

Role of Information Communication Technology in Developing Academic Intimacy among Secondary School Students

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Abstract

The study explores the role of information Communication technology in developing academic intimacy among secondary school students. The objective of the study was; 1) to explore the role of information communication technology in developing academic intimacy among secondary school students. The study was descriptive in nature. The population of the study comprised all the secondary school students in district Pakpattan. The sample of the study selected 150 students from secondary school students through simple random sampling. Questionnaire used for data collection from the sample of study. Data was analyzed with the help of SPSS version 22. The study found that ICT makes students (25.3 + 54.7 = 80%) efficient communicator whereas ICT provide a facility to the students (20 + 53.3 = 73.3%) to develop social relations with their fellows. The study concluded that students feel interest in ICT and use different devices like computer, mobile phones and multimedia. ICT is a tool that enhances students' communication efficiency and students' academic intimacy rapidly. The study recommends that social media may enhance and develop relations among students but they may use it in a definite span of time. They may discuss and share their ideas to friends with the help of social media.

Keywords: ICT, Academic Intimacy, Secondary School Students

Introduction

Information and Communication Technology (ICT) has been playing a multi-dimensional role in formal educational system of Pakistan. Government itself and other stakeholders in the department are focusing the dire need of ICT in educational institutions. ICT needs close association of all the areas of social life i.e. the government agencies, public and private educational institutions, non-profit organization, secular and religious communities for its propagation. In the present development, ICTs properly could play an essential role as tools for the general reformation of learning-instructional processes, academic intimacy, in facilitating student's development in collaborating skills and working productively with knowledge (Harely, 2000).

ICT in education means incorporation of computer in teaching-learning process. For the use of ICT, one can require guidance from the experts or fellows. Within academic circles and for academic purposes students use ICT for their better learning. In this process, they explore acquaintance and have intimacy with different peers for academic purposes. However, internet is a source which is mostly used for communication purpose. ICT used all digital technologies that even now exist to help each person, industry and institute. In information technology many changes occur very speedy so it is difficult to specify ICT. ICT is mostly related to storing, repossession,

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management and communication of numerical data. ICT define as, ICT provide communication facilities that help out in teaching and learning. However ICT provide variety of activities in educational institutions (Zalzadeh, 2006).

Policymakers usually accept that ICT in educational institutions provide a chance to student for participation in a worldwide economy by generating expert work strength and facilitating social elasticity. Policymakers focused that ICT effected the whole educational system, by improving online book reading motivation and with technology students learn new skills. Motivated teachers training reduced costs which concern outdated teaching methods (Zalzadeh, 2006). The technology offers many communicating skills and facilities for learning and relations development. Applications, techniques and systems are all included in information communication technology. Information communication technology is not only as applications and systems but also help out in every field of life. So, literacy and numeracy is an essential skill for every individual to move with confidently, effectively and freely in a modern society (Clarke, 2006).

Information communication technology helps the learners in situations as learning from surrounding, with and through ICT. The tools of information communication technology provide an instructional basis for learning. Pupils' collaboration completes the process of learning with the help of teachers. The use of ICT is drastically changing our cultural values and influences the patterns of academic culture in institutions. In this way, ICT is not only concerned with knowledge but also helps in improving and enhancing the financial and administrative position of the country (Akudolu, 2007). The objective of the present study is to explore the role of information communication technology in developing academic intimacy among secondary school students.

The present study will be highly useful and beneficial especially for the secondary school students and for other students in general. It will enhance the collaborative work and academic intimacy among secondary school students. Basically, information communication technology in education is used to promote new knowledge and evaluate information from different sources to develop instruction and book learning and problem solving.

Review of Related Literature

According to Mikre (2011) ICT influence human life in a diversified way. ICT performs a significant role in institutions, industry, education and entertainment. Moreover, ICT plays an important role in working situations, exchanging information, learning methods and systematic research. According to Iqbal, Ali, & Hassan (2015) in Pakistan learners and the teachers have greater tendency for using information communication technology for educational determinations, specifically in public sector of Pakistan. Moreover, the study also calls for the attention of the government institutions regarding the use of information and communication technology.

Kozma and Anderson (2002) wrote in paper "Information communication technology and Educational Restructuring in Poor and Rich Countries" use of information communication technology in institutions is shifting dramatically and teachers use different methods for teaching. They are struggling to promote collaboration of information and communication technologies in simple education in poor nations.

In this modern era, educational experts emphasize on the use of technology and also make it necessary for the future success of students. In starting from the mid-nineties uses of information communication technology in educational institutions quickly extends in advanced nations through curriculum support, networking the professional development of educators (Aston, 2002). In 2000 technology widely spread and new concepts of technology were introduced in educational process. Without technology use, students cannot move towards creativity. Researchers and instructors initiated to develop IT gadgets, hypertext, multimedia and

networking to build cognitive and constructivist learning environments for the development of learning process. The aforesaid tools were found unsuccessful to get better result as compared to learning outcomes achieved through traditional instructions (Siemens, 2005).

Utilization of Information and Communication Technology and advanced media has transformed the living style of contemporary societies. On the off chance that it is observed effects of ICT in everyday life over the past few decades. The life is highly influenced by ICT, even day to day matters like banking, travelling, construction, study and business are incomplete without it. Nevertheless, there is more need to enhance these areas with the assistance of ICT. There are numerous elements looming on training framework when we utilize advanced media or ICT. There are numerous issues confronted by educators being used by ICT and some other innovation. New idea presented by ICT that is E-educating and E-learning (Renwick, 2012).

The students or learners are not master in utilizing new ICTs, and they are accustomed to use old instructing strategies. To get proficiency and excellence in the use of ICT, they make academic collaboration with their fellows. For this purpose, they develop academic intimacy with other fellows for the growth of knowledge and in enhancing their abilities. Students or learners must be proficient about ICTs keeping in mind the end goal to utilize it viably in the institutions. Instructive ICTs has an extraordinary significance as it influences the procedure of worthwhile learning.

With the developing advancement of individuals' way of life, students or learners have been unwittingly requesting for materials and devices. Moreover computers, laptops and tabs have not been fully used in the learning of traditional subject matter, but they accepted that education systems would need to prepare individuals for lifelong learning in an informed society and improved interest in education through ICT. Furthermore, Medley (1994) well-known that ICT has positive effects on students in education such as: boost up for motivation and originality when confronted with the new learning environments a greater disposition to problem-solving focused on actual social situations. ICT has effective environment and systematic inspiration for cooperative work both individuals and groups and have ability to generate knowledge through technological literacy.

ICT in School Education in the Developing Countries

In developing countries, information communication technology is used generally to improve the excellence in education. Information communication technology has established the possibility to enhance the quality, participation, and accomplishment for every student. Due to information communication technology extraordinary accessibility spread out educational prospects to the exposed groups. In developing countries information communication technology have the potential to increase the educational involvement for children who:

- Live in rural and remote-rural places
- Have special learning needs and requirements
- Have physical disabilities making their access to schools
- Have dropped out from schools and have reserved themselves out of school for various reasons.
- Have aim for excellence and fail to get satisfied in the current system

Teachers and learners both in the developing countries are not only reliant on physical media such as printed textbooks, which are often outdated. In modern technology, everyone has the skill to access specialists and professionals in their concerned fields in which they have interest. This access can be entertained all over the world at any time. There is a dire need in

developing countries to promote the idea of academic intimacy by using ICT in educational circles.

Uses of Information and Communication Technology

Information communication technology has changed the way people work, live, and learns. To provide education with information technology is one of the focal challenges for education policy makers (Zalzadeh, 2006). Traditional teaching methods of education are no longer able to compete the needs of today's learners. New technologies provide opportunities to the learners toward the individual learning (Aminpour, 2007). Information Communication Technology is playing an important role in making the education vital and effecting teaching-learning process.

In education, information and communication technology has been playing authoritative role to expand the competence and efficiency in formal and non-formal surroundings. ICT provide the healthy atmosphere and inspiration for instruction and learning process and offering new opportunities to the learner's and educators which have a deep impact on the process of learning. These opportunities have positive impact on student performance and attainment.

Role of ICT in Learning Process

Role of information and communication technology in education deeply affects the way students learning. In this technological age, the role of ICT in education is multi-dimensional. In education, information communication technology is playing role as a change agent. Information and communication technology drastically changing the condition of under developing and developing countries. It supports student centered learning. Students take interest in the learning process by using ICT. With the help of technologies it is possible to encourage transformation of education from teacher centered institutions to students centered institutions. Examples of information and communication technology usage in student centered institutions are;

- Improved use of network as a source.
- Internet users select the data from whom they will learn.
- Students resolve their problems through problem base learning.
- The explosion of proficiency, competency and outcomes oriented curricula.

Internet is a source of motivation for students. Young people use technology with charm and interest. Educators must benefit from this interest, enthusiasm, and eagerness about the internet for the purpose of improving learning. For enthusiastic learners, the internet facilitates to the students with additional learning activities which are not readily available in the classroom (Cox, Webb, Abbot, Blakeley, Beauchamp, and Rhodes, 2003).

Research Methodology

The researcher used mixed method for the study and it was descriptive in nature. All the secondary school students were comprised the population of the study in district Pakpattan. According to Punjab school department official website, there were male and female secondary schools (97) in district Pakpattan. The researchers selected 30 secondary schools randomly from the list. And then select 5 secondary school students from each school. So, the sample of the study was as in the table below;

Table No. 1 *Sample of the study*

District	Number of schools	Number of students
Pakpattan	30	30x5 = 150

The researchers used questionnaire as research instrument for the study. The questionnaire was developed on five-point likert scale. In the beginning, questionnaire was comprised on 25 items and five open ended questions. The questionnaire was reviewed by three PhD (scholars) to check the validity. They give their expert opinion regarding the conciseness, content comprehension, grammatical and syntactical structure of the questionnaire. Pilot testing was done to check new instrument. The researcher collected data from the respondents but these respondents were not included in the sample of the study. The number of questionnaire (20) was used for collecting data from secondary school students for pilot testing. Data were computed in SPSS and reliability check was run. The overall Cronbach's coefficient (alpha) was found 0.823 (Mark, 1995) for all the items in the questionnaire. After validity and reliability check, the questionnaire was finalized with 11 items and three open ended questions.

Table No. 2 *Distribution of questionnaire items*

Section/s	Heading	Questionnaire Items
Section I	ICT & Students Academic Intimacy	12
Section II	Open Ended Questions	3

Researchers personally collected data from the secondary school students by filling the questionnaire. The researchers distributed questionnaires (180) among the respondents. But fortunately, researchers become successful in getting questionnaires (150) that are fully filled by the respondents.

For data analysis, the data was coded and put into MS excel sheet. The data was analyzed by using SPSS Version 22. The data was computed and found the frequency, percentage score, mean score, and standard deviation. For open ended questions, researchers made themes and gave frequency, percentage and graphical presentation to the responses given by the respondents.

Results and Interpretation

This part of the study elaborates the analysis of the collected data from the respondents. The analysis of items was presented in the form of frequency score, percentage score, mean score, standard deviation and graphical form. The analysis and interpretation of the data is as under;

Table No.3 *Responses of the Students*

S. No.	Statement(s)		Responses					M	SD
			SA	A	UD	DA	SDA		
1	ICT makes student efficient communicator	Frequency	38	82	9	17	4	3.89	1.00
		Percentage	25.3	54.7	6	11.3	2.7		
2	I connect through social media to exchange ideas with my friends	Frequency	38	75	9	25	3	3.79	1.06
		Percentage	25.3	50	6	16.7	2		

3	I connect through email to exchange ideas with my friends	Frequency	32	82	12	23	1	3.81	0.96
		Percentage	21.3	54.7	8	15.3	0.7		
4	Skype is a tool for video conversation with classmates	Frequency	41	85	9	9	6	3.97	0.96
		Percentage	27.3	56.7	6	6	4		
5	WhatsApp is an easy source for share lecture with fellows	Frequency	42	71	7	25	5	3.79	1.12
		Percentage	28	47.3	4.7	16.7	3.3		
6	I always take part in group discussion with fellows through conference call	Frequency	44	84	8	9	5	4.01	0.94
		Percentage	29.3	56	5.3	6	3.3		
7	WhatsApp is an easy source for share image and video with fellows	Frequency	37	66	6	39	2	3.64	1.15
		Percentage	24.7	44	4	26	1.3		
8	I Use imo and Twitter with my class fellows	Frequency	38	90	7	11	4	3.98	0.91
		Percentage	25.3	60	4.7	7.3	2.7		
9	ICT helps to create a healthy atmosphere in the classroom	Frequency	21	94	11	16	8	3.68	1.01
		Percentage	14	62.7	7.3	10.7	5.3		
10	ICT facilitates to develop social relations with fellows.	Frequency	30	80	6	25	9	3.64	1.15
		Percentage	20	53.3	4	16.7	6		
11	I use facebook for convey the messages to share my routine doings	Frequency	37	99	4	10	--	4.08	0.73

In above-mentioned table, Item 1 showed that respondents (54.7+25.3 =80%) are agreed to the statement whereas respondents (11.3+2.7 = 14%) are disagreed to the statement. The respondents (6%) are undecided about the statement. The mean score is (3.89) and standard deviation is (1.00) implies that majority of the respondents agreed with the statement that ICT makes student efficient communicator. It is clear from the results of above table that ICT makes student efficient communicator.

Item 2 displayed that respondents (50+25.3 = 75.3%) are agreed to the statement whereas respondents (16.7+2 = 18.7%) are disagreed to the statement. The respondents (6%) are undecided about the statement. The mean score value is (3.79) and standard deviation is (1.06) implies that majority of the respondents agreed with the statement that they connect through social media to exchange ideas with their friends. It is clear from the results of above table that I connect through social media to exchange ideas with their friends.

Item 3 elaborated that respondents ($54.7+21.3 = 76\%$) are agreed to the statement whereas respondents ($15.3+0.7 = 16\%$) are disagreed to the statement. The respondents (8%) are undecided about the statement. The mean score value is (3.81) and standard deviation is (0.96) implies that Majority of the respondents agreed with the statement that they connect through email to exchange ideas with their friends. It is clear from the results of above table that they connect through email to exchange ideas with their friends.

Item 4 explained that respondents ($56.7+27.3 = 84\%$) are agreed to the statement whereas respondents ($6+4 = 10\%$) are disagreed to the statement. The respondents (6%) are undecided about the statement. The mean score value is (3.97) and standard deviation is (0.96) implies that majority of the respondents agreed with the statement that Skype is a tool for video conversation with classmate. It is clear from the analysis table that Skype is a tool for video conversation with classmates.

Item 5 showed that respondents ($47.3+28 = 75.3\%$) are agreed to the statement whereas respondents ($16.7+3.3 = 20\%$) are disagreed to the statement. The respondents (4.7%) are undecided about the statement. The mean score value is (3.79) and standard deviation is (1.123) implies that majority of the respondents agreed with the statement that WhatsApp is an easy source for share lecture with fellows. It is clear from the results of above table that WhatsApp is an easy source for share lecture with fellows.

Item 6 showed that respondents ($56+29.3 = 85.3\%$) are agreed to the statement whereas respondents ($6+3.3 = 9.3\%$) are disagreed to the statement. The respondents (5.3%) are undecided about the statement. The mean score value is (4.01) and standard deviation is (0.94) implies that majority of the respondents agreed with the statements that they always take part in group discussion with fellows through conference call. It is clear from the results of table 36 that they always take part in group discussion with fellows through conference call.

Item 7 shows that respondents ($44+24.7 = 68.7\%$) are agreed to the statement whereas respondents ($26+1.3 = 27.3\%$) are disagreed to the statement. The respondents (4%) are undecided about the statement. The mean score value is (3.64) and standard deviation is (1.15) implies that majority of the respondents agreed with the statements that WhatsApp is an easy source for share image and video with fellows. It is clear from the results of above table that WhatsApp is an easy source for share image and video with fellows.

Item 8 presented that respondents ($60+25.3 = 85.3\%$) are agreed to the statement whereas respondents ($7.3+2.7 = 10\%$) are disagreed to the statement. The respondents (4.7%) are undecided about the statement. The mean score value is (3.98) and standard deviation is (0.91) implies that majority of the respondents agreed with the statement that they use imo and Twitter with their class fellows. It is clear from the results of above table that they Use imo and Twitter with their class fellows.

Item 9 showed that respondents ($62.7+14 = 76.7\%$) are agreed to the statement whereas respondents ($10.7+5.3 = 16\%$) are disagreed to the statement. The respondents (7.3%) are undecided about the statement. The mean score value is (3.68) and standard deviation is (1.016) implies that majority of the respondents agreed with the statement that ICT helps to create a healthy atmosphere in the classroom. It is clear from the results of above table that ICT helps to create a healthy atmosphere in the classroom.

Item 10 elaborated that respondents ($53.3+20 = 73.3\%$) are agreed to the statement whereas respondents ($16.7+6 = 22.7\%$) are disagreed to the statement. The respondents (4%) are undecided about the statement. The mean score value is (3.64) and standard deviation is (1.15) implies that majority of the respondents agreed with the statement that ICT facilitates to develop

social relations with fellows. It is clear from the results of above table that ICT facilitates to develop social relations with fellows.

Item 11 showed that respondents (66+24.7 = 90.7%) are agreed to the statement whereas respondents (6.7+0 = 6.7%) are disagreed to the statement. The respondents (2.7%) are undecided about the statement. The mean score value is (4.08) and standard deviation is (0.73) implies that majority of the respondents agreed with the statements that they use facebook for convey the messages to share their routine doings. It is clear from the analysis of the data that I use facebook for convey the messages to share their routine doings.

Table No. 4 Advantages of using Information Communication Technology (knowledge, developing relations, library, interest among students)

	Frequency	Percent
Knowledge access	36	24
Developing relations	60	40
Library	24	16
Interest among students	30	20
Total	150	100

Table 4 shows the advantages of using information communication technology. The advantages are coded as; 1 = for knowledge accessible, 2 = E-books, 3 = source of developing relations, 4 = give huge library, 5 = create interest among students. Majority of the respondents responded that when they use information communication technology, they get access to sources of knowledge. The respondents have equal responses toward the use of E-books, sources of developing relations and through the use of information communication technology, they create interest among students. The results of the above table are presented in the bar graph.

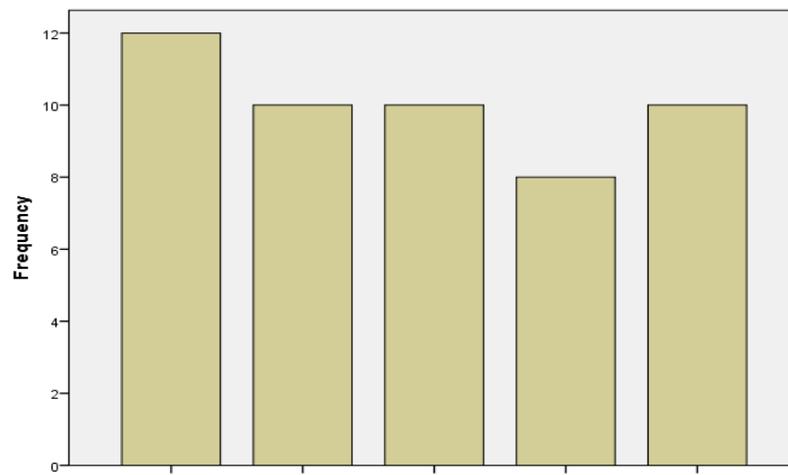


Figure 4 Advantages of using ICT (I)

Table No. 5 Advantages of using Information Communication Technology

	Frequency	Percent
Healthy atmosphere	15	10

Online lectures	21	14
Global village	36	24
Method of teaching	33	22
Motivate for learning	45	30
Total	150	100

Table 5 shows the advantages of using information communication technology. The advantages are coded as; 1 = for healthy atmosphere, 2 = online lectures, 3 = world become global village, 4 = change the method of teaching, 5 = motivate students for learning. Majority of the respondents responded that the use of information communication technology motivate students for learning. The respondents responded that the use of ICT change the method of teaching and use online lectures for teaching purpose.

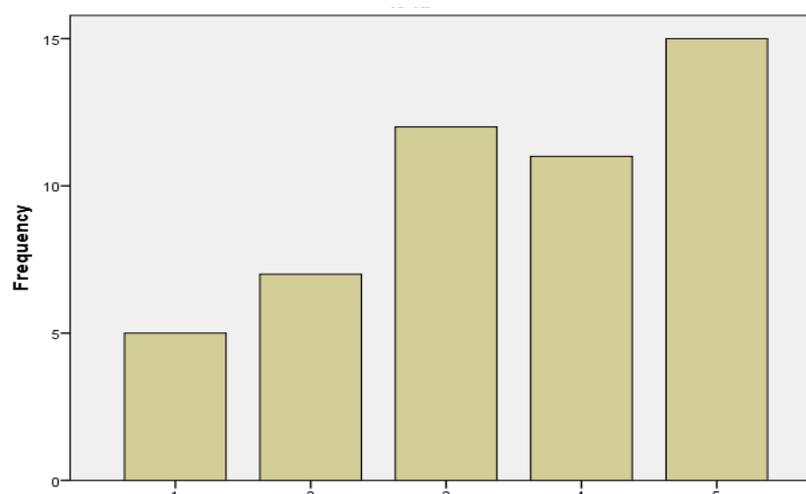


Figure 5 Advantages of using ICT (II)

Table No. 6 Advantages of using Information Communication Technology

	Frequency	Percent
Quality of education improve by ICT	81	54
Update knowledge	48	32
Quick response and feedback	21	14
Total	150	100

Table 4 shows the advantages of using information communication technology. The advantages are coded as; 1= use of A.V aids, 2= source of knowledge, 3= Education improved by ICT, 4= update knowledge, 5= source of quick response and feedback. Majority of the respondents responded that the use of information communication technology update the knowledge. Other respondents respond that through the use of information communication technology improved the education.

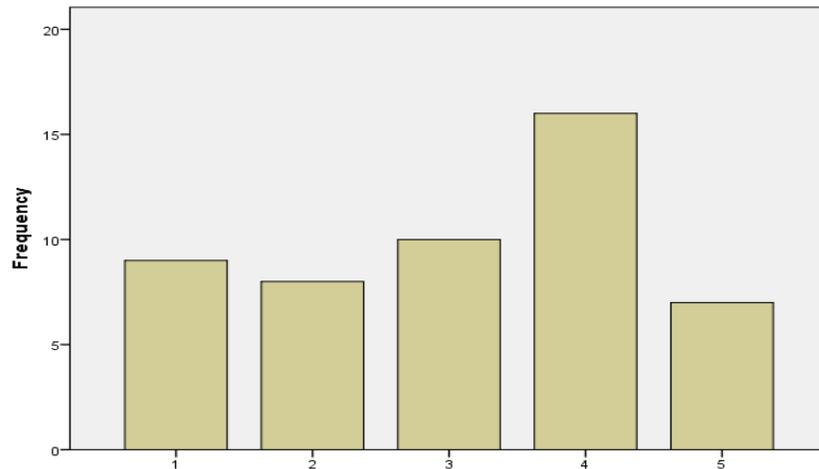


Figure 6 Advantages of using ICT (III)

Findings

1. The study found that students (80%) agreed that ICT makes them efficient communicator.
2. The study found that students (75.3%) agreed to the statement that they connect through social media to exchange ideas with their friends.
3. The study found that students (76%) agreed to the statements that they connect through e-mail to exchange ideas with my friends.
4. The study found that students (84%) agreed to the statement skype is a tool for video conversation with classmates.
5. The study found that students (75.3%) agreed to the statement that Whatsapp is an easy source for share lecture with fellows.
6. The study found that students (85.3%) agreed to the statement that they always take part in group discussion with fellows through conference call.
7. The study found that students (68.7%) agreed to the statement that WhatsApp is an easy source for share image and video with fellows.
8. The study found that students (85.3%) agreed to the statement thatthey use imo and twitter with class fellows.
9. The study found that students (76.7%) agreed to the statement that ICT helps to create a healthy atmosphere in the classroom.
10. The study found that students (73.3 %) are agreed to the statement that is ICT facilitates to develop social relations with fellows.
11. The study found that students (90.7%) agreed to the statement that they use facebook for convey the messages to share my routine doings.
12. The study found that majority of the students (60%) that information communication technology facilitates them in the developing relations.
13. It is found that majority of the respondents (30%) responded that information communication technology motivates them for learning.
14. It is also found that majority of the respondents (54%) responded that quality of education is improved with the use of information communication technology.

Conclusion and Discussion

People are using information communication technology frequently and necessarily. The study concluded that information communication technology is a source that enhances the

communication skills of students, they get acquaintance with their friends through social media and exchange their ideas. Students develop their intimacy with friends through video conferencing on skype. On contrary, they share their lecture material through WhatsApp and discuss such material through conferencing callings. They also make the use of other social media devices like imo and twitter. The social media and ICT develop intimacy among secondary school students and this thing directed towards a healthy atmosphere in the classroom. Ali, Nargis, Yasmeen and Iqbal (2015) found that secondary teachers have a keen desire for the use of information communication technology and its integration within classroom environment. Students feel that information communication technology create healthy atmosphere in the classroom and facilitate to develop social relations with fellows. Ali (2018) recommends in his study that higher educational institutions need to consider on how instructors can become more skilled in teaching learning process with the help of IT gadgets and mobile applications to excel student's learning process and to achieve educational objectives.

Recommendations

The recommendations for the study are as under;

1. Social media may enhance and develop the relations among students but they may use social media for specific time.
2. Students may provide with the information of using conferencing call through their cells so that they may discuss and share their ideas with friends.

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