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Comparison of Students' Learning through Face-to-Face and Online Classes during Covid-19

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Abstract: *The study intends to find out how university teachers and students perceive students' learning in online and face-to-face classrooms. The study's participants were all university of Sargodha faculty and students. The data were collected from 15 teachers and 60 students of three selected departments of the University of Sargodha through two separate online interview schedules. It was concluded that the majority of the teachers and students were less satisfied with online learning as compared to face-to-face learning. They highlighted some serious challenges which they faced during online classes, i.e., communication gap between teacher and students, lack of internet connectivity, lack of student environment, lack of timing, difficulty in monitoring and controlling students' behaviour, background distraction and difficulties in the assessment of students. However, the students and teachers supported that online education should be adopted in future after addressing it in the curriculum properly and coping with technology and internet problems. The study will provide empirical evidence to the higher education commission (HEC) and university authorities for the improvement of curriculum and provision of proper facilities for online learning.*

Key Words: Online Learning, Teachers, Students, Perception

Introduction

Online learning is progressively becoming a component of the global educational system. This mode of education has become more efficient and convenient for everybody, thanks to the internet (Seaman, 2016). In this era, online and distance education has been considered a convenient way of learning, and the virtual form of classes has become a new trend in education. On the other hand side, face-to-face learning has always been the most widely utilised option in the educational setting. (Allen & Seaman, 2016).

The consistency and simplicity of utilising offline techniques, as well as a lack of criteria for online course channels, have been major barriers to online learning platform

development. However, in the wake of the present COVID-19 outbreak, the performance of university-level virtual learning has been required by educational institutions. Not only in Pakistan but throughout the world, Covid-19 has made a dramatic shift in the education sector. Universities have shifted to virtual classes that suspend physical classrooms across Pakistan as well as around the globe. (Sangster, Stoner, 2020).

Although the majority of private institutions have seen both good and bad effects as a result of this change, government colleges and universities are still adjusting (Nambiar, 2020). As a result, organisation and engagement in online workshops become a difficulty, making interactive educational learning difficult to adapt. For the

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time being, face-to-face classrooms can allow instructors and students to have a direct influence on lecture content, performance, and satisfaction. ([Masters and Ellaway, 2008](#)). In a classroom setting, a teacher may observe a student's body language, and these non-verbal cues will allow him/her to rapidly modify their teaching method for better fulfilment of students' requirements ([Masters, 2008](#)).

[Makransky \(2019\)](#) discovered that what can be easily detected and approached in the classroom. It demands a bit more testing and awareness in simulated learning. Exploring and examining how virtual learning should be designed and organised while keeping the instructors' perspective in mind should be an important aspect of developing online teaching techniques and learning. (Mayer, 2019). Students' happiness with virtual and real-life learning has been studied in the past.

A study was conducted by Spielman and Pangelinan (2011). In the study, they observed 156 students who were enrolled in either a virtual learning component or a real-world learning section of a Cultural and Recreational course at a multicultural institution in California, U.s. When virtual English as foreign language lessons were compared to real-life English as a foreign language learning, the students were more satisfied with online education. On the contrary, [Tratnik \(2017\)](#) discovered significant disparities in students' satisfaction. Face-to-face students were reported to be happier with the course than their online counterparts.

[Williamson \(2017\)](#) studied that virtual classrooms are a newly developed method of teaching when it comes to the educational set-up and not something that has been part of daily classes. Nowadays, with the emergence of new technology, business modes, and routine practices for information and communication, communication has undergone a major shift.

According to the literature, there were fewer empirical investigations on analysing the influence of virtual and real life on university lecturers conducted. Resultantly, the purpose of this study was to determine the influence of virtual and real life on

university lecturers. (1) The study's goal was to find out how teachers felt about virtual and real-life situations. (2) To find out how students feel about virtual and real-life situations ([Williamson, 2017](#)).

The extensive usage of the internet and social networks in the last part of the twentieth century resulted in a shift in Modern civilisation, changing it into linked communities in which participants spend a considerable amount of their waking hours in virtual environments. As a result, virtual life has become increasingly pervasive in our daily lives, blurring the once distinct divide between real and virtual life. We have reached a digital era, and many individuals, especially academics in many professions, rely on computers to do their work. ([Castronova, 2001](#)) And most colleges and universities recognise that using network technology to produce, advertise, promote, and support learning will enhance students' experience and understanding. ([Bower, 2001](#)) As a result, higher education has been impacted significantly by the exponential expansion and progress of information and communication technology. This is known as virtual learning, which implies that instead of using traditional classrooms, professors and students conduct part of the course over the internet.

Kennedy (1998) claimed that "a technology that uses technology, software and peripheral hardware to generate a virtual model for its users" is virtual learning. The educational system of today faces the problem of preparing people for a global knowledge society.

The virtual learning framework attempts to offer a sensation of being, according to [Cipresso, P. \(2018\)](#). Users can utilise electronic devices to interact with a created artificial world that is provided in such a way that their mind interprets it as a genuine one. (2018, G. Riva.) At the same time, there are debates about the disruptive potential of ICT in educational systems ([Sarkar, 2012](#)).

Virtual learning is a strong and immersive technology that, unlike any other, transforms our lives. Digital learning, which can also be defined as interactive multimedia, is the art of simulating a physical presence in real and

imagined places for the viewer. In recent years, virtual worlds have attracted increasing interest. Some have seen their growth as part of the inevitable development of Internet-based technology ([Johnson, 2008](#)).

According to [Fetscherin and Lattemann \(2008\)](#), the emergence of digital classrooms has been outstanding. Virtual communication triggers social networks and long-distance partnerships. As a result, academic institutions and strategic planning that will be the future providers of digital learning must gain a better understanding of how students and instructors understand and respond to virtual classrooms as a learning mode in order to successfully implement these approaches (Ravid, and Soroka, 2004).

Statement of the Problem

In the situation of COVID-19, the importance of online education has increased. In this situation, online education has become the only mode of learning. In the context of Pakistan, there are many constraints in implementing online education. These constraints may affect the learning of the students. The students may feel displeasure with online education as compared face to face learning. The purpose of this study is to examine how university teachers and students perceive online and face-to-face learning.

Objectives of the Study

The objective of the current study was to:

1. Explore the perception of teachers and students regarding face-to-face and online learning.

Research Questions

1. What is the perception of teachers regarding face-to-face and online learning?
2. What is the perception of students regarding face-to-face and online learning?

Significance of the Study

Virtual learning is a technique that employs system, software, and supplementary

equipment to create a virtual model for its users. The educational system of today faces the problem of preparing people for a global knowledge society. Several studies were done in the field of virtual learning, but this study was basically proposed to the perception of university teachers and students regarding virtual and real life. This study might be supportive of improving the awareness of virtual learning. This study may be possibly helpful for teachers to identify the challenges during an online class. This research may be helpful for the university administration to conduct a learning environment that supports students that may help in their academic performance. This would be beneficial to all the stakeholders, including students, teachers and parents etc.

Operational Definitions of Major's Term

Virtual Learning

It means that instruction is delivered electronically via the Internet, Intranets, or multimedia platforms.

Real Life Learning

It means learning through traditionally face-to-face teaching.

Literature Review

Virtual learning, according to the Economic Times (2020), is the use of systems and network connectivity for classroom instruction. The term "technology-enabled" refers to the transfer of experience and competencies to a large number of people.

A situation is developed in online education in which students interact with print and other learning material regularly and learn by practising. The students enhance their response as a result of new learning ([Palloff and Pratt, 2013](#)). In these days and situations, the digital revolution has progressed. A very famous example is the World Wide Web. Internet is not only a networking technology but also a medium of imparting education ([Means et al., 2013](#)).

Different forms of interactions, e.g. learner-self, learner-learner, learner-instructor, and learner-content, exist in online learning ([Chou, Peng, & Chang, 2010](#)).

Most LMS platforms now include features like forums, messaging, online assignment types, wiki-style exercises, online classes, and other interactive activities throughout the course. Teachers may also use these tools to track and regulate the learning process of their students, such as reports on the status of assignments submitted, degree of access data, and activity logs that focus on the students' learning process. (Cole and Foster, 2007).

Educational resources are encountered through online learning content, according to [Duderstadt and Atkins \(2002\)](#). It also has an impact on the lives of new-generation students, their professors, their parents, the community, and the organisation.

According to [Peters \(2002\)](#), online learning is the most frequent way of remote education today. Online learning, commonly known as e-learning, is a type of distance learning in which the teacher and student may be located anywhere, as mentioned in the Steam article. Online learning provided an excellent technique for delivering content that was not constrained by time or location and could be accessed at any time.

According to [Moodley \(2015\)](#), e-learning is becoming the educational teacher training process. So here are a few benefits of e-learning over traditional techniques: Because it does not require paperwork or pencil and it can be done anywhere, and at any time, e-learning is less expensive than traditional teaching techniques; e-learning is more adaptable for students; more personal.

Virtual Life in Education

Immersive learning has grown increasingly significant as a better approach for education across the world. Most institutions of higher education are implementing online programmes as a result of increased exposure to instructional technology and the internet, as well as the flexibility of such services and the benefits they provide to students, professors, and universities ([Ellaway, & Masters, 2008](#)).

Several academic research has looked at online courses, including application selection and planning, pedagogical architecture ([Hsu et al., 2012](#)), student and teacher attitudes, interests and wants, and

digital educational styles ([Martin, Ahlgrim-Delzell, & Budhrani, 2017](#)).

According to most studies, a major barrier is a rapid transition from face-to-face to online education, to teachers and students experiencing a lack of connection between familiar teaching methods and approaches, ambiguous school requirements, and a lack of useful student input to help teachers improve teaching. ([Martin, 2017](#)).

Kaisto, (2020). This system commonly employs head-mounted displays with microphones and hand controllers as instruments to test the user's multiple senses. Learners' concentration and focus are increased, and meaningful learning opportunities in an immersive environment to gain new skills and information are facilitated.

The Multimedia Cone of Abstraction (MCoA) is centred on Dale's Cone of Experience (CoE), which explains that when students participate in a purposeful simulated world in which they learn by completing specified activities, they become active learners. Students have the opportunity to use virtual reality technology (Baukal, Ausburn, & Ausburn, 2013).

Role of Teacher

[Yang \(2011\)](#) explained that virtual teacher needs to play the role of leading learners from one or more interactions of online education. And anyway, various online teachers learn various types and forms of learning. In order to have customised instruction, online teachers must adapt their style of instruction accordingly. Long before the course begins, those learning activities are usually structured and prepared. In this way, the instructor will spend more time leading the learners and less time planning classes. The instructor ensures that learners' attention is channelled into core topics and ideas. Without a proper dosage of inspiration and support, learning online can feel isolating and depressing. A successful online instructor thus needs to make good efforts to convey unique positive messages to particular students. More significantly, they need to help build high levels of trust for online learners. No matter what, they need to be optimistic.

They need to put him back to light and make him concentrate back on his areas of interest, no matter how much turmoil a student is going through. Applied ventures and papers usually perform well with this. This usually gives the instructor a chance to be a good tutor. Online educators are qualified at all costs in different strategies to maintain student interest in the learning process. Teachers are thus qualified to be effective communicators. As collaboration in a virtual learning environment has to be very productive and efficient to pull out the better part of any student, it is really important. (Quin, 2017).

Role of Students

Learners ought to become self-directed learners who need to be strongly self-regulated, responsible for planning and reflective in their learning. Students who are self-directed learners would appreciate the content and have a constructive outlook on content, as pupils, against themselves. (Zariski, 2000).

Merrotsy (2017) advises that it is important to excel in the online world. Students know the intent and importance of online education. This must be made clear and requires allowing both teachers and students opportunities to use the resources safely in the online setting, given. Be willing to communicate and express one's ideas, opinions, and feelings. Be accountable for one's own learning, which means being independent and independent. Proactive instead of reactive.

Role of Parents

Children influence the behaviour and behaviours of their parents. Since parents are now in direct range to online learners, children can take signs of them and represent the actions of their parents. At any age, parents act as mentors for their students and assist them in their learning process. (Borup, Graham, 2013).

A parent also plays a crucial role in a child's online education, just as parents will tutor and support children who go to a nearby school. The world is governed by parents. In the presence of regular face-to-face contact,

they recommend setting the tempo, and providing a physical space for education and support and encouragement. Parents have a significant impact, particularly in an online educational environment, on the education their students receive. Being a mentor at any stage and strengthening the meaning across hardships will inspire students and gain better results (Beck, Maranto, 2013).

Role of Institution

The goal of a higher education institution is to exist, and therefore all branches, administration, students, and learners, must fulfil their assigned roles. Learners, however, are unable to carry out their duties until certain rights and freedoms are allowed to prohibit self-advancement. For almost every college or university, the talents of learners would be valuable in order to promote university engagement.

Role of Assessment

Indeed, evaluation is a general term for educational success and for the judgement of learners and also requires quantitative classification. Students are tested by multiple appraisal methods at the Universities of Pakistan. For the final examination of university students in Pakistan, various evaluations are used. Since multiple evaluation methods help to explore a quantitative approach, In Pakistan, universities have developed evaluation protocols in line with all the newly developed programmes under HEC. The assessment process has been revised to respond to the requirements of these new systems. In addition to the normal end-of-year examinations, continuing assessments are also carried out during the semester at universities in Pakistan.

Curriculum in Pakistani Higher Education

Steps have been taken at the national level to bring in reforms in education, and the curriculum has thus been reformed, but the required educational targets have not yet been achieved. Curriculum architects have to understand the purpose of the curriculum prior to introducing the change. The optimum

communication framework to efficiently execute the programme. In Pakistan Higher Education, most universities have an obsolete curriculum. In comparison, instead of getting an understanding of their subject matter, students are still required to pack the content. In addition, teachers are not adequately qualified to deliver the instruction. To make her students qualified, teachers in universities should be educated in theory, realism and science.

Different Technologies

Technologies used for optimising and promoting learning can be seen everywhere today. We can only conclude that we have adopted technology in education as it is used for both teaching and learning, putting such qualitative variables aside, such as differential access to technical advances and relevant technologies through schools and districts, for the introduction of innovations into educational institutions. ([Hermans, R., Tondeur, J., 2008](#)).

Virtual Reality

Virtual Reality (VR) is a digital technology that uses headsets or multi-projected worlds in virtual worlds, often in combination with models or actual worlds, to produce realistic sounds, photographs and other perceptions that facilitate the physical features of a user in an imagined or virtual world.

Augmented Reality

Augmented Reality is a technology that overlays a user's real-world surroundings with a software image, providing a composite viewpoint. In the actual world, this frequently incorporates sensory cues such as pictures, graphics, and sound. When it comes to virtual learning, augmented reality may make the experience more engaging and understandable.

Machine Learning

Machine Learning is a computer programming field which gives machines the ability to learn without it being programming directly. Computer vision will bring a variety

of advantages to individual students and also companies participating in the LMS network.

Wearable Devices

Smart electrical equipment can be worn mostly on the body as attachments or implants are wearable devices and are often referred to as wearables. Such wearable devices can act as flexible corporate training tools as they are able to offer training opportunities almost everywhere.

Learning Management System

You may offer personalised lessons to another student and use a learning management system.

You will recognise the graduate's vulnerabilities and strengths and develop tailored courses that make students focus more on their weaker aspect and strengthen it. Most LMS also endorse live instructor talks, which will encourage shy students to pose their questions and explain them.

Methodology

This research was both descriptive and qualitative. The purpose of the cross-sectional study was to understand how university lecturers and students felt about virtual and real-life learning. The study employed a survey research design.

The Population of the Study

The study included all lecturers and students from the University of Sargodha's professional departments (medical, engineering, and education).

Sample of the Study

The sample of the research consisted of 10 teachers and 55 students from three selected departments of the University of Sargodha.

Instrument of the Study

Two separate interview schedules (one for teachers and one for students) were used to collect the perception of university teachers and students regarding online and face-to-face. The question in interview schedules was adapted from the study of Deepika Nambiar.

Data Collection

Teachers' and students' perspectives were collected through online interviews. The researcher obtained the respondent's permission and sought time for the interview. As a result, the researcher conducted interviews with 10 professors and 55 students at their convenience.

Data Analysis

The data were analysed through the thematic analysis technique.

Results

Teacher's Perception Regarding Real and Virtual Life

Online Learning Effectiveness in Comparison to Face-to-face Learning

In this aspect, all instructors agreed that digital training is less successful than traditional learning because digital learning exposes teachers to an unsuitable atmosphere and a lack of internet access.

Communication Problems in Online Learning

Because they communicate face-to-face, most teachers stated that there is still a communication gap between teachers and students in online learning. As a result, students' engagement in practical learning activities, class debates, and cooperative learning, which are the most effective teaching methods, is jeopardised.

Technical Problems in Online Classroom

The majority of the teachers highlighted some technical problems which they faced in the virtual classroom. They said that they faced technical issues due to an improper internet facility.

Challenges to Engage Students in learning during Online Classes

A majority of teachers stated that there is a lack of student enthusiasm and participation. They also noted that during online sessions, students presented several excuses for not being able to attend, including network

problems, internet disconnection, and poor audio and visual quality. When compared to face-to-face education, it was more challenging to engage pupils in online learning.

Challenging Teachers to Arrange Lessons for Longer Time in Online Learning

In this regard, most of the teachers reported that online teaching is a time-consuming activity. They explained their standpoint that online teaching demands the preparation of soft material and power point presentations which is a time-consuming activity. Along this, they mentioned some unavoidable issues which require more time, for example, difficulty in monitoring and controlling students' behaviour, lack of work satisfaction, background distractions, and difficulty in assessing concept clarity by a student.

Suggestions Related to Online Learning

Some of the teachers suggested that the activities regarding online learning should be included in the curriculum in future. They also recommended the need for providing adequate technical training to teachers for taking online classes properly. Moreover, they said this training should be a pre-requisite for teachers who want to take online classes.

Students' Perspectives on Online and Face-to-face Learning

Online Learning is Less Organised than Face-to-Face Learning

The effectiveness of digital and face-to-face education was discussed with university students. The majority of them stated that online learning is less successful than face-to-face education because it is less organised. Because of interruptions at home and the lack of an organised learning environment, students claimed it was difficult to maintain concentration during virtual sessions.

Discussion Quality is in Virtual Learning and Real Learning

The majority of pupils expressed exhaustion and knowledge overload in response to this

statement. They further claim that virtual classrooms are less participatory, with little dialogue among students or professors, making participation more difficult. As a result, they believed virtual learning was less vibrant, lacking a warm atmosphere and social connection.

Technical Problems in Virtual Learning

In this regard, the majority of students discovered that technical issues such as bad network access, poor multimedia quality, issues with the software, becoming unconnected between those lectures, and finding it difficult and re-join virtual learning were prevalent.

The Convenience of Virtual Learning

The majority of students stated that living at home made virtual lessons difficult for individuals since they are unable to balance household and university activities. They also say that virtual classes are difficult to concentrate in, that interruptions at residence are more frequent, and that the lack of an organised educational process makes it difficult for students to pay attention throughout the online classroom, so they believe that online learning is inconvenient for them.

Suggestions Regarding Virtual Learning in Future

About this statement, some of them reported that they wanted to see virtual learning in

future after proper addressing problems during virtual learning.

Virtual learning may be integrated as part of the curriculum in the future, according to some of them. Furthermore, proper technical education for instructors on how to take virtual courses must be emphasised, as it has been discovered to be a post for effective virtual classroom implementation.

Conclusion

It was concluded that the majority of the teachers and students were not satisfied with online learning. They highlighted some serious challenges which they faced during online classes, i.e. communication gap between teacher and students, lack of internet connectivity, lack of students environment, lack of timing, difficulty in monitoring and controlling students' behaviour, background distraction and difficulties in the assessment of students. However, the students and teachers supported that online education should be adopted in future after addressing it in the curriculum properly and coping with technology and internet problems.

Recommendation

In the light of the results, it is recommended that there is a desire need to provide sufficient training to teachers and students about the proper use of modern technological gadgets.

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