Role of Information and Communication Technologies (ICTs) in Students' Knowledge at University Level: An Analysis

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Abstract

The study analyzed the "role of Information and Communication Technologies (ICTs) in students' knowledge at university Level". The study was descriptive and survey in nature. The quantitative and qualitative (QUAN-qual) methods were used. The explanatory sequential technique was adopted. The cluster random sampling was used for data collection. The study sample consisted of 384 male and female students (192 male, 192 female) (undergraduate) at Khwaja Fareed University of Engineering and Information Technology (KFUEIT). The questionnaire was developed for data collection from students. The validity of the questionnaire was ensured through experts' opinions, and the reliability of the questionnaire was calculated through SPSS-24 using Cronbach Alpha. The study found that 80% of students used ICTs to increase their subject knowledge. The mean score of 3.95 and the standard deviation of 1.06 supported this. In qualitative data, the majority of students agreed to increase the availability of the Internet; most of them suggest to promote computer-based assignments, some of them said to arrange online classes, and few said to facilitate the use of LMS, while very few suggested encouraging the use of the projectors. Technology should be provided to all students for learning. The study recommended that by integrating ICTs into the teaching and learning process, teachers and students may be provided with adequate technical support, administrative support and appropriate access to technological resources.

Keywords: Information and Communication Technologies, Student Learning, Knowledge, Quantitative and Qualitative.

Introduction

It is essential to identify the meaning of ICT. ICT, the abbreviation for information and communication technology, is a broad term that describes the technologies, tools, and systems that facilitate information storage, retrieval, transmission, and manipulation. It comprises various communication technologies, including computers, laptops, tablets, software, applications, networks, telecommunications and digital devices (Ratheeswari 2018; Rasheed et al., 2024). Daniels describes ICT as one of the most central pillars of modern society. Understanding ICT and acquiring its important concepts and skills are now considered essential elements of education in many countries. However, due to globalization, every part of human being has undergone significant change, and education is no exception (Mehmood et al., 2022). Nowadays, all the things associated with ICT are essential for human life because schooling

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can only be completed with ICT devices. These technologies give swift access to information through different communication devices such as desktops, computers, laptops, the internet, fax machines, multimedia products, Wi-Fi devices, etc. Technology has also affected various parts of society, such as health, business, and educational institutions (Abdullayev, 2020; Shafqat et al., 2024).

Education becomes more accessible and more enjoyable if the teacher uses technology. Information and communication technology mentor instructors in communicating information by employing various teaching methods that improve students' learning approach and their skills, knowledge, talent, moral understanding and values. By applying different techniques and strategies, instructors can increase students' knowledge and abilities. Such a learning environment gives complete understanding and interest to the students (Oyedokun & Adeolu-Akande, 2022; Mumtaz et al., 2024).

The ICT also shifts the teaching pattern from instructor-centered to student-centered. It also accomplishes the many necessities of students in the classroom and brings variety to teaching and learning. It is important to note that effectively integrating ICT into the learning process requires proper infrastructure and training for students and teachers. However, ICT offers several benefits; it should be used sensibly, ensuring that it complements and enhances traditional teaching methods rather than replacing them (Das, 2019; Khan et al., 2022).

Review of Literature

"Literature review overviews major writings and other sources on a selected topic. Sources covered in the review may include scholarly journal articles, books, and websites. The purpose of the literature review is to gain an understanding of the existing research and debates relevant to a particular research topic" (Ahmad et al., 2024, p.302). Following is the literature review of the present research study. Moreover, "a review of literature may only be a clear overview of the sources, in an organizational pattern. Its function is to estimate and summarize the previous writings linked to the current topic" (Ahmad et al., 2024, p.3).

Information and communication technologies that provide information access through communication are called technologies. Although it focuses on communication technologies, it is related to information technology (IT). This covers mobile phones, wireless networks, the internet and other communication tools. To improve teacher quality and facilitate effective instruction, we now have more options for integrating ICT into teacher preparation programs (Ratheeswari, 2018; Ullah et al., 2020).

Our society's educational field states our society's educational field. He is still striving to improve every aspect of our society. Skilled teachers can turn creative students into capable social workers, politicians, poets, philosophers, and other members of society. A teacher may assist their students. The rapid advancement of technology has significantly impacted both societal demands and our way of life (Ugwu & Nnaekwe, 2019).

Today's teacher associations find it difficult to restructure their curricula and physical classrooms to bridge the teaching and learning technology gap between the present and the future. They do this because they recognize how new technologies affect business and life.

The use of ICT is accelerating social change. They affect a lot of different aspects of life. In the classroom, the impacts are becoming apparent. Because ICT gives teachers and students more opportunities to tailor instruction to each student's need, society is' pressuring schools to adapt appropriately to this technological revolution (Bindu 2016; Maitelo et al., 2024).

Information and communication technologies (ICT) refer to computers and internet connections used to handle and communicate information for learning purposes. ICTs in learning refer to integrating Information and communication technologies into the teaching-learning process. This contains the use of hardware, software, the internet and other digital tools to increase and provide learning activities (Anthonysamy et al., 2020).

Once they are familiar with technology, students pick it up quickly. As a result, they have access to an entirely new world of learning opportunities, and their chances of success increase significantly. Students will flourish in an increasingly technological environment as they learn new skills and train themselves with the latest technology. Information technologies allow for global collaborations. Using global networks, students can learn from interactions with information, interfaces, teachers, and other learners (Shadiev et al., 2018).

UNESCO was instrumental in launching the education for all projects to fully utilize ICT. According to the generally accepted Dakar framework for action (Zafar et al., 2021), these technologies (ICTs) create enormous possibilities for knowledge transmission, practical learning, and more effective education services.

After more than ten years of using ICT to promote development, raising awareness is still necessary. ICT must be fully integrated into development activities when supporting educational objectives (Adedoyin & Soykan, 2023).

Information and Communication Technology (ICT) in Education

Policymakers accept ICT, and some institutions have made it a required subject. In education, ICT may help students compete in the global economy by allowing them to be part of a skilled workforce, as well as facilitating social mobility by:

- We are enhancing learning and giving new sets of skills.
- I am making faculty training easier.
- Increasing students' reach through Open Online Courses (MOOCs).
- Improving institutional administration to progress the quality and efficiency of service delivery
- Reducing expenditures and saving time are connected to information dissemination and systematizing routine daily procedures.

It is common to hear terms like e-learning, e-commerce, e-banking, and so on. As a result, educational curriculum makers provide ICT around which other disciplines revolve, at least because it provides a platform for modern learning.

In the future, textbooks will be replaced with soft copies that are available globally. As a result, ICT is an essential instrument for any meaningful learning in this opportunity (Henderson, 2020).

Importance of Information and Communication Technologies (ICTs)

ICT has impacted our lives in numerous ways, and today's society is a consumer-driven technology. Whatever we think of technology, there is no negating that it is a central part of our lives and is here to stay (Kapur, 2019).

The following are some significant aspects to consider regarding the importance of ICTs in education:

Online Learning or E-learning

Due to the use of ICT in the classroom, teachers and students can learn in new ways. With so many extraordinary things happening in our lives, e-learning or online learning is growing in popularity. This enables educational institutions to ensure that students have access to course materials not only while in the classroom but also at home or in hospitals (Gupta & Gupta, 2020; Bhutto et al., 2024).

ICT Use Encourages Collaboration

Place a laptop, iPod or PC in the classroom to see how this operates. ICT inevitably brings students together to converse and debate their work, creating possibilities for communication and fostering language development (Gupta & Gupta, 2020).

ICT Improves Students' Engagement of Knowledge in the Classroom
Information and communication technology (ICT) in the classroom has become increasingly influential, significantly increasing students' engagement with content. Students can have engaging and dynamic learning experiences when digital resources like interactive software, instructional apps and online platforms are integrated. Students can engage with the material in ways that individually speak to them because of these tools, which support a variety of learning styles. Multimedia components such as movies, role-playing games and interactive lectures draw students in and help them comprehend challenging ideas more deeply (Hina et al., 2023; Zafar et al., 2023).

ICT in the classroom significantly improves information retention, increasing student engagement and creating a more dynamic and collaborative learning environment. Using technology in school is becoming increasingly important as education develops to better prepare students for the demands of the 21st century (Lawrence & Tar, 2018; Mughal et al., 2024).

Technology-assisted Learning
Technology-assisted learning, which uses digital tools and platforms to improve teaching and learning, is a paradigm change in education. This method uses technology to produce more dynamic and engaging learning environments. Virtual reality simulations, learning management systems, educational applications, and online courses are just a few of the instruments that make up TAL. Using these technologies, students can receive individualized instruction that meets their requirements and learning preferences. In addition, TAL breaks down geographical constraints and allows for remote or asynchronous learning by facilitating access to many materials. It also provides instructors with insightful data, enabling them to deliver more focused and informed education. Even if TAL has the potential to transform education completely, its successful implementation will depend on maintaining support for teachers, giving all students equal access to technology, and carefully considering pedagogical principles. The importance of TAL in determining the direction of education is expected to grow as technology develops (Henderson, 2020).

Improve Their Attainment Level
Carefully thought-out planning will increase participation, fostering the growth of 21st-century skills such as collaboration, creative problem-solving, and complex thinking. As a teacher, you make the conscious decision to include technology in the classroom, and it should always involve careful planning and teamwork (Lei et al., 2021).

Increase Student Engagement and Participation
One of the most notable advantages of ICT training for instructors is improved student involvement and classroom participation. Teachers can employ technology to create more engaging and dynamic classes that attract students' attention and interest throughout the class. This can result in increased information retention and academic achievement for students. Furthermore, technology enables students to cooperate and connect, which helps mend their societal and communication skills. Overall, ICT training for instructors can improve students' learning and help them reach their educational goals (Uluyol & Şahin, 2016).

Access to a Wide Range of Educational Resources
Access to an extensive array of educational resources is another advantage of ICT training for educators. Teachers may enthusiastically access an abundance of material and resources for their lectures through digital libraries, instructional websites and online databases due to technology. This can assist educators in designing more diverse and compelling lessons that

accommodate their students' various students preferences and skill levels. Technology can also allow instructors to work with other educators and exchange ideas and resources to improve their instructional strategies and the standard of education. (Mathayo 2016).

Research Objective
The research objectives of the study were:
- To determine the role of ICTs in students' knowledge at university level?

Research Question
The research questions of the study were:
1. What is the role of ICTs in students' knowledge at university level?

Research Methodology

The research methodology is the procedure that the researchers use to gather data for resolving problems of investigation and design of the research, which comprises the whole procedure that is conducted (Ahmad et al., 2022, p.524). The research methodology is vital because, in this part, the researcher gives an account of the methods he has used to conduct his research. It helps to solve the stated problem by providing a systematic structure (Ahmad et al., 2023; Jalbani et al., 2023). Research design includes the entire process used in conducting research (Rao et al., 2023; Sadaf et al., 2024). The present study was descriptive and survey in nature. The quantitative and qualitative (QUAN-qual) techniques were adopted for the proposed research. The explanatory sequential approach was used. "The population is defined as a set of individuals, data, or items from which a statistical sample is taken" (Younus et al., 2023, p.3523). The population of the study consisted of All (Undergraduate) students of the faculty of Humanities and Social Sciences, Electrical and Computer Engineering, Information Technology, and Natural and Applied Sciences of KEFUIT. The cluster random sampling technique was used. The desired data was collected from the Khwaja Fareed University of Engineering and Information Technology (KFUEIT). The researcher divided the population into four (04) faculties. The two departments from each faculty were selected as a sample. The researcher collected equal data from each department. The study sample comprised three hundred and eighty-four (384) students (192 male, 192 female) (undergraduate) at Khwaja Fareed University of Engineering and Information Technology (KFUEIT).

Table 1: Study sample

Faculties	Departments	7th Semester		8th Semester		Total
		Girls	Boys	Girls	Boys	
Humanities and Social Sciences	English	12	12	12	12	48
	Physical Education	12	12	12	12	48
Electrical and Computer Engineering	Electrical	12	12	12	12	48
	Computer and software engineering	12	12	12	12	48
Information Technology	Information technology	12	12	12	12	48
	Cyber security	12	12	12	12	48
Natural and Applied Sciences	Chemistry	12	12	12	12	48
	Math	12	12	12	12	48
Total		96	96	96	96	384

The validity and reliability of the research tool was calculated. The validity of the questionnaire was ensured through expert opinion. The questionnaire was refined and modified through based on expert opinion. The reliability of the questionnaire was calculated through SPSS choron Batch alpha. The researcher was personally visiting the various departments of KFUEIT, and was collecting the data from the (under-graduate) students' at KFUEIT.

Data Analysis

After collecting whole data, the data was analyzed through SPSS-24 software using various statistical like frequency, percentage, standard deviation and mean score to achieve the pre-determined research objectives. For each statement five option were calculated from Likert scale by applying various statistical formula. By ticking any one option from the five option indicated the respondent degree to which they were agree or disagree.

First Part: Quantitative Data Analysis
The quantitative data analysis based on questionnaire data collection from Students'.

Table 2: Factor 1: Use of ICTs to Increase Students Knowledge

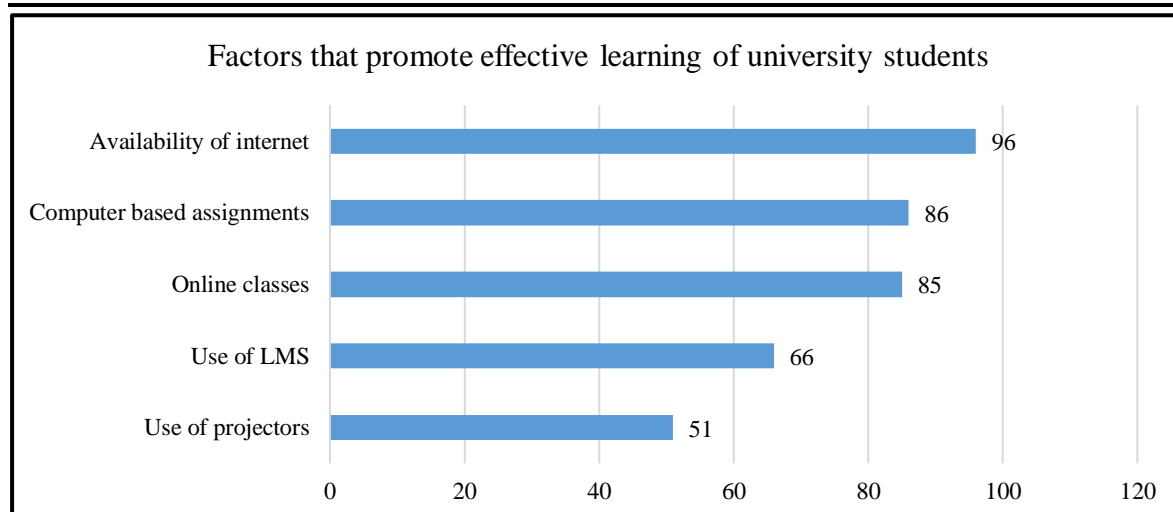| Items	Stat.	Responses						SD	Mean
		SDA	DA	UD	A	SA	Total		
Learn real world situation	F	39	41	50	132	122	384	1.30	3.67
	%	10	11	13	34	32	100%		
Increase subject knowledge	F	14	37	29	179	125	384	1.06	3.95
	%	03	09	08	47	33	100%		
Develop lesson content	F	14	24	47	153	146	384	1.04	4.02
	%	04	06	12	40	38	100%		
Use internet for assigned topics	F	18	22	32	170	142	384	1.05	4.03
	%	05	06	08	44	37	100%		
Communicate through ICTs	F	16	33	40	152	143	384	1.09	3.97
	%	04	09	10	40	37	100%		
Get quick information	F	19	26	33	156	150	384	1.09	4.02
	%	05	07	9	40	39	100%		
Understand through ICT	F	15	30	37	154	148	384	1.07	4.02
	%	04	08	10	40	38	100%		
Learn effectively	F	15	27	49	153	140	384	1.06	3.98
	%	04	07	13	40	36	100%		
Learn through online dictionary	F	21	21	35	157	150	384	1.09	4.03
	%	06	06	09	40	39	100%		
Total	F	171	261	352	1406	1266	3456	1.1	3.9
	%	05	07	10	41	37	100%		

Table 2 represents the responses regarding factor 1 use of ICTs to increase students' knowledge. The data show that 78% (41%+37%) of students' agreed with the factor use of ICTs to increase students' knowledge. Additionally, 17% (10%+7%) of students' disagreed with use of ICTs to increase students' knowledge. Similarly, 05% of students were undecided with use of ICTs to increase students' knowledge. Mean score of 3.9 and the standard deviation of 1.1 further supported the statement.

Table 3: Factor.2: Problems and issues of ICTs

Items	Stat.	Responses						SD	M
		SDA	DA	UD	A	SA	Total		
Improper infrastructure	F	33	34	32	158	127	384	1.23	3.81
	%	09	09	08	41	33	100%		
Insufficient no. of computer	F	12	35	31	163	143	384	1.05	4.02
	%	03	09	08	43	37	100%		
Limited time to access ICTs lab	F	17	27	46	172	122	384	1.23	3.92
	%	04	07	12	45	32	100%		
Hindrance in learning	F	16	24	48	157	139	384	1.06	3.99
	%	04	06	13	41	36	100%		
Lack of hands-on practice	F	13	29	44	172	126	384	1.03	3.96
	%	03	08	11	45	33	100%		
Inadequate maintenance of ICTs lab	F	13	25	37	159	150	384	1.03	4.06
	%	03	07	10	41	39	100%		
Inadequate ICTs resources	F	10	24	40	181	129	384	0.96	4.03
	%	03	06	10	47	34	100%		
Insufficient power supply	F	12	23	34	159	156	384	1.00	4.10
	%	03	06	09	41	41	100%		
Total	F	126	221	312	1321	1092	3072	1.07	3.9
	%	04	07	10	43	36	100%		

Table 3 represents the responses regarding factor 2 problems and issues of ICTs. The data showed that 79% (43%+36%) of students' agreed with problems and issues of ICTs. Additionally, 11% (7%+4%) of students' disagreed with problems and issues of ICTs. Similarly, 10% of students' undecided with problems and issues of ICTs. Mean score of 3.9 and the standard deviation of 1.07 further supported.

Qualitative Data Analysis

Figure 1: Themes about factors that promote effective learning for University

Factors that promote effective learning of university students

- Availability of internet: 96
- Computer based assignments: 86
- Online classes: 85
- Use of LMS: 66
- Use of projectors: 51

The majority of the students agreed to increase the availability of the internet. Most of them suggested promoting computer-based assignments, some said arranging online classes, and few said encouraging the use of LMS, while very few suggested promoting projectors.

Findings
The findings of the study were as follows;

Factor 1: Use of ICTs to increase student's knowledge
- The study found that 66% (34%+32%) of students agreed to use ICTs to learn about real-world situations. Additionally, 21% (11%+10%) of students' disagreed that they use ICTs to learn about real-world situations. Similarly, 13% of students are undecided about using ICTs to learn about real-world situations. A mean score of 3.67 and a standard deviation 1.30 further supported the statement.
- The study found that 80% (47%+33%) of students agreed to use ICTs to increase their knowledge. Additionally, 12% (09%+03%) of students' disagreed that they use ICTs to increase their subject knowledge. Similarly, 08% of students are undecided about using ICTs to increase their subject knowledge. A mean score of 3.95 and a standard deviation 1.06 further supported the statement.
- The study found that 78% (40%+38%) of students agreed to use ICTs to construct their lesson content. Additionally, 10% (06%+04%) of students' disagreed that they use ICTs to construct their lesson content. Similarly, 12% of students were undecided about using ICTs to construct their lesson content. The mean score of 4.02 and the standard deviation of 1.04 further supported the statement.
- The study found that 81% (44%+37%) of students agreed to search the internet for assigned topics. Additionally, 11% (06%+05%) of students' disagreed that they searched the internet for assigned topics. Similarly, 08% of students are undecided about whether they should search the internet for assigned topics. A mean score of 4.03 and a standard deviation 1.05 further supported the statement.
- 77% (40%+37%) of students agreed to communicate through ICTs. Additionally, 12% (09%+04%) of students' disagreed that they communicate through ICTs. Similarly, 10% of students are undecided about whether they communicate through ICTs. A mean score of 3.97 and a standard deviation 1.09 further supported the statement.
- The study found that 79% (40%+39%) of students agreed that they get information immediately through ICTs rather than print material. Additionally, 12% (07%+05%) of students disagreed that they get information immediately through ICTs rather than print material. Similarly, 09% of students are undecided that they get information immediately through ICTs rather than print material. A mean score of 4.02 and a standard deviation 1.09 further supported the statement.
- The study found that 78% (40%+38%) of students agreed to communicate through ICTs. Additionally, 12% (08%+04%) of students' disagreed that they communicate through ICTs. Similarly, 10% of students are undecided about whether they communicate through ICTs. A mean score of 4.02 and a standard deviation 1.07 further supported the statement.
- The study found that 82% (46%+36%) of students agreed that when they use ICTs, they learn things effectively. Additionally, 11% (07%+04%) of students disagreed that when they use ICTs, they learn things effectively. Similarly, 13% of students were undecided that they learn things effectively when they use ICTs. The mean score of 3.98 and the standard deviation of 1.06 further supported the statement.
- The study found that 79% (40%+39%) of students agreed that they use encyclopedias and internet dictionaries to learn. Additionally, 12% (06%+06%) of students disagreed that they did not use encyclopedias and internet dictionaries to learn. Similarly, 09% of students were

undecided about using encyclopedias and internet dictionaries to learn. The mean score of 4.03 and the standard deviation of 1.09 further supported the statement.

Factor 2: Problems and Issues of ICTs

- The study found that 74% (41%+33%) of students agreed that they get irritated because of the ICT Lab's inadequate infrastructure. Additionally, 18% (09%+09%) of students' disagreed that they get irritated because of the ICT Lab's inadequate infrastructure. Similarly, 08% of students are undecided about getting irritated because of the ICT Lab's inadequate infrastructure. A mean score of 3.81 and a standard deviation 1.23 further supported the statement.

- The study found that 80% (43%+37%) of students agreed that they get disturbed due to the adequate number of computers available. Additionally, 12% (09%+03%) of students disagreed that they get disturbed due to the adequate number of computers available. Similarly, 08% of students were undecided that they get disturbed due to the adequate number of computers available. The mean score of 4.02 and the standard deviation of 1.05 further supported the statement.

- The study found that 74% (41%+33%) of students agreed that they get irritated because of the ICT Lab's inadequate infrastructure. Additionally, 18% (09%+09%) of students' disagreed that they get irritated because of the ICT Lab's inadequate infrastructure. Similarly, 08% of students are undecided about getting irritated because of the ICT Lab's inadequate infrastructure. A mean score of 3.81 and a standard deviation 1.23 further supported the statement.

- The study found that 77% (41%+36%) of students agreed that they have trouble learning because of poor internet access. Additionally, 10% (06%+04%) of students disagreed that they have trouble learning because of poor internet access. Similarly, 13% of students were undecided. The mean score of 3.99 and the standard deviation of 1.06 further supported the statement.

- The study found that 78% (45%+33%) of students agreed that they perceive a gap in their knowledge due to a deficiency in practical experience. Additionally, 11% (08%+03%) of students' disagreed that they perceive a gap in my knowledge due to a deficiency in practical experience. Similarly, 11% of students are undecided that they perceive a gap in their knowledge due to a deficiency in practical experience. A mean score of 3.96 and a standard deviation 1.03 further supported the statement.

- The study found that 80% (41%+39%) of students agreed they get interrupted because the ICT Lab is not maintained well enough. Additionally, 10% (07%+03%) of students' disagreed that they get interrupted because the ICT Lab is not maintained well enough. Similarly, 10% of students are undecided about whether they get interrupted because the ICT lab is not maintained well enough. A mean score of 4.06 and a standard deviation of 1.03 further supported the statement.

- The study found that 81% (47%+34%) of students felt disappointed by inadequate ICT resources. Additionally, 09% (06%+03%) of students' disagreed that they feel disappointed because of the inadequate ICT resources. Similarly, 10% of students are undecided about feeling disappointed by inadequate ICT resources. A mean score of 4.03 and a standard deviation of 0.96 further supported the statement.

- The study found that 82% (41%+41%) of students agreed they became confused due to insufficient power supply. Additionally, 09% (06%+03%) of students' disagreed that they became confused due to insufficient power supply. Similarly, 09% of students were undecided and confused due to insufficient power supply. A mean score of 4.10 and a standard deviation of 1.00 further supported the statement.

Part -2 Findings of Qualitative Data
It shows themes about factors that promote effective learning for university students. It showed that most of the students agreed to increase Internet availability. Most of them suggested promoting computer-based assignments. Some said to arrange online classes, and a few said to encourage using LMS, while very few suggested promoting the use of projectors.

Discussion

Factor 1 was related to the use of ICTs to increase students' knowledge. The study illustrated that the majority of students use ICTs to learn about real-world situations, develop their learning content through ICTs, get information immediately through ICTs rather than print material, communicate through ICTs, use ICTs to learn things effectively and use encyclopedias' and internet dictionaries to learn. According to Baran and Uygun (2016), ICTs can be related to and integrated into education. TPACK enables instructors to think about complex learning when ICTs are incorporated into their work practices.

Factor 2 was related to the problems and issues of ICTs. The study illustrated that the majority of Students get irritated because of the ICT lab's inadequate infrastructure, get disturbed due to adequate no computers available, feel distracted due to having limited access to the ICT lab, have trouble learning because of poor internet access, feel the gap in their learning due to lack of hands-on practice, get interrupted because the ICT lab is not maintained well enough, feel disappointed because of the inadequate ICT resources, which were diverted due to insufficient power supply. Billingsley, Smith et al. (2019) described that knowing how much VR has previously been used, teacher educators can determine whether these virtual encounters expand teacher candidates' learning experiences and justify the resources committed.

Conclusion

The study concluded that most students use ICTs to learn about real-world situations. However, some students do not learn in actual-world situations through ICTs, and a few students may have yet to have a real-world problem with ICTs. The study depicted that most students improve their subject knowledge through ICTs. However, some students do not improve their subject knowledge through ICTs, and a few students may or may not improve their subject knowledge through ICTs.

The study illustrated that the majority of student develop their learning content through ICTs. Additionally, some students do not build their learning content through ICTs. Similarly, only some students may or may develop their learning content through ICTs. The study affirmed that most students search the Internet for prescribed topics. Additionally, some students need to search the Internet for prescribed topics. Similarly, some students may need help to search the Internet for prescribed topics. The study explored the fact that the majority of students communicate through ICTs. Moreover, some students need to communicate through ICTs, and only some students may or may not speak through ICTs. The study concluded that most students get information immediately through ICTs rather than print material.

Furthermore, unlike print material, some students wait to get information immediately through ICTs. Similarly, unlike print material, some students may wait to get information immediately through ICTs. The study illustrated that the majority of students communicate through ICTs. In addition, some students need to communicate through ICTs, and only some students may or may not speak through ICTs. The study explored that most students use ICTs to learn things effectively.

Additionally, some students do not use ICTs, so they learn things effectively. Similarly, a few students'' may or may not use ICTs to learn things effectively. The study depicted that most students use encyclopedias and Internet dictionaries to learn.

Additionally, some students" do not use encyclopedias" and internet dictionaries to learn, and

a few students" may or may not use encyclopedias" and internet dictionaries to learn. Overall, the majority of students use ICTs to increase their subject knowledge.

The study explored that most students get irritated because of the ICT lab's inadequate. Some students are not irritated because of the ICT lab's inadequate infrastructure. Similarly, a few students may or may not get irritated because of the ICT lab's inadequate infrastructure. The study concluded that most students get disturbed due to inadequate computers available. Also, some students do not get disturbed because no computers are available. Similarly, only some students may or may not get disturbed due to adequate computers. The study illustrated that most students feel distracted due to limited access to the ICT lab. Additionally, some students do not feel distracted due to limited access to the ICT lab. Similarly, some state students may not feel distracted due to limited access to the ICT lab. The e-study affirmed that most students have trouble learning because of poor internet access.

Additionally, some students do not have trouble learning because of poor internet access. Similarly, only some students may or may have difficulty learning because of poor internet access. The study explored that most students get in their learning due to lay hands and hands-once. Additionally, some students do not feel a gap in their education due to a lack of hands-on practice. Similarly, with the same ratio of students, the students may or may not feel a gap in their learning due to a lack of hands-on practice. The study concluded that most students get interrupted because the ICT Lab is insufficiently maintained. Additionally, some of the students are not interrupted due to inadequate maintenance of the ICT.

Similarly, a few students may not be interrupted by inadequate lab maintenance. The study showed that most students feel disappointed by inadequate ICT resources. Additionally, some students are not unhappy because of the inadequate ICT resources. Similarly, only some students may feel satisfied by adequate ICT resources. The study illustrated that most students diverted due to insufficient power supply.

Additionally, some students do not become confused due to insufficient power supply. Similarly, the same ratio of students may or may not become confused due to inadequate power supply. Most students agreed that they feel displeasure because they have become diverted by the insufficient power supply.

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