# TEACHERS AND COMPUTER TECHNOLOGY: SUPERVISORS' VIEWS

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## Abstract:

This study aims to display the views of the primary school supervisors who apply supervision and guidance activities in computer technology class. The study was conducted in Mersin, Turkey, with 69 primary school supervisors. Data collection tool developed by the researchers as a form consisting of open-ended questions. The obtained data were analyzed with descriptive analysis method. According to the findings, computer-aided education is beneficial especially in in science and technology lessons, social studies and life science courses. The presentations and projection images are reflected and thus computer technology is beneficial for teachers. The results indicate that teachers need in-service training on computer-aided education.

**Keywords:** Education supervisor, computer technology, classroom teachers, elementary education, instructional technology.

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## INTRODUCTION:

It is an accepted fact that technology has great influence on the field of education as well as in all other social sciences. To access information and skills requires that one should be following the technological developments to use it effectively to educate individuals. This has been the main function of schools today and teachers are suppsed to use technology in schools. It is essential to trace and use developments in computer technology and teachers are required to have a course if required. They see concrete action, especially with children at primary education. The classroom teachers are expected to create learning environments that will attract the interest of students in lessons. Technology crucially effects education like all others in their field. Raising individuals endowed with reaching and utilizing the information abilities, following the technological developments closely and using that information effectively are basic functions of the schools. Many important missions about enabling the technology in schools fall to teachers. Teachers should benefit from technological improvements, especially from the computer technology during the lesson. Because, "The most important component and sharer of the schools are teachers. Teachers' being open to changes and adaptable to innovations, modern and up-to-date is highly important since those are the most important indicators of the training quality in schools" (Adiguzel, 2009: 90). "What has been revealed after many scientific researches is that computers about which many big projects and studies have been carried out to popularize because of its importance in education contributes to teaching-learning process with the preparation of effective educational software. Although there have been qualitative and quantitative discussions and criticism about necessary teacher training and studies about popularizing computers in educational environment, computerization process' taking its place in the educational environment has been in a quick progress" (Tor and Erden, 2004: 122).

Classroom teachers who carry out their duties in the first grade of the elementary schools, in which the children in concrete operational period have education, are expected to establish a learning environment that can arouse the interest of the students during the lesson. The most important contributor for teachers to provide this is, no doubt, the computer technology. Because, thanks to this technology, a large number of course materials become easily accessible. In the field of "Benefiting from information technologies for career development and communication", it has been stated that Ministry of National Education Teacher Training

Directorate (MEB OYEMG: 160) expect classroom teachers to "use search engines, web sites and portals, databases so as to reach and share the information".

It has been confirmed that computer-assisted training has a positive impact upon students' academic success (Yalcinalp, Geban and Ozkan, 1995; Mioduser, Nachmias, Tubin, Forkosh-Baruch, 2002; Cekbas, Yakar, Yildirim, Savran, 2003; Passey, Rogers, Machell, Mchugh, 2004). In addition, it was precipitated that computer-assisted training influences students' attitudes towards the course positively (Yenice, N., 2003). Moreover, it has been noticed that this also contributes to the development of high-order thinking level (Renshaw and Taylor, 2000; Akbasli, 2000). However, it is clear that teachers cannot adequately benefit from the computer technology for some reasons. On the other hand, complying with the technology has become an obligation for teachers.

All elementary school teachers' having overall effectiveness related to the teaching-learning process is important in terms of running renewed elementary program that fits to its purpose (Adiguzel, 2009:94). For this reason, it is necessary to provide teachers that can use these technologies, encourage and orient them. Teachers, directors of schools, and supervisors, who are the partners of the environment, are in the key positions for fulfilling the possible benefits of technology in higher level (Seferoglu, 2009:404). Education supervisors are required to inspect, observe and guide to teachers in this respect, because "providing, using and protecting course materials, establishing school and classroom libraries, and enabling students to use them effectively are among the inspection and counseling tasks of the supervisors" (Tebligler Dergisi, 2005).

## Aim of the study:

This study aims to reveal inspector's views and recommendations related to classroom teachers' benefiting level from the computer technology during the lessons. The supervisors and teachers meet during the inspection and guidance services. The sub-problems are set out below:

According to the views of the supervisors:

- What is the state of benefiting of classroom teachers from CT (Computer Technology) in the lessons?

- In which lessons do the classroom teachers benefit from the CT?
- What are the reasons of classroom teachers for benefiting from the CT?
- What are the reasons of classroom teachers for not adequately benefiting from CT?
- What are the recommendations of the education supervisors?

## METHOD:

The research is a case study designed in survey type. Research data were gathered with an open-ended question form. The question form was developed by the researchers. For the reliability, a pre-study was carried out with seven education supervisors working in Balikesir and Kutahya provinces. The data were analyzed with the content analysis method. The data obtained were tabulated for a clear understanding. Percentage and frequency distributions were shown in tables. The survey was carried out in Mersin. 80 education supervisors working in Mersin Provincial Directorate for National Education during 2010-2011 academic year participated in the research. This question form was sent to all supervisors and the survey was carried out with 69 education supervisors who unassumingly answered the question form. The participants' personal qualities were shown in Table 1 set out below.

**Table 1: information on the Study Group**

| **Variables** | | **f** | **%** |
|---|---|---|---|
| Gender | Male | 65 | 94 |
| | Female | 4 | 6 |
| Seniority | 1-10 year | 4 | 6 |
| | 11-15 year | 17 | 25 |
| | 16-20 year | 28 | 41 |
| | 21-25 year | 10 | 14 |
| | 26-30 year | 5 | 7 |
| | 31-35 year | 10 | 14 |

| | | | |
|---|---|---|---|
| Graduation | Gazi Un | 27 | 39 |
| | Hacettepe Un | 21 | 30 |
| | 100. Year Un. | 2 | 3 |
| | Inonu Un. | 8 | 12 |
| | Anadolu Un | 4 | 6 |
| | ÇOMU | 2 | 3 |
| | Balıkesir Un | 1 | 1 |
| | Istanbul Un | 2 | 3 |
| | 9 Eylül Un. | 2 | 3 |

## FINDINGS:

1- The state of benefiting of classroom teachers from CT (Computer Technology) in the lessons is in Table 2.

**Table 1. Classroom teachers' state of benefiting from CT in lessons**

| Line | State | f | % |
|---|---|---|---|
| 1 | Teachers adequately benefit from CT. | 30 | 43 |
| 2 | As seniority increases, rate of utilization decreases. | 15 | 22 |
| 3 | They benefit in medium level. | 10 | 14 |
| 4 | Teachers don't adequately benefit from CT. | 9 | 13 |
| 5 | As school's physical property increases, the number of users increases. | 2 | 3 |

When Table 2 has been analyzed, classroom teachers' not adequately benefiting from CT in lessons has become the most frequently (n=30) voiced view of education supervisors. Another remarkable point is the views of supervisors about inverse proportion between seniority and utilizing from CT in lessons (n=15). Ones who think classroom teachers adequately benefit from CT in lessons are a few (n=9).

2- The lessons in which teachers benefit from the CT are given in Table 3.

**Table 3. Lessons that Classroom Teachers Benefit from CT in**

| Line | Lessons | f | % |
|---|---|---|---|
| 1 | Science and Technology | 50 | 72 |
| 2 | Social Studies | 33 | 48 |
| 3 | Science of Life | 28 | 41 |
| 4 | Turkish | 14 | 20 |
| 5 | Mathematics | 14 | 20 |
| 6 | First Reading and Writing | 10 | 14 |
| 7 | Foreign Language | 6 | 9 |
| 8 | In Whole Lessons | 4 | 6 |
| 9 | Music | 4 | 6 |
| 10 | In No lessons | 2 | 3 |

When Table 3 has been analyzed, education supervisors indicate that classroom teachers mostly (n=50) benefit from CT in science and technology lesson. Subsequent to it, it has been used in social sciences (n=33) and science of life (n=28). Use of CT in Turkish (n=14) and Mathematics (n=14) lessons are also mentioned by some education supervisors. A few education supervisors mention that classroom teachers do not use CT in any lessons (n=2).

3- The reasons of classroom teachers for benefiting from the CT are given in Table 4.

**Table 4. Reasons for Teachers' Benefiting from CT**

| Line | Reasons for utilizing CT | f | % |
|---|---|---|---|
| 1 | For projecting onto the wall. | 24 | 35 |
| 2 | For giving the lessons with prepared education CDs. | 20 | 29 |
| 3 | For prepared presentations. | 10 | 14 |
| 4 | For downloading presentations from the Internet. | 8 | 12 |
| 5 | For assessment and evaluation. | 8 | 12 |

| | | | |
|---|---|---|---|
| 6 | For presenting pictures and figures. | 8 | 12 |
| 7 | For preparing and presenting their own presentations. | 7 | 10 |
| 8 | For making plans. | 7 | 10 |
| 9 | For film presentations. | 4 | 6 |
| 10 | For reading texts and stories. | 2 | 3 |
| 11 | For using smart board. | 1 | 1 |
| 12 | For presenting how to conduct an experiment. | 1 | 1 |
| 13 | For using DYNED. | 1 | 1 |
| 14 | For project and performance assignments. | 1 | 1 |

According to the data in table 4, education supervisors' mentioning classroom teachers' mostly use of CT for projecting the presentations (n=24) can clearly be seen. Subsequently, it has been mentioned that CT has been utilized for prepared education CDs (n=20) and presentations (n=10) to teach the lessons.

4- The reasons of classroom teachers for not adequately benefiting from CT are in Table 5.

**Table 5. Teachers' Reasons For not Adequately Benefiting from CT in Lessons**

| Line | Reasons | f | % |
|---|---|---|---|
| 1 | Incompetence of teachers at using CT | 36 | 52 |
| 2 | Having no computer in classrooms | 28 | 41 |
| 3 | Unwillingness to use CT in lessons | 11 | 16 |
| 4 | Seniority | 8 | 12 |
| 5 | Having no necessary materials or programs in schools | 8 | 12 |
| 6 | Insufficiency of pre-service teacher training about CT | 6 | 9 |
| 7 | Having no projection in classrooms | 6 | 9 |
| 8 | Teachers nor being open to renovations in education | 5 | 7 |
| 9 | Insufficiency of on-the-job training about CT | 4 | 6 |
| 10 | Teacher's having no computer | 4 | 6 |

| | | | |
|---|---|---|---|
| 11 | Teachers' not believing in the utilization of CT use | 4 | 6 |
| 12 | Insufficiency of the Internet infrastructure | 3 | 4 |
| 13 | Not encouraging teachers to use CT | 2 | 3 |
| 14 | Teachers' negative attitude towards CT | 2 | 3 |
| 15 | Inadaptability of curriculum into CT | 1 | 1 |
| 16 | Crowded classrooms | 1 | 1 |

When Table 5 has been analyzed, incompetence of teachers at using CT(n=36) is at the head of the reasons for classroom teachers not adequately benefiting from CT in lessons. Having no computers in classrooms (n= 28) and unwillingness of teachers not to use it (n=11) succeeds it.

4- The recommendations of the education supervisors are shown in Table 6.

**Table 6. Recommendations of education supervisors related to benefiting from CT**

| **Line** | **Recommendations** | **f** | **%** |
|---|---|---|---|
| 1 | Teachers should take on-the-job training. | 9 | 13 |
| 2 | Classroom teachers should benefit from CT in lessons. | 5 | 7 |
| 3 | Each classroom should be given a computer. | 4 | 6 |
| 4 | Each classroom should have a projection. | 4 | 6 |
| 5 | School administrators should encourage classroom teachers to use CT. | 3 | 4 |
| 6 | Education CDs should be sent to schools. | 2 | 3 |
| 7 | More computers should be sent to schools. | 2 | 3 |
| 8 | Teachers should be supported about purchasing computer by ministry. | 1 | 1 |
| 9 | Internet should be provided to each classroom. | 1 | 1 |

When Table 6 has been analyzed, education supervisors mostly recommend classroom teachers' taking on-the-job training (n=13). In pursuit of it, they have recommended classroom teachers'

benefiting from this technology adequately (n=5) and providing classrooms computers (n=4) and projections (n=4).

## DISCUSSION:

It is possible to say that, in the current situation, classroom teachers have serious incompetence about benefiting from the education technology. Especially, classroom teachers' reasons for not using technological equipments must be revealed (Yilmaz, 2007: 165). In this study, it has also been precipitated that classroom teachers do not adequately benefit from the computer technology. Great majority of the supervisors (43%) participated in the survey explained that the observed classroom teachers do not adequately benefit from the computer technology. The rate of the ones who have been thought to benefit from this technology adequately is very low (13%). In the studies that have been carried out, similar results have been made out. In a study by Adigüzel (2009), it is clear that the classroom teachers think that education supervisors should set an example to use technology sources and they have difficulty in teaching them. In the studies carried out by Karsli, Gunduz, Titrek and Hametoglu (2002), it has been precipitated that teachers and administrators have low competence in using information technologies and administrators are incompetent in using package software. In addition, the interest in new technologies is too low and the internet opportunities are never utilized. Isman (2001), also, carried out a research with 137 teachers performing their duties at elementary schools. The study was about their competence in education technologies and it revealed that use of traditional education materials is at middle level and the use of new technologies is at the lowest level.

Another remarkable finding in the survey is the view of education supervisors about the inverse proportion between seniority and benefiting from CT in lessons (22%). In a study carried out by Ozcelik and Askim Kurt (2007), it is precipitated that there has been an inverse proportion between elementary school teachers' computer self-sufficiency belief and age. These results make us think that ones who have graduated in recent years are better equipped with the computer technology and necessary training has been taken during on-the-job training. Moreover, The Ministry of Education's requiring computer training before appointments has been very beneficial for this situation.

Education supervisors mention that classroom teachers mostly benefit from the computer technology in science and technology (73%), social studies (48%) and science of life (41%) lessons. But, nonetheless, it is clearly seen that the number of education supervisors who think classroom teachers benefit from the computer technology in all lessons is too low (6%).

It is seen that teachers use computer technology mostly for projecting things on the wall (35%). Subsequent to it, it has been told that CT has been utilized for presenting education CDs in lessons (29%) and presentations (14%). It is also clear that classroom teachers' main reason for benefiting from CT in lessons is giving presentations in classroom. Similar usage has also been seen in the study carried out by Balki and Saban (2009).

Education supervisors also mention that the main reason for the teachers' not benefiting adequately from CT is their incompetence in using CT (52%). Then, having no computer in classroom (41%) and unwillingness of teachers to use CT in lessons (16%) are the other reasons. In the survey by Balki and Saban (2009), they mention the problems that teachers have confronted about information technologies arise from lack of equipments and materials in classrooms and technical equipment in the schools, and and also from the fact that they lack knowledge and skill related to the use of technology.

It is hard to say that there have been facilities in classrooms by which they can benefit from the computer technology. However, Ministry of Education have begun studies about providing Internet and computer to all classrooms. Especially by the help of FATIH Project (Movement of Enhancing Opportunities and Improving Technology), prepared in 2010, they aim to provide all the classrooms with computer technology. In this context, computers, smart boards and Internet have been provided to all classrooms. With the FATIH project, all the classrooms having the computer technology will enhance the opportunities of classrooms in terms of education.

Education supervisors recommend that classroom teachers should take on-the-job training (13%). Teachers should adequately benefit from this technology in lessons (7%) and computers (6%) and projections (6%) should be provided to classrooms.

## CONCLUSION:

The data clearly indicate that there is a problem about computer use in the classrooms. There can be many reasons for it. However, the results obtained in this study imply that, according to the education supervisors, classroom teachers are generally insufficient about benefiting from CT in lessons. For this reason, it has been recommended that first of all basic but obligatory training should be given to the teachers. Secondly, CT should be utilized in as many lessons as possible and classrooms should be provided with adequate support for CT use. In addition, sufficient training should be provided in instructional technology, material design and computer lessons during classroom teachers' on-the-job training.

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