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Views of Regional Boarding School teachers about the use of ICT in education

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Abstract

This study examines teachers' perceptions who work in a Regional Boarding School (RBS) in the city of Giresun, Turkey about the use of ICT for teaching and learning. Semi-structured interviews were used and 10 teachers from primary level of RBS were interviewed. The results of the study show that, teachers of RBS believe that it is necessary to use ICT in education in many ways; however, due to many factors, utilization of ICT in teaching and learning processes is highly limited. It is suggested that students and teachers of RBS should be supported with more materials and more practical training where the good use of ICT is exemplified.

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Keywords: ICT integration; teacher perceptions; qualitative approach

1. Introduction

In recent years in terms of content and methodology there is an increasing expectation in teaching and learning to use Information and Communication Technologies (ICT) (Bottino, 2004). According to Çelik and Bindak (2005) developments in ICT have changed people's life standards dramatically. Due to these rapid developments in technology, similar pace of change and development became a necessity in the field of education in order to keep up with this change. Akkoyunlu (1995) point out that 'educational institutions not only start and direct societal changes and developments but also they have to monitor developments in technology, use technology and teach citizens how to use these technologies' (p.105)

ICT in education provide various opportunities in terms of accessing to information, sharing information and learning. Educational software, computer supported education, distance education, video-conferencing, Internet based education, web-based education etc. are the opportunities which help enrichment of educational environment. Those development opportunities and advancements brought by ICT help improve quality of teaching and learning in educational institutions. However, in order to make use of these opportunities first of all school environments should be equipped with adequate ICT resources and infrastructure. Ministry of National Education (MNE) in Turkey spends a lot of effort to improve conditions of state schools in terms of technology and other arrangements. It is reported that approximately 90% of state schools had internet connection by the end of 2009. Over 600 thousand computers were distributed to schools across the country (MNE, 2008).

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Today, in primary and secondary schools approximately 14 million students receive education in state schools in Turkey. Out of this, 247.376 students attend to 575 Regional Boarding Schools (RBSs) throughout the country in Turkey. RBSs were opened first in 1962 (Uğürol, 2010). Due to demographic, economic and geographical conditions of rural areas, in small villages for example, building a school was considered to be more expensive than building a larger boarding school in between a few villages with equal distance to each village. Those schools are supported by the state almost to the full extent as socio-economic statuses of parents are very low in these schools. However, as mentioned earlier MNE makes attempts to improve both physical and pedagogical conditions of those schools (through boarding students at school, setting up ICT labs, Internet connection etc). In terms of ICT utilization, the state help provide the same opportunities as urban schools to help students of RBS learn in a better environment. Despite efforts of providing schools with ICT resources, their integration to teaching and learning activities depends on teachers' attitudes and beliefs (Altun, 2002; Alev, 2003; Tezci, 2010). In other words, in order to integrate ICT investments into ICT curricula, teachers' knowledge, level of use and attitudes towards ICT should be identified and guided (Tezci, 2010:21). The teacher's role within the process of ICT integration is crucial as this potential depends upon teacher's ability and willingness to integrate the technology into everyday classroom teaching activities (Pisapia, 1994).

However, this is challenging for teachers who need to turn this inevitable intrusion - ICT integration - into a powerful tool for teaching (Hargreaves and Fullan, 1998). They need support, commitment, skills, and knowledge to achieve this. Teachers need to upgrade their skills and knowledge in the field of ICT as well as in other fields. This means that teachers' knowledge of ICT tends to be acquired on the job along with all the other new skills required to work in a classroom and school. According to Zaho and Cziko (2001 cited in Runyon and Semich, 2002) teachers are to meet three requirements before they sider using technology in the classroom:

1. The teacher must believe that it will meet a higher-level goal than before.
2. The teacher must believe that using technology will not cause disturbances to other higher-level goals that he or she thinks are more important than the one being maintained.
3. The teacher must believe that he or she has or will have sufficient ability and resources to use technology.

Teachers' attitudes and beliefs about ICT are important considerations for teachers in terms of integrating technology into classroom activities that produce higher quality learning outcomes for the learners. For a successful outcome it is necessary for a school to have ICT infrastructure established. Aşkar (2004) notes that following elements of the school should be checked to ensure that teachers start using ICT for teaching and learning in classroom activities:

- Vision of the school about ICT utilization,
- Plans of subject area teachers for technology integration.
- Mechanism for supporting teachers continously,
- Collaboration between school departments, and
- Evaluative studies.

2. Aim of the study

The main purpose of this study is to identify teachers' views about the use of ICT in education. The study also examines teachers' both technical and pedagogical skills in the use of ICT for teaching and learning activities and explores teachers' views about opportunities and barriers in ICT integration process.

3. Method

This study is designed in qualitative research approach. "Case study" is adopted as the method which is a strategy in which a researcher investigates a single phenomenon within its *real context*, restrained by *time and activity*, and collects *detailed information* (Stake, 2000; Yıldırım and Şimşek, 2006). Study was conducted in a Regional Boarding Primary School in the city of Giresun in 2009-2010 academic year. 10 teachers of this school were interviewed through a semi-structured interview form. Obtained data was analyzed through "constant

comparison method”. Findings were presented in tables and direct quotations from interviews are provided where appropriate.

3.1. Background information about school and research participants

The Regional Boarding School studied in this research has total 585 students, 256 of which stay in the school as boarding students (129 girls and 127 boys). In 2009-2010 academic year 28 teachers were employed in this school. Boarding students are provided school meals free of charge three times a day. In the school there are 45 computers installed in labs and other places; 2 projection machines and 1 overhead projector are available for teachers’ use. General background information of teachers who participated in the study is presented in Table 1 below:

Table 1: Background information of participants

Codes	Gender	Age	Teaching Experience	Subject Area	Received ICT course at Faculty?	Participation in ICT courses after Faculty Ed.?	Computer at home?	Internet Access at home?
T1	F	24	1	English	Yes	Yes	Yes	Yes
T2	M	29	4	Turkish	Yes	Yes	Yes	No
T3	F	30	4	Vis. Arts	Yes	Yes	Yes	Yes
T4	M	28	1	Humanities	Yes	Yes	No	No
T5	F	28	3	Mathematics	Yes	No	Yes	Yes
T6	F	29	8	Classroom T.	Yes	Yes	Yes	Yes
T7	M	35	13	Classroom T.	Yes	Yes	Yes	Yes
T8	M	51	20	Classroom T.	No	Yes	Yes	Yes
T9	F	27	6	Classroom T.	Yes	No	Yes	Yes
T10	M	35	12	Science	Yes	No	Yes	Yes

4. Findings

In this section findings of the study are presented. First of all, participant teachers mentioned that they all use computers and the Internet as part of ICT. Their purposes of the use of ICT are presented in Table 2.

Table 2: Aims of ICT utilization

	Aims of ICT use	Participants
Computer	Preparing activity work-sheets	T1, T2, T4, T6, T7, T10
	Preparing written exam-papers	T4, T5, T9
	Preparing class check-lists	T1, T4, T6
	For handing out project-performance task to students	T2, T4, T10
	For presentations	T4
Internet	For teaching and learning	T2, T3, T4, T6, T7, T9, T10
	To follow daily news	T4, T7, T8, T9
	Communication	T1, T3, T5, T9
	For searching information	T1, T4, T8
	Personal development	T2, T4

As can be seen from the Table 2, computers and internet are generally used for classroom based teaching and learning activities. Teachers view themselves competent in using Microsoft Office Programs and the Internet. Either teacher use computer for preparing a teaching/learning material or they look for information to use in lessons. T7 pointed out that: “I particularly use computers and Internet almost every day to prepare materials for children”.

At the same time teachers use them for reading articles and following newspapers on the Internet. MSN and Facebook were also mentioned by 4 teachers as a tool for communication with friends and colleagues. Participant teachers commented that ICT has great potential to improve the quality of teaching and learning. According to

participant teachers due to various benefits it holds, it should be used in education. Opinions of teachers are presented in the Figure 1 below.

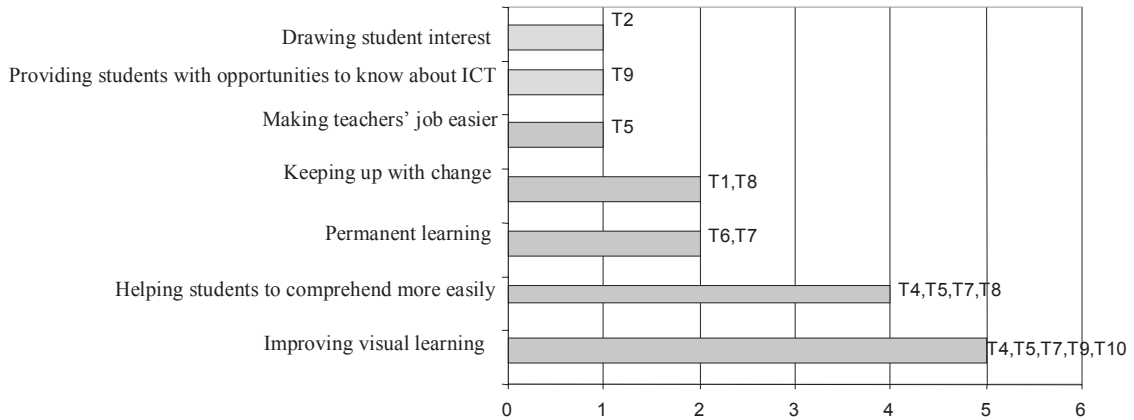


Figure 1. Teachers' views about benefits of ICT

Despite teachers' positive thoughts about ICT in education, it is also reported that potential of ICT is not exploited by all teachers in their schools. It is stated that the level of ICT use in the school is not at expected level. Teachers found use of ICT in their school partially adequate due to some reasons as presented in Table 3.

Table 3: Teachers' levels of ICT use and reasons for inadequacy.

	Level of ICT Use		Reasons		
	Inadequate	Partially adequate	Inadequate conditions of the school	Intense curriculum	Teachers' lack of interest/incompetence
T1		✓	✓		✓
T2	✓		✓		
T3	✓		✓		
T4		✓		✓	
T5		✓	✓		✓
T6		✓	✓		✓
T7	✓		✓		✓
T8		✓	✓		
T9	✓		✓		
T10	✓		✓	✓	✓

As can be seen, the physical condition of the school is most repeated element which hinders teachers' use of ICT in their teaching and learning activities. As mentioned earlier, Regional Boarding Schools are established in remote areas and financial support from parents is highly limited. Therefore, teachers are not provided with adequate hardware and software. This is seen as the most important barrier for integrating ICT into education in this school. However, in many schools in Turkey this would not be considered as an excuse as most of the state schools in urban areas have already overcome physical infrastructure problems. Teacher 7 in this school state that *“Due to technical inadequacy, teachers employed in this school do not use ICT resources. If each teacher would have provided with a well working computer, fast working Internet connection, projection machine ready for use, I believe most of the teachers would use these technologies. But our opportunities are limited and that is why all teachers cannot use ICT.”*

Secondly participants emphasized that teachers' lack of interest towards use of ICT and their limited knowledge about use of ICT resources are also preventing utilization of ICT in their schools. Perhaps spending more time on behavior management and other aspects (taking care of boarding schools in dormitories, etc) of a boarding school avoid teachers from dealing with new developments in ICT to a satisfactory degree. As T10 points out: *“Teachers’*

unwillingness is another point. We are used to teaching in the classical way. Changing our teaching methods is difficult for us I think. We also have difficulty in adaptation to new technological resources. Moreover, curriculum is quite intense and we have limited time to carry out all activities”.

5. Conclusions and Recommendations

This study aims to explore primary school teachers' views who work at a regional Boarding School about use of ICT in teaching and learning processes. Teachers' both technical and pedagogical level of ICT use was also investigated. It is found that teachers of RBS found themselves ICT literate and able to use basic ICT resources for their teaching and learning methods. They also value the potential positive impact of ICT on students' learning and on their teaching. In fact, they also spend efforts to integrate ICT in their teaching and learning activities as much as possible within the frame of school conditions. In their conversations they have given sound examples of ICT use in their classroom activities. However, the context in which they carry out their duties seems to be a major hindering factor of using ICT as part of curriculum. Due to local and cultural characteristics of school, teachers are more concentrated on students' academic success and strengthening their psychological statuses. The school studied receives children mostly from poor families and expectations are not as high as urban schools. It is mentioned that great slice of school budget goes to dormitories, needs of boarding students (meals, accommodation, etc). It can be concluded that although teachers are aware of advancements in ICT, due to physical and psychological conditions of the school they are not very successful in integrating ICT into education. Results of the study indicate that one of the main barriers to ICT use is inadequacy of ICT resources in this particular school.

It is recommended that current positions of Regional Boarding Schools should be viewed again and feasibility works should be carried out immediately in order to improve the physical standards of those schools. After improving standards of buildings, departments and installing required technology (IT labs, projection machines etc), teachers' lack of willingness should be turned into a high motivation through professional support programs. In-service training programs should be provided to teachers and their skills and knowledge of ICT should be improved. In addition, ICT implementation plan should be developed and put into practice. It needs careful planning, monitoring and assessment. Students of RBS should also be encouraged and given opportunities to engage with ICT within and out of school hours. Internet connections should be installed in every classroom of the school. Access to Internet will contribute narrowing the gap between rural and urban schools in terms of reaching information and making use of it.

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