JOURNAL OF EDUCATIONAL AND INSTRUCTIONAL STUDIES
IN THE WORLD
February 2016, Volume: 6 Issue: 1 Article: 05 ISSN: 2146-7463

TEACHERS' OPINIONS ON THE INFORMATION TECHNOLOGY COURSE AND INFORMATION TECHNOLOGY TEACHER

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Abstract
It is inevitable that developments in technology affect learning-teaching processes as well, just like in all fields. What is expected from today's schools is to raise individuals who are equipped with the skills of access to information and use it in an effective way and can use the technology. Teachers and school administrators play a very important role in using technology in the most productive way at the schools. This study is conducted in order to determine opinions and expectations on information technologies (IT) course at elementary schools and the roles of IT teachers who run these courses at the schools. To that end, data was collected through face-to-face interviews with 37 teachers and 3 administrators using the interview method. A total of 9 open-ended questions which were prepared with expert's opinion were addressed and the opinions received were transferred to an electronic medium by the researcher. Descriptive analysis method was used to analyze these opinions. During the analysis, sub-themes were created using the opinions and they were presented in tables.

Keywords: Information technologies teacher, information technologies class, teacher.

INTRODUCTION

Developments in science and technology have a substantial influence on the size of information as well as the way and speed of access to information. This reality causes a transformation in educational environments and teaching methods. Teachers, who have an important role in educational process, have also become a significant part of this transformation and need to continuously keep up with the technology and incorporate new developments into educational settings. Dursun and Çuhadar (2009) states that developments in technology make it necessary to raise individuals who have the skills to use information and communication technologies.

Today, schools aim to develop individuals who can access to information and use the information in an effective way (Akkoyunlu and Kurbanoğlu, 2003). It can be argued that it is important to use the technology effectively and individuals should be raised in a manner they are familiar with the technologies (Çepni, 2005). This duty is fulfilled by IT teachers at the schools (Kabakçı and Odabaşı, 2007). Also, the Ministry of National Education (MEB) assigns this task to the IT teachers (MEB, 2015). Other than these defined duties, there are expectations from IT teachers as well (Seferoğlu and Akbıyık, 2007). At times, legal responsibilities of IT teachers and other duties expected from these teachers at the school environment interfere with each other and this leads to problems. Thus, it is important to reveal the opinions of teachers in order to clarify this situation.

There has been an increase in the studies conducted on IT teachers and IT courses. Erdoğan et al. (2010) aimed to find out IT class management and classroom discipline problems; Kıyıcı and Kabakçı (2006) to reveal professional qualifications and working conditions of teachers; Durdu and Yıldırım (2005) to present the education received by teachers; and Dursun and Çuhadar (2009) to identify the problems encountered by teachers. As a result of these problems, the main problems in order of priority include managerial problems, teaching problems, technical and infrastructure problems and personal problems.

METHOD

Aim of the Study

This study aims to reveal opinions and expectations of teachers on IT courses offered at elementary schools and the role of IT teachers at the schools.

Research Model

In this study, qualitative research method was adopted in order to determine opinions and expectations on information technologies (IT) course at elementary schools and the roles of IT teachers who run these courses at the schools. Qualitative research is a research in which qualitative data gathering methods like observation, interview and document analysis are used and a qualitative process aimed at introducing the perceptions and events in a natural environment and in a realistic and integrative way is followed (Yıldırım and Şimşek, 2011). In this study, the case study was used as a qualitative research method. Case study is a research approach where a phenomenon or its one or two examples are studies in depth (Yıldırım and Şimşek, 2011). In case studies, researchers should determine a case or cases which include an individual, an event or an activity (Patton, 2002; Creswell, 2013).

Population and Sample

Population of the study consists of school administrators and teachers who work at elementary and secondary schools. Sample of the study includes 3 school administrators and 37 teachers who work at an elementary school and secondary school. In the selection of sample, convenience sampling method was used from among the non-random sampling methods. The purpose of choosing convenience sampling method is to bring in speed and practice in the sample. Demographics of the sample are given in Table 1.

Table 1: Demographics

Demographics		**N**	**40**	**Demographics**		**N**	**40**
		f	***%***			***f***	***%***
Sex				**Age**			
	Male	25	27,78		20-25	4	14,44
	Female	15	16,67		26-30	13	14,44
Duty					36-40	10	11,11
	Teacher	37	41,11		31-35	9	10
	Administrator	3	3,33		46+	2	2,22
					36-40	2	2,22
Field				**Experience**			
	Classroom Teacher	26	28,89		0-5 years	16	17,78
	Turkish Teacher	5	5,56		6-10 years	10	11,11
	Science and Technology Teacher	2	2,22		11-15 years	10	11,11
	Mathematics Teacher	2	2,22		18+	4	4,44
	English Teacher	2	2,22				
	Other	3	2,22				

Data Collection and Analysis

During the data collection process, face-to-face interviews were held with teachers and school administrators who were in the determined sample. Interview is an effective method used to reveal one's real thoughts and assess the situation that is dealt with his point of view (Patton, 1987). In the face-to-face interviews, semi structured questionnaires were used. The questionnaires were prepared by the researchers and then revised after obtaining an expert's opinion. Face-to-face interviews were held with teachers and school administrators using these semi-structured questionnaires and 9 questions were asked to the participants. With these questions, it was aimed to determine the current situation, problems experienced and expectations about the IT course and IT teachers. The interviews were transcribed by the researchers. Then the data obtained were analyzed using the descriptive analysis method and presented in tables.

FINDINGS

In this section, descriptive analysis results of the questions that were asked to participants during the interviews in order to find answers to research questions are provided. Firstly, descriptive analysis results of the data which was obtained during the interviews in relation to skills that IT teachers should have are presented in Table 2.

Table 1: Skills that IT teachers should have

Interview question: Which skills do you think IT teachers should have?			
	Opinions	***f***	***%***
1.	Having sufficient knowledge and skill in IT	27	67,50
2.	Keeping up with new technologies and innovations	19	47,50
3.	Being able to transfer and share a knowledge of his field	10	25,00
4.	Supporting students in effective use of IT and making research online	8	20,00
5.	Having pedagogical knowledge about developmental periods of children	5	12,50
6.	Having social skills and being active in social relations	4	10,00
7.	Being creative	3	7,50
8.	Speaking English	3	7,50
9.	Raising the awareness of and training teachers about IT	2	5,00
10.	Being competent in design and programming	2	5,00
11.	Being competent in developing educational materials using technological software	2	5,00
12.	Being courageous and fast	1	2,50
13.	Being tolerant and patient	1	2,50
14.	Having numeracy	1	2,50
15.	Being curious	1	2,50

Table 2 indicates that having sufficient knowledge and skill in IT is the first skill that IT teachers should have according to school administrators and teachers. Secondly, keeping up with new technologies and innovations is considered among the skills that IT teachers should have. In addition, school administrators and teachers stated that IT teachers should transfer and share with their community any new developments in their field. In this respect, some of the opinions of participants are as follows:

"IT teachers should be equipped with necessary and sufficient knowledge about computers and other multimedia devices. Also, they should be aware of all innovations brought by the technology and keep up with the developing technology. They should tell the knowledge of their field to others and share what they know in a manner that others can understand depending on their level (K1, Classroom Teacher). "

"A progressive, modernist world view. An inquiring character who follows up the world of technology. He should be a curious person in parallel with those (K3, Classroom Teacher)."

"He should speak a foreign language. He should be closely interested in current events and technological developments. He should have a wide tolerance and patience and a practical intelligence and creative mind (K7, School Administrator)."

"He should know computer and many technological products very well. He should be able to lower himself to the level of students. He should closely follow up technological developments. He should be able to express good that technology is essential. He should be able to motivate students to develop technological designs (K24, Science and Technology)."

The descriptive analysis results of the opinions of school administrators and teachers on feedbacks that they receive when they ask IT teachers for support are given in Table 3.

Table 3: The support given by IT teachers to other branch teachers

Interview Question: *What kind of feedbacks do you receive when you ask for support about your branch?*			
	Opinions	***f***	***%***
1.	I usually get positive reaction when I ask for help	32	80,00
2.	I couldn't get the support I need	5	12,50
3.	I've never asked for support	3	7,50

When the Table 3 is examined, it indicates that school administrators and teachers usually get positive reactions to their request of support from IT teachers. 32 of participants said that they get positive reactions from IT teachers, 5 said they can't get the support they need, and 3 said they have never asked for a support. Regarding these findings, some of the opinions of participants are as follows:

"I get positive reactions as much as possible. Although it is not his task, he is devotedly trying to help (K6, Classroom Teacher)."

"Since my branch is maths, when I ask for support about math-related symbols or geometrical figures I get positive feedbacks (K10, Mathematics)."

Descriptive analysis results of opinions of school administrators and teachers on the requirement of IT teachers to create solutions for what kind of problems encountered at the school are presented in Table 4.

Table 4: Status of IT teachers in solving problems related to their field

Interview question: *What kind of problems encountered at the school should IT teachers solve in your opinion?*			
	Opinions	***f***	***%***
1.	About general computer use and technical problems	23	57,50
2.	About the use of technological devices (projector, computer etc.)	10	25,00
3.	Giving technical support and offering courses to teachers about computer technologies	6	15,00
4.	He should be organized and effective about the use of IT classroom	4	10,00
5.	I expect technical support about the preparation of presentation	4	10,00
6.	Giving technical support to students during the IT class	3	7,50
7.	Making instructional technologies ready for use	3	7,50
8.	Guiding the administration about meeting the need for technological equipments at the school	2	5,00
9.	Introduction of new technologies	2	5,00
10.	Creating solutions for developing computer skills of students	1	2,50

Table 4 shows that there is a prominent perception that IT teachers should solve issues related to use of computers and technical problems at the schools. On the other hand, there is a dominant opinion that IT teachers should give courses and provide technical support for teachers and other school personnel about the use of technology. Some of these opinions are presented below:

"I want the IT teacher to help me in solving problems that I experience about IT (K16, Classroom Teacher)."

"Helping us in problems we experience about computers. Guiding students for access to websites about the class. Helping about the use of projector device (K24, Science and Technology)."

Table 5 shows that school administrators and teachers need IT teachers in providing technical support about software and technological materials that can be used for educational purposes and in solving potential technical problems. However, 9 participants said that they do not need IT teachers and they solve the problems by themselves.

Table 5: The need for IT teacher

Interview Question: *Do you need the IT teacher at your school about your branch? Why?*				
			Yes	**31**
			No	**9**
		Opinions	***f***	***%***
1.	**Yes**	Providing technical support about software and technological materials that can be used for educational purposes	14	35,00
2.		Solving potential technical problems	8	20,00
3.		Raising the awareness of teachers about IT and technological innovations	6	15,00
4.		Education that is offered with the help of technology would be more productive	3	7,50
1.	**No**	I take care of it by myself	5	12,50
2.		I think I have competence about this	4	10,00

Some of the opinions of participants in relation to the results of descriptive analysis given in Table 4 are as follows:
"Yes, because today education and teaching is more productive when it is supported with technology. And I need the IT teacher, more precisely that competency for my own field and development of my own class (K1, Classroom Teacher)."

"Yes, I do. Since the courses are more productive when they are offered computer-aided, we get help when using the computers. When we guide students to make a research, students access to information with the help of IT teacher (K24, Science and Technology)."

Table 6 presents the descriptive analysis results of opinions of school administrators and teachers on keeping IT teachers responsible for technical problems at the schools.

Table 6: Keeping IT teachers responsible for technical problems

Interview Question: *Do you think should the IT teachers be kept responsible for technical problems at the schools as well? Please explain its reason.*				
			Yes	**19**
			No	**21**
	Opinions		***f***	***%***
1.	**No**	IT teacher should guide and offer practical solutions but not repair	7	17,50
2.		IT teacher should offer their course and provide educational support only	6	15,00
3.		IT teacher should provide guidance for students about proper use of technology	5	12,50
4.		IT teacher should make contribution about integration of technology into instructional environments	2	5,00
5.		All personnel should have a knowledge enough to solve potential basic technical problems	1	2,50
1.	**Yes**	Elimination of potential hardware or software problems	19	47,50

Table 6 indicates that teachers and school administrators stated that IT teachers have a role which offers practical solutions but does not repair and assume the task of a repairman. Slightly more than half of the participants argued that IT teachers should not assume the role of a repairman, while almost half suggested that they should solve hardware and software problems. Opinions of participants about this issue are presented below:

"We should use IT teachers in the area of education. Getting technical support from an electrical and electronic maintenance and repair network that is created by many schools with groups of ten or fifteen personnel will prevent costs and labor loss. People should not be sent to each school for technical support. A support group of 3-5 members that will offer service for 5-10 or 15 schools would solve this problem. (K7, School Administrator)."

After examining the opinions on responsibilities of IT teachers about technical problems, descriptive analysis results of opinions of school administrators and teachers on solving technical problems at the schools are presented in Table 7.

Table 7: Solution of IT-related technical problems at the schools

Interview Question: *What do you think is the most effective way of solving technical problems about computers and information technologies at the schools?*

	Opinions	***f***	***%***
1.	Adaptation of teachers and other personnel continuously to IT and its effective use, and in-service training	17	42,50
2.	Having a computer technicians at each school (or several schools)	14	35,00
3.	Introducing a solution in an organizational way	6	15,00
4.	Having sufficient number of technological devices, and updating and renewing them	5	12,50
5.	Procuring technical support service	5	12,50
6.	Equipping all classes with technology	2	5,00
7.	Through IT teachers	2	5,00
8.	Developing solutions with projects by giving financial support to IT teachers	1	2,50
9.	Increasing the number of IT teachers	1	2,50

When the Table 6 is examined, participants stated that teachers and other school personnel should be trained continuously on effective use of information technologies or technical problems at the schools should be solved by having a computer technician at the schools.

Lastly, the results of descriptive analysis on opinions of school administrators and teachers on the need for IT course.

Table 8: The need for IT course

Interview Question: *Do you think the IT course is necessary? Please explain its reason.*

			Yes	**38**
			No	**2**
		Opinions	***f***	***%***
1.	**Yes**	It gives students the opportunity to know and use computer technologies effectively	17	42,50
2.	**Yes**	It enables keeping pace with computer literacy and technological developments as required by our time	15	37,50
3.	**Yes**	The number of courses should be increased	3	7,50
4.	**Yes**	IT course should be compulsory	3	7,50
1.	**No**	Instead of IT course, all teachers should be competent in IT	1	2,50
2.	**No**	All classes should be equipped with technological devices instead	1	2,50

Table 8 shows that majority of participants stated that IT course is necessary. In addition, 17 participants said that IT course should be offered to make sure students know and use information technologies effectively. Regarding these findings, some of the opinions of participants are as follows:
"I think it is absolutely necessary. We are living in the age of technology. Students should receive necessary IT education in order to keep up with the times and have easier access to information (K30, Religious Culture and Moral Knowledge)."

"The IT course is not only for students to move with the times. It is also necessary to prevent them from seeing computer as a machine to share socially using the Internet or play games only. It is nothing but nonsense that students who have computer literacy are all perceived as they are like that. It is certain that the computer skills of elders who would say "Somehow the kids use it very well. They even use the computer better than me" are seriously in a arguable situation. I think that we should ask a question like "We know how to read and write anyway, then why do we have Turkish class, literature class or grammar class and why are they compulsory?" to people who think like that. If we consider their answers in the context of IT branch, I think we could find out many reasons (K32, Classroom Teacher)."

CONCLUSION AND RECOMMENDATIONS

When the findings that were obtained in line with the purpose of this study, it is found out that the most important aspect regarding the skills that IT teachers should have is having sufficient knowledge in their field. Also, it is observed that opinions are concentrated on sub-themes such as the IT teacher following up technological developments, being able to transfer his knowledge, having social skills, having competency in developing instructional materials and having pedagogical knowledge about development periods of children. Kirschhner and Selinger (2003) state that qualified teachers should be raised in order to benefit from technology effectively in education systems. Uçar (1999) confirms that majority of teachers are not equipped with sufficient knowledge and skills in educational technologies during their pre-service training and experience problems in the teaching process. With the implementation of FATİH project (Increasing Opportunities and Improvement of Technology Movement) and increase of technological equipments at the schools, it is now required to have the ability to use these technologies effectively. These necessary skills can be developed by means of in-service trainings at times.

The teachers whose opinions were received stated that they get necessary support from IT teachers when they ask them for support about their own branches. Also, they expressed that problems that are experienced about general computer use and technical issues at the school should be solved by the IT teacher. The opinions revealed that IT teachers are needed in software and technological materials that can be used for educational purposes, raising awareness in IT and innovations and elimination of potential technical problems. The teachers also noted that IT teachers should not be held responsible in technical issues and their reason for such opinion was that IT teachers should contribute in educational aspects and integration of technology into educational settings only.

They also suggested that problems that are experienced about computer and information technologies at the schools can be solved by continuous adaptation of teachers and other personnel to computer technologies and their use and having a computer technician at each school. Akkoyunlu (2002) underlines that educators should integrate technology into their own field of education. Moreover, opinions about duties and responsibilities of IT teachers reveal that IT teachers try to offer all kinds of support in terms of technology but the duty of these teachers should be ensuring that students can use IT in an effective way and keep up with the new developments. It is understood from the opinions of teachers that it is expected that all classes will be equipped with technology at the schools and current technologies will offer the highest features in 5 years. It is believed that IT teachers will offer an effective guidance about computer and educational technologies, the number of IT courses will be increased and this course will be included within the scope of TEOG (Transition from Primary to Secondary Education) in this process. It is also believed that this study will contribute to the effectiveness of IT course. Furthermore, it is expected to contribute to researches in this field, IT teachers and other branch teachers in terms of making use of technology at the school at an optimum level.

The following recommendations can be made based on the above-mentioned conclusions:

- ✓ IT teachers could be provided with regular in-service training seminars about their branches and technological developments.
- ✓ A legal regulation could be made about not keeping IT teachers responsible for technical issues.
- ✓ Administrators, teachers and students could be provided with seminars about educational technologies, technological developments and correct and effective use of technology by IT teachers.
- ✓ Having a computer technician at each school could be a solution for IT problems experienced at the schools.
- ✓ The number of IT courses can be increased.
- ✓ The IT course could be included within the scope of TEOG.

WJEIS's Note: This study is presented as an oral presentation at 3rd International Instructional Technologies and Teacher Education Symposium, Trabzon, 9-11 September.

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