

ICT Teachers' Assigned Roles and Expectations from Them*

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Abstract

The aim of this study was to provide a better understanding of ICT teachers' assigned position and to determine school administrators' and other teachers' perceptions towards ICT teachers and these teachers' positions, and to reveal the similar and discrepant aspects of their tertiary education and the roles (work and responsibilities) assigned to them in schools. For this purpose, a qualitative case study research design was used. The study was conducted within three phases. In the first phase, focus group interview with 2 faculty members at department of Computer Education and Instructional Technologies and 6 ICT teachers, in the second phase, a pilot study encompassing an interview with 2 teachers from other branches and 1 school administrators, and finally face-to-face interviews with 33 participants, 10 of whom were school administrators, 11 of whom were ICT teachers, 12 of whom were teachers from other branches. The data obtained were analyzed using content analysis, and the findings showed that ICT teachers undertook many roles in their schools apart from the assigned positions determined by MoNE. The fundamental reason for this appeared that ICT teachers were perceived as an expert, a technical staff or a personnel who knows everything about ICT. Further, there occurred some differences and ambiguities between the education they took and the assigned roles and due to these ambiguities that even the ICT teachers could hardly define their assigned roles in schools was observed.

Key Words

Roles of ICT Teachers, The Expectations from ICT Teachers, Schools Administrators' and Teachers' Perceptions, ICT Course, CEIT.

Information and Communication Technologies (ICT) influence all aspects of life rapidly transmitting technological developments to daily life and providing fast information accessibility (Karasar,

2004; Seferoğlu & Soylu, 2007). One of them affected by these developments is educational systems (Akkoyunlu, 1996; Goktas, Yildirim, & Yildirim, 2008a, 2008b). Therefore, use of ICT in education is an important issue to be highlighted (Seferoğlu, 2007). United Nations Educational, Scientific and Cultural Organization (UNESCO), thus, has emphasized that active use of ICT in every phase of educational activities is acknowledged as both a necessity and an opportunity (UNESCO, 2009).

Turkey has launched several initiatives to adapt the changes and development in the use of ICT in education. Thus, a comprehensive education law to enhance the quality of education was effected by the Turkish Grand National Assembly in 1997 (Dünya Bankası [DB], 2009). Through this law the Ministry of National Education (MoNE) launched the first phase of the Fundamental Education Project (FEP) in 1998. Within this project, students and teachers were attempted to have ICT literacy throughout

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the education process. For this purpose, the course of “Computer” took place in the primary education curriculum as one of the compulsory courses (Eğitim Teknolojileri Genel Müdürlüğü [EGİTEK], 2001). Therefore, ICT classrooms have been launched and schools have been equipped with ICT devices (DB, 1998; Milli Eğitim Bakanlığı [MEB], 2009; Tebliğler Dergisi [TD], 1998). However, the course was changed as an elective course and through the decision of Head Council of Education and Morality (HCoEM), the name of the course was renamed as “ICT” in 2006 (MEB, 2007a; Talim Terbiye Kurulu [TTK], 2006). Since the course of computer was included in the primary education curriculum, teachers have been needed to give the ICT literacy to students, therefore; Computer Education and Instructional Technologies (CEIT) departments were launched in education faculties (Yüksek Öğretim Kurulu [YÖK], 1998). The graduates of this department work as ICT teachers in primary schools.

Together with the use of ICT classrooms in primary schools, maintenance and repair staffs have been needed as well. For this purpose, MoNE has stated that teachers who have taken in-service training from different branches may be employed as ICT formator teachers (MEB 2007b; Seferoğlu, 2009; TD, 1993). Further, EGİTEK has stated that each school having an ICT classroom should employ at least one ICT formator teacher (EGİTEK, 2001). In a report of ICT Integration Basic Research Report, it is argued that some of the teachers use ICT with an inadequate skill and have low level of ICT literacy (MEB, 2007b). Therefore, EGİTEK (2007) have indicated ICT formator teachers, when needed, may train the administrators, teachers, students, staff and people about ICT literacy.

In the 3rd International Computer and Instructional Technologies Symposium Panel Report, many participant ICT teachers and panelists argued that ICT teachers and ICT formator teachers juxtapose in terms of their missions and responsibilities that cause a significant problem. The same report also mentions that there are discrepancies between the instruction ICT preservice teachers take at university and what they are expected in the schools when they begin to work (Kara & Timuçin, 2010). Çuhadar and Dursun (2010) argue that this situation results from the vagueness of the definitions of both CEIT undergraduate program goals and ICT teachers’ tasks. Therefore, revealing the perceptions of school administrators and other teachers towards ICT teachers appears to be critical in terms of comparison of the education that ICT teachers take and

the expectations towards them, and clarifying these teachers’ mission.

Relevant research, however, is inadequate to reveal the problems about the roles that ICT teachers undertake. Therefore, to determine the perceptions of school administrators and the teachers from other branches, and to clarify the similarities and discrepancies between the education that ICT teachers take and their roles are considered important. The findings of this study, therefore, can be used:

- a) when MoNE reviews primary education ICT program and Higher Education Council (HEC) examines the ICT undergraduate program at universities
- b) to eliminate the inconvenience and inadequacies during the teachers’ and administrators’ preservice and in-service trainings.

The study, due to rarity of relevant research, appears to be fundamental and significant for further research.

Purpose

The study aims to determine ICT primary school teachers’ roles in schools, administrators’ and other teachers’ expectations from ICT teachers and finally the similarities and discrepancies between ICT teachers’ education at universities and the roles they undertake in schools. For these purposes the following research questions are posed to investigate:

1. What are the roles (assignments and responsibilities) of the ICT teachers in their schools?
2. What are the administrators’ and other teachers’ expectations from ICT teachers in their schools?
3. What are the similarities and discrepancies between ICT teachers’ education at universities and the roles (assignments and responsibilities) they undertake in schools?

Method

Research Design

The study is a qualitative case study. As revealing participants’ beliefs, attitudes and perceptions (Ekiz, 2007), examining the subjects in-depth and holistically (Merriam, 1998; Yıldırım & Şimşek 2006) by means of its unique methods (Creswell, 1998) qualitative research design was used.

Participants

The study was conducted within three phases. In the first phase, focus group interview with 2 faculty members at department of Computer Education and Instructional Technologies and 6 ICT teachers, in the second phase, a pilot study encompassing an interview with 2 teachers from other branches and 1 school administrators, and finally face-to-face interviews with 33 participants, 10 of whom were school administrators, 11 of whom were ICT teachers, 12 of whom were teachers from other branches. The participants were selected through purposeful sampling method and voluntary participation was insisted.

Instruments and Data Collection

The focus group interviews, the preliminary phase of the study, were conducted by means of the semi-structural interview questions prepared by the researchers. In the light of the codes and themes obtained from the analysis of these interviews, in the second phase of the study, pilot interviews and in the third phase, the face to face interviews were carried out. The interview guides were prepared according to the researchers' questions under three categories towards school administrators, ICT teachers and teachers from other branches and the results obtained from the focus group interviews. The interview guides, to provide validity, were reviewed by 5 peer reviewers, then, by 7 subject field experts and by 4 Turkish language experts and then necessary corrections were made. As for the reliability, the interview guides studies with 1 school administrator and 2 teachers from other branches were piloted. In the light of the data obtained and experts' ideas, the guides were finalized and the face-to-face interviews started. With the participants' consents, interviews were audio visually recorded.

Data Analysis

The collected data were analyzed by means of content analysis. To do this, the audio and visual records, firstly, were transcribed. The data from this transcription obtained from records of school administrators, ICT teachers, and teachers from other branches were separately grouped for an accurate coding. In each group, common meaningful codes were determined, then these codes were classified according to the research questions concerned and final themes were reached. The themes then were categorized according to the research questions, too. The findings, for a better understanding, were tabulated.

Results

The findings about the ICT teachers' roles in their schools show that ICT teachers undertake some other responsibilities in addition to their roles in classrooms such as assisting school administrators and other teachers about ICT, and dealing with the hardware and software problems. However, to the teachers from other branches, as for the ICT teachers' extracurricular roles, it is seen that the item "to assist teachers in e-school usage" is frequently highlighted.

As for the expectations from ICT teachers, the findings, according to the ICT teachers, display that they are expected to assist in e-school use. Moreover, administrators are seen to expect from ICT teachers to keep school website update. The other teachers, prominently, expect ICT teachers to assist them in the use of e-school. Another remarkably common expectation of the participants from ICT teachers appears to seek assistance to hardware or software related problems. According to ICT teachers, low level ICT literacy of the administrators, other teachers and the staff in schools, uncertainty of the ICT teachers' duty framework, and lack of qualified staff who deal with hardware and software implementations are the fundamental reasons for these expectations.

With regards to the similarities and discrepancies between ICT teachers' education at universities and the roles they undertake in schools, the items "the undergraduate education is adequate for in-class activities", "the undergraduate education is inadequate for the extracurricular assignments", and "the undergraduate education is inappropriate for primary school education" appear to be prominent. The participants also point out that in the curriculum of CEIT undergraduate program, the weight of the courses computer hardware, office programs, operating systems and English language should be increased but, on the other hand, the courses of physics, chemistry, biology and programming languages should be reduced in the curriculum.

Discussion

Most of the participants stated that they took part in different functions such as dealing with of hardware and software problems of the technological devices in schools, informing the administrators and the teachers about the recent technological developments, assisting the administrators and teachers in e-school usage, assisting and supporting the teachers for computer aided instruction. These results support the findings of the studies conducted by Kayak and

Orhan (2009), Özoğul (2006) and Seferoğlu (2009). One of the reasons for this phenomenon can be administrators' and other teachers' lack of knowledge about the ICT teachers' responsibility scope in schools. Such an approach, also, will most likely decrease teacher's pedagogical productivity due to extra in-class and out-class work. Some of the administrators and other teachers from other branches seek ICT teachers to provide and offer some computer programs and materials for computer aided instruction. This finding can lead to a tendency to integrate ICT into education, and can be regarded as desirable to enhance the instructional quality.

In line with the findings of Seferoğlu's (2009) study, according to most administrators ICT teachers should pay more attention to constructing school website and updating it. This can be argued that school administrators and other teachers perceive ICT teachers as personnel who should take place in the administrative issues and as technicians responsible from the technological devices in schools.

However, that school administrators seek their schools to be shown and introduced on the web can be traced to their positive attitudes towards Internet use. The inadequate and low quality in-service trainings about ICT that administrators and teachers from other branches have taken, oversimplified ICT courses, inadequate level of ICT courses in undergraduate programs at universities appear to be the prominent reasons for the expectations from ICT teachers mentioned above. These findings that support the results of similar studies (Çağiltay, Çakıroğlu, Çağiltay, & Çakıroğlu, 2001; İşman, 2001; Jamieson-Proctor, Burnett, Finger, & Watson 2006; Karal & Berigel, 2006; Uşun, 2009) display that teachers' ICT literacy and their skills of ICT use are rather scarce and inefficient. Therefore, the contents of the in-service training programs should be periodically revised according to the participants' adequacies and needs (Şimşek & Ursavaş, 2010). Further, in order to enhance the efficiency of the ICT courses that pre-service teachers take at university, in addition to the theoretical knowledge, practical experiences can be provided so that they can integrate ICT into their own branches (Educational Testing Service [ETS], 2002; Goktas, Yildirim & Yildirim, 2008c; Kozma & Schank, 1998).

Most of the participants stated that lack of the personnel responsible from hardware and software devices results in these high expectations towards ICT teachers. In other words, those ICT teachers are seen as technical service staff or administrative personnel, and responsible from the available tech-

nological devices affects the expectations and demands towards these teachers. In Eyidoğan's (2009) study, it is argued that ICT teachers are seen as the staff in charge of technical devices and laboratory. Additionally, like Orhan and Akkoyunlu's (2003) studies and Özoğul's (2006), most of the participants also indicated that technical staff to assist the ICT teacher is needed. Therefore, it can be said that employing technical staff responsible from the devices and their repairs and maintenance or service purchase should be attempted.

Most of the ICT teachers attribute these high expectations to the lack of knowledge about their actual duties and responsibilities, and ICT teachers highlight that they are confused with ICT formator teachers. Thus, EGİTEK (2001) emphasizes that school administrators should not mix ICT teachers' functions and duties with ICT formator teachers' scope, and should not give the tasks to the ICT formator teachers what ICT teachers should undertake. EGİTEK, also, underlines that ICT formator teachers and ICT teachers should not be required to do extra tasks in addition to their classes and laboratory activities. For a better understanding in terms of duties and responsibilities of both ICT teachers and ICT formator teachers, some seminar programs can be organized. Despite EGİTEK's general notice in 2001, CEİT undergraduate program curriculum that YÖK (2006) revised in 2006, like the research findings Er (2007), Orhan and Akkoyunlu (2003), Özoğul (2006), and Seferoğlu and Akbıyık (2007) indicate that additional expectations to ICT teachers' roles in schools still exist. As a result, this situation hinders their actual functions (Seferoğlu, 2007).

This study investigated whether there are any the similarities and discrepancies between ICT teachers' education at universities and the roles they undertake in schools. Thus, all the ICT teacher participants consider their education sufficient for the in-class activities, but not adequate to meet the expectations out of the classrooms. This suggests that there are certain discrepancies between what ICT teachers have taken as undergraduate students and the expectations towards them. A considerable number of the ICT teachers highlight the inadequate level of hardware course instruction at university that is why they state that they are unable to meet the expectations about hardware related problems. Karataş (2010) emphasizes that due to technical limitations of the education that ICT pre-service teachers take, if they have not made adequate efforts, they might consider themselves inadequate and not knowledgeable.

Some of the ICT teachers stated that instructor at universities should update their knowledge and become more equipped in their fields. Therefore, it can be said that faculty members at universities need to be knowledgeable and proficient in the field of ICT, and they should teach the prospective teachers to be change agents so that teachers of future can be of good quality (Watson, 2001; Willis, 2001). In the study, it was suggested that courses out-of the field and the course of programming language should be reduced. This can be traced to the necessity of following developments since the field of ICT constantly changes and advances. Further, since there are certain discrepancies between the education that ICT teachers take at universities and the expectations from them in schools, the appropriateness of ICT teaching programs with ICT teachers' responsibility scope should be revisited. In accordance with this, some improvements can be realized with a collaboration of CEIT program of HEC and the primary education of MoNE.

As a result, this study revealed that ICT teachers not only deal with the duties determined by MoNE but diverse tasks out of class, and there are no definite statements in ICT teachers' task scope even among the ICT teachers and some controversies have been observed. It has been also seen that school administrators, other teachers, staff and students have different expectations from ICT teachers and to meet these expectations, and the task scope of ICT teachers and ICT formator teachers are mixed up.

Given findings some suggestions are provided so that ICT teachers can more productively work in their educational field. Therefore, these suggestions are thought to be very useful consider by practitioners.

1. Task identification and the exact roles of both ICT teachers and ICT formator teachers, then administrators, other branches and staff should be informed.
2. Technical support is needed in terms of solving the problems related to computer hardware and software equipment in a fast way in schools. To meet this need, the students of computer departments of vocational schools and vocational high schools can be employed as trainees in ICT classrooms or for this purpose, service can be purchased.
3. Quality in-service trainings about ICT in education should not only be given to teachers but to administrators and staff as well.
4. The ICT program of MoNE for ICT courses in schools should be corresponded with the ICT teaching

undergraduate program. For this purpose, a strong coordination between MoNE and schools of teacher education should be established too.

5. To solve the aforementioned problems, given the adequate number of studies related to ICT teachers and CEIT programs, further research is strongly needed. These studies should be conducted through different perspectives and comprehensively and as for the implications and suggestions, researchers and practitioners should benefit from the experiences of other countries (e.g. US and UK).

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