

ONLINE AND ACTIVE LEARNING DURING COVID-19 PANDEMIC: A COMPARATIVE STUDY

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Abstract

A mixed-method research was designed for gaining insight regarding how comparative study was addressed between online and active learning, during COVID-19 pandemic, in public universities of Lahore, Pakistan. Identifying the issues faced by the students and teachers during this pandemic was the main purpose for designing this study. Convenient sampling technique was used by the researchers to select sample of the study: 210 participants in total, 200 students and 10 teachers from 4 public universities in Lahore. The data for this study was collected through standardized questionnaires and conducting (recorded) interviews. A significant difference was recorded between the online and active learning because of the problems that directly influenced students' learning and teachers' teaching.

Key words: *Online Learning, Active Learning, Pandemic COVID-19.*

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Introduction:

The rapid spread of internet, in the last two decades, has changed the way of living, socializing, as well as learning. Education is more accessible than ever now thanks to e-learning. In Educational institutes, worldwide that is, educational progress was severely affected due to COVID-19 in the beginning of 2020. Physical classes had to be halted because of the lockdowns implemented by governments to stop rapid spread of COVID-19. This halt caused the paradigm to shift into online education (e-learning). This way, the true importance of online education was revealed during this pandemic: It provided an opportunity to focus on e-learning. Many different e-media platforms like Google meet, Zoom, and WebEx were used for e-learning during COVID-19 for the continuity of educational progress (Edy, 2020). Not such big a surprise that online education played an active and dominant role in the provision of quality education during this pandemic (Lane, 2006). In 2009, because of the outbreak of swine flu influenza virus pandemic, Department of Education in US institutes had planned online-education strategies: Faculty was trained and better online courses were given avail (Ash & Davis, 2009).

Online education was different for students, and teachers, because now they only had a screen for a classroom. Using their own electronic devices, students were dependant on internet availability for online education. In traditional learning environments, teachers and students get to exchange their ideas freely. There's an active participation and collaborative learning like no other in traditional active learning environments. This active participation and collaboration in learning was absent in online learning because of the internet dependability. Still, online learning has a wide spectrum of ways to teach students about a concept they need to learn. The educational institutes, universities, provided online course portals to attend to students' learning needs in this pandemic. Besides, for the last decade, online education is not something so new a concept for many traditional and non-traditional students. The audio, video, text, animations, virtual training, and live chats were mainly involved in conducting online learning (Ghebreyesus, 2020).

Another benefit of online learning entails more flexibility of time schedules as compared to traditional active learning. Online education is now even considered more effective than active education by some. It gives teachers, and students, a free reign regarding education: flexibility of educational setting, time, and schedule that suits all. But, even after being the need of time, many students still preferred active education over online education. Students, as a result of online education, became more self-disciplined and responsible regarding their educational needs and the courses they chose. With online education, students can even do multiple courses at once. All the educational institutes, especially hire education institutes, have adapted to online courses, as an alternative for active courses, for tackling COVID-19 pandemic (Edy, 2020).

Review of Literature

In Pakistan, a developing country, numerous challenges surfaced regarding online learning. Some of these challenges entail lack of financial and administrative resources, internet unavailability, electricity issues, and lack of physical interaction. For facing these challenges, higher level universities implemented innovative teaching practices by introducing many online technologies and strategies to improve learners' performance. Needless to say, the quality of teaching online varies as compare to that of face-to-face (physical) learning (Moore, et. al, 2011).

Online learning has a high interruption rate because it relies on strong networking: It can be easily interrupted by network breakdowns. Despite it, though, online learning provides interactive and collaborative environment to learners which encourages them to learn at their own time and pace. All in all, there's no certainty that online learning will have a smooth flow like active learning. Many young learners, especially the ones that are below secondary level, have poor self-directive and self-management that makes online learning a problematic learning experience for them. Because strict lockdown policies were implemented by the Governments in COVID-19 pandemic, online learning was the best and only alternative present for educational progress. (Rita Kop, 2020).

Pakistan was among those first countries where active learning was shifted into online learning for tackling COVID-19. It, this pandemic, caused a significant distortion in the academic world. Though many students kept on complaining about it, 80% of the courses offered in institutions of higher learning were now being taught online. In accordance with Nazia Mumtaz (2021), some learners agreed that online education is more beneficial because it costs less while others disagreed saying, "instructions given online are hard to follow." stakeholders (Nazia Mumtaz, 2021).

Statement of the problem

The questions that prompted this study were in relevance with how teachers address online and active education, how is the quality of online and active education is perceived by the students, and if students are satisfied with the online educational strategies or not.

Objectives of the Study

Following were the objectives of this study:

- To investigate the effectiveness of online and active learning at university level.
- To explore the challenges faced during online active learning.

Research Questions

How much effective are online and active learning?

What challenges are faced by the learners in online and active learning?

Significance of the study

This study, conducted on students of higher education, contributes its fair share in the provision of quality education regarding online and active education. Conclusions will act as a guide for the ministry to improve its resources' allocation in higher education that will, inevitably, improve the quality of education in universities.

Research Methodology

The online and active learning of the learners was compared using a mixed-method research design. The main purpose behind designing this study was to investigate the issues faced by the students, and teachers, during COVID-19 pandemic. All public universities' students and teachers were considered as the population for this study. The researchers, then, selected 200 students and 10 teachers from 4 public universities as the target sample by using convenient sampling. Questionnaires- standardized, used by developer's permission- regarding online and active education were given to students and interviews – recorded – were conducted for the teachers. The researchers collected data themselves, kept it confidential, and used it only for research purposes: The informed consent was taken from the participants before handing out questionnaires. Then, for data analysis, descriptive statistics and inferential statistics were used, and the analysis of the recorded interviews was made by using the thematic method.

Results of the study

Table # 1

Sr.#	Statements	Frequency	Percentage
1	Overall feel regarding online education	76	63.3%
2	Access to a device for learning online	80	66.7%
3	Time each day spent on online education	54	45.0%
4	Discussion with teachers during online lectures	47	39.2%
5	Helpfulness of teachers in online education	60	50.0%

In the above table, it can be seen that as an answer to the first statement, the highest frequency of students opted for “average.” For the second statement, students – most of them – opted for a “yes.” For third statement, the average time spent by the students on online education was one to three hours. For fifth statement, students – a majority of them – agreed that they had discussions with their teachers. For the fifth statement, students marked their teachers’ performance as only slightly helpful to them.

Table # 2

Sr.#	Statements	Frequency	Percentage
6	Study environment at home	73	60.8%
7	Internet services	54	45.0%
8	Provision of grades through online education	51	42.5%
9	Quality of software used for the online education	63	52.5%
10	Reason behind limited internet access	87	72.5%

In the table above, it’s shown that students – a higher frequency of them – opted for “average.” For seventh one, students opted for “neutral.” And then for the eighth one, “no” was the option selected by the students. “Yes” was what the learners opted for as an answer for the ninth one, and the highest frequency of them responded with “the unavailability of network” for the tenth one.

Table # 3

Sr.#	Statements	Frequency	Percentage
11	Comfort regarding e-communication	61	50.8%
12	No difference between online and active education	84	70.0%
13	Online education compared to active education	90	75.0%
14	Completion of group projects or assignments digitally	48	40.0%
15	Necessity of physical interaction with the instructor	97	80.8%

In the table above, “neutral” was the most preferred answer by students as an answer for the eleventh statement is shown. “Disagree” became the response of most students for twelfth statement. For thirteenth statement, students – a majority – agreed that the quality of online education is not as better as active education. Students opted for

“disagree” in response to the fourteenth statement. And, for the fifteenth – the last – statement students opted for “agree” in majority.

Online and Active Learning

Learning	N	Mean	SD	t	p
1	126	15.99	2.779	.773	.002
2	118	13.48	1.748		

The above table shows the independent t-test to compare the learners’ preference of online or active learning at university level. The frequency of students who preferred active learning was 120 and the frequency for online learning was 118. The values of Mean and SD for active learning were 15.99 and 2.779 respectively, and for online learning the values of Mean and SD were 13.48 and 1.748 respectively. The p-value 0.002 is less than alpha value 0.05. Hence, there was a stark difference between the preferences of online active learning.

Key findings of thematic analysis

1. First question for interview was, “What are the key factors for making an online course effective?” 2 of the respondents answered that there should be an online module in action, and the rest 8 answered that teachers need to be trained for such courses.
2. Second question for interview was, “Regarding the use of technology in education, are there any particular technologies you feel existed about?” Half of the respondents said that the idea of using Youtube excites them, and the remaining half said that Google Meet and Zoom has them excited with the convenience they offer.
3. Next question was, “What is the difference between online and active learning?” 8 respondents said that students find it hard to focus on lectures in online learning, and the remaining two said that the lack of physical interaction and exchange of ideas had them off the track. .
4. The fourth interview question was, “How helpful is the environment at home for studying?” 9 Out of 10 respondents said that there should be a disturbance free environment at home during e-learning for students. And, the rest said that the good quality internet is important for peaceful environment at home during e-learning.
5. The fifth interview question was, “Are you satisfied with the technology and software you are using for online teaching?” 10 Out of 10 respondents agreed that they are satisfied with the technology and software they were using for online teaching.

6. Another question was, “How important is direct communication for you while learning remotely?” 7 Out of 10 respondents said that it is important because it is helpful to minimize students’ misconceptions; the remaining ones said that eye contact is important for students’ active learning.
7. Next interview question was, “How effective are online and active learning for students at university level?” 5 Out of 6 respondents said that online education builds students’ confidence level, and the rest 5 said some students are shy and that makes it harder for them to give their presentation in front of class.
8. The last question was, “What are the challenges faced by students during online and active learning?” 10 Out of 10 respondents said that they, the students, have connectivity issues and low motivation level in online learning while in active learning discipline and time management are the big challenges.

CONCLUSION

The results helped in conclusion that active learning has significant and positive influence on students’ learning and over all academic performance. It, active learning, makes the students self-directive and brings a better change in students’ behaviours. It plays vital role in students’ lives: Positively helps them in becoming successful adults by increasing their self-confidence. The outcomes of this study indicated that universities and other educational institutions were highly affected due to online mode of education. Generally, students who participate in classroom activities benefit academically. Not every child can benefit from online education. Each student performs at his/her own level of ability, thus, one cannot expect excessive amounts of academic abilities from a child solely because he/she is actively involved in both type of educational systems. The active learning serves a greater purpose in the academic, social, physical, and cognitive development of learners. Besides, every child should have the opportunity to participate in at least one activity that suits his/her personality and interests. These classroom activities, however, should be directed toward improving their development and should involve some mental and/or physical ability. Watching mobile or laptop screen is not necessarily a beneficial activity, thus, it should be done for a minimal time. It, this activity, effects students’ mental or physical health. Teachers play dominant role in the academic development of the learners, and one way of fostering strong academic performance is by encouraging young learners to be involved in some of the activities in classroom which promote academic performance.

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