

Tutor Computer Formative Teachers' Opinions on the Effective Use of Information Technologies at Schools: Trabzon Province Sample

Alper Şimşek
Karadeniz Technical University, Turkey
alpim61tr@hotmail.com

Ömer Faruk Ursavaş
Karadeniz Technical University, Turkey
omer.ursavas@rize.edu.tr

Abstract

The aim of this study is to determine the level of the use of information technology at schools in Trabzon and some evaluations about the problems faced during this process were done considering the formative teachers' opinions. The question which is "What are the opinions of formative teachers about the process of popularizing the effective usage of information technologies in schools?" was determined as the problem of this research. In the research conducted as a special occasion study, 9 teachers who work as tutor computer formative teachers in Trabzon, are determined as the sample group. Face to face interviews were conducted with the sample group on the problems and sub-problems of the research. First degree coding was applied on the data obtained by the interviews and themes were determined via this coding and data matrixes were set. Deductions were made by benefitting from the set data matrixes. The obtained results show that the use of information technologies at schools in Trabzon has been increasing but it hasn't reached the aimed level yet.

Keywords: Information technologies; formative teacher; computer formatter

Introduction

Information technologies are used in different ways in order to generate a rich learning environment for teachers in the activities that are being carried out in learning environments. The application of new approaches and solutions related with the integration of technology into the learning environments shows parallelism with the speed of technology development. Thus, development of infrastructure and in-service trainings related with the integration of information technologies into the learning environments and information technologies are given a great deal of importance (Kuzu, 2007).

There are many factors that affect the use of information technologies by including teaching-learning activities carried out in different learning environments in an effective way. Depending on their investigation into the science and mathematics teachers, Sim and Theng (2007) reveal that there are some negative factors in the inclusion of information technologies to classroom activities, such as time, technical support, teachers' knowledge and abilities on information technologies. In addition to this, Cuban (1995) listed the reasons why teachers use the information technologies rarely and discriminate them under 3 titles.

1. The difficulty of assessing tools and materials that are becoming out quickly.
2. The inadequate time for the integration of information technology into learning activities done in classroom.
3. Teachers' afore learning believes, knowledge about the new technologies and their afore attitudes towards the technology affect the way of computer use and whether the computers are used in the lessons or not.

In their research on the use of information technologies in social studies at elementary school, Gülbahar and Güven (2008) revealed that although the teachers have a positive attitude toward the use of information technologies, they face with various problems about the access of information technology sources. Another factor that has a negative effect on the process is the deficiency of teacher training programs in which teachers in Turkey acquire most of their competence about the use of information technologies (Göktaş, Yıldırım, & Yıldırım, 2009).

Tools and materials based on the information technologies are very expensive and they become out in a short time. School administrators need to take necessary precautions by investigating how the existing information technology sources can be optimized in teaching activities (Flanagan, 2003). Demiraslan and Usluel (2008), emphasized that school administrators and the courses that will be given by the information technology formative teachers play an important role in teachers' integration of technology into their courses. The qualification of teachers who will use computers in the educational process are considered as crucial in popularizing computers in the education system and its defragmentation with the process (Orhan & Akkoyunlu, 2003).

General Directorate of Educational Technologies of Ministry of National Education (MEB-EĞİTEK) organizes in-service training courses so as to make information technologies be used in an effective way and tries to enhance teachers' ability to use computer. Besides, formative teachers have been charged in order to minimize the problems faced in the process of information technology use by the Ministry of National Education (Tebliğler Dergisi, 2001). It is known that in increasing the use of technology in the classroom and in achieving the integration of information technologies in the present lessons, teacher, administrator, computer formative teacher, tutor computer formative teacher and educational administrators play important roles. In addition to intensive practices in order to popularize the use of information technologies at schools, it has a vital importance for these practices to reach their aims and meet the expectations. At this stage, it will shape the future of these practices carried out by splurging high costs to determine and overcome the difficulties and problems experienced during the process of information technologies integration into the schools and lessons.

Aim of the Study

By this study, it was aimed to find out the state of information technology usage in elementary and secondary institutions and the problems faced in their using process in the direction of tutor computer formative teachers' opinions. In this study, it was aimed to find an answer for each of the following research questions:

1. What are TCFT's opinions about the information technologies' areas of usage and their intended use?
2. What are TCFT's opinions about the factors influencing the activities and projects that are being carried out in order to increase the use of information technologies at schools?
3. What are TCFT's opinions about the necessary things to be done in order to increase the use of information technologies at schools?

Method

In this study, a case study was used as a research method in order to investigate the determined research questions. Qualitative and quantitative approaches can be used together in case study method. In two approaches, it is aimed to exert specific results relating with specific situations. In this study, qualitative research method was used. Qualitative research method is an approach in which data are produced without any statistical processes and numeral tools (Altunışık, Coşkun, Bayraktaroğlu, & Yıldırım, 2005). Giving opportunity for investigating in depth one or few situation is most important feature of qualitative research method. Environment, individuals or processes are investigated with a holistic approach and it can be focused on the role of individuals and their relationships in this duration. To provide sensitivity to the natural environment, to have a holistic approach, to be effective for revealing perceptions, researcher's participating role, to provide a flexibility in research design, to have an inductive analysis process are important features of qualitative research techniques (Yıldırım & Şimşek, 2000). In qualitative research variations, differences and disunities are taken into account to obtain an expected holistic picture.

Participants and Procedure

In this study, the oriented sampling approach was chosen. In qualitative research, the sample group is kept small in order to be able to investigate the problem in depth. Therefore, instead of using random sampling, oriented sampling is preferred (Miles & Huberman, 1994). Criteria thought to be important for selection are determined by this sampling and the sample is chosen according to these criteria, and they are considered to be capable with all the qualities representing the research universe (Tavşancıl & Aslan, 2001).

Researcher contacted with participants in order to inform them about the study and sent interview questions to the participants. By this way, the researcher tried to determine their concerns on study. With the aim of providing voluntary participation into the study, researcher asked participants whether they want to participate into the study or not. 9 tutor computer formative teachers charged in city center and country towns by Trabzon Provincial Directorate for National Education have been included in the study. In this study, the researcher is on the position of participant in the sample environment where the data gathered. The researcher lives in the same city with the participants and worked at the same institution for some time in the past; so the researcher has got the similar regional culture, environmental and job experiences. As the data obtained by this study is limited to totally 9 tutor computer formative teachers who are in Trabzon city centre and its country towns in 2009 spring term, it belongs to this time and this sample.

Data Collection

Primarily researcher itself is data collection tool in qualitative research (Balci, 2001), because the researcher enters the field and makes close contact with participants. Thereby, researcher studies in order to understand and identify them to make sense of unknown situation from their perspective.

In this study, semi-structured interview technique has been used as a data collection method. This technique has many advantages in views of in-depth questioning in a special issue, giving opportunity to complete answers for making unknown situation more clearly by new different questioning, if the answer is missing or unclear (Çepni, 2001). The form that was used in the semi-structured interviews consisted of 9 main questions.

Face to face interviews carried out with participants were recorded with audio recorder after their consents were taking by the researcher. Next, the interview recorded data were converted into written text. In order to provide reliability for the data, texts were given to participants for verifying recorded data in terms of accuracy and completeness. The interviews that were done face-to-face with each of the tutor computer formative teachers, takes 30-40 minutes.

Data Analysis

Researcher living in the same province with participants can be considered as professional in the same position. Therefore, researcher has similar local culture and some experience on local environment with participants. Also, the researcher knows about the school environment and status of teachers; then, they tried to interpret data in the light of this information.

The content analysis method was used to interpret the data obtained by the face-to-face interviews with tutor computer formative teachers. Content analysis described as a systematic and repeatable technique in which some words of text which were summarized with smaller content categories by encodings, based on certain rules (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2008). Transcripts of the sound records obtained by the interviews were written down. Data based on sub-problems that were built at the beginning of the study were organized. By this way, inessential data which were unrelated with any sub-problem were ignored during the data analysis and interpretation stage. First degree coding was done by reading the transcripts over and over; then, the data were reduced via the first degree coding. Memos were added in order to form a meaningful whole by adding explanations to the transcripts. Afterwards, the data were analyzed in the light of signified problem situations. Themes were formed by classifying the memos and first grade coding, then, analyzed data were presented to readers in a suitable way for the sub problems. Also, some teachers' opinions which were relevant about sub-problems were presented as direct quotations to the readers.

Findings

The findings obtained by the data analysis collected by the face-to-face interviews were categorized in accordance with the research questions and frequency tables were created. The findings presented as frequency tables were exemplified by direct citing from the participant opinions.

The Profiles Formative Teachers

Four of the tutor computer formative teachers who were included in the study work at the district National Education Directorates and five of them work at the Trabzon provincial Directorate for National Education. Four of the participants graduated from the Computer and instructional technologies Education Program; others graduated from different departments. When the tutor computer formative teachers' genders are considered, it is seen that 8 of them are male.

The State of Information Technologies Usage at Schools

Tutor computer formative teachers' opinions about the usage areas of information technologies at schools and their usage aims, are collected under 3 themes which are in classroom, projects and out of classroom. tutor computer formative teachers' opinions about the state of information technology usage in classroom at schools are presented in Table 1.

Table 1. Tutor Computer Formative Teachers' Opinions about the Use of Information Technology in Classroom

In classroom use	Frequency (f)
IT is used in computer lessons	3
IT isn't used enough in other lessons	4
IT is used more in numerical lessons	2
IT usage varies from school to school	3

The sample opinions about the use of in classroom Information Technologies are presented below.

"... teachers who generally use information technologies, teachers of numerical lessons. As I can, science teachers are more common ...around the districts. Science teachers are more interested in them; it must be resulted from their branches." (Tutor formative teacher-2)

While another participant was expressing that the information technologies were more used in numerical courses;

"...the percentages of practice at schools, of course, vary at every school. When we look at the schools in our area of interest, I can say that it is not above the 50 percentage. While saying 50 percent I don't mean that in 50 of 100 schools it is practiced but never be applied in others. In general, for instance, at one school 10% is applied, at one school 60% is applied, the average is for example, 50%. It depends on the school." (Tutor formative teacher -8)

Tutor computer formative teachers' opinions about the state of using the information technology in projects at schools are presented in Table 2.

Table 2. Tutor Computer Formative Teachers' Opinions about the State of Using Information Technology in Projects

The state of usage in projects	Frequency (f)
In the projects of MNE (Ministry of National Education) vitamin, Dynet and Thinkquest, it is used in a positive way but it is inadequate.	5
Use of IT has got a negative effect on the projects at school which do not have a formative teacher	1
It is used in intel teacher and student projects but it is inadequate.	2

Sample opinions on the use of information technologies, in projects being carried out at schools, depending on the MNE.

"... you know, now there is a Project called "Dynet" which is English lesson oriented. I don't think that it is used very sufficiently because of the English teachers' insufficiency on the information technologies." (Tutor formative teacher -1)

Tutor computer formative teachers' opinions on the state of information technology usage in activities out of classroom are presented below.

"... however, there are individual students due to the contribution of their families, they come and study again. Students study in their free times. We keep information technology classes open." (Tutor formative teacher -6)

"...I can say that information technologies are actively education purposed and also enjoyment purposed because there are practices in the same classes such as cinema with video presentations like cartoons." (Tutor formative teacher -8)

The Factors that Affect the Activities and Projects Carried out with the Aim of Increasing the Use of Information Technologies at Schools

Tutor computer formative teachers' opinions about the factors affecting activities and projects carried out in order to increase the use of information technologies at schools, are collected under 4 themes which are information technology infrastructure of school, the ability of information technology usage, interest-motivation and support.

Tutor computer formative teachers' opinions about the information technology infrastructure at school are presented in Table 3.

Table 3. Tutor Computer Formative Teachers' Opinions about the Information Technology Infrastructure

School information technology infrastructure	Frequency (f)
Technical Inadequacy of computers	2
The number of IT class	4
IT tool and material inadequacy	3
Problems in the internet connectivity	2

Participants' sample opinions about the information technology infrastructure are presented below.

"... one of our problems is equipment. For instance, we have schools in which machines called as type 1 installed in 97 are still used. For example, our Merkez Elementary school is like that and it isn't gotten efficiency from such schools." (Tutor formative teacher -1)

"...we have many schools which were burnt because of the electrical installation. Err...we have problematic schools since the internet connectivity is very weak." (Tutor formative teacher -4)

"...There aren't things in some schools, there are still 32 megabyte computers and they cannot activate" (Tutor formative teacher -1)

Tutor computer formative teacher' opinions about ability of using information technology are presented in Table 4.

Table 4. Tutor Computer Formative Teacher' Opinions about Ability of Using Information Technology

Ability of using information technologies	Frequency (f)
IT usage varies according to the teachers' age	5
Teachers' basic computer using abilities	6

Sample ideas related with tutor computer formative teachers' opinions about the ability of using information technologies are presented below.

"...teachers have problems about the basic computer using ability. What is the basic computer ability? It can vary from opening and closing a computer to creating a new Word document or creating a file." (Tutor formative teacher -2)

"...particularly the teachers who are above a certain age and the those who didn't graduate school recently, that is, those who weren't taught by computer training before graduating, stand aloof from using it." (Tutor formative teacher -1)

Tutor computer formative teachers' opinions about the interest and motivation are presented in Table 5.

Table 5. Tutor Computer Formative Teachers' Opinions about the Interest and Motivation

Interest and motivation	Frequency (f)
Teachers' indifference	5
School administrators' indifference	4
Anxiety of SBS (Level Determine Exam)	2
Indifference towards the in-service courses	3

Sample ideas of tutor computer formative teachers' opinions about the interest and motivation are presented below.

"...school administrators' indifference toward these information technology Technologies and their aloofness this issue." (Tutor formative teacher -3)

"...there are problems that stem from the administration; that is, in our administrative staff there are unfortunately fossilized, close toward the innovations"

"...teachers are impervious but we do not have exercise power. We aren't able to make them take in-service training courses. We can't take necessary teachers. As a favor, we tell them to school administrator and we present them with the statements like: you are the administrator of this school, we are a family, and everybody should improve their own schools." (Tutor formative teacher-6)

"...after the contribution of the documents was removed, teachers' interests in the courses decreased. We almost give them courses with force." (Tutor formative teacher -8)

"...administrators' point is that: what is the contribution of this course to my school and me They look at the issue from the financial point of view or they might look at it as a support to school. Otherwise, only their own teachers and a teacher from school A and an administrator from school B said like that: I don't want a stranger teacher; you will give the course to our own teachers." (Tutor formative teacher -8)

Tutor computer formative teachers' opinions under the support theme are presented in Table 6.

Table 6. Tutor Computer Formative Teachers' Opinions about the Support

Support	Frequency (f)
The number of the formatters at schools	3
School formatter's contribution to CSE (computer supported education)	2
School administrator's perception of formatter	4
School administrator's indifference	4
Inadequacy about the instruction related with the in-service courses.	5
School administrators' not encouraging the teachers who are using the IT	4
Indifference of MNE	3
Lack of Tutor computer formative teachers	2

Tutor computer formative teachers' sample opinions about the support are presented below:

"...the ministry doesn't say that here is a unit will be taught with this in a year so that teachers are not willing to do it" (Tutor formative teacher -1)

"...school formatives needs to be interested in it, give seminars and do some researches on it. Their own regulations include it but the school formatter says that he always keeps the IT class open. Then how can we say that there is confusion about the tasks. School formative says that the school administrator asked him to do this job and gave him a writing, make him write down the writings but this is not the formative's job to do." (Tutor formative teacher-2)

"...40 years administrator but knows about the technology, he uses it voluntarily. He also makes teachers to use it. But the administrator doesn't react against the teachers who don't like it" (Tutor formative teacher -5)

"...that is, except for the material aid they want someone to pat on their backs. I have done it, some teachers call me. When do they call? For example, if they do it ten times, once they become regretful and think that "I am an educator, I should do it."Then, they do it but when they sometimes don't get a result they are disappointed. When they are asked to take part in the project, they do not because either they attend the previous one or they are bored." (Tutor formative teacher -9)

Necessary Things to do with the Aim of Increasing the Use of Information Technologies at Schools

Tutor computer formative teachers' opinions about the necessary things to do with the aim of increasing the use of information Technologies at schools are collected under 3 main themes which are infrastructure of the schools' information technologies, encouragement and support. Also, support theme consists of 3 sub themes which are formative support, administrator support and ministry support.

Tutor computer formative teachers' opinions about the infrastructure of schools' information technologies are presented in Table 7.

Table 7. Tutor Computer Formative Teachers' Opinions about the Infrastructure of Schools' Information Technologies

Infrastructure of the school's information technology	Frequency (f)
The number of the IT classes should be increased at school	3
Projection and computer practices in the classes should be more common.	3
Make up the deficiency of equipment	2

Tutor computer formative teachers' sample opinions about the infrastructure of schools' information technologies are presented below.

"...One computer laboratory is not enough in general. Also, the computer usage in the classroom will contribute." (Tutor formative teacher-1)

"...What can be done? Computer laboratories should be completed immediately, particularly the uncompleted ones." (Tutor formative teacher-3)

"...I request formatives to set a classroom. There will be a performance hall equipped with projection and computer. That means, it will be a laboratory. The teacher can come and make preparations and present it with the projection. By this way, computer laboratory doesn't become occupied." (Tutor formative teacher-5)

Tutor computer formative teachers' opinions about the encouragement are presented in Table 8.

Table 8. Tutor Computer Formative Teachers' Opinions on the Encouragement

Encouragement	Frequency (f)
Teacher should be encouraged for IST (in-service training) courses.	3
Teachers should be paid for the royalty related with the the products they do in the projects.	2
School administrators should encourage teachers by rewarding them.	4
The attraction of competitions related with the projects should be increased.	1
Teachers should be paid according to their performances.	2

Tutor computer formative teachers' sample opinions on the encouragement are presented below.

"...then, I should be paid for overtime. What's its profit? Does it relieve the teacher's tiredness? No. The person who gives the course might be tighter. He/she will ask to produce projects." (Tutor formative teacher-5)

"...let say, when the schools enter with their own passwords and take this object, when they download it, when they present it. The royalty for this teacher's account might be very little" (Tutor formative teacher-8)

"...if teachers' studies are supported both materially and morally, they can do better things." (Tutor formative teacher-9)

Tutor computer formative teachers' opinions about the support are presented in Table 9.

Table 9. Tutor Computer Formative Teachers' Opinions about the Support

		Frequency (f)
Formatter Support	Seminars should be organized according to the teachers' needs of IT usage	5
	Teachers should be informed about the needs of using IT	4
	Formatters shouldn't hinder the tasks included in the job definition.	3
Administrator support (school administrator, supervisors, administrators of provincial and district NED,)	Formatters shouldn't be made to do the tasks that aren't included in the job definition.	6
	School administrators should be pursuers of teachers about the use of IT	4
	School administrators should support formatters more.	4
	School should be chosen among the ambitious persons.	3
	They should be more knowledgeable about the MNE projects conducted at the school.	4
Ministry support	Teachers should be compelled to I.S.T. about the IT	4
	Experienced person should be allowed for EĞİTEK	3
	Teachers should be imposed obligation for application development in the projects carried out by the MNE.	3
	The content of the IST on IT should be refreshed periodically.	5
	The number of the tutor computer formative teachers should be increased.	1

Tutor computer formative teachers' sample opinions under the support theme are presented below.

From the participants, while *Tutor formative teacher-2* is expressing his/her opinion on the formative support as:

"...this problem can be solved when the formatives guide the teachers more. That is, they can inform the teachers who stand aloof the information technologies more easily." (Tutor formative teacher-2)",

He/she expresses his/her opinion about the administrator support as:

"...in the past, a formative in one of our schools kept canteen in every long and short breaks. Because of such formatives we can't delete this image. When the formative is mentioned, a person image who sells chocolate at the canteen comes to mind." (Tutor formative teacher-4)

The other sample opinions are presented below:

"...not only the formatives should be monitored by us but also beneficial things should be done by the school administrator or concerned administrative." (Tutor formative teacher-8)

"...in-service training and seminars should be obligatory. If the teacher does this job, he/she will come and do it. The person who is authorized for this job will give the course" (Tutor formative teacher-6)

They expressed that MNE should make in-service training courses about the information technologies obligatory for teachers:

"...after they get their teacher certification, they bring it and submit the project, they can come and get their document. The ones who don't bring it, we shall not give a certificate for the course document. There is a participation document but it is not such a certificate." (Tutor formative teacher-8)

He/ she expressed the opinion that instead of a certificate, a participation document should be given to failed teachers after the courses on IT.

Discussion and Result

Besides the positive effect of information technologies on the conducted teaching activities and the efforts made on this issue, several limitations experienced in this area lessen the positive effects and use of information technologies.

Information technologies are used in computer aided teaching activities within the scope of computer courses for information technology teachers in MNE's projects which are intended to elementary schools by the teachers of numerical courses. However, the use of information technology is under the 50% when the number of the schools is taken as the basis.

Frequency of information technology usage in teaching activities is closely related with the infrastructure of the school's information technology, teacher's competence in the use of information technologies, school administrators' expectation and attitude towards the use of information technologies and information technologies formative teacher's interest and support. In his investigation into the integration of information technologies, Akbaba (2006) determined the inadequacy in the number of the computers, problems in accessing the internet, inadequate software in native language, inadequate suitable equipment at schools as the prominent problems. In parallel with the results obtained by Akbaba (2006), as a result of this study, the inadequate information technology infrastructure at schools, low technical capacity of the computers, problems with the access to the internet, inadequate number of computers and information technology classrooms and the classrooms including the presentation equipment (computer, projection) are also determined as the negative factors.

Although most of the on job working teachers have certificates for the basic level of using the information technologies, their ability to use information technologies are described as limited. Teachers' these limitations cause problems at in-service training courses about the projects being carried out at schools. Over middle-aged teachers whose ability to use information technologies are limited, are not interested in the use of information technologies and do not give enough time for the teaching activities based on the information technologies. Additionally, most of the over middle-aged teachers do not give the necessary interest and importance to in-service training organized on the use

of information technologies. However, Zhao and Bryant (2006) stated that the teachers who attended the in-service training courses were able to use technology more effectively and easily. Also, it was observed that they can develop alternative ideas in order to apply information technologies to the teaching environments. In our country the same progress is observed in most of the teachers who attended such courses.

The use of information technologies is closely related with the school administrators' point of view towards the information technologies and the ability to use information technologies (Kennewell, Parkinson, & Tanner, 2000). The school administrators, who are aware of the positive sides of using information technologies in education, support and encourage the teachers who give time to use information technologies in teaching activities. But the school administrators who aren't aware of the importance of using information technologies cannot support the information technologies formatters and the teachers enough to increase the teaching activities based on the information technologies in the institution. They do not also struggle for it. Similar to this result, Akbaba (2004) proved that inadequacy of school administrators about the issue of using the information technologies and providing the support for the use of information technologies do not solve the problems about the use of information technologies. Besides, he also stated that the roles that school administrators will play in the use of information technologies is determiner to start the teaching-learning activities based on the information technologies. An effective interaction between the school administrators and the teachers about the use of information technologies will have positive effects on the process (Olson, 2000). When the school administrators include the teachers in the process of the development of the plans that will be done in order to increase the use of information technologies in teaching activities, it will make teachers to embrace this developmental process. Administrators' practice will give a chance for the teachers to reflect their particular information technology experiences to the plans that will be done (Tondeur, van Braak, & Valcke, 2006).

It will affect the studies done in order to increase the use of information technologies at schools negatively to charge the teachers who do not have enough experiences in the field of information technologies as formatter teachers by the school administrators and the information technologies teachers who are charged as the formatter teachers against their wills.

In many schools the projects in which information technologies are used start quickly but the control and the assessment of the practice process is inadequate. Experience and knowledge of the school administrators and the national education inspectors who will do this control and evaluation is limited so that the contribution of the projects that will increase the use of information technologies at school is limited.

Teachers do not show enough interest to the in-service training courses organized related to the conducted projects. Organizing the in-service training courses out of working hours affects the teachers' level of readiness negatively. Especially the female teachers' anxieties about their homes and children limit their participation to the in-service training courses.

Suggestions

The integration of the information technologies into the learning and teaching activities depends on the analyzing and solving the issues of infrastructure, staff, curriculum, administrative and control in a successful way. It is quite difficult to evaluate the mentioned issues apart from the general educational problems and subjects.

With the aim of increasing the use of information technologies at schools, the limitations of the schools whose information technology infrastructures are limited should be removed. The classrooms

of information technologies are generally formed by transforming the existing normal classrooms into the information technology classrooms. However, information technology classrooms should be wired relevant to the aims and overcome the reliance problems by increasing the partialness (Akbaba, 2006). Regarding this issue, the number of the classrooms should be increased or the existing classrooms should be popularized by equipping them with computers and projections in order to make presentations in these classes.

Teachers should be encouraged to use information technologies by the school administrators and MNE. Ward (2003), emphasized that teachers' level of readiness and motivations should be increased in order to make them take more time for using the information technologies in increasing the quality of teaching activities. Considering this fact, forming a common WEB environment in which teachers can present their materials and learning objects that they produced might help to increase their motivations. Also, paying a royalty to the teachers for the digital materials that they developed can be a motivator.

Administrators of province and district and school administrators should be informed about the importance of using information technologies and the conducted projects in details. This notification that will be done will contribute to the control and the evaluation of the activities and projects conducted to increase the use of information technologies at schools. Information technology formatters at the schools should be chosen among the willing persons who are interested in this area. Obligatory formatter practice should be removed and priority should be given to information technology teachers.

The content of the in-service training courses on the use of information technologies should be renewed periodically in an attractive way and teachers should bound to participate. Evaluation method applied in accordance with the content of the in-service training courses on the information technologies should be different and failed teachers should be given a participation document instead of a certificate by developing alternative assessment and evaluation methods.

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