

EXPLORATION OF E-COMMUNICATION SKILLS OF THE STUDENTS AT UNIVERSITY LEVEL

By

Rubab Parvi



**NATIONAL UNIVERSITY OF MODERN LANGUAGES,
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By

Rubab Parvi

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Submitted By: Rubab Parvi

Registration #: 1562-M. Phil/Edu/S18

MASTER of PHILOSOPHY

Degree Name in Full

EDUCATION

Name of Discipline

Dr. Hukam Dad Malik

Name of Research Supervisor

Signature of Research Supervisor

Ms. Uzma Mazhar

Name of Research Co-Supervisor

Signature of Research Co-Supervisor

Dr. Wajeeha Aurangzeb

Head of Department

Signature of Head of Department

Prof. Dr. Mustafeez Ahmad Alvi

Name of Dean (FSS)

Signature of Dean (FSS)

Prof. Dr. Muhammad Safeer Awan

Name of Pro-Rector Academics

Signature of Pro-Rector Academics

Date

AUTHOR’S DECLARATION

I, Rubab Parvi

Daughter of Shabbir H. Parvi

Registration # 1562-MPhil/Edu/S18

Discipline Education

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Rubab Parvi

Name of Candidate

Dated: February, 2021

ABSTRACT

Title: Exploration of E-Communication Skills of the Students at University Level

The study was designed to explore students' E-communication skills at university level. The major objectives of the study were to explore the E-communication skills of the student at the university level, to investigate the frequency of E-communication applications, and to examine the challenges the students face while using E-communication. It was a descriptive study. An Explanatory Sequential mixed-method research design was used. The population of the research consisted of 3372 students studying in the faculty of social sciences in public sector universities of Islamabad. Simple Random Sampling Technique was used. 345 students were selected as a sample. Two research instruments were developed for the collection of data for this study. One was the questionnaire and the second was the checklist. Validity and Reliability were ensured for the questionnaire. Data was collected through the online google form method. Data were analyzed through mean, frequency, percentage, and Thematic Analysis. It was concluded that most of the students from the university were skilled in the skill of coordination while they scored least in Efficiency and Satisfaction. Results showed that students frequently used E-mail, Whatsapp, Zoom, and Instant Messaging for academic purposes, in addition, the challenges students highlighted were, internet and electricity issues, hacking issues, language barriers, lack of technological skills, lack of concentration, data safety issues. It is recommended that universities may include E-communication skills in their content for improving their academic performance.

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LIST OF ABBREVIATIONS

Abbreviation	Terms
E-communication	Electronic Communication
ECS	Electronic Communication Skills
APP	Applications
AM	Academic Materials
CMCC	Computer-Mediated Communication Competence
ECA	Electronic Communication Application
SKL	Skills
COO	Coordination
ATT	Attentiveness
COM	Composure
EFF	Effectiveness
SAT	Satisfaction
EFE	Efficiency

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DEDICATION

I dedicate this thesis to my beloved parents, who facilitated me a lot to make this endeavor successful.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

E-communication is an advantageous tool in the 21st century for learning efficiently in any field. In this globalized world internet and computer-mediated communication devices are the easiest source for gaining knowledge and learning different skills. This is a great source of information sharing. E-communication is the act of transferring information in a useful way to the audience. In education or especially in the teaching field we use different methods for the teaching-learning process to make our lecture more effective for the listeners. However, it takes time to transmit any information to the folks in a meaningful way for their understanding and learning. The advancement of technology has a great impact on our lives and electronic components make things easier for us to transfer messages, lectures, information, or knowledge and many kinds of stuff in many ways: Whatsapp, Facebook, Twitter, Emails', Smartphones, Websites, Social Networking, Video/YouTube, Audio-Podcasting, Online Meetings, Skype, Text Messaging, Chats, it is a means of communication in an Electronics World (Greenhow, 2013). E-communication is a very suitable and active instrument for use in the teaching-learning process and purposes also it depends on using it correctly. Wrong use of information technology can lead to problems at this stage as well as websites can also create a bad impact on students' behavior.

In the old era, there is no concept of modern technologies, electronic communication so students desirably, eagerly want to get an education and they listen to their speakers actively but now a day's technology is rapidly advancing so every individual knows how to use it. If the person who does not know how to use gadgets they get some

training that how they can use computers for effective learning and they also practice those things in their daily life because it is the need of the modern era. (Babcock, 2018). Electronic communication is the best source of learning these tools are effective at any stage. Peers, teacher students, can communicate with each other and articulate information and messages relevant to the course work (Zahn, 2005). It is also called a social networking site. Electronic media or the world is providing a platform for students to empower their self and by using different resources they can learn well, in a different self-motivated way. Every system needs to find out skilled-full students for different levels and departments, and also provide them better opportunities, so they can train and polish themselves for a better future in an effective way (Kurz, 2005). Recognition of the importance of technology is nowadays disseminated all over the world because of its effective use. Pakistan public and private sectors, both are using e-communication devices in the teaching-learning process. The modern era and its technologies are more complex and complicated according to its period so every individual or person should know about the use of these technologies to lead in society as an individual or a group.

E-communication is a mandatory tool in the 21st century at institutions for interacting with students for their academic learning. The use of E-communication is part of the theoretical framework of the desired objectives and it does create an impact on the practical work of the students through (learning by doing) for long-lasting learning. Onyia (2013) the use of E-communication is to increase the worth of instruction and its educational learning process, and for students, it is the best initiative for learning and their professional development or mental development of the students it also enhances the confidence level of the students. Many of the students are visual learners so they can find peace and comfort when teachers use E-communication devices in lectures or classrooms or outside the classroom because this technique can help students to visualize and

understand the concepts easily by watching and listening. But the lack of the teacher's interest can create the least importance in this training and innovations because they do not show the potential of learning new things they just stuck to their classical teaching methods which are lecture and board writing they feel comfortable using a blackboard for transferring knowledge (Amin, 2013). E-communication skills and these devices and applications, are very important in today's world to provide organizations and institutions a helping working environment, better learning facilities, and productivity for the enhancement of their and students' learning skills, creative and critical thinking skills, and cognitive development skills. Because in the 21st-century students are dependent on these applications and technologies they need these skills and applications 24/7 for their academic purposes. (Kock, 2005).

Kartikowati (2018) recent changes in technology and development create a positive impact in our lives as well as in our education systems. This rapid change in recent years has created a lot of progressive influence in a human's life and across the globe universities and students can do study and research at any field or discipline, and also at homes, they can do online jobs. And this technology has replaced the traditional methods of teaching chalkboards, textbooks, hardcopy; the whiteboard concept has switched these methods of teaching. Ghavifekr (2015) according to him these technologies have a strong and durable impact on students' life because collaborative and interactive learning has occurred in many projects at universities, and task-oriented studies also. Mattison (2012) Electronic communication is the best source of information transferring into audiences because it changes our lifestyle, it has created advanced technology systems for humans, it is an easy and quick process of learning, our brain cells are more active than before, globally we are interconnected. According to Karimi (2012) informative research on electronic communication, it is stated that it is an easy and convenient process of learning in any field

it is helpful for medical students, business students, simple education students, art students, engineering education and so on everyone is dependent on these technologies. Students' academic performance is quite improving. Main and the most common point of these researches is that the positive impact and proper use of the internet are depending on students' academic and non-academic performances. Internet and e-communication are the inexpensive, remotest, quickest, stress-free, and modern ways of learning are also helpful for interacting with students to peers and students' teachers (Graf, 2009).

It has the potential to create something new and replace the old methods they all have been done great research on this topic. E-communication devices have strengthened the teaching-learning process it motivates both teachers and students, engage them in their learning process by creating different ways of understanding things. These devices and technology help them to enrich their learning skills and learning abilities. (Olson, 2011). According to Nikmah (2015), the application name "Moodle" is basically as Google classroom you can learn wherever you are, whatever you want, and anything you want to write and post, it has many features, and easily you can get access even if you are offline. You can quickly connect with your course participants easily.

This study shows that E-communication skills and applications cannot only help students within the classrooms but outside the classrooms, it is also useful for the learners and teachers. These skills and applications can create the potential among students to do some new experiments in any academic field, with the help of E-communication resources. It becomes more comfortable and a quick learning experience and process (Bhalalusesa, 2013). Riordan (2011) E-communication devices are not a teacher-centered learning approach it is also useful for the learners to get motivation, and improve their learning skills by the classroom's settings and environment for effective learning. These techniques have

the best opportunities for the teachers so they can assist all their teaching methods especially visual aids methods and assist students' performance by involving them in an activity to polish their creativity and critical, intellectual skills. Students' competency builds through the previous knowledge and experiences that they can apply or accommodate with the new classroom styles and teaching methods. Learning by doing is the most revolutionary process of learning.

The key difference between a challenge and a problem is that while a challenge is a demanding task that individual wishes to overcome, a problem is something difficult to deal with or understand that hinders the progress of the individual. A challenge can be defined as a demanding task or situation. To overcome a challenging situation, the individual needs to put in a lot of effort. Although this can be very tiring, in the end, the individual feels a sense of accomplishment as he was able to overcome the difficulties. A problem is something difficult to deal with or understand. We all face problems in various situations. It can be at home, at our workplace, or even on our way home. In this study, we have explored students' E-communication skills challenges while using these applications, their implementation, and performances, and investigated the challenges to overcome students' challenges regarding their academic performances and E-communication skills.

1.3 The rationale of the Study

The researcher is interested in knowing more about students' E-communication skills at the university level its skills, applications, and challenges in academic fields.

Rakoczi (2010) introduces a soft skill framework that helps university-specific needs to be addressed throughout student training. When compared to traditional face-to-face education, not only the quality of education but also the efficiency of learning has reduced. As a result, videoconferencing was used as a significant instrument in our research, encouraging students to gain immediate experience with online supervision and

communication skills. Because of the comprehensive aspect of videoconferencing, responsibility and role changes became more visible, helping in the learning of desirable online-learning skills.

Moisil (2006) The researchers aim to bring an appropriate communication approach to the use of the internet and its impact on universities. In this experiment, the researchers discovered three aspects: the purpose of using the internet, is the amount of time you spend in front of the computer, and the number of internet users in your life? medical e-learning applications, electronic patient records (EPRs), development of internet connectivity for medical staff, and patients, prevention and treatment through the use of the internet, appropriate recommendations for all people. Researchers have suggested that moms experiment with what it means to be a mother and use internet sites to share their thoughts and explore ideas (Madge & O'Connor 2005). Harrison et al., (2002). Mothers can enjoy a range of normal for newborns and compare their children to those standards if they have access to multiple topics from different mothers about their child-raising experiences (Drentea & Moren-Cross, 2005). The ability of emotional contact from others to determine mother responsiveness to their babies and the relationship between parenting practices and availability of services from individuals other than spouses.

According to Adeyeye et al., (2013) multiple factors influence the effectiveness or failure of mobile learning-based applications. These characteristics are affected by application usability, infrastructure, network connectivity, study curriculum capabilities, student experiences, and classroom technology.

However, the research was done by Samsung in (2013) Romanian internet people spend an average of 3,6 hours per day online, usually checking their email, engaging in various media, and communicating through conversation. Young people are still at the forefront of

technological development use (with the highest percentage). When it comes to online communication in Romania, research shows that 82 percent of respondents use email, 68 percent use social media, 64 percent use chat, 64 percent perform research or get educated for school or work, and 61 percent read online newspapers for general, everyday information. All of the results of this study that the percentage of individuals who use apps to complete work-related tasks is not even highlighted, either because the amount is too low or because it is not representative of our country. Therefore, the requirement for work-related skill training is greatest among young individuals, who have the majority of the basic knowledge and are part of the digital native people generation, but the percentage of requirements increases over time and age. In all researches, it is concluded that E-communication is used for various purposes and methods e.g., the first paper describes that a soft skill concept enables consideration of university-specific requirements within the training of medical students. Communication tools, E-moderate skills, education, ethics, and E-communication in medicine. The second study was about the attempts to introduce an ethical approach of communication aspects concerning the use of the Internet and its influence on the university of Transilvania of Brasov Medical students they got E-health benefits from the E-communication factor.

The third study concluded that it was a content analysis of E-communication Among mothers of infants' toddlers in a community-based cohort. The fourth study was about a Romanian company that with age how many students use generally E-communication applications for their work. The study was approximately on the E-communication skills of the students that were explored through different E-communication skills by survey method. In this study, the researcher examined the gap of six skills of E-communication skills of the university students, and also investigated the frequency of the use of those applications while using E-communication by students for their academic purposes, at last,

the researcher examined the challenges of the university students they faced during the semester or fieldwork of study. The basic purpose of this study is, to explore the e-communication skills of the students at university level. This study is to explore the e-communication skills, the frequency of students' use of E-communication Applications. This study focused on exploring skilled students for the productivity of an organization. The main purpose of the study is to explore the e-communication skills in the form of online meetings, conferences, seminars, web-based classroom presentations, email, facebook, whatsapp, zoom meeting, mobile phones, youtube, and wikis-related e-communication devices.

1.3 Statement of the Problem

The purpose of the study was to explore the E-communication skills of the students at university level, it aimed to explore the E-communication skills included coordination, attentiveness, composure, expressiveness, satisfaction, and efficiency. The research was intended to explore the E-communication skills of the students of public sector universities of Islamabad. The researcher explained the E-communication skills students use most frequently for their academic purposes, and which E-communication applications students do not use for their educational tasks. It is inevitable that without using E-communication students may not perform well in their educational field, so they need these skills and E-communication applications for learning purposes. Furthermore, it explored that at the university level students are facing difficulties in using described skills. This study was intended to explore the difficulties which students have faced while using E-communication for academic purposes involving e-mail, Youtube, facebook, instant messaging, zoom, whatsapp, google classroom, and wikis.

1.4 Objectives of the Study

1. To explore the E-communication skills of the students at university level
2. To investigate the frequency of use of E-communication applications
3. To examine the challenges of the students while using E-communication skills

1.5 Research Questions

- 1 What problems/difficulties of E-communication skills do students face at the university level?
- 2 Which E-communication applications did students use for academic purposes?

1.6 Conceptual Framework

This Theoretical framework is based on the model of computer-mediated communication competence in this study some factors are related to the individual, communication media factor, context factor, and message factor. In this model Spitzberg (2006) illustrates that the interactions of these components and factors create an impact of computer-mediated communication competence on individuals through different factors, (Knowledge, motivation and skills) and most of the previous researchers were related to the ICT tools and learning styles, E-learning, an experiment with online discussions, loneliness and internet use, computers in human behavior, the human-internet interaction, activation and expression of the “true self” on the internet, social interactions across media, the structure of computer anxiety, collaborative learning, and computer-supported groups, parameters of internet use, abuse, and addiction, a cross-cultural comparison of gender differences in computer attitudes and anxieties, (Spitzberg, 1994, 2000, Spitzberg & Brunner, 1991; Spitzberg & Cupach, 1984, 2002) although other models have demonstrated the relevance of similar constructs but my study, was conducted to explore the E-communication skills of the students at university level through the six main skills of the (skill factor) from the model of computer-mediated communication competence.

Model of Computer-Mediated Communication Competence Model

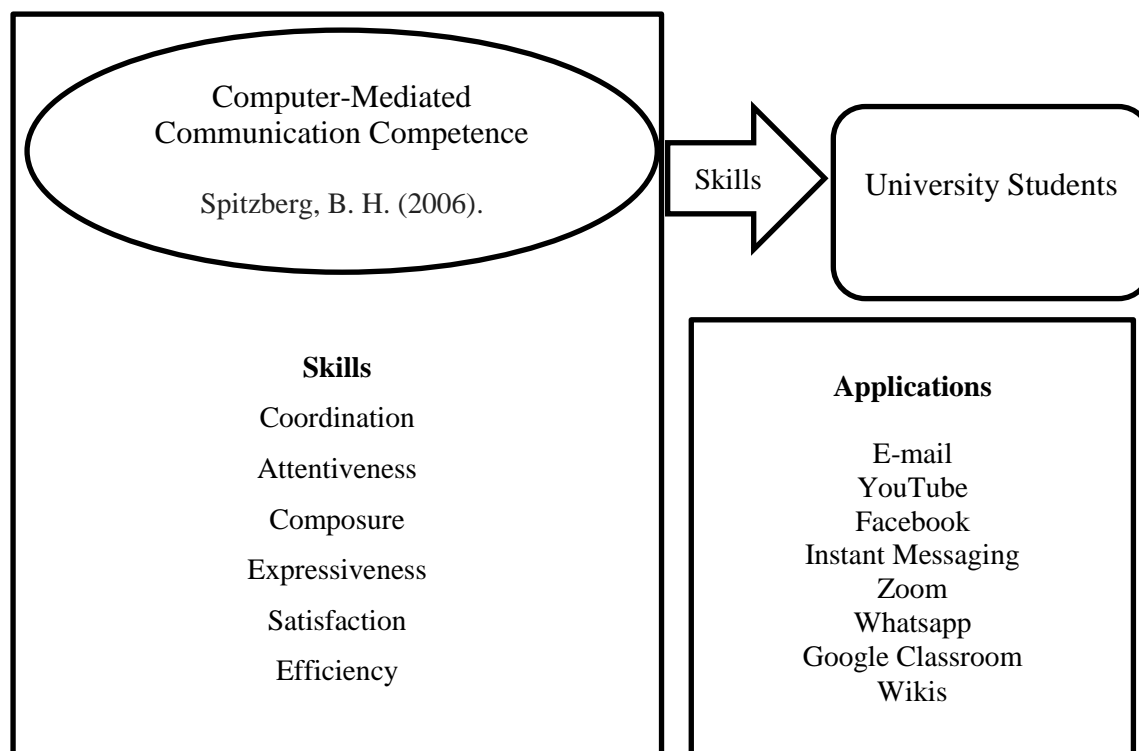


Figure 1. Spitzberg (2006) Computer-Mediated Communication

Model of Computer-mediated Communication

This model has a strong foundation in a well-established theory of interpersonal communication competence that is extended with media and message factors for a theoretical analysis of electronic technologies related devices. According to the competence model, the main and important point of this model related to the individual is connected with the competency of an individual e.g. knowledge, skill, efficiency, and motivation through different factors. Goal-directed behavior is always linked with motivation and enthusiasm through that the individual is more active and also more responsive about the desired goals and the process of communication that leads towards the life goals or other-oriented destinations. To know how the knowledge or awareness of the computer-related technologies and telecommunication technologies, but for experience with different people

with diverse kind of backgrounds we interact with them through different ways and for many purposes e.g. gender, status, culture, and educational background it is also a dissimilar unwritten rule of conduct when using specific computer-mediated communication devices. This skills behavior is repeatable it is attributed with objective focused, planned, and purposeful. The diverse type of knowledge that facilitates learners (truthful, premeditated/strategic, scripted, predictable, implied.) with the help of computer-mediated communication is the step to success for the achievement of goals. It is the achievement of goals or objectives which are set by the competence criteria of computer-mediated communication.

Skills that are associated with competence in computer-mediated communication are expressiveness, composure, coordination, attractiveness Bunz & Campbell (2004).

Skill of Coordination

The skill of coordination is related to the management of some interaction-relevant components like timing and initiation/closure of conversations, topic choice/change, and perhaps even to the means for conversation repair (Bunz, 2004). It is the skill or ability of an individual in which he/she will do various activities properly and efficiently.

Skill of Attentiveness

The skill of attentiveness is rather difficult to enact in computer-mediated communication and is manifested by showing interest/concern for the other person, attention to his/her message, and personal touch by adapting one's interaction to the other person, and displaying more affection for him/her (Pratt, 1999). Means eye contact, listening, to what the teacher has to say, following the conversation, and responding appropriately.

Skill of Composure

The skill of composure means being comfortable, confident and in control when using specific computer-mediated communication technology, as well as assertive/persuasive in messages that are directed toward others in the interaction (Herring and Martinson, 2004). It is self-control in action.

Skill of Expressiveness

The skill of expressiveness is an attribute of the message that makes it appear verbally and nonverbally vivid, alive, and animated, as well as emotionally colored and with more apparent telepresence of the sender. Different components that are related to the computer-mediated communication model of competence (that interact with the individual factors) media, message and context factors. The framework and context features that are connected to computer-mediated communication are values, cultures, association, situation, environment, function, and purpose. Interaction occurs in a milieu of intersected semantic modalities/spaces produced by previous history, actual state, and potential actions/changes in the co-actors and their surroundings. The content, meaning, and outline of computer-mediated communication are prejudiced by culture-related characteristics and features (ethnicity, faith, gender, etc.), chromatic aspects (i.e. timeliness of response), relationship quality (intensity, type, reciprocity), environment features (concrete settings for interaction), and function of the interaction process (e.g. purpose and pressures, like conflict versus cooperation). Adaptableness, productivity, mutually or reciprocally these are the public media factors. Individual competence in computer-mediated communication can be assessed by the outcomes of interaction.

Skill of Satisfaction

The skill of satisfaction is the positive response (usually affective) of an individual to the realization of certain communication-related needs, aspirations, and objectives by computer-mediated communication (Spitzberg & Hecht, 1984).

Skill of Efficiency

The skill of efficiency means that the realization of communication goals can be assessed from the perspective of the economy, e.g. as a consequence of a more or less optimized/rational investment of resources. Relational development is associated with diverse attributes of a relationship that may be attained or preserved through electronic media devices. It relates to the use of all inputs in producing any given output, including personal time and energy. The skill of experience is a great skill or knowledge in a particular field or hobby.

1.7 Significance of the Study

This study is beneficial for the students, teachers, stakeholders, organizations, and information technology users. The study is focused on the exploration of the e-communication skills of the students at university level and also its frequency of students' use of E-communication applications. Students get awareness regarding the exploration of e-communication skills and their use for academic purposes. Students get knowledge regarding challenges they face in educational institutions.

The study is helpful for students because they were got to know the knowledge and information about e-communication skills and abilities. This study is given students a different perspective and vision about their skills and also their critical thinking enhanced after exploration of the skills. The main goal of the study is to explore the skills and develop

these skills by implementing them in their course, and educational practices. This study needs more training and guidance to achieve the aims and desires that organizations were provided to explore the skills of students.

This study is utilizing the platform for teachers to identify students' competencies that teachers can easily explore through different electronic communication devices. This study is helpful for teachers also to get different training and classes for how to use modern technology devices. This study encourages teachers to broaden their minds by learning through different technological communication devices. This study is beneficial for teachers to play as a role model for the institution because they are the main skill builder of an individual they are transferring the knowledge and information of the sphere to the realm for the better global purposeful world so they may be knowing the exploration of the e-communication skills of the students and its purposes.

This study is helpful for the group of stakeholders because it is their responsibility to facilitate the institutions and organizations with e-communication devices facilities and related resources. After all, the purpose was filled after the practice of that devices at the institutional process.

This study is beneficial for the organizations because when the skills of the students were explored so the major benefits organizations were taken. After all, students were communicating properly in the educational process. The study is helpful in the organizational system and procedures that are different from the other organizations. This study was purposeful for organizations because they need a skilled, trained, and knowledgeable individual to implement that skill in any field for the better labor force of the organization because there is less productivity in public sectors.

This study is advantageous for the technology users because that has been provided the best technical support for students to protect their personal information and knowledge research work. This study is helpful for the technology information users so they were provided the best technology facilities to students and also its training and services to promote a learning environment to explore skills.

1.8 Operational Definitions

1.8.1 E-communication

Transferring of knowledge and information, and also interaction with others through all computer-mediated devices and technologies. It was purely a wide concept of communication through electronic means e.g. mail, fax, mobile, social networking sites, youtube, facebook, websites, audio, podcasting, online meetings, webinars, text messaging, skype, wikis, telephony, whatsapp, etc. it is less time consuming and easy fast method of communication. The process of communication between peers, teacher students all the information and knowledge transferring process are called e-communication.

1.8.2 E-communication Skills

Communication and interaction through media and all the technological devices, and how people get used to it by practicing and using them in their daily life.

As well as in the learning field which type of skills and qualities students have by experiencing those devices and applications very well in their life are called skills.

1.8.3 Computer-mediated communication

Face-to-face interaction and electronic media interaction between people to transfer informational documents, messages, images, voice audio, and video texts. The interaction

between two persons through different electronic devices and applications.

1.8.4 Skill

Skill refers to an individual's ability to do a task with maximum effort. To use electronic gadgets to do work related to the academic field. The hidden ability and talent of an individual through which they performed various difficult tasks according to their capacity.

1.8.5 Electronic Learning

E-learning is a learning style based on technological skills such as the use of computer applications (MS Office, PowerPoint, Excel) and internet search engines (Google, Bing, Firefox, Explorer). It is an electronic learning method for the students and teachers to communicate effectively.

1.8.6 Coordination

It is the skill or activity in which the person can participate mentally or physically as a team member or individual. Coordination means two people interact for the same tasks at the same time to achieve the same desired results.

1.8.7 Attentiveness

It is the skill in which you can involve your sense of language skills, and respond to others with concentration. The focus should be more on precise and clear messages. Focused attentive students clearly understand and comprehend the message easily.

1.8.8 Composure

It is a state of being in control of your opinions, thoughts, behavior, feelings, and most importantly your mind. Confidently you can share your opinions. This ability has so

many pros and cons because in a different situation you have to stay calm.

1.8.9 Expressiveness

It is the skill in which you can transfer information and also entertain the audience with your effective language and gestures. Expressiveness is the best ability or skill for effective interaction inside the classroom or outside the classroom.

1.8.10 Satisfaction

It is a skill in which communication and interaction should be genuine. Satisfaction is a level of satisfied person or mind to share information with others through these technologies.

1.8.11 Efficiency

It is a skill in which you can quickly and easily transfer your messages to others. It is to achieve a desired goal or objective through so much hard work and active productivity.

1.8.12 Challenges

Something that gives a strong effort of skill, passion, and commitment to work with or achieve, specifically if it was something you've rarely attempted before.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Professors and teachers in higher education institutions can improve their skills and knowledge by connecting to existing electronic systems through the institute's existing information technology center and staying up to date on innovations through the center and other educational sites, the implementation of e-learning tools in the classroom is today's requirement. The objective of today is to develop e-learning tools and theoretical and methodological features of their integration into the educational process, to train young people to work independently, to think freely, and to achieve their integration with education. (Dyachenko, 2007). The question of educational quality in each higher education institution, the enrichment of education with the latest innovations, technical means, and technologies, and the integration of education with modern production is becoming increasingly vital in an era of rapid information updating. As a result, technology now sets high criteria for the quality of training in higher education institutions, requiring students to have enough information in their areas of professional activity and be able to use it in a comprehensive perspective. These needs, in turn, involve the improvement of our country's developments in the world economic system, as well as the implementation of e-learning tools into the educational process of future engineers planning to enter the worldwide workforce. (Iskandarovich, 2021). Nowadays, advanced modern pedagogical approaches are becoming difficult to imagine without modern e-learning tools. In this regard, educational institutions' resources, personnel, and information bases are being enhanced, and new teaching materials and laboratory equipment are being given to the educational process. Students in higher education institutions can use the e-learning technologies and its skills listed below in the classroom and online e.g., electronic

textbooks, electronic library, electronic tests and assignments, electronic mythological manual, multimedia, the training of theoretical and practical skills of students in the system of higher education using e-learning tools is one of the theoretical foundations of the discipline. (Pulatova, 2015).

2.1 E-mail

E-mail is quite a few source that benefit users to communicate with each other. The primary reason behind this equipment is to prove that the devices are for the users to use properly for their work. (Mishna et al., 2012). Users said that when they have used Computer-mediated communication devices e.g. E-mail they get more reactive and receptive interactions with the people except for face-to-face means of ways to communicate (Finn, 2006). To work comfortably and to communicate easily with each other this method of accessibility allows them to stay workable. (Bradley & Hendricks, 2009). Email communication supports the elimination of paper usage, which is a well-known environmentally sustainable strategy. Furthermore, email communication saves time and allows the sender to communicate to a large group of people in only one tap. The true benefit of email communication is primarily related to its strategies to solve practical issues that are limited in face-to-face communication (Ratchukool, 2001). In modern-day technology, there are choices for communication skills, such as SMS or the use of smartphones. Even though using smartphones or SMS may improve our efficiency and adaptability if we are away from the workplace, emails are considered to be the most useful method of communicating information with detailed information (Derks and Bakker, 2010; Lim et al., 2012). Southeast Asia Consumer Insights conducted an online behavioral survey covering 3,600 Southeast Asian consumers, including Malaysians (Kennette, 2019), Consumers in Southeast Asia use email at home when out and about, and according to a

study, they are open to receiving emails from e-commerce websites. Malaysia (87%) used to have a lower percentage of current users accessing emails at least once a day than Singapore (90%) and the Philippines (90%). (Kennette, 2019). When the number of official emails received by non-academic professionals at both universities was examined, it was discovered that private universities had a higher number of official emails, with private universities ranking 234.41 and public universities ranking 173.44. When examining the number of official emails received by non-academic personnel at both universities, it was discovered that private universities received more of them, with private universities ranking 235.79 and public universities ranking 172.26 (Mahomed, 2015).

2.2 YouTube

In consideration of the previous, one of the most challenging tasks for teachers is teaching English. Students who can communicate both orally and in writing are more likely to be successful in learning English. However, one of the most common issues that teachers experience is the development of media that really can motivate students to be more active in studying and practicing language skills in everyday life. Theoretically, expected benefits can help with communicative theory application (Rahman, 2017). According to Munadi (2012), anything that can transfer and channel messages from a specified source to create a supportive learning environment and carry out the learning process efficiently and effectively is regarded media. Learning is a process of communication involving students, educators, and educational resources. Without the support of means of delivering messages or media, communication will not perform. There will be no engaging learning process if a teacher does not utilize any resources. Media can be used at any moment and in any place. For example, knowledge sharing from teacher to student can be improved using photos, video, and text. The outcomes or objectives of the teaching and learning process can be

used to determine student achievement. (Munadi, 2012). Burke et al., (2009). Furthermore, YouTube has hundreds of thousands of videos on a wide variety of topics that can be used in the classroom. YouTube will also be a free video library for students, motivating them to become self-directed learners. The development of YouTube as a medium for learners and easy to do for a teacher to learn how to teach effectively and provide opportunities and challenges for teaching students is the most popular video variety site today. From the explanation of media on YouTube, students can use it to better comprehend their Language classes, improve their performance, and broaden their comprehension of the language. YouTube has several benefits as a learning media, including YouTube is the most highly regarded site on the internet today that is skilled of attractive education/education; YouTube media is quick and easy to use and can be followed by all groups, including students and teachers; Supporting activities information about the implementation of the basic curriculum.

2.3 Facebook

This new medium has significantly influenced the modern field, offering social media marketing a significant challenge for both the private and public sectors. Networking sites are digital frameworks that allow users to communicate their opinions, interests, and points of view while also connecting with others who have those same interests. As a result, users can be thought of as social communication devices, as they communicate with others who have also shared their personal information. These interactions can be extremely complicated, and the digital platforms that support them might be characterized as "multi-sided social media channels" (Yablonski, 2016). Mark Zuckerberg, Dustin Moskovitz, and Chris Hughes launched Facebook in February (2004) as a site for Harvard students only. It began expanding to include all the college students with a.edu e-mail account. Between the

fall of (2005) and the fall of (2006), Facebook extended to high school networks first, then to work networks, and ultimately to all Internet users. Facebook, like most social networking sites, provides a post web page where users can enter personal information such as gender, birthday, hometown, political and religious ideologies, e-mail and physical addresses, relationship status, activities, interests, new favorite music and movies, educational background, and a main personal photo. Users are prompted to identify others with whom they have a relationship after completing their profile, either by searching for registered Facebook profiles or by requesting their contacts to join Facebook (usually by e-mail). When someone has been accepted as a "friend," the two users' profiles, as well as their full social networks, are made available to the public. This allows users to access networks by clicking on the profiles of their "friends," allowing one's social network to grow situation across people and institutions (Walther et al., 2008). This feature is the backbone of Facebook or other social media platforms, and it is what brings millions of people from all over the world.

2.4 Instant Messaging

Instant messaging is another electronic communication network that has now reemerged, and it is the one that this research is concerned with. Considering the usage of the word "Instant messaging" become popular in the early (1990's) the idea goes back to the mid in 1960s. The use of mobile phones by the South African population, primarily university students, has increased significantly in recent years (Benjamin, 2011). The significance of mobile of the capabilities of accessible available technology to PDS previously disadvantaged students for enhancing their academic engagement cannot be emphasized, as shown by its adoption. The use of mobile technology such as smartphones and tablets, smartphones, iPads, and Laptops to facilitate teaching and learning is known

as the mobile learning concept (Bere, 2012). It allows the students to learn at any time and from any place. Through the use of effective learning tools, collaborative learning technologies, and different learning approaches, the them-learning environment enhances the process of learning (Karimi, 2016). This technology encourages a collaborative learning process through interaction compared to traditional learning methods that consider a student as a simple user of knowledge (Bere&Rambe, 2016; Mtega et al., 2012). As a response to these factors, m - learning becomes more and more prominent. According to Murire&Cilliers, (2017) students in higher education are the most active smartphone users. Students frequently use instant messaging applications on their phones to communicate (Murire&Cilliers, 2017). The spread of mobile phones and instant messaging apps among university students has opened up many opportunities for mobile learning (Bere, 2012; Rambe and Bere, 2013).

2.5 Zoom

Bawanti (2021) explained zoom that is a tool that is based on video sharing or screen-sharing conferences that are in use of more than 100 users. This application is equal to mobile devices, personal computers, room systems, and telephones. Minhas and Hussain (2021) further elaborate that for a simulated one-on-one meeting experience the conference call applications, e.g., Skype, Whatsapp are Zoom, are known as the preferred and renowned apps. As for protection, there is insufficient training when in hurry to get online classes. With the help of the Zoom app, it becomes convenient to make video conferencing, as it preferred one-on-one calls. Meanwhile, using video tools in Pakistan, professors and teachers who have no awareness of using online apps, specifically, video, face obstacles, like, inconsistency of computer, slow transmission capacity, and lack of experience in digital settings. To have a significant impact, the preference of learning media must be

considered carefully. Educators must be familiar with the concepts and factors that could influence the learning process when using these media. Video conferencing is one of the technology-based learning media that can be used. Zoom is one application that allows for virtual face-to-face connection using video conferencing on a laptop or smartphone. Eric Yuan produced this application in 2011. This application allows users to conduct video conferences, web conferences, and webinars for free with a capacity of 100 people and a time limitation of 40 minutes, or for a subscription with no time limit. This was supported by previous research (Ismawati & Prasetyo, 2020) which indicated that video conferencing learning was very successful, interactive, and promoted distance learning by making it easier for students to absorb the material because it was delivered in real-time. Zoom Meeting, like many other applications, has some disadvantages, such as a 40-minute video meeting limit in the free version, the fact that you pay for Zoom by the host, and the fact that it can get costly for larger teams. Poor and unstable audio and video quality, as well as a lack of security, including semi communication, network weaknesses, and the possibility for hackers.

2.6 Whatsapp as a Platform for Learning

Among messenger apps, Whatsapp is a free one, that enables people to interact with each other in all ways. It operates several programs which are being broadly used by students who are undergraduates, as they can communicate, send, and receive multimedia messages, such as videos, photos, audio including text messages. Rambe (2012). In support of educating students, these applications are appeared to be a clear indication by showing substantial ability and implementing teaching methods by permitting multiple resources that work online. Moreover, their main focus is on creativity on students, independence along with one's educational responsibilities. In favor of video conferencing and audio call apps, the memory of people that people can memorize only 10 % of what they read, 20%

of what they hear, they can remember of 30% which they can see, and 50% of what they can hear and see both. Moreover, the technologies that are the combination of audio, messages, and images together, can be remembered more than 50%. According to educationalists, they have observed that students' behavior and performance are affected by current technologies. Though there is such evidence that proves that the current techniques have a great impact on youngsters regarding social progress, and their impact on adolescents' academic development. Gon and Rawekar (2017) expounded that people are high access to Smartphones, which highlighted the increasing usage of Whatsapp by students mainly. In today's world students, and teachers both are equally being utilized from this app. As it is quite suitable for teachers to create a group for their pupils and use it for educational purposes. From now on Whatsapp has become a most useful app that has an advantage over other technologies due to its low budget, availability, easiness, effectiveness, and natural language. Up till now, there were no such technical tools that are student-friendly (Gon & Rawekar, 2017). As specified by Sayan (2016) it is the Numerical announcement and communication through digital networks between many groups of students, and student teachers develop into popular in the last few decades through several channels like SMS, Whatsapp, Facebook, Email, Twitter all these have its different features and appearances that influence its appropriateness in the learning process and filed of learning (Pielot et al., 2015). Whatsapp is the new occurrence and wonder that influences the interpersonal skills of communication specifically and in general, for the students and teachers of the high school. Whatsapp is a new tool in education that motivates academic assessments and assignments, it's a new platform for the enhancement of approachability, collaboration, teamwork, encourages, and strengthens intrinsic motivation (Karapanos et al., 2016). During the last era, several methods for digital communication between groups of students and between students and teachers have been popular: email, sms, facebook

groups, twitter, and, most recently, whatsapp. Each of these tools has unique characteristics that influence its usefulness for academic purposes. The increasing popularity of mobile from the last year has encouraged an increase in the use of whatsapp as a communication platform for various student groups, and more recently for groups of professionals and their students. Skills and enhancing a group for their students that performs as a lesson "basic networking site" (Fischer, 2013). "whatsapp's confidential, online collaborative learning allowed reluctant, less confident learners to interact more constructively," (Rambe & Bere, 2013) concluded. Moreover, Rambe and Bere (2013) proposed that whatsapp could facilitate the development of the social modernist environments by transferring the lecturer's role from educator to the negotiator and switching students' roles from information receivers to information generators, collaborators, information seekers/givers, and critical thinkers. Whereas Whatsapp could be an effective instrument for flipped classrooms and student participation involving conversations, reviews, and information sharing, Nirgude and Naik (2017) highlighted that it might have some limitations in terms of file size and Internet availability. Susilo (2014) recommended that facebook and whatsapp groups might be used as online tutorial additions because "they possess instructional, social, and technological possibilities, which allow making notifications, sharing ideas and resources, and implementing online discussions" in the same context.

2.7 Google Classroom

According to Saadé (2007), the Google classroom may be transformed to become an instructional guide to help in the change from a teacher-centered and restricted classroom to one that is learner-centered and open to exploration, conversation, and imaginative thinking on the part of learners as actively participating. Google classroom is aimed to be used as an intellectual technique in teaching and learning information gathering and related applications. Training that is not enhanced by the use of computer software is considered

classroom lectures. Using Google classroom also supports critical thinking abilities, problem-solving skills, and “what if...” questions, all of which are more important in this electronic age. Farahat (2012) Students' views with Google classroom are influenced by the comfort with which they can use it, which is determined by technology such as the internet, support from others when they experience problems, and the devices they use. These properties have a significant effect on the ease of use and effectiveness of the classroom environment. In addition, the app's usefulness has an impact on the students' views, which in turn has an impact on their desire to use it. In a conclusion, institutions must upgrade their infrastructure and capabilities to take full advantage of e-learning technologies, especially Google Classroom.

2.8 Wikis

According to Ceylan, (2011) in current years, implementing wikis in learning language has gained some attention as well. Hosseini, (2021) examined the diverse achievement levels among students who were using instruction for blogs and wikis along with videos and photos, in comparison with those who used instructions along with technologies based on traditional text. According to the outcomes, at the production level, there was no prominent difference between students who utilized media blog and wiki techniques and utilization of traditional techniques. Therefore, a noticeable difference was observed at the level of recognition among the groups, from which one has used media blogs and wikis and the other one has used technologies related to tradition. In general, the outcome disclosed that those who were using media blogs and wiki showed great results instead of the other group who has used tradition-based technologies. According to Sun, (2021) investigation through the wiki, authentic writing was produced. As the use of wikis offered a collaborative writing platform for the sake of content production which helps describe various characteristics and services of their institute. The final draft of the students was

found as a brochure that was in printed form and used for their new school, circulated to parents afterward. Considering these results, the position of authentic writing, location along with the creativity domains and learning which is based on tasks in ESL program in a school were being discussed. According to the outcomes, two major impacts of improvement in writing were revealed, the first was about tasks that encouraged students' confidence towards writing, and the second was about using the creative abilities of students.

One more result was noticed about examining writing related to the idea of a novel for students, who were participants of the project. The factors that have a great impact on students' using wiki environment collaboration were explored by Medic, (2021). According to the concept of students regarding collaboration in the wiki, a qualitative discovery was made, which was performed with the students at the university level, who were from the sociology department, they used this situation in blended, learning that is a problem based as a component of their course, entitled as, 'english for specific purposes. With the help of this research the place of wiki used by students, revealed more benefactor, as they become confident and encouraged to learn from one another and interact with their teachers as well. Therefore, the data of the study described that wiki was not much beneficial to facilitate other kinds of collaboration, like, peer's communication, products that are co-created. Following the overall outcomes, it is revealed that wiki is useful in enhancing efficient collaboration to learn a language in a constructive approach. Some of the learners of intermediate level were asked by Tyrou, (2021) to participate in a rigorous online course. They were guided about using a Moodle-based simulated environment of learning, including a variety of online tools that are helpful for them in using diverse kinds of activities regarding learning a language such as collaboration using wikis, and for reflective learning using blogs. According to this research, it was revealed that an online

language course can merge multiple approaches regarding teaching and learning, for example, usage of communicative language and keeping the focus on practicing language and its type. For writing tasks in wikis, the approaches of learners were discovered by Yeh, (2021). Moreover, the collaboration of learners' synchronal connections was inspected while considering content, different features, and structure regarding elaborating writing assignments. With the data analysis, no statistically substantial disparities were revealed following fluency, complexity, and accuracy, meanwhile, in comparison with collaborative and personal responsibilities, the noticeable trends were revealed that have shown the interactions of learners with varying text during individual or mutual tasks. Moreover, by using social tools, the approaches of learners involving collaborative writing are analyzed closely, which revealed that they are being permitted by chats and wikis to focus on components of writing with distinct, but in a supportive way, even they interrelated through wikis and chats. Wiki is holding the perspective of the development of collaborative understanding and language both Ghabeli, (2021). In a study by Leng, (2021) it was explored that wikis might become a source to develop interaction among groups while students were motivated to take part in the construction of text and swapping peer reactions. By the outcomes of the study, it is revealed that in the learning of language perspective, collaboration became interesting. Various involvements of local language and global content were observed on wiki pages of students. With the viewpoint of Giang, (2021) a model named social constructivist is a combination of collaborative learning and teaching of courses based on content by using as a source. The suggestion made by this was, "read-and-write". A distinctive way of learning constructive approaches is offered by the internet, which can assist students in developing skills regarding learner's self-sufficiency and metacognition. Other applications and sites are also important for learning skills and the use of applications. This is the best method and procedure of the mass media electronics

described by socio-technical features: Recognizable and exclusively define the summaries of user-supplied gratification the data that is provided by the system. The profiles and description detailed display that can be negotiated by others to us Characteristics of the users that they have allowed to consume, generate, and produce and for the interaction with user-generated content that is already provided thereon sites to connect (Ellison & Boyd, 2013). For example, Facebook, Ning, and Academia.edu.

Mostly say that those social networking sites are frequently using to primarily to link with those already know and less for outdated, and out-of-date “interacting” commitments. This study shows Windschitl & Sahl (2002) this platform is to promote training that provides a productive and enlightened response in the existence of evolving technologies, instructors must often “re-imagine “and they also explain or describe to the students that the old classical assessment methods and norms of traditional learning environment are great and effective because it includes feedback and supportive learning for students. Web-based social networks it is the best stage and podium for learners to get feedback according to their work and performances it also helps teachers to assist students from different tools, individuals, and resources, to help schools through the establishment of Web-based social networks for teachers. He introduced in his popular SAMR model (Jacobs & Moorefield, 2013) that there are five roles that we acknowledged lined up and correspond with how these are organized into different roles of teaching and learning technologies. Goals, practices, processes, teaching, and learning in SAMR model it is reclaimed that reports the variety of equipment used in education from development and improvement to conversion into four levels (Modification, and Redefinition, Substitution, Augmentation.). According to Baadte (2019), this classroom video tool and instrument is often used and discussed to increase and expand the assimilation of the practice and theories of teaching-learning. Coordination and corporation with pupils from different cultures and schools interact with

each other for the development of multinational and diverse relationships and thoughtfulness, where there are inspirational classical activities too. According to Worldwide Status (2005), in an investigation of evaluating the percentage of internet users, the figure of CMC circulation is quite surprising. From the year (2000 to 2005), the growth of internet users was 160% worldwide, which was normal. Now only in North America, this figure raised to 68%, known as a quarter of worldwide. Under the report of the Pew Internet and American Life Project 50 million Americans log in to the internet daily, send and read Emails, and on the World Wide Web perform a few actions. Al Adwan (2021) stated about the research of U. S, in which it is highlighted that almost half of the youngsters get online every day, around 80% of them have a computer system at their homes, and 1/3 are using cell phones for texting. Lenhart (2005). Whereas Cochrane (1995) indicated diffusion, which is quite lower in other cultures and countries, as the diffusion curve is still steep. Due to the usage of mobile phones, television, and personal computers, the technological differences are disappeared, also due to low prices, it looks quite unavoidable that impacts of revolution regarding communication would be recognized in the future soon. It seems that feeling alone and causes of depression are connected with the use of CMC and the Internet, yet in a complicated manner. LaRose (2001) explored that with the help of research this option is recommended, by which it was found that the usage of Internet and email are not related to depression. Following the findings of other studies, it is revealed that unexpected ways can be changed by recommending that people who feel alone or be afraid of facing people, may use CMC so that to interact with other people and remove the depression. In a study by McKenna (2002), it is analyzed that people who feel alone and have social anxiety, show their real self on Internet, through this the familiarity and relationship development speed can be predicted, along with the chances of using other communication modes to make social contacts.

Though, the suggestion made by other studies is that: after that lonesome people make social contacts through CMC, engage people unlikely to ease their lonesomeness. Conversely (2002) showed that in all age groups, mostly teens were found lonesome and felt nervous to face people, we're interested in talking to other people after school, other than their friends. Lastly, the study of Wolak (2002) which was having a large sample to represent, revealed that teenagers who got involved in internet activities or have close social contacts, found in facing great trouble as they have less interaction with their family and due to that the level of delinquency also raised. It is uncertain if:

- A) The problems are caused by using the Internet.
- B) The youngsters want to balance their problem with the development of social contacts, or
- C) There might be a complicated interaction causing these problems.

With the help of other surveys, it is concluded that the outcome of using technologies like CMC and Internet is for the users who are in majority so that to enlarge and develop relationship network particularly social connections and in various cases the quality of social interaction matters. Kraut (2002) elaborates in a distinct study that the growing rate of using the internet is associated with signs of the size of social networks including the involvement of the family. Furthermore, Purcell (2011) defined that in other surveys it is specified that those who use email to communicate with significant members of the family are of 59%, due to usage of 66% has accepted their growing bonding with close friends, moreover, 60% of people who use email to communicate with friends, stated that they contact them every so often. Additionally, in other surveys held afterward, 48% of internet users stated that their relationships got improved with their friends, meanwhile, 32% of users said by using net devices they can make new connections. A study by Purcell (2011), revealed that young individuals are found the fullest person among their friends and family

circle along with other activities because of paying a lot of time on media. It becomes self-evident that according to an average man, CMC lets people make new contacts or relations and manage them under specific situations. A theory envisages CMS and learners, in particular, media enables the enhancement of making relationships, as it has advantages for people Walther (1996). It is indicated by McKenna (2002) that CMS is the source of creating larger relationships due to its:

- 1 Privacy
- 2 Lacking uncontrolled obstacles, such as physically appealing signs/signals
- 3 Assist to find people who have mutual concerns.

Through the above-mentioned features, self-revelation and true self-representation can be predicted. Tidwell (2002) added more to the statement that communication by using CMC is found to be a larger source of self-revelation with greater strength and range of questions. Whitty (2002) defined, according to one more survey, 1/3 of people have the belief that it is convenient through email to know about honesty and displeasing things, as they are known benefits to be honest with relationships in family and friends. By the statement to Tenney (2006), connections that are made on the Internet tend to let people close to each other and make more relationships quickly, in contrast to personal life. Bargh (2002) added with their viewpoint, people who are connected on the internet feel more attraction towards each other, instead of one-on-one contacts. Dietz-Uhler (2001) revealed by other studies that interactions via CMC have enhanced the level of enjoyment of people's interaction, in contrast to face-to-face communication. A menace was found by Bargh (2002) in CMC communication the relation of liking and procedure of ambiguity raises the chances of revealing personal information, self-evidence, and understanding in comparison to face-to-face communications. In a study by Walther (1997) the outcomes revealed social attraction among two groups, which were less attractive in short-term

identity and have a great social attraction in long-term identity.

Having group identity in long-term partners considers people more attractive whom they know physically instead of people with group identity in short-term partners, although they had not met physically. Longer-term horizons of communication permit CMC to develop an interaction that is societal interpersonal, when connecting a group particularly, instead of personal disparities that are relevant in-group members. On the contrary, the benefits of productive email related to writing letters managed to undermine the incantation of allusions to common interpersonal reasons, such as memories of relationships, even though self-concern of letters did not vary through media Bertacco (2005). Ramirez (2002) defined that the following concepts are essential that are expressed in diverse language every so often and are manifested in recent procedures of CMC models. An uplifting element of efficient performance is motivation. Such elements as, social depression, nervousness, diffidence, lack of interest, and indifference create negative motivation. Opposite to the concepts of negative motivation e.g., self-confidence, ease, participation of communicator, etc., active CMC mindsets, and motivational forces e.g., objectives, understood advantages, motivations, satisfactions, and utilizes, all of them indicate positive motivation. As motivation both influences, negative and positive, there is always a chance of uncertainty, by which the overpowers of a person influence the other one. As the performance of an expert or trained actor may get failed due to fear and a scared actor may be able to overcome his fear with his willpower and abilities. Smith (1999) asserted that mainly knowledge is characterized by cognitive attributes which indicate the concepts of preparation, ambiguity contraction, expertise, proficiency, and additional measures of conception. Having an identified capacity, knowledge is highly classified or can be a general element further (Saith, 2000). Awareness about a person is lesser than any other thing, as a person might have knowledge about hardware and software but is unaware of

composing a message thoughtful with disparity of position among receiver and sender. Perhaps, knowledge begins with concepts such as self-observing, preparation, cognitive difficulty, and familiarity. Skills are known as replicable, goal-focused with social strategies and practices which people use or take benefit to maintain their motivation and understanding. More than 100 distinctive abilities are recognized by Potosky (1998) that are used in interaction competency pieces of literature. Thus, there was an argument from them related to these skills that they might indicate towards a more frugal set of skills, that is clusters and dimensions. If observes at the microscopic level, the interactive skills are divided into four sub-skills which are basic skill clusters, such as attentiveness, e.g., showing worry, taking an interest, and interest in other person or interaction with persons, second is composure, e.g., showing confidence, belief, staying in control, third is coordination, e.g., exhibiting skillful time management, starting closing discussions, managing topic, and fourth is expressiveness, e.g., for verbal and non-verbal expressions, showing vividness and animation. This skill classification is confirmed by a range of studies measurements Goliński (2021). Frey (2021) stated Communication competencies as circumstantial. Thus, some of the studies are held to specify a context theory Li (2021). Context theory has confused theoretical description due to one reason which is its complexity that is demonstrated in a variety of ways in which there are Theoretical contexts. Cupach (2010) illustrated context that depends on characteristics, such as societal, chronological, interpersonal, environmental, and operational. Every aspect has a great impact on communication competence in a complicated manner, and in the formulation of competence theory if any of the following aspects are ignored then the theory would be lacking with important facets. According to Westmyer (1998) models of knowledge, motivation, and skills aroused vast theoretical and practical work. With the help of these models, a broad area of research is organized to work on projects, which probably have no

apparent link, like study on communication anxiety, objectives, preparation, cognitive complication, and connection. Spitzberg (1981) explained in their study that the model is being stretched to specific contexts, e.g., inter-cultural and educational. In recent times, the appropriateness of the CMC context in been examined. According to different researches students of now, day are using e-communication in their study life. E-communication means that students are using different tactics during their studies; they use social media, emails for transforming information, and Google for getting knowledge. In recent years students are taking the best opportunities through e-communication. The prospective of e-communication in teaching and learning habitat has laid hold of the attention in Universities and higher education system. Print media is not so versatile and attractive for a new generation; therefore, the majority of the students have their e-library. They can easily find their main purpose from the internet. The Internet plays an important role in every student's life. From the day first, every child wants to learn through e-communication. Student works in different modes, they learn through online classes for their distance studies, they use animations and pictures for their ease of understanding. E-communication is the easy and best way. (Andersen, 1996).

2.9 Perceptions of Students regarding CMC

In the implementation of CMC, the ideas and attitudes of students have a great impact. Various studies are being conducted to analyze this problem. According to Nguyen (2011), it was studied about the learners of Vietnamese analytical practices and ideas of CMC settings towards collective education. Most of the members feel delighted by attending improved technology lessons mainly. Majority of the students who were equal in number, favored synchronous CMC, asynchronous CMC, and their combination as well. It was reported by the participants that with the help of that course they were able to enhance their skills regarding computers and get mutual understanding. Their further involvement

towards learning was being observed while conducting the course and at the end also. Adding to the previous revelations, students have revealed confidence towards further courses similar to this course, in future and let youngsters aware of technology-based courses. One hundred and thirty-six child welfare workers concluded research to find out their encounter their concern that electronic communication and social media use has had on their experience with youth and adults. Workers who responded to e-mail and text messages avail themselves have made work with adults quiet, so definite trouble has come out for professionals in association to electronic communication and social media use. New things have also appeared comprises problems with persecution and the ethics related to observing a person or' online activities. In contrast with the last research led by Fine stipulates that the application of technology in social work activity has been expressed over time. Suggestions for social work activity and future study are also discussed: Words are key, but good non-verbal communication should not be neglected. We are frequently conveying non-verbal words such as signing, movements, and expressions in our social and professional life to convey a particular message to other people. All types of gestures and touching help to communicate how we care for. There is even verification to propose that non-verbal communication is even more productive than verbal communication in a few circumstances. Not disuse sign language, although, where deaf and or hard of hearing person are conveying in a non-verbal way.

According to Jung (2013) appreciate the new technological field and its impact on our new generations because they are living in the 21st century so they have a lot of facilities, resources so they cannot delimit their knowledge or practical work only inside the classrooms or paperwork they have a new mindset of seeing things according to their understanding critically and intentionally students analyze the things, they only need guidance, an important point of the website users is they can learn things or get information

anywhere at any time when they have access. Electronic communication engages both audience and speakers in an active way it is a two-way process of transferring information in a meaningful way. With this method you can use two methods in a classroom at a time you can give a lecture to the students as well as you can show them a video or any website regarding course so they can listen to you as well as they can see so it is a process of lifelong learning. Many institutions use many sources like World Wide Web sources to create a sense of teamwork and collaboration among the students Hitchcock (2013). It is stated that the E-communication and electronic media standards are getting better day by day over time. Thurlow (2004).

2.10 E-mails, Facebook, and Whatsapp

Like, all the expressions can easily be understood by the people through emails, Facebook, and what Sapp, because the small emoji letters and icons can create a creative impact on learners. They can easily show their feelings and emotions through messages. The text messages are faster and immediacy level of interaction in students. Virtual team members and creativity can improve the interpersonal experience and technology areas, in which leadership, conflict management, determination, skills of E-communication, trust development, and social interaction do a vital role. It will become more successful if anyone can do their best in teaching and learning through these devices. (Gilson, 2015).

2.11 E-communication and Learning

Learning and studying is an important factor in learning that are not present in traditional schools, or classrooms, this type of E-communication and learning allows students to take charge of their learning. Gilson (2015) as well as the above statement, it is evident that explaining the effectiveness of self-directed study and learning skill is a significant chance for students, and it improves material innovation and awareness. There are various E-communication channels are available today, because these platforms have

free versions, it has major privacy built-in, and it has instantly become a favorite of the students and educators they identify as the most effective to its educational roots. Though on the other side of research computer-mediated communication is extensive, instant messaging has received less attention. Part of the reason for IM's enormous success is that it has features that other CMC programs lack. Sarikhani (2016) describes instant messaging as “near-synchronous one-to-one contact and near-immediate confirmation of shared messages, making the transaction more like a telephone conversation.” (Banihashem, 2014).

2.12 Instant Messaging

Another justification of the IM's success is that it creates privacy to the users, chat rooms, transfer photos and documents, all data transfer safely in a short amount of time to the receiver. Furthermore, IM's provides presence awareness to the classmates, which allows users to be alerted when their classmates are online. Badali (2014). As per the study done by Basak (2015) when we distinguish the classical and traditional methods of teaching from the new effective modern teaching methods it is proven that the new effective technologies and electronic communication are more effective and interesting for learners. Dalkir (2009) These new technologies and electronic communication have a great major impact on the social and economic growth of development. These are supporting both and also these technologies knowledge formation, scientific innovativeness, organizational networking, and knowledge sharing have a very great influence on developed and developing countries (Breyette, 2015). These technologies are the main part of today's world source of internet and these resources can give you wide range of information and knowledge about any field of study and the world at home, and also a huge amount of knowledge regarding world and life, study, field, and discipline. It covers every trait of life online learning, books, libraries, journals, articles are under control. In schools, the medium

of instruction should be the use of computers and instructional technology. Students explore new things by searching themselves but the teacher should keep an eye on their performances and classroom activity. These devices can help students to create new knowledge relevant to their subject matter beyond their curriculum content limits they find somewhat teacher is teaching in the classroom Olson (2011). New communication methods are more facilitated by smartphones but email is an old way of communication, mobile phones are a new modern way of email, messages. These mobile phones may affect the social dynamics and also the association and collaboration with others. (Lyytinen, 2002). A mobile phone is a device on which you can schedule your meetings, take notes, record lectures, and answer emails anytime, everywhere. The best part of this device is to send and receive emails on time. Wood-cock (2012).

2.13 Smartphone Tool

Smartphone tool is the best source to facilitate our work properly, and spend more and more time together. (Lyytinen, 2002). Voogt, (2011) Demonstrate that these structural, pedagogical design methods are more effective for teachers and students both to learn collaboratively and individually for enhancing knowledge and learning materials. Schon (1992) Explains that innovations create an environment healthy for learning and reflective practices. These adjustments according to the students and their levels can help them to achieve their desired goals and objectives because the learning materials can do magic and it's a source of time-saving activity for learning. Technically, E-communication refers to any form of communication that depends on electricity, including the computer, telegraph, telephone, radio, television, laptop, and tablets.

The working emergence of electronic communication for this research is internet-based-digital methodologies, in which two forms have the main role email and instant messages. It just placed a note in another user's directory in a place where they could see

it as they logged in, says an email user. It's as easy as leaving a message on someone's desk. Peters (2004). Cerulo (1997) suggested that most of the theories of CMC predicted a concept, about media which fundamentally is poor or weak than face-to-face communication, and due to this poverty makes the manifestation of relational skills. According to Saunders (1998), these theories depend on the scale for which users are supposed to pay for these constrictions. Some of the studies predicted sometimes that characteristics of these methods improve incomparable interpersonal abilities. Tidwell (2002) explained it with an example, the three-way engine to access the Internet, secrecy, and affordability are supposed to ease the addiction of Internet, specifically for the addiction of cybersex Eldeleklioglu (2013) surmised that poor unidentified features of CMC, somewhat lead towards the accursed situation, which is related to the expression of aggression and anger, yet the overall incidence of such flaming might be low comparatively LaRose (2003) explained further that in other research it is suggested that media interrupted the fluency e.g., video conferencing.

Hutchby (2001) indicated that constructional features of the medium put an effect on the expression of interpersonal skills, it is poorly understood if these skills are adaptable in the context of CMC directly. What is listening regarding email? What is the talking time regarding email? These types of questions propose social skills that possibly altered, instead of moderating CMC merely. Thus, in the context of CMC Morreale (2001) consider that basic social skills are adaptable or have close similarities directly. Alertness or other training indicates the degree to which fascination, concern, and consideration are presented to other interactants.

In CMC, attentiveness can be demonstrated by various strategies along with the level to which subjects are introduced by others and are occupied in a person's text content, usage and relevancy of questions, societal assistance, and making intricacy of text content

comfortable, moreover, respect and suitability of text content. In a study by Patt (1999) they discovered that in CMC communications, the people who communicate, modified the intensity of their questions on relationship phases, indicating a sense of thoughtfulness for the suitability of strategies that are questioning.

Bunz (2004) discovered a similar outcome from their study that people who respond to an email politely get more polite respondents which indicates a transformation towards the sender. The users of CMC use more thoughtful questions than one-on-one communications, Tidwell (2002) suggested a modification to the medium. Following the outcome of Rouse (2003) study usage of chatroom was found praised that were linked with viewer-graded assessments of extroversion ($r = .51$, $p, .01$), moreover, honesty to knowledge ($r = .42$, $p, .01$) and attentiveness ($r = .24$, $p, .05$). In CMC, self-possession is presented with the help of indication, used to avoid uncertainty, like using language qualifiers in the content of messages, the amount balanced suggestion expression of the content of the message, using commands and rules regarding queries or for the content of neutral language, using strategies to make people willing to do tasks, and probably, the commencement of topic and significant redirection or responsibilities.

Herring (2004) stated about signs of linguistics, power, and gender are expected to signify calmness also. Castellá (2000) believed that boldness can be seen as a substitute for calmness by assuming that it is different from hostility. Self-possession is known as a more self-glorification skill, is expected as carefully balanced in connection with an attentiveness that is known as another promotional skill of self. Eldeleklioğlu (2013) indicated that these kinds of dialectic anxieties never signify structural inconsistencies inevitably. But at present time, a modest study is directly related to the indicators of self-control in the communication of CMC.

Usage of self-degrading or self-reduction comments in messages is coded by Spitzberg (2002) such as, I drag on this game, actual that can be a substitute, even though the indecisive one, for self-assurance. Due to this conduct judges calculated the scores of the extroversion of communicator ($r = .53$, $p, .01$) and honesty to experience ($r = .56$, $p, .01$).

2.14 Coordination or Communication

Spitzberg (2006) added further to the discussion that management of coordination or communication, skills could be presented by CMC by taking help of skillful management of messages' numbers, messages' length, the rapid response of messages of others, and the responses related to the significance of tasks and content. Sohn (2005) indicated that coordination is expected to be associated with computers intently, most probably it is equal to various procedures that affect features of media interactions, like control navigation, speed control, An example given by Tidwell (2002) defined that responses' speed can predict the analysis related to affection based on the value of task in contrast with the content of society, and the time at which the texts were sent, according to the outcome of research it was initiated that the figure of inappropriate responses found in chat space prophesied the ratings of judges extroversion ($r = .45$, $p, .01$), honesty to knowledge ($r = .35$, $p, .01$), and thoroughness ($r = .34$, $p, .01$). Castellá, (2000), discussed the skill of expressiveness that is shown in the communication of CMC, by using this skill people can show their emotions as well, such as using emoticons and some parallel features in the content of the message, using humor, and self-revealing.

For instance, the users of CMC found more opportunities of showing their emotions, and for queries instead of face-to-face interaction Tidwell (2007) stated that apparently, emoticons reduce the observed anger of mild to moderate messages that become aggressive, yet they raise the noted anger by highly aggressive messages. Howlett (2005)

defined that the dark side of expressions and attentiveness reflect through flaming. In this study, it is defined that using paralanguage is interrelated with the quantity of time that people spend on MUD to interact, and online friendship level advancement as well.

The study of Rouse (2003) indicated that the total amount of contributions that are made in chat space foretold about the extroversion ratings of judges ($r = .57$, $p, .01$), honesty to knowledge ($r = .43$, $p, .01$). Using humor, which is a possible sign of expressiveness also, meanwhile, it predicts the ratings of judges about neuroticism ($r = .37$, $p, .01$) and extroversion ($r = .36$, $p, .01$). Preece (2004) stated that lurking is the opposite of expressiveness, in which people cannot participate but observe by entering a chat space. In conclusion, skills in the perspective of non-medicated appeared to be translatable to the medicated perspective relatively, by letting some particular cultural restraints of ways. In an argument of Luor (2010), it is shown that these restraints just develop a boundary of the upper level, for rules of interactivity, it recommends further practical equality of the skills of face-to-face in the context of CMC. By comparing directly, it is intimated that the net-based communication quality is relatively lower for people than one-on-one interaction or telephonic communication. Hence, the basic need is to recognize the required skills that pay for media-based restraints (Baym, 2004).

According to four clusters signify a thorough analysis of face-to-face communication skills, such as self-control, responsiveness, expression, and expertise. If the skill of CMC similar to face-to-face skill, is a function of responsiveness, self-control, expertise, and expression skills, that is transformed in mediated perspective, then from the model of skills, motivation, and knowledge, the following propositions would be extended:

1. The motivation of CMC is in positive relationships with the skills of CMC which are: responsiveness, self-control, coordination, and expression.

2. The knowledge of CMC is in positive relationships with the skills of CMC which are: responsiveness, self-control, coordination, and expression.

As identified earlier, many organizations included young students and people choose to communicate through computer-mediated communication technologies because this method of interaction creates a more comfortable environment and effective learning environment for them. Reamer (2013).

These computer-mediated communication devices and technologies have removed the isolation barrier for those individuals who don't want to work face-to-face, they participate easily now in all activities to perform effectively. These devices and technologies have a great initiative for those students and young people who are reluctant or under-confident, electronic communication has made their work easy to perform. (Ahmedani, 2011).

For those young people who are shy, physically inaccessible, socially awkward, and create an emotional distance from the people and fellows this e-communication has created their working and learning experience easier Tregagle (2011). It allows them to connect through the world with the help of social networks and electronic communications. Because nowadays our youth are so in touch with these technologies and they can learn and engage more young youth, learners together and to motivate each other and boost up their energy for self-disclosure that mostly difficult for them to attain in real life situation (face-to-face communication).

2.15 Computer-Mediated Technologies

Computer-related technologies and all methods are now commonly used in every field of life. The most dominant forms of computer-mediated communications are email, what Sapp, messages are still the ubiquitous form of organizations. Even mobile phones are the new dimension now increasing their value and the second most important source of communication. And it has both merits and demerits of both devices and methods but it

facilitates and makes work and life easier from both aspects. Inappropriately, there are also side effects of using it, because it is like an addiction and it has health effects too. It is easy in that way if someone is not present physically in class or meeting so they work from home online.

Tregeagle (2012) planned some major differences into four categories: firstly, there is no physical space and distance issue on the social network sites because everything and information have a record, you can interact with people through different sects, caste, and countries around the globe, where before the technologies these regular mails take weeks and days to transfer the information. Secondly, it consumes time and energy because you can get connected through different people at the same time. Third, physical appearance is not compulsory in meetings and emails (McKenna, 2002). Research has examined that over the years, the real social interaction of the people affected by replacement of the F2F interaction because in every situation people use the easiest way to communicate in a hurry.

2.16 Face-to-Face interaction

Walther (2002) which is happening in every organizational field today. Walther (2005) has introduced an approach called the cues-filtered out approach in which the absence of nonverbal reminders is unfolded the important information about approaches, passions, and companions' characteristics are the results of reasonable communication of effectiveness. According to McKenna (2002), they said that all the information is not fully transferred by email and short task-oriented messages. In a text-based environment, messages are not typically conveyed to the audiences properly (Odek 2015). The F2F communication is limited and also it has no proof regarding information that we had shared but, in the email, we have written information records of messages. It has fewer guidelines to show emotions because it is not easy to show our real emotions to others in messages Derks (2010), But according to them, it has a safe "environment" for those who cannot feel

comfortable in F2F interaction. These types of learning methods enhance the teaching and learning process and integrate professional self-efficacy (Ottenbreit2010).

2.17 The Re-Creation of Social Media Devices

Strømme (2015), explained the re-creation of social media devices and technologies are not just small adjustments but it has many different aspects and value in our education system because the researcher says when we design the learning materials according to the need of the students, and their mental level and subject matter knowledge so they better adapt knowledge. In the educational system, digital essentials and equipment are very important tools for teachers and students. Prior research has mentioned that the digital growth of e-communication and pedagogical information is easy to transfer to staff members, parents, and students. It is one of the best ICT (National ICT Program 2014) programs that has been required for you to use the E-communication method. It is connected to online and face-to-face study (Tulsky,2011).

According to Claude (2019), E-learning has a positive effect on students' academic achievements, their needs, they learn new skills from modern methods rather than the traditional method (Zare2015). It was also discovered that students who were trained using the multimedia approach learned and remembered better than students who were educated using conventional methods. Electronic innovations also supported the growth of educational opportunities and the development of student's skills, according to research, E-learning may have a significant and beneficial role in student's engagement and coordination with their peers, teacher's positive attitude towards students' performance, and also enhanced learning and student's creativity. E-communication and learning according to Banihashem (2014), are positive factors in students' creative skills. Thus, according to Sarikhani, (2016) using E-communication devices is to improve efficiency.

The use of pictures and sounds which is a Sarikhani (2016), is a common

characteristic of E-learning and E-communication that allows rationalizing learning, skills, that have a great impact on student's productivity. According to the study of Sarikhani (2016), indicate that introducing a variety of ICT further into the teaching and learning process would help young people become much more productive.

E-learning, on the other hand, might enable students to modify their skill set to their problems and abilities. Many UK universities have opted to contain knowledge and skills teams within library facilities because the library's essential function in students learning activities makes it an appropriate home for academic study skills teams (Chauhan, 2013).

Many other library services and personal share has 3 main goals of learning development for students that are: increasing knowledge of support services, encouraging students to seek assistance when they need it, and enhancing students' self-regulation and learning independence (Chauhan, 2013). Furthermore, the contribution made by research skills services closely complements the other staff; for example, where subject librarians help learners in searching information sources, study skills services support learners in using and exploring these sources in their assignments.

Gamble (2020) and simply one clear connection when looking to improve students' success is that of students themselves. For a variety of purposes, online resources are considered an important aspect of the service. They will, for instance, motivate students to learn and gain skills on their own time and related to their field and discipline. Second, they can have some resources available for students who work part-time, are distance learners and peers, or are enrolled in one of the many taught programs and assignments with little spare time to attend workshops. Finally, it was realized that providing face-to-face aid to the entire undergraduate student body was not feasible at all. The materials had to be open access for them, collaborative and coordination, interactive and managed to make up for individuals' units rather than a course, provide high levels of student participation, and be

accessible, enough just to support any student on any course. It is common knowledge that extremely intelligent people are productive humans with talent and the ability to do well. A student's ability to contribute and give thoroughly, in a learning situation, is fundamental to motivation. It's described as a "process by which individuals begin and sustained goal-directed practice", as well as a "process by which individual's needs and desires are set in motion" (Rakes, 2010).

2.18 Student's Self-Management Abilities

Students' self-management abilities and attitudes towards learning communication skills must also be acknowledged. For example, after being informed to stop conflicts while selecting groups and peers, some students sometimes experience clashes with other subjects. Vacca (2012), Mastering the appropriate learning communication is more effective with online communication method and the environment because it is the most challenging part of it. Part of the problem is that interpersonal contact is an ill-structured topic area. Our understanding of how to speak is based on face-to-face interactions, and the skills have been embedded as informal skills. Learning communication skills that can be used in an online setting requires the reawakening and differentiation and institutionalized and implicit information. Otherwise, we won't be capable of adapting this experience to the extraordinary situation of the internet age. Early childhood is where children get to develop critical thinking skills. As a result, the understanding is very strong, and research has shown that changing commonly developed hidden learning is more problematic than learning anything entirely new (Levinsen,2007).

Holliday (2006) initiated with the statement that in the area of ELT, Communication competence has appeared as a professional kitemark, although, the predicted Communication competence components continued to present time with a lot of criticism. According to the primary concept of Hymen, regarding Communication competence, it has

been observed that this concept is not well presented by following the models of CC. According to Widdowson (2003), judgment has been noticed particularly that cultural viewpoint is gained by classroom-based pedagogies of the group. Furthermore, for pedagogical training, Communication competencies were also inferred largely. It is varied to the school system and their terms and condition how they use those technologies and when because their main goal is to find out which appropriate technology they will choose to achieve their school goals (Blau, 2017).

2.19 New Emerging Trends in Global World

In all the educational systems E-communication is the main feature that has been carried through the school portal, all the social networks, Twitter, Facebook, what Sapp, and E-mail (Blau, 2017). Every school has its policy to use different kinds of E-communication for interacting with parents and teachers. When schools encourage and train teachers to teach their students through E-communication methods they gradually learn different skills and automatically acquire knowledge that they need to know for their future learning. Blau (2017), Additionally, when teachers, students, and parents are willing to use digital E-communication it improves their attitude towards school and also creates open communication between them beyond boundaries. Shamir-Inbal (2017), The unique combination of the influencers and media needs some skillful interactions and creates some unique computer-mediated interaction on demands of today's world.

All the communication is easily converted into E-communication with time, the competencies of interactions with other person are different and unique, sharing information through different sources are exclusive. Technology and media are going easy and convenient day by day (Berger, 2013). Therefore, in early researchers Kiesler (1992) it is stated that more neutral, immoral, and undesirable communications are more acknowledged than through face-to-face communication. According to them the hurdles

are more interactive and demonstrate easily through this kind of interaction. Garzone (2019) demonstrated that the written text is more difficult to intent and understand. According to Berger (2013), and personally, it has the potential to provide the opportunity to those who want to take the wrong advantage from the right people. (Nelson, 2017).

As students move from secondary to the higher education system, they face several problems regarding learning and adopting educational, institutional curriculum. Adapting to an academic setting that emphasizes independent learning and self-directed research is one of the most common factors. Wingate (2006) As a result, many UK universities also hire committed personnel to assist students in developing the key learning growth skills development required for university study: time management and organization, preparation and test skills reading and note-taking skills, job preparation, and academic writing. Dedicated study skills support for students was originally limited to a few (mostly post-92) universities and was only available as a remedial course (Cottrell, 2001).

All the international studies have explained that the relation between the use of ICT and the student's competencies is more focused and motivated. Most of the research devoted the sense of internet access and online use is very limited for computer literacy and its learning. Mascheroni (2014) to interpret the online social networking paradigm, it is important to check recent research on different means and dimensions of communication, as well as system users to real and imagined research. Any connection through computer technology such as chatrooms, net conferencing, message forums, email, and instant messaging are coming under computer-mediated communication (Lee, 2010).

2.20 E-learning Innovation, its Implementation, and Effects

According to the review of the studies undertaken in the field of E-learning innovation, its implementation, and effects, it said that the use of this teaching approach will create efficacy and proper instructions to the audience. With the introduction of new

techniques and implementations of teaching-learning theories, the teacher-centered methods are shifted into the student-centered method. Furthermore, according to the new development and evolution, the teaching methods are overcoming the time and space barriers of the students according to their need and demand they can easily use their E-communication, they learn at any time and place that suits them (Hosseini, 2015). There were multi-user technologies introduced in the 1970's such as a time-sharing system developed at MIT and peer-to-peer networking devices. Bulletin board structures, which were first used in the 1970s were the first online discussion tool structured at that time. yahoo soon followed in 1998, with yahoo, messenger and Microsoft got on board in 1999. Microsoft had over 330 million users worldwide till 2009 (Chang, 2018).

In (2002) Apple Company introduces that, in 2003, Skype and instant messaging platforms with video and speech features were launched. Shortly, after social media discussion came into the picture. Google talk was launched in 2005, Myspace IM was released in 2006, and Facebook chat was established in 2008, (Leung, 2013). Moreover, added by the viewpoint that CC's models represented a propensity regarding principles of language used for decontamination and norms of an absentminded native speaker. As Leung (2005) 'these kinds of reductionists and static idealisms are best known to represent the social reality partially'. Moreover, for ELT I will be back for the implementations, I will move forward towards the vital feature of community-based modern terms, specifically the enhanced strength of people that have been involved with mentioned change by the position of English. Jenkins (2011) has illustrated that in the present era, a bit of doubt is mentioned related to social environment as relocation of study, work, and free time including other purposes is widely spreading. Currently, to keep in touch with other people of different languages around the world, people are traveling more than they did before. All these actions or activities are done due to the technological development that lets people

interact with people of remote areas.

Moreover, these activities are also the reason for the possibility of varying distinct linguistic backgrounds. Additionally, people need to use lingua franca (for communication) –language used commonly for people who are with different backgrounds of language, and English is that common language that plays a vital role to communicate with people of distinct language backgrounds. In the starting page of the Common European Framework of Reference for Languages (CEFR), this definition agrees with a statement. As European Union Council has recommended a document which points towards the mutual source to elaborate syllabus of languages, guidelines for curriculum and systems concerning language skill validation, it also covers the framework of cultures related to set languages, moreover, within Europe it promotes mobility.

Byram (2012) added their viewpoint that it implements an intercultural method which is helpful in the growth of competencies of languages and for the personality of a learner by making the teaching of language the main object also. Przymus (2016) indicated towards the challenge of ICC related to the education of language, highlighted that teaching of language shows universal meanings instead of specific. Instead of the following statement, before twenty-year cultural essentialism was common in applied linguistics which has accepted or made paths for a broader knowledge of “foreign”, as Godwin-Jones(2016)added that in present time, the difficulties related to languages such as cultures, acceptance, environmental modifications, and the acceptance of being aware of uncertainties are playing a vital role in learning languages, as it is observed through researchers and teachers being complicated human effort having exceptional people. Risager (2011) added more to the statement that the development of ICC positioned students among cultures, due to that act it becomes possible to define and acknowledge

cultural diversity, moreover it is to generate a perception among people about other countries' citizenship.

It has been years that cultures are being educated by their languages, but these languages only taught the grammatical concepts and their verbal methods. Furthermore, the focus of education of culture is mainly on transferring facts which were getting more important than transferring the values of a culture. It has also been observed that quite less time is given to educate students regarding their attitudes' understanding and behaviors which they are facing. Therefore, a clear difference can be seen between teaching language and usage of a language, cultural education, and notice obtaining relevancy of ICC, instead of that distinctive practice are producing different results.

The ICC methodology doesn't pursue the learners to adapt the desired culture by approaching the culture and speakers who are native, although they are aware of the identity of their relative culture, known as unlimited to the national recognition including the path they identified. As for awareness, this leads towards getting knowledge at a larger scale, changing attitudes, and attaining the latest skills. Byram (1997) stated that recognition of individualities with their cultures, whom they are intermingling by using it to represent their culture, they are sure that the learner would be an 'intercultural speaker'. More precisely, it is defined through a phrase that is interrelated is, to suggest that intercultural competence is itself worthy and shouldn't be known as a poor impression of native-speaker competence (Byram, 1997). With the help of the following approach, a new language develops a continuous procedure to look at what might be understandable for his culture, meanwhile recognition of predetermined concepts of focused culture is being tested. Using the following procedure, a learner can the identification of diverse cultural languages and as an outcome, he becomes capable of reading recognizable signs. Baldini, (2013), initiated

with his viewpoint, the idea of studying abroad reveals that students who belong to multiple foreign languages started visiting abroad but with minimum techniques to interact with speakers, who never encourage and keep interacting based on classroom lecture rules.

Consequently, the procedure of education is becoming a meaningful act to uncover linguistic connotations regarding the practice of their cultural values and identities. Hence, letting a chance to new relational and inter-cultural realities, which is not like a native and desired cultures both, also that needs negotiation and construction. Gutiérrez Almarza, (2015), defined that it is easy to say, through this procedure it becomes easy to improve the intercultural skills, moreover, with the interaction of someone's intentions or objects, including previous records and individual skills, the chances of moving into a third space can be possible.

In this research study, the main focus is to teach students advanced communication skills it has its concept of electronic communication that has been presented. Its late addition to the syllabus is due to the following factors: it is a relatively new concept in academic research (at least relative to something as well-established as database searching), and my expertise and training in this field date back only three years. As I started sending e-mails to colleagues and subscribing to lists of librarians' interests, it became clear how beneficial this approach would be to scholars. (Stebelman, 1994). It would allow them to share their research findings with specific peers more swiftly and easily than a letter or telephonic communication would allow. It would also connect them to global research networks, keeping them up to date on the newest advancements in their field. Fields. I concluded that internet communication was so important that it needed to be included in graduate studies (Costello, 2011). The researcher's purpose in this article was to teach them skills that were naturally linked to the semester's major research project: an annotated

bibliography on a writer or subject. Too frequently, library tasks are provided "just because they're good for you," with little thought given to why these skills or knowledge are necessary, or how they'll be applied in real-world situations (Iskandarovich, 2021). Raulea (2014), in this study the main focus was on the different models of virtual teams in the communication process and the impact of communication technologies on teamwork. It is the information transformation of telecommunication through different ways, and to differentiate the traditional method with the virtual teamwork. The findings of this study are virtual teamwork is an important key factor in various tasks, and the decision-making aspect is important to meet the opportunity because (chat, phone, and face-to-face) communication is efficient and important in different situations.

2.21 Smartphone Addiction and Satisfaction Level

Soomro (2019), this study was on a survey method to examine the students of Pakistani university the addiction level of their smartphones uses and to investigate the impact of smartphone addiction satisfaction level to investigate the impact of classroom connectedness. The findings of this study were that the students of the university are highly addicted to their smartphones, and the level of student satisfaction is different between graduate and undergraduate students. Baruah, (2016) this study was to test the creativity of the small EBS (electronic brainstorming) groups with the same and different assigned sub-topics or categories of a broader problem over time. The topics related to the social media application or oral communication skill development. The findings of the study are clear that EBS (electronic brainstorming) groups are more creative and exhibited slower productivity loss compared with the e-nominal groups over time. Khalil, (2017) the purpose of the study was to investigate the effect of using synchronous and asynchronous communication tools in online group activities to develop collaborative learning skills. The

findings of the study were that electronic communication tools are useful to practice for the development of collaborative learning skills. Synchronous communication is more appropriate to develop collaborative learning skills than asynchronous communication, Van Laar, (2017) in this study the main objective was to examine the relationship between 21st-century digital skills and digital skills. The findings were that 21st-century digital skills are broader than digital skills by using ICT. The 21st-century digital skills are needed to participate in the knowledge based-work force and employment learning.

Previous research was conducted on the use of smartphone applications, social media applications like twitter, facebook, whatsapp, skype, etc., these studies have been focused on specific areas of e-communication e.g. its effects, implementations, comparison, relationships, impact within the classroom or with students teacher interactions and its benefits but this study will be focused on the exploration of e-communication skills of students at university level the 12 skills of computer-mediated communication that will be explored in this study. This study will be conducted to explore the purpose and frequency of the student's use of e-communication devices. The study will explore the gap of 12 E-communication skills of the students with the help of the Spitzberg model (2006), computer-mediated communication model because in this model there are factors that highlighted with the individual so this study will be focused on the exploration of just student's skills of communication only.

2.22 Challenges Institutions face during the pandemic in Pakistan

At this critical moment, the question is not where or if online learning and teaching strategies would provide a greater teaching approach, but also how higher education institutions can accommodate online learning on such a large level (Carey, 2020). Even though online learning requires continuous modifications, Google's applications, such as

Open board, Calendar, Google Hangout, G-Drive, Gmail, and Google Form, are extremely helpful in such circumstances. This application software can be used as an effective substitute for the face-to-face teaching and learning process (Basilaia & Kvavadze, 2020). Lack of availability to fast, reasonable, and frequent internet connections interrupt online learning innovation, especially for those students living in Pakistan's rural areas (Shehzadi et al., 2020). Furthermore, institutional responsibilities and students' ability to participate in digital education are suggested by something like a lack of academic resources and social disadvantage in educational institutions, as well as a lack of appropriate availability and access to the internet and the latest technology (Zhang, Wang, 2020).

The current scenario is exceptional; it is much more crisis learning than normal digital learning. Higher education institutions need to improve their curriculum and introduce effective teaching methods and policies (Pace, 2020). There are various technologies offered by the internet for learning and teaching, but then they can frequently create a lot of problems. Downloading, installation difficulties, login struggles, and audio and visual troubles are among the major difficulties associated with the new technologies. Students might find on the internet learning to be boring and ineffective sometimes. The online learning-teaching process is time-consuming, and learners are short on time. Individual attention is the main aspect of the online scenario of educational learning. (Moreno-Marcos, 2020). A huge variety of research on technological-based learning skills are required from students are essential for the implementation and improvements in information computer instructional practices. Technical skills are extremely weak in undeveloped countries. People with technical skills, for example, make up approximately 20% of the total educated people and individuals (Khan, 2020). To keep students engaged and motivated, administrators may determine the objectives and challenges. Problems should always be acknowledged in terms of improving the learning system to the best of

its ability. Personal improvement is required to make the teaching and learning process easier for the students to accept this educational environment for learning. Skype, Zoom meeting software, and the University's Learning Management System (LMS).

When it comes to communicating with students, social networking might be very beneficial. When working to achieve out with students using text messaging, different application systems, audio/video conferences, and other ways, communication is critical. Covid-19 Online education has become a need in these challenging times, but it has generated serious problems among teachers and students. Due to the excessive use of the internet by students, some think that a lack of resources is affecting others who are less well-off, who may find it difficult to attend online lectures. According to the United Nations Children's Fund, a nongovernmental organization, expanding internet connectivity is damaging a large number of young generations. (Kannankara, 2020). Except for a traditional teaching and learning system, an interactive educational system gives people the freedom of time and space. For students who are unable to attend regular classes, an online learning system provides an effective and flexible solution for those who want to study. Also, with the advancement of technology, e-learning has achieved a much more powerful position in institutions of higher learning. Baber, (2020). Important e-learning concerns include specific educational facilities (equipment), teacher expertise regarding the electronic medium of instruction, communication gap between teacher and students caused to inefficiencies of technological resources, and personal environmental impact, among many others. Karakaya, (2021). Kamran, (2021) suggested a combination of various approaches to teaching (offline/online or a combination of them both) to be more efficient, with a greater emphasis on teaching and learning instead of just using advanced technologies. Educational institutions are also centering on social interactions, learning sites, and training activities centers. If educational programs are stopped, many children

and young students will miss social interaction-based activities that are required for developmental change and growth of students learning. Students should continue to study, especially underprivileged children and young adults, who have all been affected by closing schools, therefore this is a significant problem that must be addressed. Although quick reductions of higher education institutions as a consequence of crises are not unusual, the global scope and rapidity of modern educational instability are unfortunately unexpected, and if prolonged, we can have tragic consequences. At various levels, it also can cause psychological distress and unhappiness among students and learners Iqbal (2020). Throughout this coronavirus time, only the use of technologies has helped teachers to keep their students engaged.

Online classes have already been shown to be a very effective approach to studying while staying at home. To conduct online classes, various applications (Google classroom, Zoom, Superstar, Wechat, Voov, G-suite, Cloud meeting, Teams, and so on) connected to current methods of teaching are available. In this pandemic crisis, this platform is the only way for the students to avoid a ruined academic year Noor, (2020). The evolution of information technology for teaching and learning throughout the last couple of decades has implications for schools towards innovation learning. All schools, colleges, and institutions that have integrated digital learning have seen benefits Ali (2020). Recent research has discovered E-learning engagements and possibilities during pandemic Covid-19 conditions. Researchers are working to identify the benefits and disadvantages of current E-learning programs depending on multiple stakeholder viewpoints. So according to researchers' perspectives upon the issue are significant, therefore future research must investigate students' viewpoints on teaching and learning to examine the challenges.

Higher education diverts full attention towards country higher education and its development. The main agenda of higher education is to bring changes in people's knowledge and innovations in the education sector. Only survival in the education sector is being assigned people with education and empowering them with knowledge and technology. If educated people will not take interest in education then the country bear its consequences. Hence, it is true that a country's progress depends upon educated people. English is also a channel of communication throughout the world that people linked and communicate with each other through the proper channel using different sorts of electronic apps (Vency & Ramganes, 2013). Communication also changes the behavior of people through network channels to bring improvement in actual coordination and enhanced interpersonal skills. Effective communication skills are acquired through the proper and educational environment. Communication plays an effective role in education particularly teaching-learning and administrative work dealing (Habaci, Celik, Adiguzelli & Kurt, 2013). Batool, Nadeem, and Asif (2018) conducted a study on communication skills and quality enhancement in the higher education sector in Pakistan. Study results revealed that communications skills had a great contribution to higher education quality enhancement. It has also seemed that these skills boost up students' self-confidence, self-development, and personal skills. Online-based communication technologies have been changing the environment of academic and digitalization system education at higher education also changing. Due to the increase in the level of communication between students and teachers, it is very useful for learning (Batista, Morais & Ramos, 2016). Students regularly use social media in daily life as an effective tool in supporting communication in a teaching context, students, and teachers also engage in using different applications for the teaching-learning process. Due to this students and teachers interact with each other and educational purposes are fulfilled. The study was beneficial for students and leaders to build support and engage

them in learning. The study specifically to technologies webs 2.0 analyzed students in the educational context and learning and value for the use of wikis. Results revealed most of the students use wikis due to the opportunity of teamwork, but fear that the content can be excessively altered, but authors concluded the students not only focused on the use of wikis until and unless it brings advantages for the students. It is the first time in Pakistan that the online education trend has been introduced on a huge scale, but in terms of higher education, as well as examinations, the online trend has come up into multiple avoidable circumstances, that have been addressed in previous literature. William (2011). The affordability of the Internet and the convenience in which technology can be used have contributed to a big increase in internet teaching and learning. Throughout the country, online learning is quickly affecting public schools and universities. This study examines whether online classes could help students as well as the challenges regarding and disadvantages of online learning. This study investigated problems concerning how to appropriately support high school students completing an online education, which has traditionally been highlighted (Gilbert, 2015). The researcher has surveyed the number of students in higher education who has concerns about online/digital learning. The main challenges that higher education students in Pakistan face have included a lack of internet connectivity, a lack of sufficient discussions and interactions with students and teachers, and the lack of effectiveness of technologies. Students have had quite a completely different learning experience in terms of the unexpected change from the traditional classroom and face-to-face learning to online learning. Because the majority of the students do not have access to a strong or reliable connection to the internet, they have to work hard to learn online. Students from the previous Fata, Balochistan, Chitral, and Gilgit Baltistan have challenged access to internet facilities. Adnan, (2020). The study concluded that the university students in Pakistan came from undeveloped areas. Poverty and a lack of

resources development are challenges that these countries are struggling with. According to the publication, mostly a small percentage of students have the basic technology available in online classes. Students throughout Sindh and Baluchistan's regions, especially, do not have access to devices such as laptops. Furthermore, a major issue in their area is the unavailability of increased Internet Hussain, (2020). Online lectures vary significantly across different in-class courses. The teacher has much more command over the student code of conduct in a traditional in-class lecture. To address this problem, the study suggests that the teacher should develop various activities. These are all the types of activities that really can allow students to enhance their learning skills in online classes. Furthermore, throughout online classes, teachers should present challenging questions to students (Smith & Diaz, 2004). Students' learning skills will improve significantly through these practices. Additionally, these techniques will guarantee that students are more attentive and focused. Apart from that, receiving feedback from students concerning these online classes may contribute to enhancing their capabilities. To ensure attentiveness, a huge class lecture might be broken down into simpler sections or discussions. Teaching staff should prepare materials for online courses that are less than usually complete. It might be achieved by identifying a large single task into many individual tasks Bao (2020). This will assist the students in remaining focused and motivated throughout attending classes online. This strategy will also improve the improvements in student academic skills in online classrooms. The investigation was conducted throughout this situation to determine the technology that is being used for educational purposes, to interact with students and teachers, and to explore the amount to which mobile phones can contribute in advancing the use of Language for academic purposes. The SEET internet questionnaire, conducted by Gosper et al. (2013), includes undergraduate and postgraduate students from three Australian universities. The survey,

however, did not take into consideration the differences in higher education systems and technology area needs Pakistani and Australian, and therefore was considered to be completely irrelevant to the present study. In a conclusion, various modifications and improvements were made in consideration of the study's objective. The changes have included the elimination of technological resources which aren't so frequently used in Pakistan and the additional paragraph about students' use of digital advanced technologies in the language classes. In comparison, a study of undergraduate students in Sheffield, UK, discovered that course availability, software availability, availability of library facilities, teaching and research reputation is important, availability of self-study aspects and quiet time, and public transportation have much more impact on university choice, while location, long-distance, and university priority have the lowest impact. There is indeed an electronic alternative for each of the described skills previously. All these 21st-century skills include technological expertise, long learning, effective communication, collaboration skills, ability to think critically, design skills, and real concern skills. Online communications skillsets, for instance, have included the capacity to convey online information (through the use of social media networks, chat, and E-mail), so even though electronic information skills included the opportunity to explore information from internet resources, assess the effectiveness, significance, and efficiency of the collected information, and handle digital data i.e., manage documents, files, and E-mails (Van Iar, 2020).

2.23 Digital tools, support, and their use

Instructors and students have inquired about their perception of the use of technology in the classroom for teaching and learning purposes. According to the instructor viewpoint, about 61% of instructors perceived that 75% of the students effectively use

instructional technology. Likewise, 75% of students were effectively using and engaging in the use of technology and instructional materials. However, many students preferred instructional technology as a course subject and they likely preferred the use of technology. Students' GPAs have been also very effective due to the use of technology. It also seemed that there was a difference in between support of students' perception and instructors. Results revealed that there was a correlation between the use of technology and students' perception support that was offered by instructors. Moreover, it was also observed that the instructor thought that 65% of students were taught practicality whereas only 42% of students felt that the instructor properly provided students training and support them in the use of technology (Smith, Salaway & Caruso, 2009). In the marketplace, there is a variety of digital tools. These digital tools are divided into a variety of segments, traditional digital tools (Websites, email, MS Office, PDF, Instant messaging, social interactive digital tools (Facebook, wikis, blogs, and games), course earning digital tools (Online quiz, lectures, virtual classes, course learning management system). The study results revealed that 73% of the students thought that traditional tools were effective for them. 53% of instructors thought that it was effective. On the other hand, 55% of instructors that course learning tools were the most effective teaching tools whereas 30% of students believed that it was an effective learning tool. Recent era teachers turn the attention of students towards digitalization because they thought it was the time of the digital generation. On the other hand, students preferred the traditional instructional use of technology for learning and effective engagement. Whereas teachers preferred and preferred technology course-based learning at the universities level. Results extracted that students of fine arts and life sciences strongly agreed and preferred technology-based learning (Buzzard, Crittenden, Crittenden & Mccarty, 2011).

The study indicated that effective teaching is not only based on teachers' knowledge and information but also depends on the teacher's teaching methodology and effective use of teachers teaching styles and skills of communication. Results revealed that Cohort Nominate (2016) worth given to knowledge was fifty percent but the second priority was given to communication skills that played a very well role in the teaching. Similarly, the teacher needed to have enough knowledge and command on the subject but the way they communicate and deliver knowledge is the communication skills. Furthermore, recent research results extracted that good communication is not only important for the teachers but it is also very important for the students. As cited by David Andrade (2015), Communication is the factor that is the dominant factor in the students' academic accomplishment. The result also extracted that good communication skills is as important for teacher and students also need to have that skills. Due to good communication skills, students help out in their academic achievement and practical life as well. In major studies, it was reported on a research in which college graduates used internet learning individuals to make delayed messages. Participants provided their approval for their marks to be used for research and carried out a questionnaire that evaluated a variety of psycho-educational characteristics as well as their interpretation of the online study group experience. Although not all students must have seen the benefits of online study groups in the same way, such assessments also weren't related to educational performance.

Wu and Lee (2005) characterized e-communication as "a form of communication done through online media to send and transfer information and make sure that it achieves the persons involved by depending on computer systems and going to build videoconferencing and distant photography to send photos, illustrations, and charts, or to transfer thoughts and opinions, resolve issues, and prioritize tasks." With the passage of time and sustained research and technology, numerous types of e-communication emerged,

such as video chats, E-meetings, E-conferences, and web conferencing, as technology resources used in organizations to hold meetings and conferences digitally without demanding all respondents to be available in the same place. Organizations have been introducing cameras of various types and dimensions to video call applications, according to Kock (2005), allowing management and leadership to communicate with others, share thoughts, and solve problems without recognizing who they are communicating to.

According to Ahn (2011) Organizations demand the capability to communicate effectively throughout all levels of their everyday activities, especially relationships with family and friends, classmates, coworkers, and professionals. Effective communication skills are one of the first objectives that an individual try to master effectively.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Research Approach

The approach of the current research was based on Mixed-Method. The research mainly involved Quantitative and Qualitative data by finding Frequency and Percentage. The researcher selected this approach because it is used to analyze both results and data. The major objectives of the study were Exploration of E-communication skills, investigating the frequency, and examining the challenges. This objective required quantitative and qualitative data interpretation. In this current study, the researcher collected data through a questionnaire and checklist. The results were based on the maximum sample size that was representative of the population. Moreover, the researcher had clearly defined objectives. In this regard, the whole methodology was developed at the stage of proposal writing.

The questionnaire developed by the researcher was based on two subsections having a closed-ended questionnaire with 48 items and one open-ended questionnaire. The items were rated on a 5 Likert scale. Thus, these responses were coded from 1 to 5 i.e. from Strongly Agree to Strongly Disagree, and analyzed with the help of Frequency and percentage, Thematic Analysis to conclude the study. Further, the researcher accommodated one closed-ended questionnaire with a subsection of one open-ended question on challenges, and one checklist with twelve applications in the tool to collect the responses of the respondents related to the exploration of E-communication skills, frequency of the applications, and challenges of the students they faced at university level. The responses collected through these items served as a basis for further discussion.

3.2 Research Design and Method

The design for the study was a mixed-method research design. A mixed-method research design is a framework for integrating quantitative and qualitative research and methods in a single study to better understand a research problem. Compilation and analysis of quantitative data that was collected, collection and evaluation of qualitative data, interpreting is a term that can be used to analyze or compare two or more variables. By method, the method of the study was the explanatory sequential mixed method. The explanatory sequential mixed method is comprised of two phases one is quantitative and the second one is qualitative approach. In quantitative researcher collected data from a closed-ended questionnaire to explore the e-communication skills of the students at university students, which consisted of 48 items to triangulate the study. In qualitative, the researcher used constructs based on a checklist marked by the students. In this study, the researcher did the thematic analysis, and then it was triangulated with the results of the phase one quantitative data results. After the triangulation, the most common results in your study were; the most frequently used skills were coordination, attentiveness, and expressiveness, and applications were e-mail, zoom, and whatsapp.

3.3 The procedure of the Study

The researcher has conducted a descriptive study explanatory sequential research. For the collection of data, all sampled universities were visited personally by the researcher and, also the professors shared my google form questionnaire with their classes. To complying the security needs of universities authorization was taken from university management and HODs of respective departments of each university.

Step 1:

The researcher conducted a survey, by constructing a closed-ended questionnaire to explore the E-communication skills of the students at the university level, it contains 48 items on six different skills and also the applications students use for communicating with other peers, classmates, and teachers. Data were analyzed by finding the percentage of the skills students have while using E-communication.

Step 2:

In the second step, the researcher triangulates the results with the qualitative approach and explanatory sequential method so he examined the student's use of E-communication applications for academic purposes and their use in communication/interaction. It contains a checklist containing one major question on the use of applications for their educational purposes. Data were analyzed by the frequency/percentage of the student's use while using E-communication.

Step 3:

The third step was obtaining, an open-ended questionnaire regarding the difficulties/challenge's students faced while using E-communication for educational purposes. So, the researcher generated 4 different themes on challenges that students had faced and analyzed the data by using thematic analysis.

Table 3.1

The procedure of the data collection method

Procedure	Instrument Procedure	Data Collection Procedure	Data Analysis Procedure
Step 1	Closed-ended Questionnaires	Google Form	Frequency, Percentage
Step 2	Checklist	Google Form Checklist	Percentage
Step 3	Open-ended Questionnaires	Google Form Question	Thematic-Analysis

3.4 Population

The present study aimed to explore the E-communication skills of the students at university level. Therefore, the population of the research was comprised of all the public sector universities of Islamabad. Currently, in Pakistan total of 163 universities recognized by HEC are functional. Among these universities, 94 are working in the public sector. Total 86% are enrolled in public sector universities only. However, due to the lack of resources and insufficient time, in Covid 19 the researcher couldn't collect data from all the universities. Because of the shortage of time and to make research more feasible only 4 public sector universities of Islamabad were selected for data collection. The study's population was estimated to be 3372 students as a population. For data collection from social sciences departments, 345 students from the BS level were taken.

Table No 3.2

List of selected public sector students of Islamabad.

- 1) International Islamic University, Islamabad.
- 2) National University of Modern Languages, Islamabad.
- 3) Allama Iqbal Open University, Islamabad.
- 4) Federal Urdu University of Arts Science and Technology, Islamabad.

3.5 Sample Size

The study was an Explanatory Sequential mixed method in nature in which data was collected with the help of two phases, one was the Quantitative data approach in which the researcher collected data from a closed-ended questionnaire on students' E-communication skills with 48 items, based on the exploration of six skills. The second phase was Qualitative in which two main constructs are examined by the researcher with a checklist on application use and one open-ended question on challenges faced by the students in university while using E-communication. For the collection of data simple random sampling technique was used as a sample researcher takes a small, random portion of the entire population to represent the entire data set, where each member has an equal probability of being chosen, total 8 universities were recognized universities are located at Islamabad, from which 4 universities were selected as a sample. The social sciences faculty, and its three departments (International relations, Education, and Psychology).

Table No 3.3

Students from 3 departments of social sciences (BS level), a Sample of BS level students

Departments	Numl	International Islamic university	Air university	Federal University of Arts Science and Technology	Urdu	Total
International Relations	24	21	46	39		130
Education	32	27	32	26		117
Psychology	26	29	19	24		98
Total	82	77	97	89		345

List of students where the sample was collected.

- 5) International Islamic University, Islamabad.
- 6) National University of Modern Languages, Islamabad.
- 7) Allama Iqbal Open University, Islamabad.
- 8) Federal Urdu University of Arts Science and Technology, Islamabad.

3.6 Sampling Technique

For this study, the simple random sampling technique was used. Sampling is the method of selecting respondents for the study. Data is collected from the sample to generalize the response and findings to the whole population. But these respondents cannot select without any logical bases or reasoning. One of the most basic sampling techniques is simple random sampling, in which we choose a set of individuals (a sample) for study from a larger group of (a population). Each individual is chosen randomly, and everybody in the population gets an equal opportunity of being selected in the sample. The study has targeted 15% of the sample and the return rate is 13% total. For the sample size, more than

13% of the population must respond as many researchers believe that it is the appropriate number of respondents for descriptive research. (Cohan, 2005).

3.7 Questionnaire used in the study

Two research instruments were used in this study, exploration of E-communication skills of the students, open-ended questions on challenges/difficulties students faced while using applications, and a checklist on applications use for academic purposes.

3.8 Tool construction

Research tools are fact-finding tools used for collecting data for research purposes. Research tools include questionnaires, interviews, observations, and document reviews. The researcher used valid and reliable tools because the validity and reliability of the research the study ensures to a large extent of appropriate research instruments.

In this study 5-point, Likert scale close-ended questionnaires were used as a tool for the collection of the data. Two questionnaires were used through which data was collected with the help of two phases, one was the quantitative data approach in which the researcher collected data from a closed-ended questionnaire on students' E-communication skills with 48 items, based on the exploration of six skills. The questionnaire was developed in light of the theoretical framework presented by (Spitzberg 2006). The second phase was qualitative in which two main constructs are examined by the researcher with a checklist on application use and one open-ended question on challenges faced by the students in university while using E-communication. Participants and respondents were thoroughly briefed about the purpose and mode of data before responding.

3.9 Validation of the Tool

In this research study, one questionnaire was used for students which was a self-developed questionnaire. This questionnaire consisted of 48 items in the students' questionnaire. Respectively to check the content and construct reliability and validity four

experts of different fields were consulted and after one week these experts provided suggestions and observations related to the questionnaire and according to their feedback, both questionnaires were modified and finalized. Experts declare the validation of the questionnaire and also say that it is suitable for the data collection procedure and study. Validity certificates were attached in Appendix D-G.

3.10 Pilot testing

After tool validation pilot testing was conducted for further improvement and modification of the questionnaire. Questionnaires were distributed among 100 students of the social sciences department. Reliability analysis was carried out on SPSS version 16. No item was deleted from the questionnaire but experts brought minor changes in the statements according to the constructs. For the pilot testing 60 university students were collected from the National University of Modern Languages and Iqra University, and 30 were from Islamic University Male and Female Respondents ages ranged from 18-30.

3.10 Reliability of the instrument

Reliability of the instrument to measure the consistency of the results. For the determination of reliability, the following statistical procedure was carried out on respondents of 100 students from the public sector university of Islamabad. For this purpose, the Cronbach Alpha Reliability Test was evaluated.

3.11.1 Reliability (Cronbach's Alpha)

Table 3.4

Alpha reliability coefficient of Questionnaire (N=48)

Items	Alpha coefficient	Items	Alpha coefficient	Items	Alpha coefficient
1	.62	22	.76	43	.72
2	.69	23	.56	44	.84
3	.73	24	.65	45	.99
4	.72	25	.67	46	.78
5	.81	26	.82	47	.87
6	.59	27	.80	48	.94
7	.56	28	.81		
8	.76	29	.78		
9	.63	30	.98		
10	.60	31	.93		
11	.55	32	.75		
12	.67	33	.58		
13	.83	34	.88		
14	.82	35	.96		
15	.66	36	.87		
16	.60	37	.95		
17	.59	38	.70		
18	.62	39	.81		
19	.67	40	.94		
20	.64	41	.91		
21	.69	42	.77		

Table 3.5

Alpha reliability coefficient of Subscales Questionnaire (N=48)

Subscales	Items	Alpha coefficient
Coordination	08	.766
Attentiveness	08	.777
Composure	08	.654
Expressiveness	08	.758
Satisfaction	08	.756
Efficiency	08	.618
Overall reliability of Cronbach's Alpha		.982

Reliability measures the internal consistency of an instrument. This analysis was used to check the students' E-communication skills of the questionnaire reliability so the given table shows the result of the questionnaire and its subscales.

3.12 Data Collection Tool

First of all, a checklist was used to explore the students use of E-communication applications in their academic purpose after that based on checklist results researcher used a questionnaire to check the quantitative data results for the study. Respondents' information is collected by using a questionnaire. Data was gathered through a closed-ended questionnaire that was validated and cross-checked the existing results through qualitative and quantitative data information gathered using the checklist and questionnaire used for the data collection procedure. Because of Covid-19, the data was collected through Online Google form data from three social science departments.

3.13 Data Analysis

Following the collection of data through a questionnaire, the data was again checked after the collection. When data was collected, a percentage and Thematic-Analysis were used, to achieve accurate results. Appropriate techniques were applied to analyze the data. Data was gathered, categorized, and then put into software (SPSS version 22), where a demographic section of participants will be examined through frequency and percentage, and descriptive statistical analysis such as percentage, frequency, and Thematic-Analysis was used to analyze the study's objectives.

Table No. 3.6

Data analysis and interpretation of Quantitative and Qualitative data

Objectives	Instrument	Data Collection	Data Analysis
1. To explore the E-communication skills of the students at university level	Used self-developed questionnaire	Google Form	Mean
2. To investigate the frequency of use of E-communication Applications	Checklist on applications	Google Form Checklist	Frequency, Percentage
3. To examine the challenges of the students while using E-communication	One Open-ended The question at the end of the questionnaire about challenges students faced	Google Form Question	Thematic- Analysis

3.14 Limitations

At the start, researchers were working on the twelve skills of E-communication, after Covid-19 the study was limited to the six skills of E-communication. (Coordination, Attentiveness, Composure, Expressiveness, Satisfaction, Efficiency).

CHAPTER 4

ANALYSIS AND INTERPRETATION OF DATA

The research methodology used in this study was discussed in chapter 3. Any research project's foundation is data analysis. It improves the research's structure, presentation, usefulness, conclusiveness, and generalizations. The exploratory research findings, data analysis, and discussion of the results are all included in this chapter. The data illustrates the characteristics of the sample. mean, frequency, percentage, and thematic analysis help to understand the intensity of responses of participants.

The data are further displayed in the form of tables and figures. The data in this study were analyzed using SPSS software (IBM SPSS 27). The results of the analysis are displayed in tables for easy understanding. The following is a detailed description of the results.

4.1 Sample Characteristics and Data Analysis

Students were given a total of questionnaires to fill out. The completed questionnaires were returned by students. The researcher collected data from four government institutions in Islamabad and their faculties of social sciences to use a Google Form. This study has selected three departments from each faculty from four universities. My main population target was students and the fields were International Relations, Psychology, and Education.

Table No 4.1

Responses of participants on Exploration of E-communication skills of Coordination

Skill of Coordination

Applications	Frequency	Mean
Email	345	3.44
YouTube	345	3.03
Facebook	345	3.31
Instant Messaging	345	3.32
Zoom	345	3.29
Whatsapp	345	3.93
Google Classroom	345	3.16
Wikis	345	3.00

Table 4.1 shows That the students frequently coordinate through the applications of E-mail, Whatsapp and Instant Messaging mean score of Whatsapp is 3.93 and E-mail is 3.44 shows that students use Whatsapp and E-mail for coordination and then less used of application for coordination is Google Classroom.

Table No 4.2

Responses of participants on Exploration of E-communication skills of Attentiveness

Skill of Attentiveness

Applications	Frequency	Mean
Email	345	3.64
YouTube	345	3.01
Facebook	345	3.03
Instant Messaging	345	2.11
Zoom	345	3.27
Whatsapp	345	3.55
Google Classroom	345	3.09
Wikis	345	3.02

Table 4.2 displays That the majority of students were more attentive while using the application E-mail, Whatsapp, and Zoom meeting in the classroom. The mean score of Email is 3.64, Whatsapp 3.55, and Zoom meeting is 3.27 students use these applications most frequently attentive interaction. A less used application is Instant Messaging.

Table No 4.3

Responses of participants on Exploration of E-communication skills of Composure

Skill of Composure

Applications	Frequency	Mean
Email	345	3.19
YouTube	345	2.73
Facebook	345	2.45
Instant Messaging	345	3.00
Zoom	345	2.02
Whatsapp	345	2.93
Google Classroom	345	2.01
Wikis	345	2.11

Table 4.3 demonstrates that students used their skill of Composure most often for their academic purposes through the application of E-mail and Instant Messaging, the mean score of Email is 3.19 and Instant Messaging is 3.00. The least interesting applications for likely to be proactive in academic tasks were Google classroom and Zoom meetings. The mean score of Google classroom is 2.01 and Zoom meeting 2.02.

Table No 4.4*Responses of participants on Exploration of E-communication skills of Expressiveness**Skill of Expressiveness*

Applications	Frequency	Mean
Email	345	3.93
YouTube	345	2.42
Facebook	345	2.01
Instant Messaging	345	3.87
Zoom	345	3.99
Whatsapp	345	3.98
Google Classroom	345	2.10
Wikis	345	2.77

Table 4.4 explores that students were more expressive in their academic performances while they were using the applications of E-mail with the mean score of 3.93, Zoom with 3.99, Whatsapp with 3.98, and Instant Messaging with 3.87. Because these applications were the most commonly used apps nowadays in pandemic and online E-learning scenarios every student has these 3 applications command and access properly at home for learning education. Students who do not use the applications to express their thoughts were Google classroom and Facebook they cannot use and express their thoughts to the other person directly.

Table No 4.5

Responses of participants on Exploration of E-communication skills of Satisfaction

Skill of Satisfaction

Applications	Frequency	Mean
Email	345	3.97
YouTube	345	2.65
Facebook	345	2.97
Instant Messaging	345	3.22
Zoom	345	2.19
Whatsapp	345	3.67
Google Classroom	345	2.19
Wikis	345	2.05

Table 4.5 examines whether students were more satisfied with these applications in their academic field that was E-mail with the highest mean score of 3.97 and Whatsapp with 3.67 scores. Because these apps saved data and information for the long period. And because of personal safety issues, they were not satisfied with the apps Zoom, Facebook, YouTube, and Google Classroom.

Table No 4.6

Responses of participants on Exploration of E-communication skills of Efficiency

Skill of Efficiency

Applications	Frequency	Mean
Email	345	2.07
YouTube	345	2.86
Facebook	345	2.73
Instant Messaging	345	3.89
Zoom	345	2.12
Whatsapp	345	2.66
Google Classroom	345	2.67
Wikis	345	2.03

Table 4.6 shows the students efficiently use the skill of efficiency more often to communicate through Instant Messaging with the mean score of 3.89. the less mean score of the apps students do not use were E-mail, Zoom, Whatsapp, and Google Classroom.

Table No 4.7

Percentages of checklist (use of Applications for academic purposes)

Responses of participants on to investigate the frequency of use of E-communication applications

<i>Applications</i>	<i>Responses</i>	<i>Percentage</i>
Whatsapp	74	21.44%
E-mail	96	27.82%
Instant Messaging	53	15.36%
YouTube	17	4.92%
Facebook	22	6.37%
Wikis	09	2.60%
Zoom Meeting	62	17.97%
Google classroom	12	3.47%
Total	345	100%

The opinion of the students about the use of Applications for academic purposes is presented in Table 4.7, which includes Eight items in Checklist. In this finding, the researcher was justifying that students use these applications more often for their university work and academic purposes because these applications are commonly used in university and personal use applications of students, most frequently students used applications for their academic purposes were E-mail, Whatsapp, Zoom and Instant Messaging. On the other side, they were not able to use apps were Google Classroom, YouTube, Wikis, and Facebook, and other remaining applications were stands in between two extremes. The overall result shows that the majority of the students used Whatsapp, E-mail, and Zoom for their academic purposes, most of the basic students use for them in university work.

Table No 4.8

Responses of participants to examine the challenges of the students while using E-communication

<i>Themes</i>	<i>Challenges</i>	<i>Responses</i>
Theme 1	Internet Issues	112
Theme 2	Lack of experience, Awareness, delivering valid information, lack of knowledge about applications use, unable to deliver authentic information.	98
Theme 3	Electricity problem, language, and communication barrier, unable to engage others, lack of confidence, meeting of deadlines.	87
Theme 4	Safety, Hacking	48
Total		345

Table 4.8 The opinion of students about the challenges they had faced while using E-communication at university are divided into five themes that elaborated the results that show the problems and challenges. Overall responses from the participants were 345. The students who responded about Internet Issues were 112 and these issues consisted of difficulties in network issues, connectivity in urban areas, internet services being out of reach, internet speed, Wi-Fi signals, internet connection disconnect, network distortion, not being an available high-speed internet connection. Lack of experience, awareness, presenting valid information, lack of knowledge regarding application use, and inability to

offer authentic information were all mentioned by 98 students, and these issues included difficulties in Avoiding the difficult conversation, formatting, and editing, not skilled about E-communication technologies, unprofessional to use, new upgraded applications are difficult to understand, no training and tutorials unavailable, less exposure, little knowledge about application handling, less interest, charging and battery issues, lack of 3D technology and application use. Electricity problems, language and communication barriers, inability to engage others, lack of confidence, and meeting deadlines related challenges were mentioned by 87 students, and these issues included difficulties in the tone of students, the behavior of teacher and students, highly data charges, unexpected errors, self-consciousness, and embarrassment, cannot use it for earning purpose, lack of motivation, less vocabulary, lack of concentration, culture differences, time management, lack of attention and health problems. Hacking and safety issues were mentioned by 48 students, and these issues comprised problems in safety rules, hacking threats, loss of security, privacy authenticity, viruses, bullying, plagiarism, scams, apps are not secured, safety precautions and ads, phone, and social media addiction.

CHAPTER 5

SUMMARY, FINDINGS, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Summary

The purpose of this study was to explore students' E-communication skills at the university level. The study's main goal was to explore the skills of E-communication, how many students use these E-communication applications for their academic purposes, and while using E-communication how many challenges students have faced in their educational session. Many researchers have discussed various E-communication skills in the Medical field, in English literature, for primary, secondary, and higher education but the researcher has chosen to focus on one (Theoretical framework). E-communication skills exploration, use, and issues were all acknowledged. E-communication skills were explored, as well as the challenges and applications that can be used. The researchers conducted a Theoretical framework based on the main concept of students' E-communication skills. It has included twelve skills but the researcher has delimited the study to explore the six skills only. With three parts E-communication skill was an independent variable in the study; the first part is to explore the skills of the students, the second main aim is to investigate the frequency of use of the application by students, and in the last part, the study examines the challenges and problems students have faced while using E-communication applications. As a data collection method tool, the researcher used a self-developed questionnaire. After doing a lot of investigation, the researchers have come up with such a tool. The tool was divided into six skill item-based questionnaires. The first was related to the skill of coordination, attentiveness, composure, satisfaction, efficiency, and expressiveness which was used to collect data on how many students are more skilled by using these applications.

The scale used for data organization and collection areas; 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Strongly Disagree, 5=Disagree. Pilot testing was used to verify that the questionnaire was reliable. For data collection, students from four public universities were chosen from three different social science departments. One checklist and the open-ended question were used to analyze data by thematic analysis. There were 3372 students in all, and 345 students were chosen as a sample from this population. The study has three objectives. Data were collected and then analyzed using SPSS version 21 while keeping the objectives in mind. To achieve an accurate result, a percentage and Thematic-Analysis were used.

5.2 Findings

Following are the findings of the present study:

- 1 The findings of the study show that the majority of students used strong coordination of skills through applications such as Whatsapp, Zoom, and E-mail. Students get quick message replies on E-mail, students do not understand the YouTube videos, they less prioritize Facebook, they only send relevant messages on Text, zoom meeting was the most applied application during a pandemic and Covid-19 situations students, teachers all were coordinate through Zoom, and they were dependent on online classes, the least use Google classroom for assignments, they record and edit Files on Whatsapp more often.
- 2 Findings of the skill of attentiveness display that the majority of students used excellent attentiveness skills by using applications such as E-mail, Whatsapp, and Zoom. Students read E-mail attentively and respond accurately to the sender, they are not able to form presentations by watching videos on YouTube, they less show compassion towards the Facebook app because it is just for entertainment purposes, they are not able to modify text messages, Students can access Zoom for lectures to

participate actively in classroom participation and class presentations, and spent their most the important time on Zoom, and they mostly use their Whatsapp Group chats with teachers and students to get immediate advantage of online learning without delaying their academic university course education and also control their personal and professional things aside in academic scenario, students not able to make performance sheets properly for feedbacks, they are not able to use Instant Messaging popularly used applications for attentively participating in academic work.

- 3 Findings of composure demonstrate that students used the skill of Composure most often for their academic purposes through the application of Zoom they confidently shared their thoughts about the relevant topic and lecture. They can write an E-mail which is an effective self-introduction, also they give feedback on E-mail most frequently to their teachers and students. understanding the YouTube videos are less, The Zoom apps they can close and start for lectures, no Wikis collaboration with participants, and also not any virtual learning is conducted by student teachers, the least interesting applications for likely to be proactive in academic tasks were Wikis, Facebook, and Instant Messaging.
- 4 Findings of the results explore that students are more expressive and fluent in their academic performances while they were using the applications of Instant Messaging, Whatsapp, and Zoom Meeting, Students do not express their understanding in E-mails, YouTube videos are too long, and do not save time but also it leads towards aggressiveness, they show the least consideration towards Facebook, they are more likely to show symbols and express their thoughts through Instant Messaging, they stay calm while online classes because internet issues are the common problem everywhere students faced, they use humor in daily

conversations, Because these applications were the most commonly used apps nowadays in pandemic and online E-learning scenarios every student has these 3 applications command and access properly at home for learning education. Google classroom is safe for data and documents reservation, in addition, they are not experienced about the Wikis, Students who do not use the applications for expressiveness were on YouTube Wikis because on YouTube you can only watch and do not express your thoughts to the other person directly.

- 5 The findings of the study examined whether students were more satisfied with whatsapp, instant messaging, zoom, and also e-mail applications' use. Students highlighted their aims to the sender, they do not share any non-authentic link to others, Numl study portals are free to share their thoughts and issues so they use them for academic purposes, they write messages in a confident style, interactions through Zoom can create a lively environment for them to learn effectively, students do not share their evaluation feedback sheets to the teachers, they do not use Wiki for any platform of learning, Because these apps saved data and information for the long period. And because of personal safety issues, they were not satisfied with the apps of youtube, facebook. After all, it is an emerging trend and app in the learning field.
- 6 The study findings show the students efficiently use the skill of efficiency more often to communicate through zoom whatsapp in addition to e-mail. They cannot use symbols for E-mail properly because informal E-mails teachers only use simple texts, they get quick information regarding topics, they are not familiar with Facebook sites, students managed distractions online meetings and lectures, Google form is not easy to manage for them to understand the steps properly, and they were not interested to efficiently use the apps were Facebook and Wikis.

- 7 The opinion of the students about the use of Applications for academic purposes is presented in this study which includes twelve items in Checklist. In this finding, the researcher was justifying that students use these applications more often for their university work and academic purposes because these applications are commonly used in university and personal use. Item was about “Whatsapp”, “Zoom”, and “E-mail”, applications of students, were able to use and get benefit from it, on the other side all the other applications students were not used for their academic purposes, and other remaining applications were stands in between two extremes. The overall result shows that the majority of the students used Whatsapp, E-mail, and Zoom for their academic purposes, most of the basic students use them for university work, and least minorities do not use applications for academic work as shown in the table.
- 8 The findings of the third objective related to students' challenges they had faced while using E-communication at university are divided into five themes that elaborated the results that show the problems and challenges. Overall responses from the participants were 280. The students who responded about Internet Issues were 76 and these issues consisted of difficulties in network issues, connectivity in urban areas, internet services being out of reach, internet speed, Wi-Fi signals, internet connection disconnect, network distortion, not being an available high-speed internet connection. Lack of experience, awareness, presenting valid information, lack of knowledge regarding application use, and inability to offer authentic information were all mentioned by 97 students, and these issues included difficulties in Avoiding the difficult conversation, formatting, and editing, not skilled about E-communication technologies, unprofessional to use, new upgraded applications are difficult to understand, no training and tutorials unavailable, less exposure, little knowledge about application handling, less interest charging and

battery issues, lack of 3D technology and application use. Electricity problems, language and communication barriers, inability to engage others, lack of confidence, and meeting deadlines related challenges were mentioned by 74 students, and these issues included difficulties in the tone of students, the behavior of teacher and students, highly data charges, unexpected errors, self-consciousness, and embarrassment, cannot use it for earning purpose, lack of motivation, less vocabulary, lack of concentration, culture differences, time management, lack of attention and health problems. Hacking and safety issues were mentioned by 33 students, and these issues included problems in safety rules, hacking threats, loss of security, privacy authenticity, viruses, bullying, plagiarism, scams, apps are not secured, safety precautions, and ads, phone, and social media addiction.

5.3 Discussion

The purpose of this study was to explore the students' E-communication skills at the university level. The study's main aim was to investigate students' higher-level E-communication skills in terms of using computer applications and the internet for educational and academic purposes. The study explored the use of E-communication skills among students at two public universities in Islamabad's Capital Territory, with a group of students at the BS level. The present study used a survey method to collect data and it is descriptive. As a result of the research, it was determined that students who could use E-communication skills were more adept than those who couldn't. To take advantage of new technology and improve their academic performance, students make use of a variety of skills. As a result of the applications/tools, students should be encouraged to gain E-communication skills. According to the findings, computer-based communication applications/tools, social networking sites, and research engines are important elements of today's learner, especially for students in academic subjects.

Based on the findings and findings, it was also identified that there was no significant difference in the use of E-communication skills for educational and academic purposes between male and female students, even though computer applications and the internet take a considerable amount of time. During recent pandemics, students had to be skilled in computer-related technologies because it was a necessity in the era. Both male and female students used electronic devices to improve their E-communication skills on an equal basis.

Using the mean, standard deviation, it was also established if there was a positive or negative relationship between E-communication skills and students' skills. Because researchers now use electronic skills to find relevant data in their field, such as using computer apps and the internet.

Nassoura (2020), in agreement with the current study, indicated that E-communication and learning improve students' motivation as well as their competency and skills. because motivation is the most important aspect in a student's efforts to explore, electronic learning.

Harrandi (2015) came to the same conclusion, indicating that there is a significant relationship between students' electronic learning and their motivation to learn about E-communication at the university level. To get the most out of technology-based education, Harrandi concluded that students' motivation to learn electronic knowledge is fundamental.

This finding agrees with Cuadrado-Garcia, Pons (2010), who claimed that electronic education and learning is not a preference but an essential component for students pursuing higher education. The findings revealed that there were no significant differences in the use of E-communication skills between male and female students. Both are equally engaged.

In opposition to the results of this study, Abate (2011) found that male students are more engaged in E-communication and learning than female students.

According to Khalil, (2017), the study concluded that in their online group activity, using an online communication tool (wiki) was more appropriate for developing their collaborative learning skills. Participants could communicate in a more coordinated manner. The advantage of using an online tool (wiki) was that it allowed people from different time frames to communicate. In contrast to a reactive tool (skype), more time was given for responses, allowing in enhanced critical thinking and high-quality responses. The e-mail inbox gives you a clear understanding of how much e-mail a supervisor might get daily (David,1998). This activity can eventually lead to a class discussion about various communication media and their usefulness for various situations. Students generally reply to e-mail communications or edit the attached document before responding. With a larger class size and/or fewer computers, the instructor may only send e-mail messages to each student, which they have to reply to (students do not deal with attached documents).

E-learning technologies should be provided to students as soon as they begin their studies at the institute because students' interest and skills in technology form quickly during this time. Because teaching is a complex creative activity, its effectiveness is highly dependent on the faculty's competence and creativity. It was a modern requirement to integrate e-learning tools and advanced pedagogical technologies in the classroom to engage students. Iskandarovich, (2021). The e-methodical and e-learning guide, in particular, is additional and leading material for the teacher, whereas electronic assignments and assessments, as well as multimedia applications, are the primary materials for students' independent work. Traditionally, at higher education institutions, the use of the following e-learning tools as teaching aids in lectures, practical, and laboratory classes serves to increase student activity in the classroom and improve subject performance. Stebelman, (1994), concluded that internet communication was so important that it needed to be included in the graduate curriculum.

5.4 Conclusion

The current study was an exploration of students' E-communication skills at the university level, with some limitations. As a result of the findings, it was determined that students were not much skilled in the use of E-communication skills. Students use a wide range of applications to take advantage of new technology to improve their academic performance. Students should be encouraged to develop E-communication skills as a skill not as a tool. Based on the research findings, it was indicated that computer-based communication applications, and E-communication skills e.g., whatsapp, e-mail, facebook, youtube, zoom meeting, google classroom, instant messaging, wikis, and mobile phones are essential components of today's learning environments, especially for students in academic fields. Students also use the internet and utilize their time and energy on computer applications throughout semester work while performing assignments and presentations, as well as updated information, but they were unable to acquire knowledge and information.

The study was to explore the E-communication skill of the students at the university level students are much more skilled in using applications at the university level for coordination, they attentively use apps for interaction, they are more composed in their daily life conversations, students satisfied with their communication with students and teachers, they efficiently and effectively use applications for learning and development of life skills. University students are using various applications for e-communication. It was concluded that university students are not much more skilled at using E-communication skills. But the applications students use for E-communication know how to use that for academic purposes. Furthermore, it is stated that university students who are skilled in using E-communication for creating content for communicating differently use different apps for developing content, such as apps for online meetings, Whatsapp, and E-mail, for

developing contents communication, are less more attentive and composed in their life while using applications.

The study was to investigate the student's frequency of use of E-communication applications according to the checklist how skilled university students are at managing those academic applications for E-communication, and it was concluded that they were more skilled at using those applications for academic purposes. Students were skilled at adapting academic information for E-communication skills. Students were skilled in more basic applications that are generally most commonly used in universities for years. The results suggest that students spent the majority of their time using e-mail to send and receive files, and the researcher also, used whatsapp and zoom meeting app for their online classes during a pandemic it is an essential app for all the students for their learning.

The study was to examine the challenges of the students while using applications for academic purposes how students communicated with their electronic communications. The results suggest that students spent the majority of the money on resources and they do not get proper benefit from the university, they have faced internet issues, lack of technological knowledge and skills, hacking issues, security issues, training issues, time management issues, lack of confidence, language, and culture barriers are the part of their learning in this 21st century they are facing these challenges.

The main challenge faced by university students in E-communication where public sectors have sufficient training and education regarding E-communication that's why E-communication skills seemed lacking. Students are not able to communicate easily on face-to-face interaction and also with the application, because educational institutions only focus on curriculum and subject-based information, practical and technological knowledge and experience are frequently insufficient for newly enrolled students.

5.5 Recommendations

E-communication skills have become a highly important increasing trend in recent years, and the skills to use E-communication is a very important part of getting a greater amount in the sense. To meet the challenges of the modern period, it is important to improve technical quality and provide an influence on the significance of E-communication skills among BS students. In this case, the recent research has suggested the following. Teachers should encourage students to use different skills by using various applications for online feedback, collaboration, peer competition, and the opportunity to participate in activities such as online-based learning on the use of new E-communication skills, and E-communication applications.

- 1 It is recommended that the teachers may motivate students to coordinate for assignments for giving and taking feedback from teachers online about their performances and grades.
- 2 It is recommended that students may get more attentive for interaction with students and teachers.
- 3 It is recommended that all students are not good at presentation skills so teachers may motivate students to get more composed about their thoughts and beliefs confidently.
- 4 It is recommended that universities may conduct different speech competitions for the enhancement of the skill of expressiveness of the students.
- 5 It is recommended that teachers may guide students about the safety measures and precautions for the satisfaction of their tasks and projects.
- 6 It is recommended that teachers may be encouraged students to enhance the skill of efficiency because it enhances different tasks efficiently.
- 7 It is recommended that students may use applications for academic purposes

because these applications are very helpful in educational tasks like Mobile Phones, E-mail, Google Classroom, Wikis, Zoom, and YouTube for learning effectively.

- 8 It is recommended that universities may provide students with proper internet connections and facilities for better academic performance.
- 9 It is recommended that teachers may also connect with students through LMS (Learning Management System) for different upgrading E-communication learning.

5.5.1 Suggestions for Future Researchers

Due to a lack of time and resources, the current study was restricted in some ways. As a result, there are some suggestions for upcoming researchers.

- 1 Only four universities were chosen for this study, and the researchers may look at the universities in the private sector.
- 2 Only universities in Islamabad's capital territory were explored; any other province or city can be considered for future research.
- 3 Students of the BS level were selected as a sample any university student can be implemented in terms.
- 4 Only students from social science departments were chosen as a population; future researchers might choose from a variety of faculties at various institutions for their new study.
- 5 In the current study, only one variable, E-communication skills, was explored; future researchers can explore other E-communication skills, technologies, tools, applications, social networking sites, and computer-related variables.
- 6 The future study aimed to look at e-learning, comparing E-communication skills to another variable, flipped learning, and other topics related to E-communication skills.
- 7 There has been limited research done on students' e-communication skills, it is recommended that fresh researchers work on it using different factors and approaches.
- 8 Future research could have been researched institute-based, home-based, subject-based, or organization-based, as it is not mentioned in the current study.

5.5.2 Delimitations

- 1 The study was delimited to four Public universities of Islamabad Capital Territory randomly.
- 2 The study was delimited to the Public sector universities of Islamabad Capital Territory only.
- 3 The study was delimited to the faculty of Social Sciences.
- 4 This study was delimited to the three departments of social sciences (IR, Psychology, and Education).
- 5 This study was delimited to the variable of E-communication skills only.
- 6 This study was delimited to the E-communication applications.
- 7 This study was delimited to the E-communication challenges.
- 8 Due to Covid-19, the study was delimited to the six skills of the Computer-Mediated Communication Competence Model.

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APPENDIX-A

Cover Letter of Questionnaire

Exploration of E-Communication Skills of Students at University Level

Dear Respondent,

M.Phil. Scholar from Education department I am working on my research topic the topic is mentioned above. I am requesting you to fill the questionnaire that is attached. The questionnaire consists of items that are related to E-communication skills.

I guarantee you that your response will be retained confidential. The questionnaire is self-developed to test the data of my study work if you are satisfied, then please consider this and also sign the informed approval.

Rubab Parvi

MPhil Education

Department of Education

National University of Modern Languages, Islamabad, Pakistan

rubabparvi14@gmail.com

APPENDIX- B

Students' questionnaires on E-communication skills

Dear Students

I am conducting a research study on “EXPLORATION OF E-COMMUNICATION SKILLS OF THE STUDENTS AT UNIVERSITY LEVEL” I am interested in exploring students' E-communication skills through closed-ended questionnaires. For this questionnaire, please consider E-communication to include all forms of Computer and mobile-based sources (e.g., What Sapp, Email, Facebook and Youtube, etc.) for sending and receiving Written Messages, E-mails, Data, Files, Information's related to the subject and field, Projects, and Tasks with others for academic purposes.

INSTRUCTIONS:

- 1) Please place a tick mark (✓) at the appropriate option to express your skills level in e-communication.
- 2) Please make the appropriate option to express your skills in handling and using different communication applications

1= Strongly Agree	2= Agree	3= Neutral	4= Disagree	5= Strongly Disagree
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	COO	Coordination	Level of skills				
			1	2	3	4	5
1	COO	I get a quick message reply sent to the people through E-mail?	1	2	3	4	5
2	COO	I understand watching all videos on YouTube?	1	2	3	4	5
3	COO	I am skilled at prioritizing my time of conversations on Facebook?	1	2	3	4	5
4	COO	I send relevant messages to the sender.	1	2	3	4	5
5	COO	I can facilitate online Zoom Meetings with other participants.	1	2	3	4	5
6	COO	I can construct on online assignment on Google classroom	1	2	3	4	5
7	COO	I can record and edit voice messages using Whatsapp	1	2	3	4	5
8	COO	I can share projects and information using Wikis with others	1	2	3	4	5
	ATT	Attentiveness					
1	ATT	I read your Emails attentively.	1	2	3	4	5
2	ATT	I can form different presentations while watching YouTube videos	1	2	3	4	5
3	ATT	I show compassion in your Facebook messages.	1	2	3	4	5
4	ATT	I can edit and modify existing texts messages	1	2	3	4	5
5	ATT	I can considerably spend my 3 to 4 hours on Zoom meeting classes	1	2	3	4	5

6	ATT	I can control on my speech communications via Whatsapp	1	2	3	4	5
7	ATT	I can prepare an assessment regarding my performance of study using Google Classroom	1	2	3	4	5
8	ATT	I can use Wiki to express ideas logically while writing the text for a communication	1	2	3	4	5
	COM	Composure					
1	COM	I can write an effective self-introduction in my E-mail	1	2	3	4	5
2	COM	I can watch YouTube for a better understanding of E-communication learning	1	2	3	4	5
3	COM	I can share interesting educational videos on Facebook	1	2	3	4	5
4	COM	I can send and receive informative messages in my group through Text	1	2	3	4	5
5	COM	I can start and close an online discussion on Zoom	1	2	3	4	5
6	COM	I use an assertive (forceful) style of writing in your What Sapp messages?	1	2	3	4	5
7	COM	I can manage virtual team lectures for students on Google Classroom	1	2	3	4	5
8	COM	I can practice Wiki as a collaborative professional application	1	2	3	4	5
	EXX	Expressiveness					
1	EXX	I express my understanding through E-mail?	1	2	3	4	5

2	EXX	These YouTube videos being tremendous time-savers for my university work.	1	2	3	4	5
3	EXX	I show consideration in my Facebook messages?	1	2	3	4	5
4	EXX	I use a lot of expressive symbols “smile” in my messages.	1	2	3	4	5
5	EXX	Do I get frustrated in an online meeting when I can’t get messages understood?	1	2	3	4	5
6	EXX	I try a lot of humor in my daily conversation on Whatsapp	1	2	3	4	5
7	EXX	I believe that my data and information are safe for a long time in Google classroom?	1	2	3	4	5
8	EXX	I can correct messages to the level, experience, and expectation of an audience on Wikis	1	2	3	4	5
	SAT	Satisfaction					
1	SAT	I make sure my objectives are highlighted in my Emails to others.	1	2	3	4	5
2	SAT	I choose an authentic YouTube link for sending comprehensive information.	1	2	3	4	5
3	SAT	I am expressive in Facebook conversations with teachers to get guidance.	1	2	3	4	5
4	SAT	My Instant messages are written in a confident style	1	2	3	4	5
5	SAT	I have a lively interaction with people through Zoom meetings.	1	2	3	4	5

6	SAT	I display concerns for the sender in What Sapp about messages.	1	2	3	4	5
7	SAT	I can share Evaluation feedback on Google Classroom	1	2	3	4	5
8	SAT	I can use Wiki platforms for communication with the group	1	2	3	4	5
	EFF	Efficiency					
1	EFF	I use symbols for your formal conversation on Emails.	1	2	3	4	5
2	EFF	I get quick access to the YouTube application regarding your topic.	1	2	3	4	5
3	EFF	I am familiar with Facebook sites and easily use them in coordinating with others.	1	2	3	4	5
4	EFF	I send necessary text information efficiently.	1	2	3	4	5
5	EFF	I manage daily tasks at university by organizing Whatsapp groups.	1	2	3	4	5
6	EFF	I manage to limit distractions in the Zoom classroom learning environment.	1	2	3	4	5
7	EFF	I organize my important data information on Google classroom.	1	2	3	4	5
8	EFF	I use Wiki new topics to coordinate with unfamiliar students.	1	2	3	4	5

D- Please write your any three problems/difficulties in e-communication

1-

.....

2-

.....

3-

.....



NATIONAL UNIVERSITY OF MODERN LANGUAGES
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF EDUCATION

ML.1-4/2020/Edu

Dated: 20-01-2020

To: **Rubab Parvi,**
1562-MPhil/Edu/S18

Subject: **APPROVAL OF MPhil THESIS TOPIC AND SUPERVISOR**

1. Reference to Minute Sheet No. ML.1-2/2020-Edu dated 02-1 -2020, the Higher Authority has approved your topic and supervisor/s on the recommendation of Faculty Board of Studies vide its meeting held on 15th Oct 2019.

a. **Supervisor's Name & Designation**

Dr. Hukam Dad Malik
Head / Associate Professor, Department of Education
NUML, Islamabad.

b. **Co-Supervisor's Name & Designation**

Ms. Uzma Mazhar
Lecturer, Department of Education
NUML, Islamabad.

c. **Topic of Thesis**

Exploration of E-Communication Skills of the Students at University Level

2. You may carry out research on the given topic under the guidance of your Supervisor/s and submit the thesis for further evaluation within the stipulated time. It is to inform you that your thesis should be submitted within the prescribed period by **31st Jan 2021** positively for further necessary action please.

3. As per policy of NUML, all MPhil/PhD theses are to be run through Turnitin by QEC of NUML before being sent for evaluation. The university shall not take any responsibility for high similarity resulting due to thesis prior run by any other individual.

4. Thesis is to be prepared strictly on NUML's format that can be taken from the MPhil & PhD Coordinator, Department of Education.

Telephone No: 051-9265100-110 Ext: 2090

E-mail: mdin@numl.edu.pk

Dr. Hukam Dad Malik
Head,
Department of Education

Cc to:

Dr. Hukam Dad Malik
Ms. Uzma Mazhar

CERTIFICATE OF VALIDITY



EXPLORATION OF E-COMMUNICATIVE SKILLS OF STUDENTS AT UNIVERSITY LEVEL

By Rubab Parvi

MPhil Scholar, Department of Education, national university of Modern Languages (NUML), H-9, Islamabad, Pakistan.

This is to certify that the self-developed questionnaire by the scholar towards her thesis has been assessed by me and I find it to have been developed adequately to access the Exploration of E-communicative skills of students at university level. It is considered that research instrument developed for the research mentioned above, it is according to the objectives and research questions of the study, assures adequate construct and content validity according to the purpose of the research, and can be used for the data collection by the researcher with fair amount of confidence.

Marium Din
Name: Dr. Marium Din
Designation: Assistant Professor
Institution Name: National University
of Modern Languages
Islamabad.
Dated: 26-07-2021

CERTIFICATE OF VALIDITY



EXPLORATION OF E-COMMUNICATIVE SKILLS OF STUDENTS AT UNIVERSITY LEVEL

By Rubab Parvi

MPhil Scholar, Department of Education, national university of Modern Languages (NUML), H-9, Islamabad, Pakistan.

This is to certify that the self-developed questionnaire by the scholar towards her thesis has been assessed by me and I find it to have been developed adequately to access the Exploration of E-communicative skills of students at university level. It is considered that research instrument developed for the research mentioned above, it is according to the objectives and research questions of the study, assures adequate construct and content validity according to the purpose of the research, and can be used for the data collection by the researcher with fair amount of confidence.

Name: Dr. Shazia Zamir

Designation: Associate Professor.

Institution Name: National University of
Modern Languages,
Islamabad.

Dated: 26-07-2021

Shazia



Hazara University

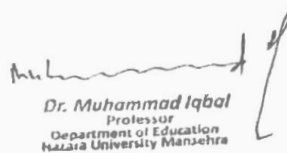
MANSEHRA, PAKISTAN
DEPARTMENT OF EDUCATION
GARDEN CAMPUS

VALIDATION OF RESEARCH TOOL

I have evaluated research tool (Questionnaire for Students) by MPhil student Ms. Rubab Parvi (Roll No. 1562-M. Phil/Edu/S18) regarding her research topic "**Exploration of E-Communication Skills of the Students at University Level**" from Department of Education, Faculty of Social Sciences, National University of Modern Languages (NUML), Islamabad. The scholar has prepared this research tool after conducting an in-depth study of related literature and materials. I have thoroughly reviewed the research tool and indicated deficiencies in the draft of questionnaire. For the purpose of refinement, the scholar is suggested to follow the following guidelines:

- i. The statements in interrogative forms be converted in simple statements.
- ii. Confirm alignment between questionnaire statements and research objectives by a thorough cross checking under the guidance of supervisor.

I believe that the research tools will serve the research purpose after incorporating the suggested improvement. The research topic is very pertinent, and I hope the student will produce a good piece of research.


Dr. Muhammad Iqbal
Professor
Department of Education
Hazara University Mansehra

Prof. Dr. Muhammad Iqbal Majoka
Department of Education,
Hazara University, Mansehra

Validation of Instrument

by Dr. Muhamamd Abiodullah Associate professor and Chairman Department of educational
Research and Evaluation. IER University of the Punjab, LAHORE

Title: Exploration of E-communication skills of the students at university level

I studied instrument thoroughly, keeping in mind the title of the study. The instrument covers all aspects related to E-communication skills of the students i.e. Coordination, Attentiveness, Composure, Expressiveness, Satisfaction and Efficiency. Some typographic errors e.g. What Sapp need to correct and similarly there is need to rephrase some statements I have highlighted. On the whole instrument can be used for Exploration of E-communication skills of the students at university level.



Dr. Muhammad Abiodullah
Chairman: Dept of Educational
Research & Evaluation
IER, Punjab University, Lahore



National University of Modern Languages
Quality Enhancement Cell
Sector H-9, P.O. Shaigan, Islamabad, Pakistan
Tel: +92-51-9265100 Ext 2246/2247
Web: www.numl.edu.pk

Dated: Oct. 2021

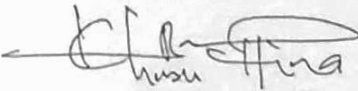
Dean
Faculty of Social Sciences

Subject: Turnitin Report of MPhil Thesis of Rubab Parvi (Education) 1st - Attempt

This is to state that MPhil thesis of Rubab Parvi has been run through Turnitin on 20th Oct, 2021. Paper ID is 1678923886 and similarity index is 05%. This is within the limit prescribed by the Higher Education Commission.

The subject report is attached for further processing please.




(Dr. Khushbakht Hina)
Director
Quality Enhancement Cell

APPENDIX-I

Students Check-list on use of Applications

Which applications did you use for academic purposes?

Whatsapp	<input type="checkbox"/>
E-Mail	<input type="checkbox"/>
Mobile Phones	<input type="checkbox"/>
Youtube	<input type="checkbox"/>
Facebook	<input type="checkbox"/>
Wikis	<input type="checkbox"/>
Zoom Meetings	<input type="checkbox"/>
Google Classroom	<input type="checkbox"/>

APPENDIX-J**List of Social Sciences Public Sector Universities in Islamabad.**

Public Universities

International Islamic University, Islamabad

Federal Urdu University, Islamabad.

National University of Modern Languages, Islamabad

National Defense University, Islamabad

National University of Science and Technology, Islamabad

Pakistan Institute of Development Economics PIDE

Allama Iqbal Open University, Islamabad

Quaid E Azam University, Islamabad

Federal Urdu University of Arts Science and Technology, Islamabad.

<https://www.hec.gov.pk/english/universities/pages/recognised.aspx>

Box 4.1

Sample size, confidence levels and confidence intervals for random samples

Population	Confidence level 90 per cent			Confidence level 95 per cent			Confidence level 99 per cent		
	Confidence	Confidence	Confidence	Confidence	Confidence	Confidence	Confidence	Confidence	Confidence
30	27	28	29	28	29	29	29	29	30
50	42	45	47	44	46	48	46	48	49
75	59	64	68	63	67	70	67	70	72
100	73	81	88	79	86	91	87	91	95
120	83	94	104	91	100	108	102	108	113
150	97	111	125	108	120	132	122	131	139
200	115	136	158	132	150	168	154	168	180
250	130	157	188	151	176	203	182	201	220
300	143	176	215	168	200	234	207	233	258
350	153	192	239	183	221	264	229	262	294
400	162	206	262	196	240	291	250	289	329
450	170	219	282	207	257	317	268	314	362
500	176	230	301	217	273	340	285	337	393
600	187	249	335	234	300	384	315	380	453
650	192	257	350	241	312	404	328	400	481
700	196	265	364	248	323	423	341	418	507
800	203	278	389	260	343	457	363	452	558
900	209	289	411	269	360	468	382	482	605
1,000	214	298	431	278	375	516	399	509	648
1,100	218	307	448	285	388	542	414	534	689
1,200	222	314	464	291	400	565	427	556	727
1,300	225	321	478	297	411	586	439	577	762
1,400	228	326	491	301	420	606	450	596	796
1,500	230	331	503	306	429	624	460	613	827
2,000	240	351	549	322	462	696	498	683	959
2,500	246	364	581	333	484	749	524	733	1,061
5,000	258	392	657	357	536	879	586	859	1,347
7,500	263	403	687	365	556	934	610	911	1,480
10,000	265	408	703	370	566	964	622	939	1,556
20,000	269	417	729	377	583	1,013	642	986	1,688
30,000	270	419	738	379	588	1,030	649	1,002	1,737
40,000	270	421	742	381	591	1,039	653	1,011	1,762
50,000	271	422	745	381	593	1,045	655	1,016	1,778
100,000	272	424	751	383	597	1,056	659	1,026	1,810
150,000	272	424	752	383	598	1,060	661	1,030	1,821
200,000	272	424	753	383	598	1,061	661	1,031	1,826
250,000	272	425	754	384	599	1,063	662	1,033	1,830
500,000	272	425	755	384	600	1,065	663	1,035	1,837
1,000,000	272	425	756	384	600	1,066	663	1,036	1,840

	<i>Population</i>	<i>Sample</i>
Chinese	100	80
Spanish	50	44
English	800	260
American	50	44
Total	1,000	428

Our original sample size of 278 has now increased, very quickly, to 428. The message is very clear: the greater the number of strata (subgroups), the larger the sample will be. Much educational research concerns itself with strata rather than whole samples, so the issue is significant. One can

Date: 01-12-2021

Student Name: Rubab Parvi

Registration no: 1562-M.phil/Edu/S18

Thesis title: “Exploration of E-communication skills of the students at university level”

To Whome it May Concern

This document explains that the mentioned thesis was proofread and edited. The document was edited for English language, grammar, syntax, spelling and overall format as per university format and guidelines. All amendments were tracked with the Microsoft Word using feature “Track Changes”. However, author was allowed to deal with suggested changes to maintain proper meaning of content with the intent to deliver author’s message unaltered.



Dr. Sumera Gull Bhatti
Assistant Professor (IPFP fellow)
Lahore College for Women University, Lahore

ANNEXURE 1

Total number of students of social sciences departments enrolled in BS level

Departments	NUML	IIUI	AIR	FUAST	Total
International Relations	359	346	416	514	1635
Education	197	186	140	153	676
Psychology	335	307	206	213	1061
Total	891	839	762	880	3372