.
- ✓ Students must be enabled to make use of the properties of the Information Technologies used in Social Studies classes that might bring them to explore and study.
- ✓ Students' needs must be considered in the Information Technologies activities that are prepared for the data collection processes or to be used in Social Studies classes.

1.3. Examples of Studies Conducted on the Use of Information Technologies in Social Studies

Anderson and Becker (Narrated from 2001, by Kaya, 2008) conducted a study on the attitudes of Social Studies teachers towards Information Technologies, and reported that there were limitations in the use of technology in Social Studies classes.

Koçoğlu (2017) conducted a study under the title "Perceptions of Teacher Candidates about Social Network Usage Levels in Turkey", and reported that there were negative effects of using social networks in learning environments in the learning level of the students and in the attitudes of students towards classes.

Akman and Patoğlu (2016) conducted a study with the title "Examining the Controversial Subjects in Social Studies Course Books in Secondary Education: A Content Analysis", and reported that the subjects might be concretized by making use of technological means and equipment in teaching complex subjects in Social Studies field.

Taylor and Duran (2006:16) conducted another study and reported great success levels with the MITTEN (Michigan Teachers' Technology Education Network) program they used in the study. With the help of the program, a suitable environment was provided for educators where they could share the resources and learning. The program affected the learning levels of students in a positive way, and increased their interest in Social Studies classes. According to the findings of the study, using technology with cooperative approaches in Social Studies classes gave the most positive and the most suitable results.

Kaya (2008) conducted a study with the title "Using Technology in Social Studies Classes", and determined at which stages and functions the technological equipment in Social Studies classes. He also reported that technological equipment had positive as well as negative sides.

Yeşiltaş and Kaymakçı (2014) conducted a study with the title "Technological Dimension of the Social Studies Teaching Program", and mentioned the elements of the program that was prepared on the use of technology in Social Studies classes.

Öztürk (2006) prepared a post-graduate thesis with the title “Assessment of the Competences in the Use of Technology in Training Social Studies Teachers”, and reported the adequate and inadequate sides of Social Studies teacher candidates by using techniques to reveal the adequacy in using technology.

Azattemür (2003) conducted a study with the name “Using Equipment in Teaching History in High Schools: The Case of Sivas”, and tried to seek the answers to the question “How may we make better use of educational equipment in teaching history classes?” The purpose was to define the materials used in history teaching at secondary schools, to determine their benefits, to detect whether such equipment was in the schools, and to ensure that the use of equipment became more efficient by considering the viewpoints of the students and teachers. In the results of the study, it was reported that adequate equipment was not used in classes, which is a parallel result of some other studies, and the use of more equipment was recommended.

Aydın, Dündar and Kaya (2017) conducted a study with the name “Teaching Social Studies with Local History Activities”, and reported that teaching local history in Social Studies classes by making use of Information Technologies gave more efficient and qualified results.

Results

In this study, which was prepared to examine the importance of Information Technologies used in the Social Studies education field, which aims to raise efficient and democratic citizens, and to make students learn in a meaningful, permanent and conceptualized manner, based on the “science technologies” concept, the acquisitions of students and the responsibilities of teachers in teaching these classes have been focused on. The changes in the usage of Information Technologies in Turkey were also examined with justifications. The issue of how Information Technologies were used in Social Studies learning field and how they were integrated with Social Studies were also dealt with in the study. In the last part of the study, the positive and negative sides of using Information Technologies in Social Studies classes were examined, and the precautions that must be taken by Social Studies teachers to eliminate the negative sides were explained. The activities mentioned in the Social Studies education program, which was used in 2005, and the draft Social Studies program that will be used as of 2017-2018 academic year were considered, and the activities designed for using Information Technologies in classes and the activities designed for students and teachers were explained.

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