

Role of Communication Technology in Students Learning at Graduate level in District Lahore

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Abstract: *The Role of Technology in students learning at Graduate level in Lahore. The objective of the current study was to; (1) identify the technology being used by the students for their learning. (2) To find out the uses of Communication Technology in learning at graduate level students in the city of Lahore. The population of the study was all Towns of the city of Lahore. The simple random sampling technique was used for the study. Through the simple random technique, 4 graduate colleges and 100 students were selected for B.S Program. Data is gathered through a research tool from students (20 items). Through statistical analysis results show that most students (87%) prefer the use of communication Technology in learning, they have developed confidence in practising learning (74%), and the interdisciplinary nature of support functions of technology helps students to integrate their learning (68%). On the other hand, most students lack communication resources in their institutes.*

Key Words: Communication Technology (CT), City Lahore (CL)

Introduction

The delivery or give and take the process of knowledge by speaking, writing, or using some other medium of instruction is called communication. The best way of the transmission or distribution of concepts, feelings and ideas is through communication. Communication is simply the act of transferring knowledge from one place to another, from one person to another and from one group to another. (Communication, 2018)

Communication is the procedure by which information is forwarded and unwritten between two or more communities. As we can say that communication is the process in which a sender transmits a message to a recipient with mutual thought. This is the way to exchange of

information and understanding. (Communication, 2018)

M. Rogers (1986) introduces communication technology as the use of past technologies which evaluate basic issues, by the use of interactive media which may affect the knowledgeable organization and social life of a person.

(ICT) has the quality to enhance all dimensions of our communal links and talk with each other. ICTs have a strong build-up as a service as a search engine for expansion in the new coming world. The world coming challenges are very critical and adaptable for the coming challenges, but people have yet to get an advantage from the new communication technology. All industries and new upcoming generations are highly facing new changes in

their industry world. Societies are facing poverty, financial problems, connection and buildup with each other's, and traditional hardship in living. The discussion is this main concerning thing is the frugality and societies can be either enhanced or getting benefit from the information technology (IT). These products and facilities are fulfilling the demand of the upcoming challenges. The uses of IT gadgets and amenities in a community comes from the power that these gadgets and facilities have in integrating business, service establishment, and domination away from the regional society. (Stewart & Wallace, [2003](#))

In this Modern paradigm of this world, it has also prepared and organized people and institutions for the requirements of modern communication and creating a connection between the two periods. The idea was that connection and obtaining the ability of radio and television would provide the information needed to change the behaviour of the people and in order to understand financial development. (Veva, [2009](#))

Since the past 20 years, there have been very few examples of ongoing community networks built around ICT, even in developed nations where it is widely utilised. Although there is great potential for modern information and communication technology to support communities in enhancing social well-being through community development. According to research, social network-building policies and the development of social capital at the local level are crucial for the successful adoption of ICT in society. (Stewart & Wal, [2005](#))

Chris Abbott says about Information and Communications Technology, Now a day (ICT) is changing the face of education in this changing world. He observes about the ICT that the ICT is the process, in which we built a connection to our upcoming world, and its role in relation to literacy is also very prominent and it has become central to national educational policy-making and policy implementation. (Abbot & Falmer, [2001](#))

The media is a useful tool for communication as well. Media fertility is important to consider while choosing a

communication network. The best way to transfer information and spread a wide range of content at a given moment is through media fertility.

Electronic communication using a variety of platforms, including computers, blogs, mobile phones, IMO, Instagram, Telegram, Viber, Azar video chat, the internet, e-mail, in-person meetings, video conferences, telephones, instant messaging, Skype, Hangouts, Twitter, Messenger, Facebook, and Whatsapp. The email refers to the method of communication we can use to communicate with one another.

We also engage in vertical and horizontal communication at the highest levels of organisations. Both a centralised and decentralised organisational structure exists. Because messages are instantly created and deposited, it has also emerged as the best method of message delivery and the preferred medium in the majority of organisations. Through e-mails and mobile phones, information may be sent and transferred to numerous people with only one mouse click. There is no need to schedule a communication session because email is a rapid and efficient way to connect and convey communications (messages are sent and received at different times). Information can also be admitted fairly due to this technique.

On our computers, laptops, and Ipads, we may choose any message in any order, jump to different parts of a message, and search for any term in any message. When it comes to communicating with one another and sharing information that is organised and specific enough to be used in decision-making, email is often the best and fastest option. It frequently strengthens the flow of information and communication between groups and across the entire organisation. In particular, it reduces certain telephone and face-to-face communication while enhancing communication with those higher up the organisational structure. Email status distinctions still exist in some communities and administrative settings, but they are less deceptive than in face-to-face interactions.

Email is also more appealing since it hides details like our age, race, weight, and other characteristics that are visible in in-person interactions, which helps to lower the barriers to thorough evaluation. (Richness, [2019](#))

There are numerous ways to communicate, including blogs, podcasts, intranets, extranets, instant messaging, Blackberry wireless e-mailing, and other computer-related platforms. The delivery of business materials is extremely quick in the age of communication technology. The use of blogs for interpersonal communication among employees is becoming more popular in communication technology. Through blogs, an organization's staff can communicate ideas both inside and outside, and coworkers can learn more about one another. Blogs also provide for conversations and documentation. Another effective technique for interacting with one another is podcasting, which is also a popular form of electronic communication with businesses. There are wide ranges of ways in which we communicate and more than one may be happening at any given time. (Richness, [2019](#))

Emails need not to be too informal. One must aware that some forms of communication may be printed out and people can view and may comment on them rather than those, for whom these were actually written. Communications refer to the use of signals to convert voice, data, images, and video information between localities, the main important use of communications is in different areas of science, engineering, and technology. Through the next way forward, new concepts are derived in communication through the telephone, radio, and television and today's Internet totally changed the way people communicate and interrelate with one another. (Communications, [2019](#))

"Alexander Graham Bell" invented the telephone in 1876. This served as the first and fastest way of communication for people. This wireless transition made communication easier globally. People can talk to one another, make relations or friendships, enhance their business, market their products and so on. It not only may help in domestic affairs rather

professionally too. Either the modern or the elder one consists of a ringer, a speaker, a dialer and a switch hook.

"Reginald Fessenden" invented the Radio in 1906, which was based on the same wireless technology as "Graham Bell". The purpose of this first radio transmitter was to expand music and speech, entertain people and make them up to date. Radio allowed the broadcasting of sound and information to a huge audience. This way of broadcasting and wireless communication made its way to the invention of Television in 1946. Though early experiments were made in the 1920s. The Internet gave access to huge data sets and a big range of information to people. These computer networks made people closer to each other. (Szpak, [2003](#))

Technological Advancements in communication, the telephone, radio and internet and related technologies like the answering mechanism and fax mechanism, made communication easier. Through wired telegraphs, people were able to contact each other at home as well as in their business affairs.

Computers and the Internet are the most advanced and useable technology in this world. The importance of this technology is connecting computers across long distances to share information.

Aims of the Study

- 1- To identify the technology being used by the students for their learning.
- 2- To find out the uses of Communication Technology in learning at graduate level students in the city of Lahore.

Statement of the Problem

The study was aimed to find "Uses of Communication Technology in learning at Graduate level Students in City Lahore"

Significance of the Study

In the present study, the analysis has been made about the effective use of communication technology at the graduate level. Students who

utilize communication technology will develop into confident, competent users who would really apply the fundamental knowledge and skills they have learned to benefit them in their daily lives. Additionally, it is meant to prepare students for the future. It attempts to support students in developing an adaptable and open mindset. They will be better able to adapt to the upcoming changes as a result.

Delimitation of the Study

Due to the time limitations and budget, the current study was delimited to:

- 1- Only City Lahore
- 2- Only Public sector graduate collages of Lahore
- 3- Only graduate collages of Lahore
- 4- Only Session of 2018

Literature Review

Telecommunications, such as computers or mobile devices, allows you to interact with each other, and text, video, or audio forms are the

most commonly used formats these days. Communication using these devices is an advantage of current technology. This current technology will be employed in the future. Many schools and universities employ email, Web conferencing, and video chat to allow all students to connect in real-time.

Usually, there is no cost associated with direct computer-to-computer communication. However, there may be a minor price to connect to a landline or mobile phone. Video calls can be made using Skype.

Video Messaging

When you send a contact a brief video message in the form of a text, you are using a different communication medium.

Web conferencing is the most often used technology at a higher level and in large organizations. It is used in businesses for meetings, training events and other information to people and connections among people and traces their remote location. (Murray, 2018)

Indicators of The study

Table 1.

Indicators	Communications Channels
Graduate level (Session 2018)	Computers, Email, Blogs, the Internet, Mobile Phones
Bachelor Students	Facebook, Whatsapp, IMO, Instagram, Twitter, Messengers,
Education Department	Hangout, Telegram,
English Department	Wiber, Azar video chat,

Research Methodologies

Population of the Study

As the study intended to find out the Uses of

Communication Technology in learning at Graduate level Students in City Lahore". All the Graduate colleges (27) in the city of Lahore were taken as this study's population.

Table 2.

Population	City Lahore
Target Population	All Public Graduate Collages of City Lahore
Accessible population	Graduate Collages of City Lahore

Sample of the Study

The technique of convenient sampling was employed in this study to acquire data. All

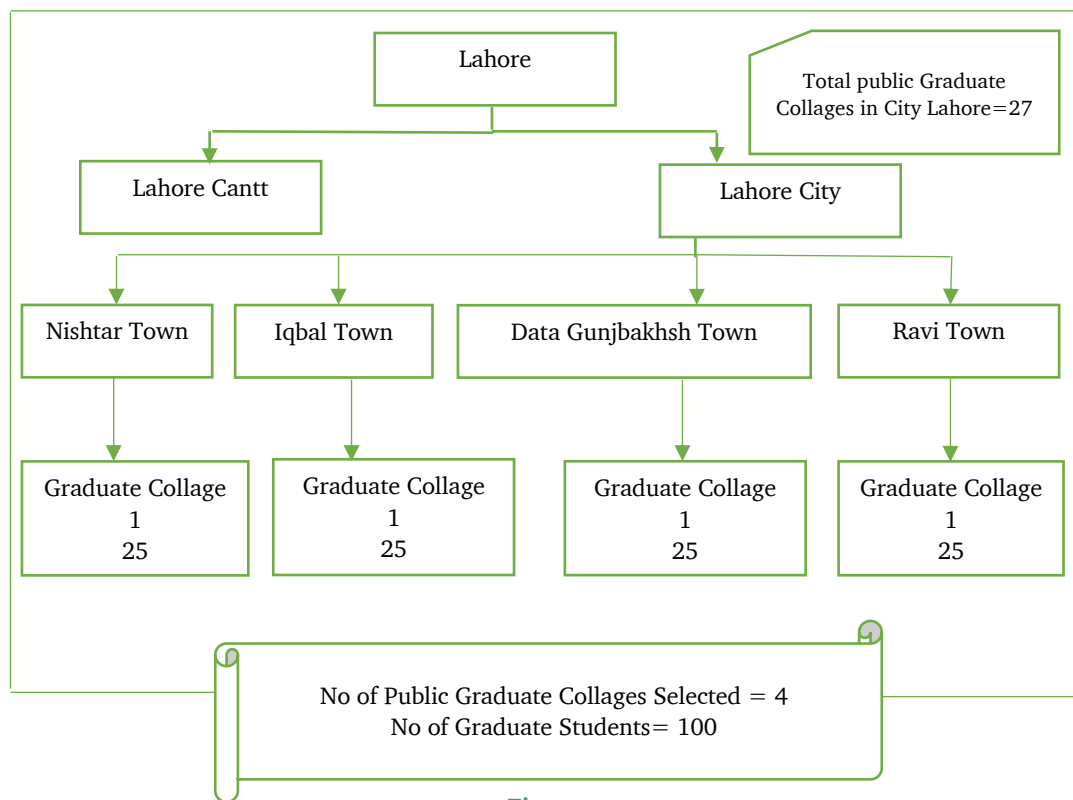
public colleges were initially considered the intended audience. In the second stage, all the Girls' graduate collages were taken and finally

through simple random sampling four graduate collages students were taken as a sample of the study. Through Convenient sampling, 100

students were taken from four Graduate colleges. The 25 students were selected from each college.

Table 3.

S.No	Target Group	Population	Sample size
1	Graduate Students	27 Colleges	100



Figure

Instrument of the Study

As the present study was survey-type in nature. Five times Likert scale was developed keeping

in view the objectives and different dimensions of the study. The tool was created with the use of relevant papers, books, research articles, and questionnaires.

List of Constructs

Table 4.

S. No	Constructs	No. of Questions
1	Identify the technology being used	09
2	Uses of Communication Technology	06
	Total	15

Validity of Research Instrument

The content validity of the instrument was established through expert opinion. (see Annexure 1).

Pilot Testing of Research Instrument

At first, the instrument had 25 items, but after consulting a panel of specialists, that number was reduced to 15. (see Annexure 1). The students of the graduate college township in the city of Lahore filled out 20 questionnaires for the researcher. The reliability test Cronbach

Alpha was used by the researcher for a reliability investigation, and its computed value was (.813)

Reliability of Instrument

The instrument's consistency is referred to as reliability. To ensure reliability, the researcher used Cronbach's Alpha Coefficient. Data were entered into the statistical software SPSS. The value was 0.813 which indicated the high reliability of the instrument. Factor-wise reliability is shown in the table below.

Table 5.

S. No	Constructs	Cronbach's Alpha
1.	Technology Identification	09 items
2.	Technology Use	06 items
	Total	.812

Collection of Data

The researcher herself went to all graduate colleges of the city of Lahore and collects the data by herself.

was utilized by the researcher to analyze the data.

In this chapter, the researcher displayed data on the questionnaire's five-point Likert scale using percentages of respondents.

Analysis of Data

It involves the process of explaining data. Through inferential and descriptive statistics, we can examine and manipulate the data and information we obtain. Different statistical techniques can be used to analyze data and turn it into knowledge. Through the use of descriptive and inferential statistics, the researcher examined the data. The percentage

Percentage of Respondents

The overall percentage of the respondents who remained undecided ranged from 1.1 (statement 3) to 27.8 (statement 6); those who disagreed ranged from 2.2 (statement 11) to 58.9 (statement 5); and those who agreed ranged from 21.1 (statement 5) to 92.2 (statement 11).

Table 6. Percentage of the Respondents

Dimensions	S.A	A	Un.d	D.A	S.DA
Technology Identification					
Communication gadgets are made available for the students in general like; (chat rooms, and discussions)	27.8	23.3	14.4	14.4	20.0
Wi-Fi technology is provided at your institution.	27.8	16.7	15.6	8.9	31.1
Computers have been made available for the students in computer Labs in your institutions.	38.9	33.3	1.1	14.4	12.2
You may enjoy an internet facility at your institution for the exchange of information	15.6	30.0	24.4	10.0	20.0
Use of WhatsApp is permitted at your institution during working hours.	10.0	11.1	20.0	25.6	33.3

Dimensions	S.A	A	Un.d	D.A	S.DA
Technology Identification					
Facebook facilitation is therefore immediate and need-based information sharing.	3.3	18.9	27.8	17.8	32.2
Communication gadgets are made available for students in general like; (Skype, Google talk etc).	13.3	25.6	17.8	17.8	25.6
Laptops and tablets are permitted to be used in the class/ institutional premises.	23.3	25.6	5.6	23.3	22.2
Communication gadgets are made available for students in general like; (forums, e-mails, and instant messaging)	21.1	18.9	17.8	18.9	23.3
Technology Use					
Technology helps collaborative individual work.	56.7	32.2	5.6	3.3	2.2
Technology helps the collaborative group work	42.2	50.0	5.6	1.1	1.1
Students find and use e-books for learning.	32.2	42.2	16.7	4.4	4.4
Students make and use presentations for knowledge sharing.	45.5	42.2	7.8	2.2	2.2
Students do net serving for locating content for their personal use.	23.3	34.4	21.1	14.4	6.7
Immediate resource utilization fulfils the natural usage of students.	23.3	40.0	21.1	4.4	11.1

More than 92.2% of the respondents responded positively, indicating that they either agreed or strongly agreed. This information regarding the dimensions is provided here. For “Technology identification” it was 21.1 (statement 5) to 72.2 (statement 3); for “Technology Use” 57.7 (statement 14) to 92.2 (statement 11).

Comparison of Students' Perception on the Basis of Gender

To compare the gender differences of BS-level students, an independent t-test was utilized. The statistical information is shown in Table 4.2.

Table 7.

Dimensions	Gender	N	Mean	SD	T	P
Technology Identification	Female	55	12.03	2.74	-0.375	0.03
	Male	45	12.16	3.41		
Communication gadgets are made available for the students in general like; (chat rooms, and discussions)	Female	55	1.72	0.85	.023	0.07
	Male	45	1.80			
Wi-Fi technology is provided at your institution.	Female	55	1.09	0.97	0.24	0.06
	Male	45	1.23			
Computers have been made available for the students in computer Labs in your institutions.	Female	55	1.80	0.90	1.01	0.04
	Male	45	1.72			
You may enjoy an internet facility at your institution for the exchange of information	Female	55	1.60	0.68	1.04	0.01
	Male	45	1.23			
Use of WhatsApp is permitted at your institution during working hours.	Female	55	1.07	0.81	10.06	0.06
	Male	45	1.31			
Facebook facilitation is therefore immediate and need-based information sharing.	Female	55	1.30	0.64	10.8	0.02
	Male	45	1.08			
Communication gadgets are made available for students in general like; (Skype, Google talk etc).	Female	55	1.20	0.81	10.8	0.08
	Male	45	1.21			

Dimensions	Gender	N	Mean	SD	T	P
Laptops and tablets are permitted to be used in the class/ institutional premises.	Female	55	1.08	0.65	0.6	0.03
	Male	45	1.02			
Communication gadgets are made available for students in general like; (forums, e-mails, and instant messaging)	Female	5545	1.32	0.57	10.07	0.06
	Male		1.04			
Technology Use						
Technology helps collaborative individual work.	Female	55	6.07	12.2	1.6	0.02
	Male	45	5.07			
Technology helps the collaborative group work	Female	55	11.2	50.0	1.6	0.01
	Male	45	10.7			
Students find and use e-books for learning.	Female	55	10.2	42.2	6.7	0.04
	Male	45	11.02			
Students make and use presentations for knowledge sharing.	Female	55	5.05	42.2	4.8	0.02
	Male	45	10.06			
Students do not serve for locating content for their personal use.	Female	55	11.3	34.4	2.1	0.04
	Male	45	11.09			
Immediate resource utilization fulfils the natural usage of students.	Female	55	12.3	40.0	1.1	0.04
	Male	45	11.03			

Level of significance ($\alpha = 0.05$)

H₀1. Male and female students' perceptions of technology identification differ significantly.

H₀2. The opinions of male and female students on the usage of technology differ significantly.

Table No.02 demonstrates the striking contrast in how male and female students view technology identification. The opinions of male and female students towards technology use differ significantly. The mean score shows that Communication gadgets are made available for students in general like; (chat rooms, and discussion). Wi-Fi technology is provided at your institution. Computers have been made available for the students in computer Labs in your institutions. Students enjoy the internet facility at your institution for the exchange of information. Use of WhatsApp is permitted at your institution during working hours.

Facebook facilitation is therefore immediate and need-based information sharing. Communication gadgets are made available for students in general like; (Skype, Google talk etc.). Laptops and tablets are permitted to be used in the class/ institutional premises. Communication gadgets are made available for students in general like; (forums, e-mails, and instant messaging). Technology

helps collaborative individual work. Technology helps the collaborative group work. Students find and use e-books for learning. Students make and use presentations for knowledge sharing. Students do not serving for locating content for their personal use. Immediate resource utilization fulfils the natural usage of students.

Findings

- 1- It was pragmatic that more than 92.2 per cent of respondents responded positively, i.e. agreed or strongly agreed.
- 2- This detail for the dimensions is given here. For “Technology identification” it was 21.1 (statement 5) to 72.2 (statement 3);
- 3- For “Technology Use” 57.7 (statement 14) to 92.2 (statement 11).

Conclusion

- 1- The technology identification is satisfactory in given colleges. Technology resources are available in all public graduate colleges.
- 2- The technology uses is satisfactory in given colleges. The technology resources are available in all public graduate colleges.

Recommendation

- 1- Technology resources are must provide in all public colleges.
- 2- There should be proper guidance
- 3- It is suggested that, improving the uses of Communication Technology for the obtaining 100% results.

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Appendix

Use of Communication Technology for learning among Graduate level Students in the City of Lahore

Students of Rating

Please spare some of your precious time for filling in the rating scale. I assure you that the information provided by you would be kept confidential and used only for research purposes. Please mark the most appropriate option against each statement which stays close to your tick response.

Demographic Information

Graduate Colleagues: Level of Study: B.S

Semester:

City: Lahore

Age:

Gender:

Scale: Likert Scale

SA: Strongly Agree (5) **A:** Agree (4) **N:** Neutral (3) **DA:** Disagree (2) **SDA:** Strongly Disagree (1)

Note: Tick (✓) mark the options which are the most relevant to the statement

S. No	Statements	SA	A	N	DA	SDA
Technology Identification						
Q1.	Communication gadgets are made available for the students in general like; (chat rooms, and discussions)					
Q2.	Wi-Fi technology is provided at your institution.					
Q3.	Computers have been made available for the students in computer Labs in your institutions.					
Q4.	You may enjoy an internet facility at your institution for the exchange of information.					
Q5.	Use of WhatsApp is permitted at your institution during working hours.					
Q6.	Facebook facilitation is therefore immediate and need-based information sharing.					
Q7.	Communication gadgets are made available for students in general like; (Skype, Google talk etc).					
Q8.	Laptops and tablets are permitted to be used in the class/ institutional premises.					
Q9.	Communication gadgets are made available for students in general like; (forums, e-mails, and instant messaging)					
Technology Use						
Q10.	Technology helps collaborative individual work.					
Q11.	Technology helps the collaborative group work					
Q12.	Students find and use e-books for learning.					
Q13.	Students make and use presentations for knowledge sharing.					
Q14.	Students do net serving for locating content for their personal use.					
Q15.	Immediate resource utilization fulfils the natural usage of students.					

List of Public Graduate Colleges City Lahore

- Govt. Degree College, Shalimar
- Govt. Islamia Degree College, Allama Iqbal Town, Lahore.

- Govt. Degree College, Shahdara Govt. Degree College of Commerce, Sabzazar
- Govt. Degree College, Model Town
- Govt. Degree College, Raiwind

- Govt. Islamia Degree College For Women, Lahore Cantt
- Govt. Degree College For Women, KotKhawajaSaeed
- Govt. Degree College For Women, Mustafabad
- Govt. Degree College For Women, Shahdara
- Govt. Jinnah Degree College For Women, Mozang
- Govt. Model Degree College For Women, Model Town
- APWA Govt. Degree College For Women, Lahore
- Govt. Degree College For Women, Raiwind
- Govt. Degree College For Women, Band Road
- Govt. Degree College For Women, Wapda Town
- Govt. Degree College For Women, Bilal Gunj
- Govt. Degree College For Women, Gowalmandi
- Govt. Kulliyat-ul-Banat Degree College For Women, Lahore
- Govt. Degree College For Women, KotLakhpat
- Govt. Degree College For Women, Gulshan Ravi.
- Govt. Degree College For Women, KahnaNau.
- Govt. Degree College For Women, Baghbanpura
- Govt. Degree College For Women, Marghazar
- Govt. Ayesha Degree College For Women, Timber Market
- Govt. Degree College For Women, Shalimar
- Govt. Degree College For Women, Shadbagh