

# Cross-cultural Comparison of Teachers' Views upon Integration and Use of Technology in Classroom

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#### ABSTRACT

The purpose of the study is to compare teachers' views upon integration and use of technology in classroom. To make cross-cultural comparison of teachers' views, we interviewed with nine teachers in a primary school in city of Erzincan, Turkey and compared the views of the teachers with those of the teachers living in foreign countries. To obtain the data from other countries, we used the comments of the teachers who shared their views with us at Edutopia Blog Page. We used a qualitative research method with semi structured interview form to gather data and to compare them with the comments in blog page. Having analysed, compared and discussed the views of the teachers, we recommended that the school principals, teachers and students should be encouraged to integrate technology and use mobile technology in classroom so that the students can prepare themselves for competition and race with the others and future careers.

Keywords: Integration of Technology, Classroom Management, Mobile Devices, Teaching, Learning

#### INTRODUCTION

Almost every part of our lives is convoluted by technology. It directly affects the way we shop, connect, socialize, play and most importantly learn. As constantly presence in our lives, it is inevitable to have mobile technology in the classroom and course environment. To prepare the students for the future, school principals, teachers and parents can work in cooperation to enhance the integration of technology into classrooms.

With the rapid development of instructional technology in every aspect and level of education, the teachers, trainers, masters, tutors, instructors, education coaches, school principals and school supervisors have tried to integrate technology in schools and find the best for the students to improve learning skills. Besides, almost all students have technological devices such as smart phones, iPads, tablet computers, laptops, personal computers that can be used in learning process. Many educational organizations, institutions and schools in European countries apply "Bring your own device", which refers to a technology model that allows and enables students to bring their own mobile devices to school for learning in the classrooms, allowing technological integration and use of technology in classrooms to be effective. This term "bring your own device" was first launched in the world in 2013, with companies allowing employees to use their personal laptop computers, smartphones, tablet computers and other mobile devices in the workplace. But at the same time it was seen in the education sector with a great number of schools around the world.

The most important factor of effective integration of technology is the teachers' skill and ability to shape educational technology activities to fulfil students' needs. Teachers know their content and pedagogy, but regarding technology, teachers often learn with students. Teachers focus on teaching students significant technology skills, which include how they work the technology, but many teachers ignore the indirect skills of knowledge integration and a deeper understanding of analysing information (Fulton, 1997).

Teachers play an important role in the effectiveness of technology use and students' learning process. The purpose of this study is to explore primary school teachers' views and interest in the requirement of technology and their use of technology in the classroom

#### LITERATURE REVIEW

Integrating technology in the classroom is not about teaching students to operate computers, but about helping teachers to use technology as a tool for learning (Sheingold, 1990). Fulton (1997) used the term of technology fluency to describe the changing definition of what students need to know about technology. He indicated that teachers model technology fluency by using technology in the classroom, applying technology across the curriculum, and integrating technology to facilitate collaboration and cooperation among students.



Recent technological advancement in education and computer usage is rapidly transforming work culture and teachers cannot escape the fact that today's classrooms must provide technology-supported learning (Angers & Machtmes, 2005). Preparing for technology and knowing how that technology can support student learning must become integral skills in every teacher's professional repertoire. District and school policy and professional development workshops and training are designed to positively influence teachers' adoption and usage of computer technology. However, the usage of computer technology in the classroom has been slow over the years (Krysa, 1998).

Teachers' acceptance of technology is absolutely essential if technology provided to schools is to be used effectively (Carlson and Gadio, 2003). Inasmuch as educational technology is not transformative by itself, it requires teachers to improve student learning. It is the teachers who can integrate technology into curriculum and use it. Though there are students who could learn independently how to use technology to improve their learning skills, it is not probable for them to improve as long as teachers remain key person for students' access to educational opportunities afforded by technology (Stryker, 2000). Hence, it is important for teachers to be computer literate, and be prepared to use information technology in schools.

According to Kumar et all (2008) the administrators, namely the school principals, should encourage teachers to continue developing technology based skills. The administrators need to be more open minded about towards the suggestions by the teachers and act accordingly. If a teacher feels handicapped and wishes to attend a course in information technology, then the teacher's wish must be granted and should be recommended for the next course. This will make the teachers move towards the usage of the computer and find it useful in no time.

DeWitt (2013) argued that planning for professional learning for teachers is also seen as essential by many authors. "Not all staff understand how it works. Many teachers want to allow students to bring their own devices but they do not always understand how they handle the concept. According to Howard (2013), many teachers in primary schools have not had experience and secondary school teachers have experience of students using laptops, not other devices nor a mixture of devices.

In their study, Dixon and Tierney (2012) argue that the program of BYOD has implications for pedagogy as the teacher will need to cater for the least powerful device in the classroom and students won't all have the same programs and applications installed in their devices. However, many BYOD programs specify the capability of devices that can be brought by students to overcome this problem.

In her study on effective technology integration, Su (2009) argues that, in traditional learning environment, teachers have learnt the content long before, when they were students at high school, and the teaching resources and textbooks don't change much over the years, on the other hand, in constructivist learning environment, teachers are learning all the time. Technology enables teachers to redesign and modify the provided teaching resources for better teaching and learning outcomes in various situations.

Blair (2012) stated in his study that today's students need educators to re-envision the role of technology in the classroom. Students develop the four C's, critical thinking, creativity, communication, and collaboration, thus effective application of these significant skills in a technology-based life requires acquiring them in a technology-based learning environment. This environment includes two elements: Technology must be put into the hands of students and we must rely on them through more contemporary technology use. For student performance to approximate student potential, students need access to a constantly evolving series of technological tools and activities that involve innovation, teamwork, decision-making and problem-solving.

Cheung and Slavin (2011) obtained the findings that support those of earlier reviews by other researchers. They state in their study of meta-analysis that the classroom use of education technology will undoubtedly continue to expand and play an increasingly significant role in public education in coming years as technology becomes more sophisticated and more cost-effective. They suggest schools and districts should make efforts to identify and adopt research-proven education technology programs to improve student academic achievement. They have the conclusion that the technology approaches most widely used in schools, especially supplemental computer-assisted instruction, have the least evidence of effectiveness.

Kemp et all (2014) state in their study that technologies such as the Internet and personal computer do not increase access or improve learning for all potential students. The most fundamental drawback is the unequal availability of technologies for people of low socioeconomic status. According to them, technologies such as the Internet and the personal computer could increase the benefits of education and reduce its negative aspects, depending upon the ability of teachers to make use of them in the classroom and the skill of managing online



classes. In the educational setting, the problems, such as the lack of availability of technology for low-income students, are beyond solution. They suggest that technology should not be an essential tool for receiving a quality education, but it should be viewed as an option to enhance learning and increase opportunities.

#### **Problem Statement and Purpose**

The aim of the research on Technology Integration and Use in Classrooms is to determine the similar and different views of primary school teachers from various countries around the world in a cross cultural context, and to evaluate the intercultural conditions of primary school students in terms of technical equipment.

#### Methods and Research design

We used a qualitative research method to understand and evaluate teachers' views and intention. This kind of methodological approach was chosen as it enables researchers to interpret and make judgement about immeasurable data (O'Tool and Beckett, 2010, p.28). we conducted this research in a particular setting through Edutopia Blog and a group of Primary School teachers in Erzincan City. For this reason we relied on case study design for the purpose of our enquiry.

#### **Participants**

Participants were nine classroom teachers working in a Primary School in Erzincan City, Turkey and fifteen Primary School teachers having written comments on Edutopia Blog. We preferred and used easy accessible sample technique in the research, as it increases the speed of collecting data and enables researchers to access the sample easily (Yıldırım and Şimşek, 2006). We obtained the data from 9 classroom teachers who admitted to be involved in the interview for the research, and 15 primary school teachers from various countries replying and writing their comments on Blog page. The participants were asked whether they were contented to answer to the questions, and then we applied the tool. The names of the teachers are coded with letters and numbers.

#### **Research Instrument**

In the study, we used the tool with semi structured interview form to gather data from classroom teachers and to compare the data with blog comments. We asked ten open ended questions to the participants. The questions were designed in accordance with the comments of the participants for Edutopia Blog about 'Teaching and Learning: Using iPads in the Classroom' launched by blogger Ben Johnson who is an educator, administrator and author.

#### Data analysis

We obtained the data with the help of the interview with the participants; the data were then transferred and digitalized into computer in order to form digital data. We used content analysis with the percentage and frequency values.

#### FINDINGS

The findings that we obtained from the classroom teachers for the questions in the semi-structured interview form and the comments made by the participants teachers at the Edutopia blog are given below.

The first question was "How many students are there in your classroom and how many of them have tablets, notebooks, laptop, computer and iPad? The second question was "As a teacher do you use any of these devices in the classroom?" The sample statements opposite one another for the first question are given as followings.

"There are 17 students in my class, 16 of whom have tablet computers...."(X1)

"There are 21 students in my class, 3 of whom have tablet computers, and 2 have notebooks..." (X2)

"There are 17 students in my class and only 6 of them have tablet computer." (X4)

There are 17 students in one classroom and 16 of them have technological devices to use in the classroom, which suggests that the classroom is technologically well equipped and the students can equally benefit from technology in maximum level. On the other hand, while there are 21 students in another classroom, yet only 5 of them have technological devices to use in the classroom, indicating that the classroom is technologically poor equipped, and the students cannot follow the courses, instructions and assignments equally. These two teachers gave answers just opposite one another to the question of "Do you want to set up a website to communicate better with your students and to enable them to be successful in their classes? The former teacher (x1) replied "*I would like to set up a website to communicate with them better and to help them to be successful at school*". The latter (x2) replied "*I have not thought of creating a website to do the communication with my students*". These two opposite statements show that the integration and use of technology in classroom largely depends on the intention of the teachers. Through communication technology in education, teachers can effectively gain students' attention by providing communication technologies that are a familiar part of students' lives.



According to Jackson (2001), teachers are individuals with different personalities and characteristics and so will make different professional judgements; no one can say that there is one right way to teach, and he maintains that good teachers continue to be learners themselves and will continue to develop their skills, knowledge and teaching style, so that teaching becomes a continual process of personal and professional development, and he argues that this can be rewarding and exciting, and has benefits in the classroom.

In our study, the ratio of technological devices to the number of the students in the classrooms are 20/24 (x3); 20/32 (x5); 15/28 (x6); 16/20 (x7); 14/17 (x8); and 18/24 (x9), as shown in Table 1. All the participant teachers in the study declared that they used technological devices in the classroom such as personal computer, laptop, notebook, tablet and iPhone. As the figures in the other classrooms suggest that at least 60 percent of the students have technological devices such as tablet, iPhone, laptop, notebook and smartphones to use in the classroom under the supervision of their teachers. Regardful of student collaboration in the classroom, this ratio might be enough for the students to follow the tasks in their courses with competent teachers

Participant Teachers	X1	X2	X3	X4	X5	X6	X7	X8	X9
Number of Students	17	21	24	17	32	28	20	17	24
Number of Devices*	16	5	20	6	20	15	16	14	18
% of Devices to Students	%94	%21	%83	%35	%63	%53	%80	%82	%75

Table 1: The digitalized data of interviews

\* *iPhone*, tablet, laptop, notebook, smartphones

As we designed our study in cross-cultural frame, we used the comment statements of the other teachers from various parts of the world. The statements are as follows: (C.F. Edutopia), who is Technology teacher at primary school, says "Our school just equipped many of our classrooms with small sets (4-8) of iPads...."; (B.G. Edutopia), who is a Special Ed STEM teacher, says "I use the NASA app for our after school NASA Explorers School Program ... "; (C. J. Edutopia), who is Math-Science teacher, says "I just started at a school where each student has access to their own iPad... I have begun using it a bit for my math and science classes... I'd like to know of good apps for Biology, Earth Science, Algebra and Geometry..."; (A. K. Edutopia), Special Ed and Science teacher, says "I am lucky to teach in a county that has been extremely forward thinking on technology. Our classrooms have all had Activeboards, Desktops, laptop carts, scanners, etc. since the 90's....Our schools are fully WIFI and students are encouraged to bring any and all technology...."; (S. L. D. Edutopia), Science teacher, says "Our technology group is saying that we can't bring any iPads onto campus...."; (P. Edutopia), who is Instructional Technology Specialist, says "I have 30 iPads in an ELA classroom ... " As the comment statements show that not every school, classroom, teacher and student group in different countries has full facility and full access to technological devices. Almost all commenters in the blog are in favour of having individual technological facilities, whereas (S. L. D. Edutopia)'s technology group are in favour of traditional computer laboratory, technology teacher-based education in the classroom. As the majority of the technology is kept in the computer laboratories or central computer classrooms, the only time the students can use and develop their skills remains when it is their turn to visit the computer lab. The design and layout of the computer lab makes it difficult to accomplish the ultimate goal of classroom instruction. On the other hand, the approach and the intention of the teachers and technology groups in a school are of great importance in the achievement of fast access to contemporary educational facilities all over the world. Integrating technology into the classroom is definitely a great way to reach diversity in learning styles, thus giving students the chance to interact with their classmates more by encouraging collaboration.

The third question was "In what courses do the students use these devices?" The sample statements to this question are as follows;

"... My students are using these technological tools for almost all courses..."(x1), (x5), (x7)

"... Technological devices are used for Turkish Course and Maths Course in my classroom...."(x3)

"... I allow the students to use their iPads and tablets for English Course and Math Course..."(x9)

The other statements show that the technological devices are used particularly for Mathematics Courses and Language Courses by the students in the classrooms. As shown in Table 2, in our plot school, some teachers allow their students to benefit from technological devices for Turkish Courses and Mathematics Course in their classroom, while the others encourage students to use them for all courses.



Participant	X1	X2	X3	X4	X5	X6	X7	X8	X9
Teachers									
Courses the	All	Maths	Turkish	Turkish	All	Turkish	All	Turkish	English
devices are used	Courses		Maths	Maths	Courses	Maths	Courses	Maths	Maths
in				Science		Social		Science	
						Science		Tech	
								Social	

Table 2: The Digitalized Data of the Courses the Devices are used in

From the comment statements of other teachers from different countries all over the world, these are of great importance for cross-cultural comparison.

"... I have begun using it abit for my Math and Science classes..... I would like to know of good apps for Biology, Earth Science, Algebra and Geometry..."(C. J. Edutopia)

"... Check out these great free apps. I have used all of these in a classroom and they are great! Pass the Past (History), Number Line (Math), Opposite Ocean (English)..." (A.H. Edutopia)

".... I recently started using this Base Ten app to help teach them the concept of numbers, including addition and subtraction practice..." (B.J. Edutopia)

As in all statements, technological devices have great benefit to some courses such as Maths, Social Sciences, Language and Science. The teachers have noticed the effect of technology on learning. According to Daniel (2010), education in the 21st century requires more emphasis on learning than on teaching. He states in his study that the ideal is the adoption of a culture of self-directed learning by individuals and communities. Technology can encourage this transition. To achieve upper-level learning, every student should be made to benefit from technology-supported education at equally-designed level.

The fourth and fifth questions were "What programs do the students use in these devices? and "How often do the students download sound recording, video, lecture notes, books, etc?" The sample statements to these questions are as follows;

"... They usually use Map-App, picture App for drawing and Microsoft Word software for writing and drawing. They seldom download, voice recording, video, books and lecture texts..."(x1)

"....They are using a program named Okulistic. They sometimes download voice recording, video, books and lecture notes..." (x2)

"....*My* students use school programs with course narration. The students generally download Voice recording, video, books and lecture notes... they share them with each other..."(x5)

"...They usually use such programs as Adobe Flash Player, Java, Office, Winamp, Media Player, VLC player. My students very often download Voice recording, video, books and lecture notes..." (x7)

From these statements, technological devices can be said to have launched the transformation of teaching and learning, however the basics of teaching and learning to have remained unchanged. Students can download and attach videos, voice recordings to their assignment tasks and share them with each other, which creates a collaborative learning environment in the classroom. Table 3 shows the Apps used in the courses by the students in the classroom.

Participant	X1	X2	X3	X4	X5	X6	X7	X8	X9
Teachers									
Applications used	Office	Okulistik	AFP	Markakompus	School	AFP	AFP	Marca	Educatio
in courses	MsDos	Power	Power	Okulistik	Program	Power	Java	Campus	n
	Powerpoi	point	point	Office	Power	point	Office	Okulistik	Websites
	nt			MsDos	point		Winamp	Daynet	Power
				AFP			Media	AFP	Point
				Powerpoint			Player	Java	
							VLC	Office	

 Table 3: The digitalized data of Social website the teachers use for communication

Some interesting sample remarks from the comments of the participant teachers from other countries;

"...Students can also attach videos, and voice recordings to their field notes .... students can create a collaboration web to share findings and discuss conclusions about different perspectives of the same project.. "(Blogger B.J Edutopia.)

"... My students are so excited about finding new educational apps that it has almost become a competition within my classroom to see who can find and learn the coolest educational app each week ... "(A.K. Edutopia)



# "...students listen to the audio lessons directly on their iPads. Large screen allows them to view PDF transcripts as well, which is much more convenient than on iPhone...." (S.M. Edutopia)

From the comments, it appears that technological devices can do the same contribution to learning and teaching activities in every part of the world. Students can download videos, sounds, texts, books, applications, pictures, drawings, listen to the audio lessons directly on their tablets or iPads, see the world on the screen, do the practice in Language Courses and save and keep all kind of texts and pictures in their computers, share them with their classmates, thus creating a collaborative environment that is very effective strategy of learning. Cooperative and collaborative learnings involve individual effort however they bring students together in small groups to work on specific, well-defined and well-structured problems and questions. There are clear and correct answers or solutions for problems and questions (Jonassen, 1997). The students can access to these answers and solution with the help of collaboration by sharing information with each other through technological devices.

To determine the teachers' views on communication with their students, we asked "What social networking sites like Facebook, Twitter and Messenger do you use to communicate with your students outside the school?", and "Do you want to set up a website to communicate better with your students and to enable them to be successful in their classes?" The reply statements to these questions are as follows;

"... I do not use any social networking site to communicate with my students outside of school. I would like to set up a website to communicate with them better and to help them to be successful at school... (x1)

"... I do not use any social networking site to communicate with my students outside of school. I have not thought of creating a website to do the communication with my students..."  $(x_2)$ 

"... I am using WhatsApp as social networking site to communicate with my students outside of school. I did not think to establish the website to communication with my students out of school..." (x3)

"...I am using WhatsApp as social networking site to communicate with my students outside of school. I did not think to establish the website to communication with my students out of school..."(x6)

"...I do not use any social networking site to communicate with my students outside of school, I make telephone communications. To communicate with my students..."(x8)

Of all the participants in our study, only two have used social networking sites like WhatsApp and Facebook, and only one has used mobile phone to communicate with their students out of school (Table 4). Out-of-class communication makes student-teacher relationships more personal and contributes to student learning. It is also the wellspring for continued academic exchange and mentoring (Lucas, 2015). From the remarks of the participants, technology has not been used as an effective means of communication with the students by the teachers. The school in which the participants work may be said not to have completed technological integration so that the teachers, parents, management staff and the students can have effective communication with each other. The intention and the willingness of the teaching and management staff of the school to communicate with their students and the students' parents are very important for the communication to be provided through technology integration.

Participant	X1	X2	X3	X4	X5	X6	X7	X8	X9
Teachers									
Social website the teachers use for communication	No	No	WhatsA pp	No	No	Facebook	No	Mobile phone	No
Willingness to set up website	Yes	No	No	Yes	Yes	No	Yes	No	Yes

 Table 4: The digitalized data of Social website the teachers use for communication

The comments of the blog participants from different countries are as follows;

"... I have long corresponded to my students and their parents by means of Messengers, it is free and very easy for my students to use... I am attending to a course to establish and run my own class website..."(A.P. Edutopia) "... I use the Ipad along with social networking to involve students in blogging which also enhances their literacy skills... I will ask a friend of mine who is a computer programmer to for help to set up a website for my class."(B.S. Edutopia)

It proves hard for teachers to take time out of busy schedules to learn how to create a class Web page, and keep it up to date with a calendar of events, assignment tasks at home, class projects, useful links and other necessary information. E-mail and SMS are useful for many interactions. However, teachers need more effective ways to provide students with the right information at the right time. The latest collaboration tools are a lot more natural



and practical to use than traditional Internet technologies. These tools provide teachers with an effective way to bridge the technology gap and embrace the kinds of tools their students already use. Almost all students can access to this information at any time, even when they are studying for an exam at night or on a Sunday afternoon. Blogs and wikis help teachers collaborate on lesson plans and help students develop their group projects.

To find out the participants' views and intention on their willingness for technology equipped classroom, their belief in benefits of technology and their belief in success in learning, we asked these questions; "Do you want to teach in an environment equipped with technological tools?", "Do you believe technological tools will contribute positively to the education of students?", "Do you think for the students to have these devices can contribute to their academic achievement?" The replies to these questions by the participants as follows;

"... I'd like to do my courses in technology-equipped classroom. If used in accordance with the purpose, it will provide a positive contribution to the education of students, and I believe that technological tools improve academic achievement..."(x3)

"... I'd like to do my courses in technology-equipped classroom. This will contribute positively to students' education, and I believe it will improve their academic achievement...."(x6)

"... I'd like to do all my courses in technology-equipped classroom. It will make a positive contribution to the education of students, and I believe that technological tools manage to improve academic achievement...."(x8)

In the study, all of the participants from various countries remarked that the classrooms that are equipped with technological devices such as computers, tablets, Video/Data projectors and projection screens, LCD/TV monitor, DVD players, Sound Systems, Wireless network coverage could provide effective learning facilities for the students (Table 4). To achieve full benefit from technology-equipped classrooms, the teachers are required to learn how to use the technological devices. Regarding this necessity, one teacher says in her comment "... As a teacher who has rarely used technology in the classroom I am very nervous about the use of this new technology. However, before I begin to fully implement technology I obviously have to work on incorporating small pieces of technology into my daily lessons. I need to be prepared in case something does not go as planned..."(J.D. Edutopia). Beyond ensuring that the students are actively learning or creating to meet certain goals or objectives, the key with technology is making sure that its use is organized, and that the teachers are ready to use it.

Participant	X1	X2	X3	X4	X5	X6	X7	X8	X9
Teachers									
Willingness for technology equipped classroom	Yes								
Belief in benefits of technology	Yes								
Belief in success in learning	Yes								

**Table 4**: The digitalized data of interviews' willingness and beliefs in technology

According to a research by Gorder (2008), the teacher is considered an important factor for success when using and integrating technology in the classrooms, and the findings from this study indicates that teachers manage to use technology for professional productivity and to facilitate and deliver instruction better than they can use technology for integration into teaching and learning.

In our study, all the participant teachers from both pilot school and Edutopia stated that they want to teach in classrooms with technological equipment, which highlights the possibility that integration of technology in classroom will lead to success.

## DISCUSSION AND CONCLUSION

Technology integration in education and hence the classrooms equipped with technological devices such as computers, Video/Data projectors and projection screens, LCD/TV monitor, DVD players, Smart Boards, Sound Systems, Wireless network coverage can all enrich teaching and learning process in many ways. The success and the value of technology integration in teaching and learning settings largely depends on the willingness, intention and the technological skills of the teachers, and how well and efficiently it is used by the students and the teachers.

According to the participants in Turkey and in the other countries, not all students and the classrooms have the same number of technological devices compared to each other in the same school. In one classroom, of the



seventeen students, only six have their own mobile device, while in another classroom, sixteen students have their own mobile device. According to a classroom teacher in a different country, there are only four iPads in her classroom, and these devices are belonging to the school not to the students. This imbalance distribution of mobile devices to the number of the students can create difficulties in terms of effectiveness of the course, as only the students with mobile devices can access to the knowledge very easily, otherwise the teacher would have to change the way he/she teaches in the classroom.

Integrating technology into the classroom and its use effectively are both a great way and opportunity for teachers and students to reach diversity in teaching and learning styles. Technology, as long as used correctly and properly, will help prepare students for their careers in the future. Likewise, it helps the teachers prepare students for the environment of the real world. The students must learn to be tech-informed or tech-savvy so as to be successful citizens in their future lives as all the nations in the world become more and more technology dependent.

According to our findings from the remarks of the participants, the students do a lot of tasks with their mobile devices like downloading books, saving information, copying and saving texts, drawing pictures, charts and maps, listening lessons, recording sounds, easy access to all kinds of dictionaries, and share them with their classmates, thus creating both an individual and a collaborative learning environment and enhancing learning process.

Educational resources are very important for students to develop themselves. Particularly books, textbooks and workbooks are not available at every school library at every part of the country and every part of the world. As students can have easy access to digital textbooks through mobile devices, the implementing and using technology in the classroom prove inevitable.

The students now live in a digital communication age. Almost all the teachers, parents and students communicate with each other through mobile tools. In our study, some of the teachers are not so willing to communicate with their students through social networking sites like Facebook, WhatsApp, Messengers ect. In fact, these facilities enhance the effectiveness of communication between teachers and students. As the digital communication tools develop teacher-student interactions, this sort of communication is preferred by the teachers, parents and students.

As a conclusion, the school principals, teachers, parents and students should force the school management to implement and integrate technology into classrooms so that the students can prepare themselves for their future careers, keep pace with the other students who have technology in their schools, have the chance to interact with their classmates, access to up-to-date information, become more active and engaged in the course, and utilize multiple types of resources online. The teachers should learn how to use technology effectively to be useful to the students, provide students a collaborative environment and teach them collaboration, with the technology in the classroom; teacher should be encourager, coach and advisor. The teachers should encourage students to have mobile technology in classroom and at home, as it can bridge the gap between classroom and home learning.

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