

# The Use of Information and Communication Technologies in Classroom Management in Primary Schools

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## ABSTRACT

The purpose of this research is to determine the access level of the primary school teachers who worked in Sakarya city center in 2018-2019 academic year to today's information and communication technologies and in which level they used these technologies in classroom management activities such as communication, research, giving homework and using as a course material. With this research, it was aimed to identify in which level today's information and communication technologies are used in classroom management activities like the arrangement of learning environment, the management of teaching and the management of parent-student relationship. The teachers are going to notice that they can use the information and communication technologies which they have not used before or used in different environments in classroom management, as well, with this research. As a result of the research, it was found out that almost all of the teachers had internet access and used the internet at the most for literature review, communication and giving homework while the channels such as WhatsApp, Facebook and Twitter were used for communication with parents and students.

**Keywords:** *ICT, Classroom management*

## INTRODUCTION

The fast-moving technology affects the lifestyles, daily routines, habits and also the way of thinking of people in a positive or negative way and causes a variety of changes in society. These changes have reached to an advanced stage and the technology has been more included in the lives of human beings. Seeing a person without a mobile phone or finding a school, house or a government office without a computer has been impossible in the societies which left being industrial society behind and turned into being information society these days in which the technology is a sine qua non. In short, the age we are in is the information age (Kaplan, 1991) and the society in which we live is the information society. In the information society, important opportunities have arisen for people to show their talents and prove themselves and the production and the use of information have become widespread. The main features of the information could be summarized as being continuously reproducible, increasing and mobile, divisible, and sharable in communication channels (Öğüt, 2001).

The most striking example of communication technologies today is the internet. Even though it is very common to describe the internet as the network of computer networks, it is more meaningful to describe as the network which connects numerical networks because what are connected are not only computers in classic terms. It is possible to share texts as well as every type of images and sounds via internet (İlhan, 2005). The number of the internet users have been increasing every day and mobiles phones which are described

as smart phones remove the time and space limit in internet access. According to the information society statistics by the State Planning Agency (2009) the number of fixed phone user have been decreasing every day.

The works which encourage the use of mobile phones served by mobile network operators to customers and the internet access of mobile phones could be said to have an effect on this situation. The number of people who use mobile phones for both individual and professional purpose has caused a dramatic increase in the number of people who use mobile e-mail on a world-wide scale. Depending on a young and dynamic structure, Turkish society's being open to innovation is a point which must not be ignored in this fast spread (Akın, & Uslu Divanoğlu, 2009). In daily life as mobiles phones becomes the devices which individuals always carry with themselves regardless of their budgets, brand names and models of mobile phones are considered as an indicator of people's socio-economic level (Kararaslan, & Budak, 2012, TC Aile ve Sosyal Politikalar Bakanlığı, 2011).

In communication, trade, entertainment sector, education and also management applications the use of internet has become more widespread increasingly day by day. One of the most important reasons for this is that people have the opportunity to make themselves heard to the whole world at the speed of light and at a very low cost. Along with this technology which extends its area of use day by day, new expressions, narration structures, symbols, language practices come into our lives (Çakır, & Topçu, 2005). While the daily communication between people take different dimensions and forms, magical phraseology, stress and intonation features bring a distinctive meaning to written texts in virtual environment (Aksüt ve Diğerleri, 2006). Making texts, sounds and images accessible in the same platform at the same time, the internet makes communication more effective compared to other traditional media such as newspaper, radio and television (Çakır, & Topçu, 2005).

Along with these developments, social structures have been changing, too (Uygun, & Diğerleri, 2011) such as our daily habits at home or at work, our relationships with our families, friends and neighbor (Alankuş, 2003; Tezcan, 1993:166), shopping and communication forms and the devices we use for these change. While a person with a mobile phone which can be connected to internet or a computer may have no any other needs than food and drink, s/he can settle his or her almost all affairs without leaving his/her computer. Changing lifestyles have diversified people's daily activities. Now people do not confine themselves to the hobbies like reading a book, going to a cafe. They make friendship in virtual platforms and select their rivals for computer games from the east to the west of the world (Yatkın, 2010). While today people have communication via internet with others regardless of their past, identity, social and biological being, they can hide or change their own identities from people which they do not know. While the communication is realized through fictionalized identities, anonymity has become totally valid. In order to accommodate her/his identity as s/he wishes, a person could apply to a various material and cultural elements from their dressing styles, use of language, free time activities to musical tastes and media use pattern (Güzel, 2006). All of the social media networks like Facebook, LinkedIn, Twitter, Instagram, Foursquare which report that they have millions of users create new individualized public spheres and new socialization forms for internet users (Şener, 2006).

The social media network Google+ which was put into service by the search engine in early 2011 reached to 25 million of members in the first four year. Foursquare have made location check-in popular in social media and photos, tweets, and status updates could be tagged along with locations. A twitter account with the name of @riotcleanup which wanted to help a cleaning operation gained more than 70000 followers in a short time like a few hours.

According to 2009 January data of the internet social media and user statistics reported by "We are Social" which is London centered, 76,34 of 82,44 million of population in Turkey are stated to have mobile phone subscription and approximately 60 million are internet users. In the same report 52 million of social media users and 44 million of mobile social media users are mentioned. While the 98% of the adult population in Turkey use mobile phones, 77% of these phones are smart phones. The computer use by adults is close to 50% and 25% of adults use tablet device. According to this report while people in Turkey spend 7 hours on average on media, they spend about 3 of these 7 hours on social media, more than 3 hours on TV

and an hour by listening to music.

The user numbers of social media platforms which are used in Turkey at the most and the gender distributions of the users took part in this report this year for the first time. According to the data which were obtained through monthly active user number, Facebook have 43 million of users and it is a platform which males (%64) use more, Instagram which have 38 million of users are used more by males (59%). Twitter have 9 million of user in our country and every 8 of 10 users are males (81%). LinkedIn is a platform which males use more intensely and have 7.3 million of users. In general, 1/3 of social media users are between 25-34 age group and more than 70% are above 25 years of age. On the other hand, some research in the literature shows that using social media is very common among teachers (Akkoyunlu, 2002; Çakır, & Oktay, 2013).

Nowadays, information and communication technologies are used by educational institutions like many other institutions and problems ranging from the simplest works to the most complex ones are solved with the help of these technologies. One of the areas in which technological developments are most evident is the class. Designed to provide every student with the best education, the highest quality educational content and equal opportunities, FATİH Project is the greatest and the most comprehensive educational movement implemented for the use of educational technologies (Fatih, meb.gov.tr). Today, these developments have replaced overhead projectors with data shows, dramas or stories with videos which are watched via internet, invitations with WhatsApp messages, books with e-books, pictures or texts corners with social media walls. Thanks to the internet the concept of space has moved out of the concept which determines to or not benefit from educational services. Because a space on the internet is everywhere. The locality which are adhered strictly in curricula is on the point of leaving its place to the concepts of globality or universality (Karasar, 2004). With the proliferation of the internet boundaries in the world have been removed and students could reach all the libraries throughout the world by sitting at their computers. The Internet serves not only libraries or archives but also up to date developments for everybody who demands (Şeker, 2006; Eskicumalı, & Hamedoğlu, 2001). With the coming of the internet into our lives, traditional students and teachers have been replaced with students and teachers of the communication age. Teachers set up WhatsApp groups with their students, students' parents and colleagues, make friendship on Facebook, and follow each other on Instagram.

Students can watch the subjects they do not understand on different channels on the Internet, teachers give homework to their students via various education sites or WhatsApp messages and demand their students to do their homework. Student grades, attendances, views about students are processed on e-school system and parents can follow these data by using their own passwords.

As seen, the proliferation of the information and computer technologies have affected classroom management activities and changed physical arrangements, environmental arrangement, communication, course materials, teaching lesson, and the relationship between environment and students' parents. Thanks to the Internet time and space limits have been removed and everyone who demands and has a connection has the opportunity to have an access and to get accessed.

**The Problem Sentence:** What is the access level of teachers to the information and computer technologies of today? In what level do they use these technologies in classroom management activities?

**Sub-problems:**

1. What is the internet access level of teachers, how are they connected to the internet?
2. Which IC technologies, in what order or on what level do teachers use in the activities related to the classroom management such as communication, research, giving homework, using as a course material?

The purpose of the research: With this research, it was aimed to identify in which level today's information and communication technologies are used in classroom management activities like the arrangement of learning environment, the management of teaching and the management of parent-student relationship.

The importance of the research: The teachers are going to notice that they can use the information and communication technologies which they have not used before or used in different environments in classroom management, as well, with this research.

Limitations: The research is limited to the primary school teachers who worked in 2018-2019 academic year in Sakarya city center.

## RESEARCH METHOD

### Research Model

The basic survey model was used in this research. It was tried to identify the teachers' views via the survey which aimed at determining in which level the teachers have the information and communication technologies and which of these technologies and in what order they use in classroom activities.

### Participants

The population of the research consists of 694 primary school teachers who worked in the primary schools in central districts in Sakarya city. The research sample included 247 teachers. Small population mean formula was utilized for identifying teachers' sample. According to the formula;  $n = \frac{SS^2}{e^2 + \frac{SS^2}{N}}$  (Karasar, 2009, s. 123) and the other values related to the calculation are as follows:

**Table 1. Calculation of Sampling**

Position	N	ss	e2	z2	n
Teacher	694	1,2	0,01	3,8416	247

According to this calculation, the research sample consists of 247 teachers. 300 teachers were included in the research with the thought that they could not reply back or be volunteers and 261 surveys were used in the research.

### Data Collection Tool

The data were collected through the surveys formed by the researcher. In the survey, the questions which aimed at finding out the participants' age, gender, whether they had the internet, for what purpose they used the internet at the most, which information and communication technologies and in what order they used during classroom management activities were utilized.

### Collection of Data

The data were collected by applying the survey with the help of the administrators and the teachers who were pursuing the MA programme in Educational Management and Inspection from the schools which they were related, and the data collected were analyzed. Some of the teachers were interviewed, the questions in the survey were deeply searched and the teachers were asked questions about the advantages and the disadvantages, as well.

## FINDINGS

In this section, tables were summarized but the comments were not included. The comments related to the findings take place in the section of discussion and conclusion.

**Table 2. Teachers' Ownership and Use of Internet**

N	Internet at workplace		Internet at home		How long they are internet users			Where they are connected to the internet			With what device they are connected		How long they are connected on daily basis			
	Very good	Limited	Yes	No	Less than 2 years	3-10 years	10 + years	Home	School	Other	Laptop/Tablet	PC	Mobile Phone	Less than an hour	2-3 hours	3 + hours
N	247	14	197	64	50	161	50	170	12	79	15	7	239	45	104	112
%	94,6	5,4	75,5	24,5	19,2	61,7	19,2	65,1	4,6	30,3	5,7	2,7	91,6	17,2	39,8	42,9

According to the table, the internet connection at the workplace of the participants is 94,6% which is in a very good level and 5,4 % have a limited access. While 75,5% of the teachers have an internet connection at their houses, 24,5% have no internet connection. When looked at how long they use the internet, it is noticed that 61,7% have been users for between 3-10 years. The participants who have used the internet less than for 2 and more than 10 years are seen their duration of internet use is equal. (%19,2) When looked at the environment in which the teachers are connected to the internet, it is seen that they are connected at home (%65,1)at most and at school (%4,6)at the least. It is identified that they are connected to the internet via their mobile phones with a considerable difference (%91,6) when with which device they are connected to the internet. When how long they spend on the internet on a daily basis are analyzed, 39,8% are connected for 2-3 hours, 42,9% are connected to the internet more than 3 hours.

**Table 3. Purpose of Use of Internet in The Classroom**

Purpose of use	Mean	sd	V
Communication(parents/student)	32,56	18,13	55,69
During the class	12,13	10,45	86,19
Scanning resources	37,52	18,62	49,64
Giving homework	18,33	11,79	64,31

N=261

According to the table when with what purpose the teachers use the internet in the classroom is analyzed, it is seen that the highest percentage is for resource scanning and the second percentage is for communication with parents and teachers. The teachers state that they use the internet during the class time at the least. However, it can be said that teachers' views are not homogeneous in this respect when the highness of the standard deviation and the relative variation coefficient ( $V > 25$ ) were taken into consideration.

**Table 4. Invitation Types for Parent-Teacher Meeting**

Ranking	e-mail		Facebook/ twitter vs		Invitation Letter		SMS		Phonecall		Whatsapp	
	N	%	N	%	N	%	N	%	N	%	N	%
1 st	2	0,8	10	3,8	145	55,6	23	8,8	3	1,1	82	31,4
2nd	2	0,8	9	3,4	35	13,4	53	20,3	1	,4	75	28,7
3rd	4	1,5	26	10,0	21	8,0	56	21,5	3	1,1	37	14,2
4th	2	0,8	24	9,2	8	3,1	8	3,1	1	,4	1	,4
5th	6	2,3	2	,8	2	,8	0	0,0	6	2,3	0	0
6th	6	2,3	0	0,0	0	0,0	0	0,0	7	2,7	2	,8

According to the table, informing with an invitation takes place on the first rank with the percentage of 55%. On the second place WhatsApp (%28,1), on the third place SMS (%21,5) and on the forth rank applications like Facebook/Twitter etc. and on the last ranks e-mail and phones (%2,3) are seen to be used by the teachers.

**Table 5. Accessing Types to Students out of School Time**

Ranking	Home		Whatsapp		Phone		Face/MSN/twitter	
	N	%	N	%	N	%	N	%
1st	42	16,1	125	47,9	7	2,7	91	34,9
2nd	25	9,6	67	25,7	10	3,8	72	27,6
3rd	41	15,7	14	5,4	28	10,7	26	10,0
4th	12	4,6			15	5,7	6	2,3

When the table is analyzed, it is seen that the teachers spend most of their time out of school time with their students on WhatsApp (%47,9) application. According to the following ranking, while Face/MSN/Twitter (%27,6) takes place on the second rank, home is on the third rank and as the last phone (%5,7) on the forth rank is identified as the area in which they spend time with their students.

**Table 6. Before Suggesting an Educational Material or Source**

Ranking	Internet		Market research		Friend		Printed cation	
	N	%	N	%	N	%	N	%
1st	187	71,6	42	16,1	39	14,9	4	1,5
2nd	50	19,2	44	16,9	76	29,1	4	1,5
3rd	18	6,9	31	11,9	40	15,3	9	3,4
4th	1	,4	5	1,9			15	5,7

According to the table, the internet comes on the first rank with a big difference (71,6%) when the areas which students apply for before teachers suggest a resource are analyzed. The following ranking is as friends (%29,1), market research and printed publications.

**Table 7. For Research Assignments**

Ranking	Internet		Library		Expert	
	N	%	N	%	N	%
1st	212	81,2	34	13,0	16	6,1
2nd	23	8,8	97	37,2	39	14,9
3rd	6	2,3	34	13,0	56	21,5

According to the table, their views related to from where and what resources students get information when teachers give a research assignment are analyzed, the teachers state that most of their students (81,2%) benefit from the internet. On the following ranks, while %37,2 use libraries, 21,5% percentage of students benefit from an expert.

**Table 8. For Presenting A Video**

Ranking	CD/DVD		Internet		TV	
	N	%	N	%	N	%
1st	44	16,9	204	78,2	11	4,2
2nd	93	35,6	38	14,6	13	5,0
3rd	10	3,8	1	,4	52	19,9

When the table are analyzed, the teachers mostly benefit from the internet (%78,2) when they want to show a video, or a movie related to the course. While in the second-place students watch movies from CD/DVD, TV is used in the third place.

## DISCUSSION AND CONCLUSION

Along with the fact almost all of the teachers have internet access, it was identified that the great majority of them spend on the internet more than 2 hours daily. The teachers are connected to the internet mostly from their homes and via their smart phones in a very high percentage.

As related to the classroom management activities, the teachers use the internet for resource scanning at the most. It was found out the benefited from the internet very often while they had communication with parents and students. Teachers' communication with parents mostly works through WhatsApp groups. These groups give the possibility of communication in teacher-student or teacher-parent relationship by removing the space and time limits otherwise it is not possible except for compulsory cases or emergencies in consideration of specific traditions. For instance, if there were no WhatsApp or SMS, you cannot call a teacher. Or, on the contrary, you cannot call and disturb a student of yours or a parent. You cannot announce a snow holiday which starts a little time before school starts to all of your students by calling them one-by-one. Indeed, while students of teachers who actively use WhatsApp groups are informed about the holiday and do not come to school upon the message, students of teachers who does not achieve this are seen to come to school under heavy snow and turn back. However, sometimes or when certain rules are not specified, conflicts and insulting expressions may be exposed, and all the members may witness to these and feel offended. Establishing communication rules eliminates disturbances in these groups. Although to a lesser extent than resource scanning and communication, the teachers benefit from the internet while giving homework. Giving homework could be through a web page, Facebook, Twitter or WhatsApp message as well as being a research assignment. Instead of a teacher's giving homework via photocopies or dictating to tens of students, using this method enables time and source saving. Furthermore, when students want to ask a question to their teachers about their homework, time and space limits are removed again. When the teachers give a research assignment to their students, they state that great majority of the students primarily

prefer the internet.

It is seen that some teachers use the internet during the class at the most. When the teachers want to use a visual or audio material during a course, they use the internet at the most. When the primary school curriculum is considered, they are seen to be able to reach movies, documentaries about almost all topics or subjects which another teacher explains.

More than half of the teachers use invitations in the first place when they want to invite parents or students to a place. This situation could be regarded as an expected result in Turkish culture. Written and signed document could be perceived as an indicator of the value imposed on an invitee. Therefore, teachers may be using these invitations as a sign of their respects to and love for their students and students' parents. The number of the teachers who use WhatsApp in the first place is quite high. Some teachers use both invitations and WhatsApp messages. Because invitations may be lost, or you cannot always carry them with you, but WhatsApp messages are kept in your phones which you never leave and hardly ever take up space.

The teachers meet their students at the most through channels such as WhatsApp, Msn, Twitter during out of school time. S/He can convey what s/he want to add for the preparation for the next class to students while stories or pictures are shared here. Also, students can receive permission through these channels, and inform their teachers about subjects like health etc.

A large part of the teachers research through the internet before suggesting a resource. A part of them which can be seen a small part give the priority to market research and sales demonstrators or apply to their colleagues.

## SUGGESTIONS

Nowadays teaching without using information and communication technologies has become a very difficult job. Students of teachers who fall behind with this subject will fall behind, too. Students' falling behind will cause our teaching to be interrogated. For this reason, every teacher is required to have access to the internet from her/his mobile phone or tablet pc and access to the applications on these devices. Therefore, teachers could be provided convenience for having these devices and the internet access. Different ways such as discounts, installments or providing them as free could be found. In-service training about these subjects could be arranged. When viewed this aspect, Fatih project will eliminate the spending of families on technology and by doing that, it can be thought that the Fatih Project can prevent inequalities between schools, especially those in the lower income group prevent inequality especially between lower income class schools. (Uysal, & Yıldız, 2014).

In fact, within the scope of the FATİH Project, the schools were provided with interactive boards, technology training for teachers and students as well as tablet computers and internet access to the schools but were not effective enough (Altın, 2014; Çiftçi, Taşkaya, & Alemdar, 2013; Cücü, 2014; Gülcü, 2014; Koçak, 2015; Sezgin, 2014; Yolcu, & Bayram, 2016). Research has shown that there has been a significant difference in technological hardware as moving from the lower income level to the middle- and upper-income level (Buyruk, 2015; Öztürk, 2014; Yolcu, 2007). Today, as a result of the rapid development of technology and innovations in programs, last year's technology becomes old technology. For this reason, instead of distributing it to the schools, access to the new technologies can be made easier.

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