Pre-service Urdu Medium Teachers' Experience of Technology-Driven Classrooms

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ABSTRACT

In the COVID-19 pandemic when all educational institutions were closed, the importance of educational technology was widely accepted. E-learning, online learning, mobile learning, and other similar terms have proven their value in the educational arena. Many of us were unfamiliar with the change, as were many pre-service teachers who were participating in their first online course. The purpose of this study was to study pre-service teachers' experiences in an online classroom environment. Data was gathered by filling out an online survey from 40 students who were in the first year of a B.Ed. programme in Urdu medium at a Central University in India. The findings revealed that the participants faced a variety of difficulties, and they made recommendations for improving the effectiveness of online courses. Despite the fact that the study had some limitations, the findings might be extremely beneficial to everyone involved in education.

Keywords: Educational Technology, Pre-Service Teachers, Online Learning.

Introduction

In the information age, rapid technological advancements have brought revolutionary changes to the field of information. Consequently, societies, institutions, and individuals are compelled to keep pace with these changes. As a result, self-renewal and growth have become essential in adapting to evolving circumstances and institutions. The profound impact of modern technologies on the new generation of students is undeniable. Technology provides students with easy access to information, enabling instant learning and providing enjoyable opportunities to practice acquired knowledge. It facilitates learning about new topics while also deepening understanding of complex subjects. Utilizing technology in and out of the classroom allows students to acquire the 21st-century technical skills necessary for their future. Tinio (2002) asserted that ICT has a tremendous impact on education in terms of the acquisition and absorption of knowledge for both teachers and students.

In the present era, technology-enabled education, primarily online education, not only enables people to attend schools physically located on another part of the planet but also allows them to work and study. Many educational institutions have recognized the role of technology in education, enabling students to attend classes, take tests, and work on projects at their convenience. David Warlick (2006), an educator, author, and early adopter of technology in education, emphasizes the importance of technology in education with his statement: "We need technology in every classroom and in every student and teacher's hand because it is the pen and paper of our time, and it is the lens through which we experience much of our life."

Modern communication technologies have significantly eased the process of learning from home. The online teaching-learning method gained prominence during the 2020 global pandemic when schools were closed, and distance learning became widely accepted. Even prior to this, online courses enjoyed great popularity, offering education to individuals seeking professional advancement but lacking the time or financial resources for traditional schooling. The significance of technology in education is apparent across all levels, granting uninterrupted 24/7 access to educational resources. Online teaching played a pivotal role in India's education system, especially during the Covid-19 pandemic when schools

and colleges were shut down after lockdowns. The COVID-19 crisis increasingly highlights the importance of integrating online education into teaching and learning processes. Classes shifted entirely online, accessible via laptops or mobile devices. Nowadays, hybrid learning amalgamates remote technological access with conventional classroom instruction.

For the first time in India, online classes were conducted on a massive scale during the COVID time. However, despite the internet being a major technological advancement reshaping societies and universities worldwide, the inception of these classes brought forth various challenges for both teaching and learning communities. Pokhrel and Chhetri (2021) pointed out several limitations of online teaching and learning: "the weakness of online teaching infrastructure, limited exposure of teachers to online teaching, information gaps, non-conducive learning environments at home, equity issues, and challenges in achieving academic excellence in higher education." The authors advocated the need for diverse pedagogical approaches suited to the courses being taught. Although ongoing research literature highlights both limitations and strengths of online learning compared to face-to-face instruction, various studies document students' negative experiences with online learning during the pandemic. Abbasi et al. (2020) found that 77% of students held negative perceptions about online learning, with 84% reporting reduced interactions between students and instructors in a study involving medical and dental students in Pakistan.

An effective learner is expected to immerse themselves in the ongoing progress of the contemporary education system, being aware not only of educational developments but also updated on utilizing new teaching methods, strategies, instruments, tools, and techniques. For Urdu medium students, it is crucial that they not only be mindful of various teaching methods, approaches, tools, and techniques but also know how to effectively apply them. Furthermore, they should possess comprehensive mastery of both technological and pedagogical content knowledge, also known as TPACK.

Language plays a significant role in accessing education, as other subjects cannot be effectively taught without knowledge of the language. Attaining education becomes feasible only when individuals are acquainted with the conventions and nuances of the language. Moreover, proficiency in a language is crucial for expressing one's desires effectively. Language learning, whether it involves mastering the mother tongue (first language) or second or third languages, is an art. Languages can be learned both as a means of communication and as a medium for instruction.

In today's developed era, communication holds as much importance as science and technology. Language stands out as the foremost and most effective medium for any form of communication. Urdu, the official language of India, holds the status of being a second or third language in many states. A significant portion of India's population not only has familiarity with Urdu but also actively uses it in broadcasting. Government agencies uniformly employ Urdu. In certain states, it is taught as a subject, while in others, it serves as a primary medium of instruction in schools and universities. Furthermore, the NEP-2020 advocates for the inclusion of mother tongue/home language instruction in primary education. It emphasizes the use of technology to facilitate young children from diverse linguistic backgrounds in accessing high-quality learning materials, both spoken and written. The policy also pledges, when required, to "promote multilingualism and harness the power of language in teaching and learning."

Rational of the Study

Teachers and students alike benefit from the use of technology and importance in the classroom, as it enhances the effectiveness of instruction while also igniting curiosity. Due to the pandemic situation, online learning is a safer option that helps prevent the virus from spreading, and it helps to prevent wasting time and gaps in the study of student with distant Urdu is an inter-provincial language. There is an urgent need to inculcate passion for science and technology in the students of Urdu medium so that they also can move ahead in the race of development.

Educational institutions all over the world have been forced to close as a result of the COVID-19 pandemic, which is threatening to disrupt the academic year. The majority of educational institutions have shifted to online learning platforms in order to maintain the continuity of their academic activities. However, questions about the preparation, designing and effectiveness of e-learning are still not clearly understood, especially for a developing country like India, where technical constraints such as equipment suitability and bandwidth availability are a serious challenge. In this study, we focus on understanding the availability of resources, and problems of online classes through an online survey of 40 students whose medium of instruction is Urdu. We have also tried to seek suggestions from the students for the improvement of online classes which will be helpful in designing an effective online learning environment.

The COVID-19 pandemic has shifted the entire education process online, which has been shifted to online in most universities around the world. This is the first time that Urdu medium learners have been included in online classes. Therefore, this study has to find out the resources available with them for online classes. It focuses on the challenges and hurdles faced during online classes and what needs to be done to avoid these problems. And what suggestions can be made through the students to make it better. As other issues of using technology in traditional teaching and learning have been examined.

Pre-service learning is a supervised learning environment. Pre-service teaching is an important part of a professional education programme. Pre-service education gives future teachers the chance to gain valuable teaching experience while also preparing them for the challenges of the profession. Preparing future teachers for the teaching profession is the ultimate goal of this programme. So being a student of Urdu medium of B.E Programme it is important to be familiar with all the modern methods and techniques of the modern age.

Although there is a huge demand for technology usage in every aspect of education. Urdu medium B.Ed students should be trained so that they can take full advantage of the potential of technology. Students need to be given appropriate training to develop technology related skills. It is often seen that both the learners and teachers lack the proper knowledge and training to deal with the new tools and technologies being widely used in the current classroom teaching. Unless students feel comfortable and confident in dealing with technology, the abundant availability of educational technology is of no use. The use of educational technology in the learning process is still a major challenge. The purpose of this study is to find out the technological resources available for online classes of Urdu medium B.Ed students/trainee teachers and to identify the issues that occurs during online classes and to make suitable suggestions for solving them, so that effective online learning is possible for Urdu medium trainee teachers.

Objectives of the Study

- To study the technological resources available to pre-service teachers for online classes.
- To study the pre-service teachers' familiarity with technology require for online classes.
- To investigate the problem if any that pre-service teachers face in online classes.
- To provide feedback from students on how to improve online classes.

Methodology

The present study was a kind of descriptive survey research. The study largely sought to determine the availability of technological resources and issues faced by Urdu medium students during the first semester of online classes for the Bachelor of Education (B.Ed.) program.

Sample

Information was gathered from forty regular B.Ed. students (22 boys and 18 girls) from four constituent colleges of an Indian central university that offers Urdu-medium education. The University has its constituent college in many states of India. It is worth noting that students enrolled in the programme at the constituent colleges are assigned based on a centralized common entrance test administered by the University. To put it another way, the sample of the present study was heterogeneous and diversified in a variety of areas, such as socioeconomic status, sex, ethnicity, caste, and so on. However, the participants had two things in common. Firstly, they were all Urdu knowing. Secondly, none of the current B.Ed. students had any experience with online teaching and learning prior to enrolling in the programme.

Tool and Techniques used

An online questionnaire was developed by the researchers. It was created using Google Forms. There were a total of 20 questions in the questionnaire (7 closed-ended and 3 open-ended). The questionnaire was divided into three sections: the first section collected demographic information about the students, the second section collected information about the availability and familiarity of technological resources, and the third section collected information about the difficulties, issues, and suggestions encountered during online learning. The data collection process was facilitated by the use of a spreadsheet connected to an online Google Form. Both qualitative and quantitative measures were adopted in analyzing of data.

Procedure of Data Collection

The questionnaire was send to the participants using WhatsApp groups. In this connection help of colleagues and friends were sought. The aim and uses of data of the questionnaire were briefly explained at the beginning of the questionnaire. The consent was obtained to ensure that the names of the participants and their institutions remained anonymous. On the basis of all received responses, ten participants from each of the four colleges were chosen at random.

Results

The results of the study were categorized under the following four headings as:

- **Demographic Information of the Participants**

The demographic information of the participant is given below.

- **Gender**

Sex	Frequency	Percent
Male	22	55
Female	18	45
Total	**40**	**100**

The above table and chart shows that the demographic profile that out of 40 samples 45% were female and 55% were male.

- **Institution**

| University/Colleges location	No. of Participants	Percentage
Hyderabad	10	25
Bhopal	10	25
Darbhanga	10	25
Asansol	10	25
Total	**40**	**100**

The participants came from four different institutions/colleges within the University. A 25 percent sample was drawn at random from each of the participating colleges. In total, forty participants' responses was included in the study.

- **Availability of Technological Resources and Familiarity with technology for Online Classes**

According to the second section of the questionnaire, information was requested about learners' familiarity with and availability of technological resources for online classes.

- **Technological Gadgets**

The results revealed that 90% of the participants had smart phone/ mobile phone and 10% of the participants had laptop to take online classes. It was found that no students had access to a Tablet or PC and an IPad or IPhone at their residence. The following chart shows the results.
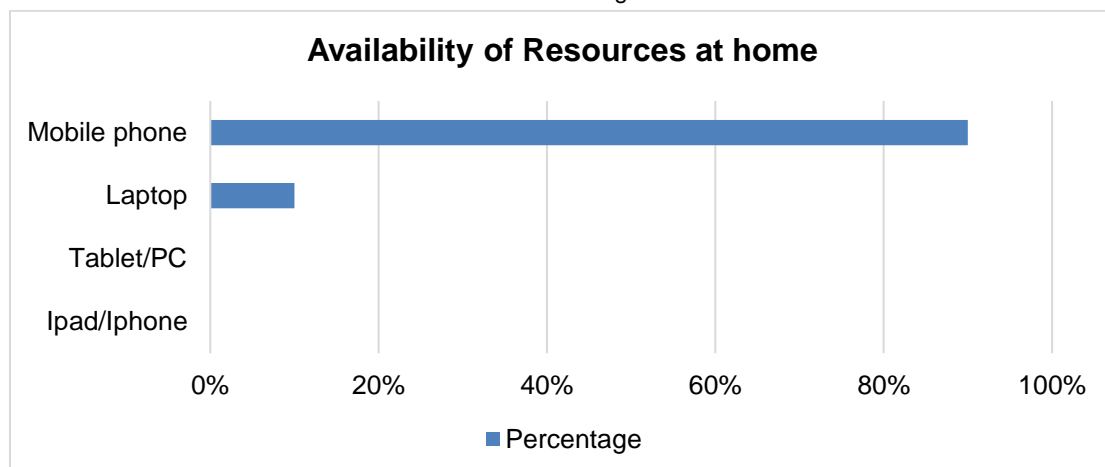
- **Internet Connection**

The result revealed that 27.5% of the participants had always strong internet connection whereas 52.5% had most often strong network connection and remaining 20% of the participants had poor network connection. The following chart shows the results.

Internet Connection
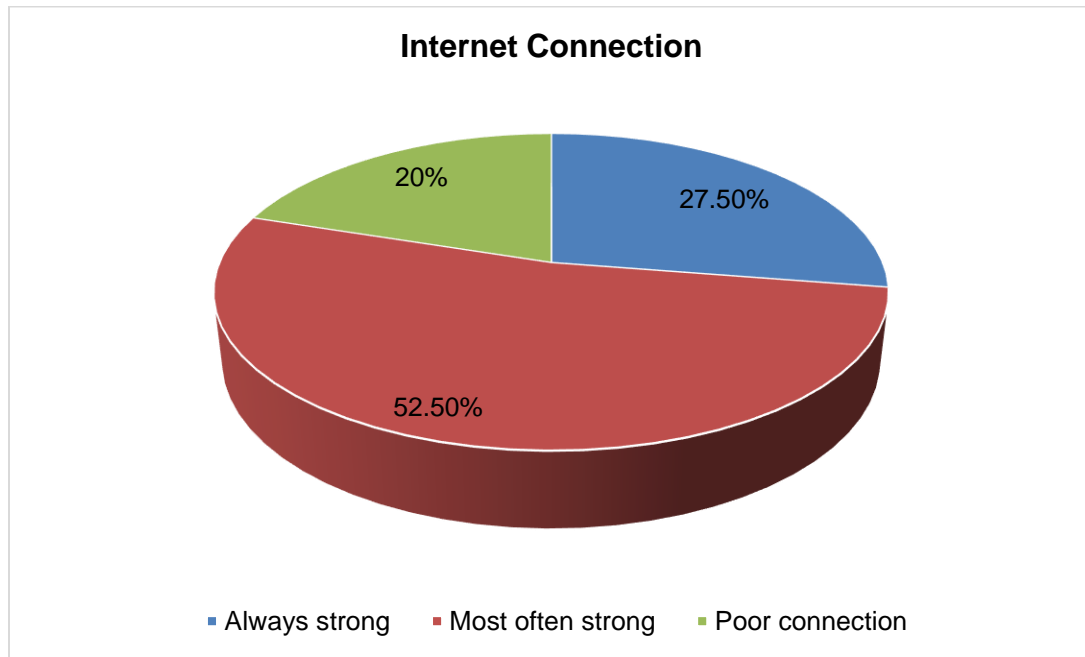
- **Learning Apps**

The next question was about the use of various learning APPs by the participants on their mobile phone for taking online classes. Most of the Participants i.e. 97.5% used Google meet for online classes and rest 2.5% of the participants use of ZOOM. Hangout, Go To meeting and some other learning APPs was not used by any of the participants.
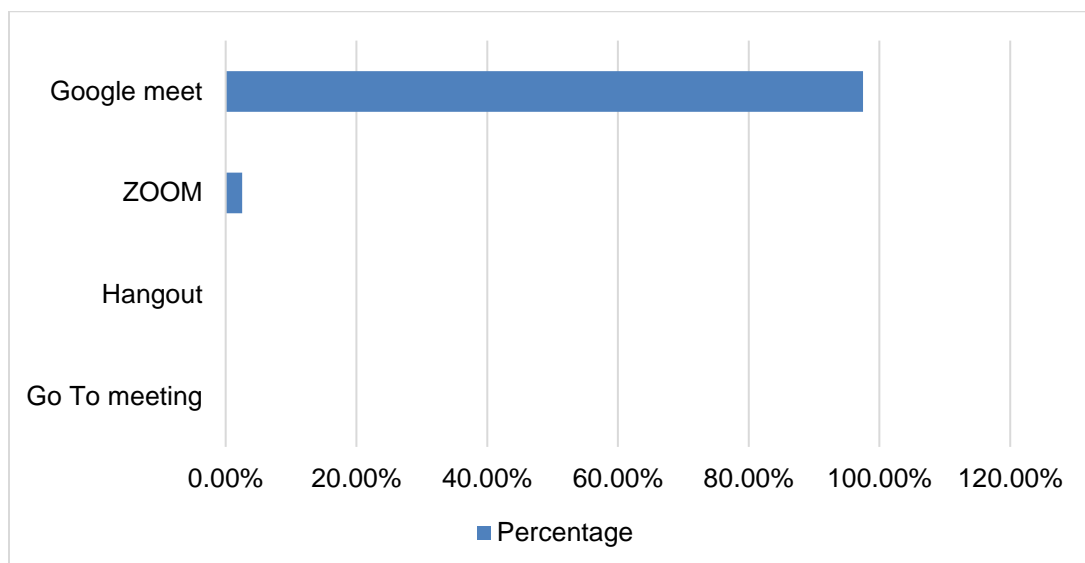
- **Learning Environment**

As the result showed that 42.5% of the participants had always suitable environment 47.5% had sometimes and 10% of the participants had never suitable environment for online classes in their home.

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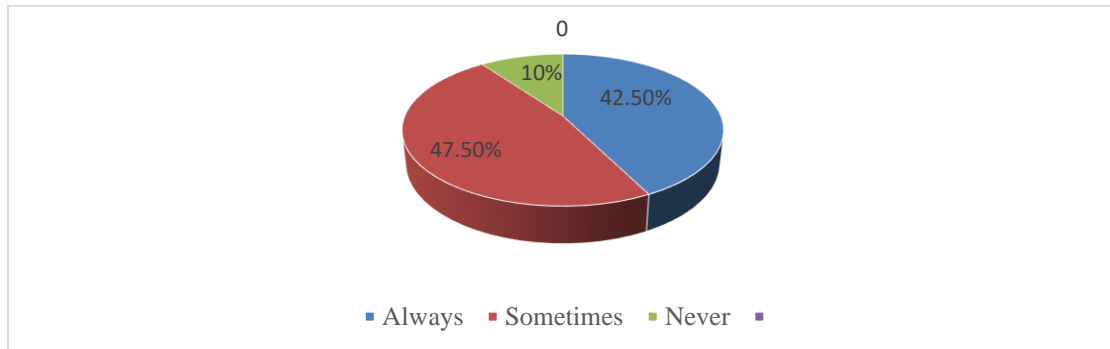
- **Requisites for Online Classes**

Through an open ended question it was asked about the requisites for online classes. 32.5% of the participants emphasized the need of Wi-Fi connection/strong network connection and separate room that is free from noise at home. 22.5% of the participants stated that besides smart phone/ mobile phone there should also be the facility of laptop or PC for effective online classes.5% of the participants found it necessary to use specific APPs and to use audio-visual aids by teacher during online classes.15% of the participants considered the use of digital board and projector necessary. 15% of the participants said that more learning content should be provided through the teacher. 5% of the participants stated that a peaceful environment and comfortable chair facilities were essential at home for online classes.

A few responses were as follow:

- "Audio Visual interaction should be mandatory for effective learning."
- "Creating accessible contents that it accessible to everyone."
- "Should be data connection well and teacher should teach with audio visual aids."
- "Smart board, projector should be used and learning material should be provided"
- "There should be an electronic library for students."

**Problem faced by the Students in Online Classes**

- **Poor Internet Connectivity**

Approximately 80% of students experienced internet connection issues on a frequent basis; the participants who did not experience network connection problems during online classes accounted for only 8% of the participants, and 12% of the participants always had a strong network connection, respectively.
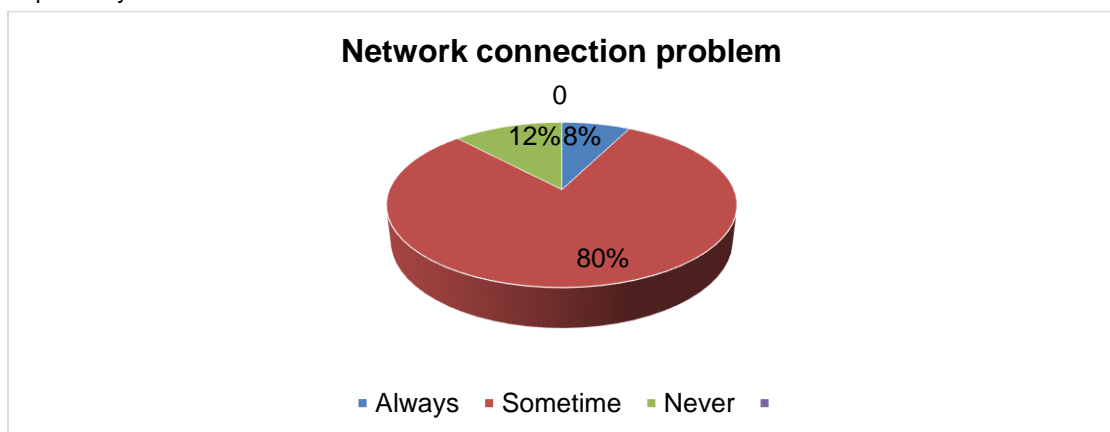
- **Audio Problems**

The result showed that 10% of the participants always had difficulty in understanding teachers' lecture during online classes, whereas 65% of the participants sometimes faced difficulty and 25% of the participants had never faced difficulty in understanding the teacher's words/ lecture during online classes. The following Chart showed the results.
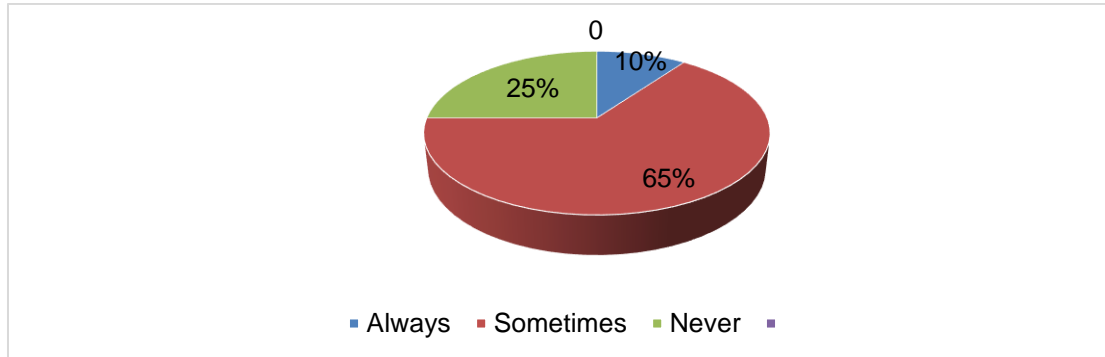

- **Classroom Interaction**

Students responded on difficulty in classroom interaction. The result revealed that 12.5% of the participant always had difficulty interacting with their teacher whereas 57.5% of the participants faced sometimes difficulty in interaction and rest 30% of the participants did not face difficulty while interacting with the teacher during online classes.
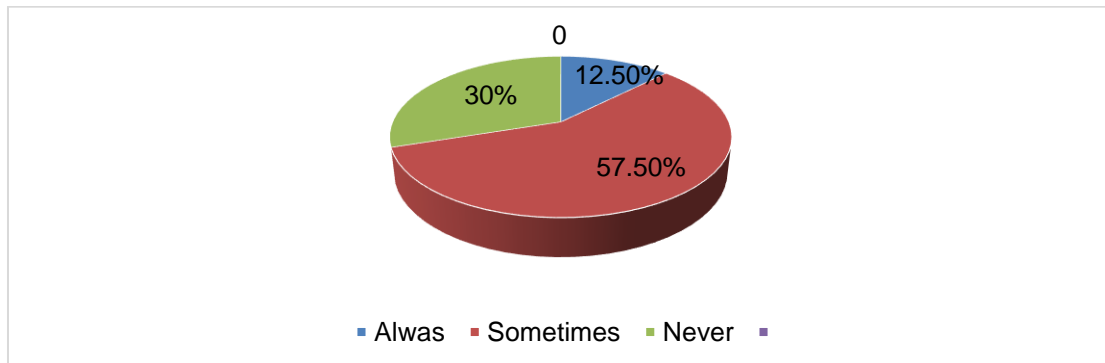

- **Clarification of Doubts**

Regarding the possibility of dispelling of participants doubts by asking the teachers during online classes. 67.5% of the participants clear their doubts whereas 32.5% of the participants were unable to clear their doubts by asking their teachers during online classes. The following chart show the result.
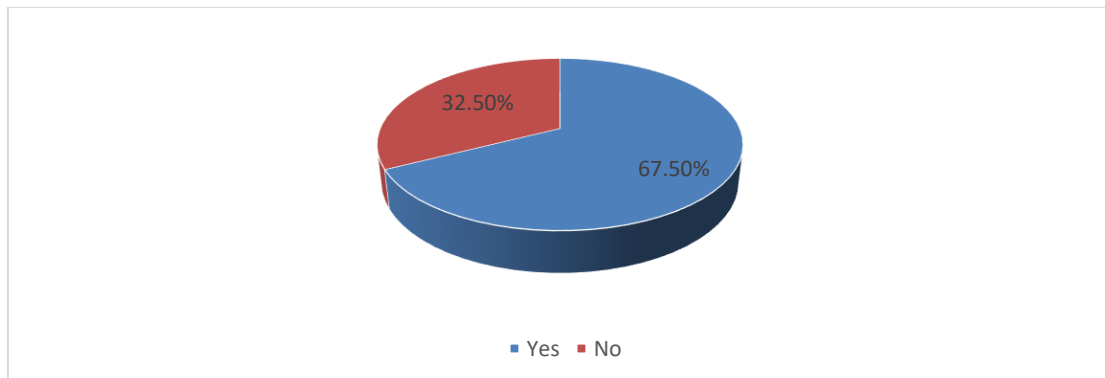
- **Health Issues/ Impairment of Eye Sight**

Regarding the physical issues while taking online classes 77.5% of the participant's eyes were affected by online classes whereas 22.5% of the participant's eyes were not affected by taking online classes or working on the screen so long. As the result shown in the following chart.
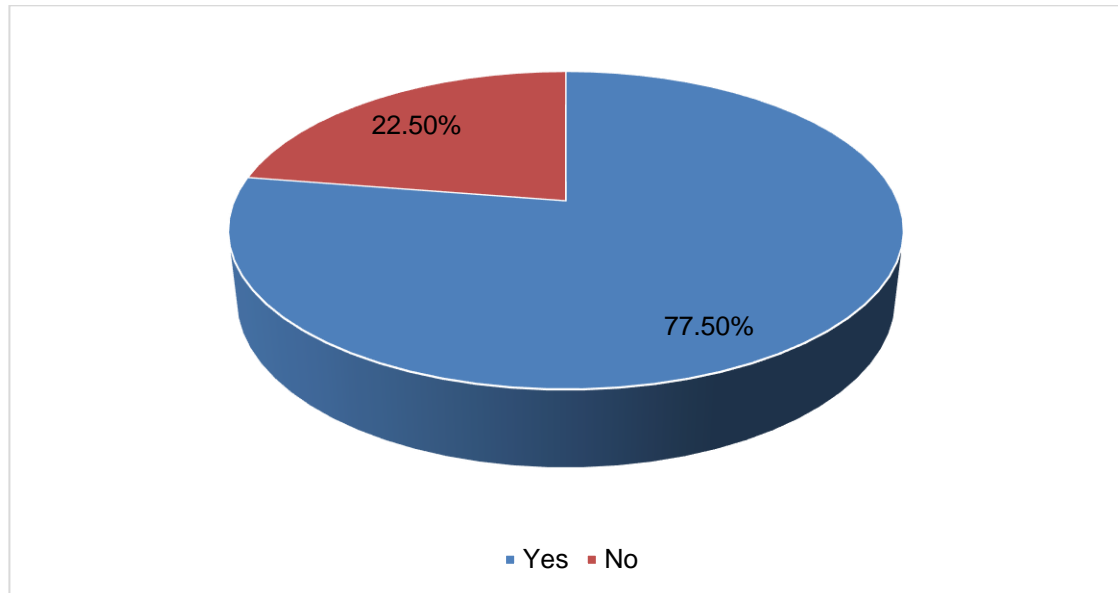

- **The Use of Learning Apps**

The use of different Technical tools and learning APPs requires skill and sometimes face difficulties while using it. 7.5% of the participants always have difficulty uploading tests/assignments in Google Classroom or other APPs, whereas 37.5% of the participants sometimes have face difficulty and rest 55% of the participants have never any difficulty uploading tests/assignments in Google Classroom or other APPs.
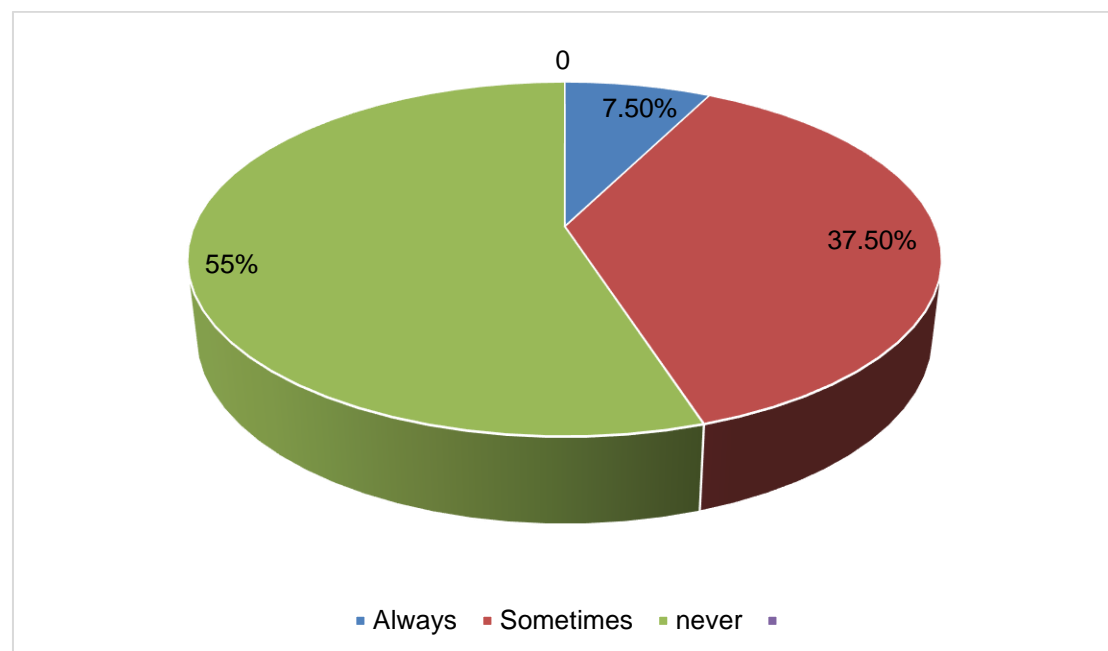
- **Online Presentation**

About 60% of the participants have no difficulty to give online class presentation, tests and teaching practice while 40% of the participants have problem by giving online class presentations, tests and doing teaching practice. The below chart addresses these online learning-related issues.
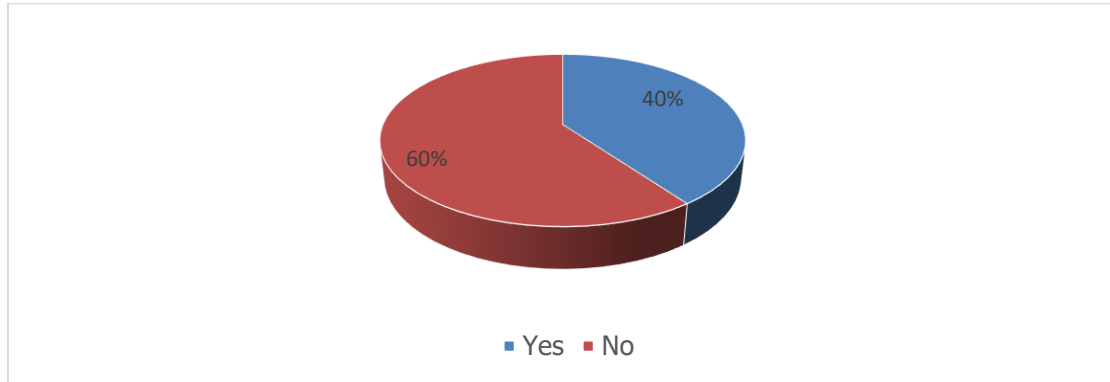
- **Online Search for Learning Materials**

Responses of participants regarding difficulty in finding material: 42.5% of participants did not have any difficulty in finding material through the Internet, while 57.5% had difficulty in finding material. Had to do. As shown in the chart:
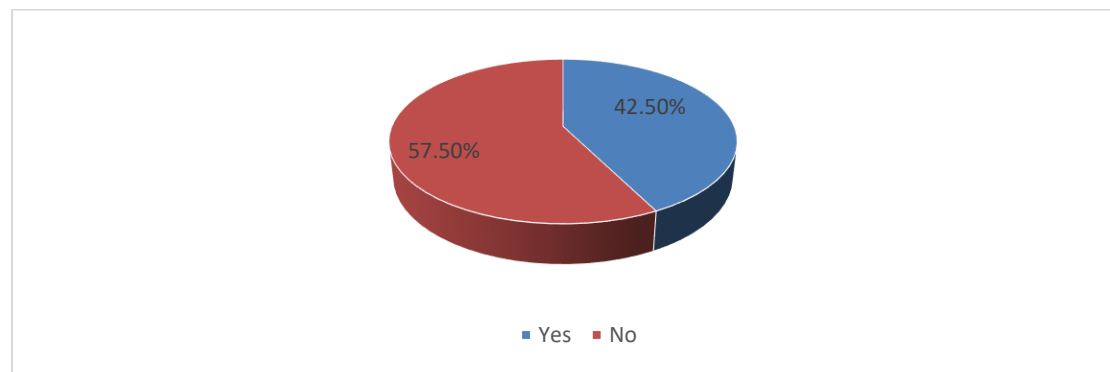
- **Cost**

Regarding the question about spending money on internet/data connection 70% of the participants responded that they spend more than 500 on data connection whereas 15% of the participants 500 and rest 15% of the participants spend less than 500 for data connection.
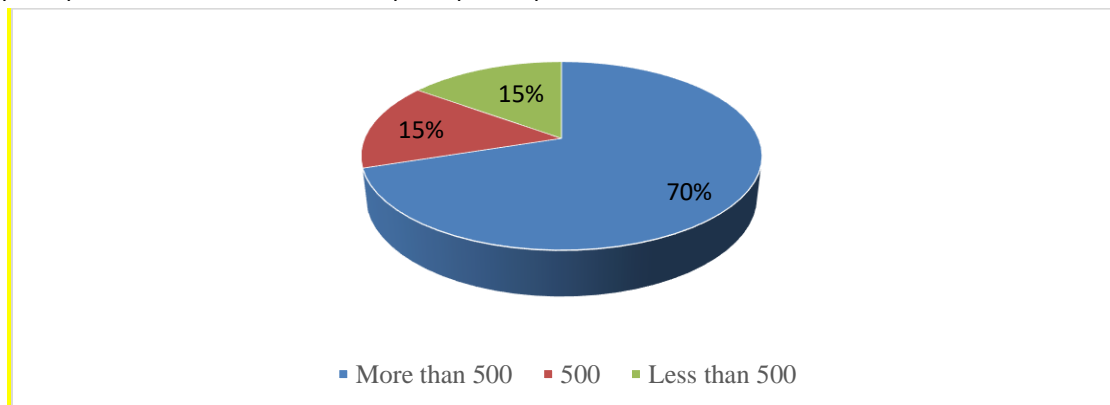
Suggestions Provided by the Students

In the last part of the questionnaire we want to know from the B.Ed students of Urdu medium what suggestions could be made to improve the online classes. 15% of the participants did not give any suggestions to improve online classes. The remaining students gave many suggestions for the improvement of online classes. 10% of the participants suggested that to create a physical classroom environment, teacher and the students should keep the video on during the online class interaction.20% of the participants suggested that teacher should use digital blackboard/ PPTs during online classes .10% of the participants suggested that there should be gap between classes so that network issues can be overcome. 10% of the participants suggested that there should be interaction between students and teachers and there should also be online discussion among students. 15% of the participants suggested that ensure students access to the Urdu digital library. 10% teacher should be taught in bilingual (both English and Urdu) and learning material should be provided in urdu.5% of the participants suggested that the students who are having more difficulty with online classes should be identified and their problems should be solved. Another 5% of the participants suggested that books should be made available in Urdu language on internet and prepare lecture according to syllabus and upload them in the form of videos.

A few responses were as follow:

- "PPTs should be used by the teachers in both language (English and Urdu) during online classes."
- "There should be digital library of Urdu medium books and it should be accessible to all students."
- "Learning material should be provided by the teachers"
- "Group discussion and interaction with teachers should be mandatory."
- "Everyone's video should be on while taking classes on Google meet on other learning APPs."
- "Digital board should be used by the teacher."

The researcher finally tried to know what mode of classes participants want to do in the future. About 12.5% of the participants stated that they want to take online classes in future while 42.5%% of the participants were in favor of offline classes and the remaining 45% of the participants were supporters of the hybrid class.

Discussion

Technology has changed many aspects of our lives and in recent years it has also become a major part of education. Educational technology refers to a wide range of online courses and digital educational resources that facilitate learning. Educational technology is growing and evolving every year, and today it is being used more and more by teachers and students for lesson planning, revision and self-study.It has changed the way students learn and the way teachers provide teaching materials. The use of technologies in teaching learning process by students makes their courses more engaging and improve access to learning for students. As new technologies have become more reliable, viable and sometimes more affordable so online learning requires students to take advantage of these opportunities and be familiar with these methods.

Online teaching became an important medium and also a compulsion to impart education to students during the Covid 19 pandemic. This is beneficial for students in some ways but it also has limitations. It is beneficial to continue the teaching process. The increasing popularity of online learning in the COVID-19 pandemic and the role it has played in continuing the learning process sets a precedent for dealing with such problems in the future. The results revealed that most of the students in this study used mobile phones or smartphones for online classes and there were very few participants who did online classes through laptops. And in addition Google Meet APP was used by most of the participants for online classes. There were many students who did not have a strong network connection as well as suitable acquisition environment in their homes. The results revealed that most of the students in this study used mobile phones or smartphones for online classes and there were very few participants who did online classes through laptops. And in addition Google Mate app was used by most of the participants for online classes. There were many students who did not have a strong network connection as well as suitable acquisition environment in their homes. Found missing. Most of the participants were found to spend more than 500 for data connection.

The study suggested several findings on online teaching during the COVID-19 time frame. However, many findings have emerged from the collected data from Teacher trainees. Being Urdu

medium students, the participants experienced a number of issues for online classes, as revealed from their responses. Overall students reported various kinds of problems related to online classes. This may be attributed to their first experience with online classes, poor internet connection, mind set or attitude of the learners towards online classes. Some students reported that due to online classes, there was little scope for demonstration and experimentation during classes. If reflects that students might not be familiar with simulation apps for doing virtual experiment. In addition, a few students about 5% of participants faced difficulty to take online classes due to domestic responsibilities and poor learning environment at their homes. The same findings are supported by Astuti and Solikhah (2020) as online classes are not very effective in the time of COVID-19 as students are not familiar with digitalization. Additionally, Kalloo et al (2020) support the thoughts of Astuti that online classes cannot replace the social needs of learners and instructors. Similarly, Nambiar (2020) highlighted that there is a significant difference between face-to-face classes and online classes in times of pandemic situation as students benefit less in online classes as compared to physical classes. Moreover, Bayern (2020) reported that more than 40% of the respondents said that there were connectivity problems during COVID-19 and it had a negative impact on their life and their family member's education. Some other studies present this concept in the other direction that online teaching is problematic and teachers cannot create more advanced teaching strategies using the online system (Anyiendah, 2017) The findings of another study showed that teachers use a variety of online tools for teaching, including synchronous, LMS, Zoom, WhatsApp, Google Apps, and asynchronous activities Lima et al., 2020).

Conclusion

COVID-19 has affected the physical education system of all educational institutions across the world. Educational institutions have adopted online learning to continue their studies. The sudden shift from traditional classrooms and face-to-face learning to online learning has resulted in a completely different learning experience for students. The study addressed the availability of resources for online classes and challenges faced by Urdu medium students taking online classes. As per this study, 90% of participants 90% of students have mobile phone facility which they use to take online classes and 10% of the participants use of laptop. Most of the students use the Google Meet and some students use zoom app to take online classes. Most of the students do not have a strong network connection and their home environment is also not suitable for online classes.

The current study explores the challenges that students experience in online classes. The findings revealed that the online learning challenges of students varied in terms of type. Most students do not have access to high speed or reliable internet services and are thus struggling with online learning. Some of the online learning challenges faced by students include poor internet connection, poor comprehension and retention, lack of concentration, technical issues, motivation, interaction with teachers, discussion with peer groups, don't use of digital board by teachers. Some participants complaining about health/ physical issue by taking online classes on devices etc. Being the students of Urdu medium, they have to face problem in interaction with teachers, not available sufficient learning material and books in Urdu on internet, understanding of teacher's words, Urdu terminology, and translation issues from English to Urdu etc. Majority of the students face problem due to lack of learning material in Urdu.

To solve these issues and challenges the participants' suggested that their online learning challenges and strategies should mediated by the resources available to them, their interaction with their teachers and peers, group discussion, always keep video on during classes, PPTs and digital board uses by teachers, provide sufficient learning material and ensuring Urdu e-library facility for all students. The study said that due to the pandemic situation, students are feeling so distracted by online learning. They are not in favor of continuing online learning in future. In spite of all the challenges posed by online education, it should be a priority to focus on the ultimate goal of the student in education.

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