

## Impact of Online Teaching-Learning on the Student Achievement at University Level: The Current Scenario

Nimra Jamil

M.S Scholar, Department of Education, Sindh Madressatul Islam University, Karachi  
nimjamil@gmail.com

**Article History:** Received: 11 January 2021; Revised: 12 February 2021; Accepted: 27 March 2021; Published online: 23 May 2021

**Abstract:** Online learning has been an important part in the higher educational system and has also gained prominent position recently, since the pandemic situation has occurred. Scholars and teachers considered online teaching and learning process, the reliable and effective source and medium to transfer and acquire education which has somewhat achieved the purpose of education and fulfill their aims and goals. The purpose of this research study was to highlight the impact of online teaching and learning on the students' achievement and opportunities and the challenges which are faced by students and teachers in this era, at university level of Karachi. The chosen methodology was Quantitative, using Survey Research Method applying Random Criterion Sampling Technique. The researcher selected overall ten teachers and twenty students from each of the discipline; Bachelor, Master, M.S/M.Phil levels from East Karachi, respectively. The relevant research respondents were required to fill statements of Likert Scale via online which were analyzed by Simple Descriptive Stats, using SPSS Software. Findings revealed that online teaching-learning has somewhat both, pros and cons for the teachers as well as for students of university level. They faced similar obstacles and barriers living in remote areas, lack of resources and facilities, training, miscommunication, accessibility and financial issues etc. They also met with some opportunities such as, inclusiveness, immobility, indiscrimination and convenience. To overcome such challenges, good governance and frequent evaluation is necessary; appropriate training and enhancing skills of the teachers and resolving such issues of the students immediately, by the administration and to enhance the opportunities they get, is mandatory..

**Keywords:** Online teaching-learning, students' achievement, learning opportunities, learning obstacles, university level.

### 1. Background Of The Study

#### Global Scenario

Not only in the educational field, the spread of corona virus has affected all the fields and departments in a country from top to bottom, over the entire globe. It has very vast and profound affect over nations that the government has to close all institutions and organizations completely for the safety and protection of humanity. Due to such pandemic situation, every country was facing decrease in economy, political virtues, social and health stability and could not find any logical solution or reason to continue (Aziz, 2020; Gul et al., 2021), until some of the developed countries like U.K, USA, Finland and Germany etc. started to make their online learning practices as an complete and entirely solution to maintain their standard of education, at all levels. At first, it was difficult for them to convert or shift entire educational processes and procedures over online basis or strategy but somehow, gradually they find it suitable, effective and reliable means to cope with the situation; finding it best alternate solution in every field and discipline and switching it to online technology, for e.g. in business fields, electronic media, marketing, exchange of goods etc. (Nazia et al., 2021). Similarly, the scholars and administrations of the educational institutes of rest of the countries decided to and have substituted their instructional pedagogies with new online pedagogy as a permanent solution, at least till the end of the virus to assure safety of the lives of pupils and themselves (Shivangi; Wei, 2020).

For many years, developed countries in all over the world, were practicing online learning as one way of transferring and acquiring education in their institutions at higher educational level by various different means, methods and techniques etc. with their usual courses or formal method of teaching. So far, online learning has given promising results and outcomes to them and worked as a beneficiary in their educational and instructional fields and achievement of academic goals. Lately, it was used for online short courses, distance learning and MOOC kind of programs or for specific purposes over a limited period of time (Stephanie, 2012; Anna & Xiufang, 2016; Karen, 2019). But currently, it has become one and only medium and purpose to serve for education or learning because of the global spread of the Covid-19 and in such critical situation where going to an educational institution would mean risking your and your family's life (Shivangi; Fareeha et al., 2020).

Although, this was a drastic global problem but this online education experiment has bridged gaps among the nations, particularly in academic field. The standard of education has come on the same level in all over the world. No other alternate would be best suitable and reliable for instructional practices than online teaching and learning; using any online medium and device to transfer the instructional practices into online teaching-learning to fulfill the aims and goals of the educational process (Wendy & Julio, 2021).

## **Local Perspective**

Pakistan is a developing country and has been suffering from a number of issues and obstacles, such as economic and political instability, social injustice and crimes, weak educational reforms and planning and implementation with also outdated curriculum, old teaching methods and strategies in the educational system. During the pandemic situation of COVID-19, having no backup plans for national crisis in any sector or organization of the country, our country has faced complete economical freeze and the growth has decreased in our educational process from bottom level to top. Earlier, there was no backup plan for continuing the educational processes, like the western countries and had a long affecting impact on all levels of education because no alternate was available as a replacement of formal educational system (Aziz, 2020). But then later on, Pakistan has also adopted the strategy of imparting instructional practices through online medium or source following the footsteps of other countries (Nazia et al., 2021).

Earlier, it was also in practice by AIOU, Virtual University of Pakistan and some other universities were in its initial phase to help and support their students by online learning process with the usual lecture method delivering physically, in-person. But as the need and necessity of time, Pakistan has also adopted the global trend of online education as a most suitable solution during COVID-19. It also has shifted its educational processes by means of online teaching and learning within its available resources utilizing mass media as a medium. This has also led with the challenges and obstacles to shifting the educational process online. Furthermore there are also some barriers to make our education system global with online education system. Pakistan still needs time and much more efforts to meet the global level (Khadijah et al.; Hussain et al.; Samreen, 2020; Nazia et al., 2021).

Previous studies have shown very positive results of online learning in context to the satisfaction and high academic achievement level of students as well as the relevant teachers. They find it convenient, mobilized and time-saving and easily accessible. Studies have also shown that this practice has going to be implemented in overall universities of the country, officially by HEC (Samreen, 2020).

## **Research Objectives**

To highlight the impact of online teaching and learning on the challenges which are being faced by the students and teachers at university level.

To highlight the impact of online teaching and learning on the opportunities which are being achieved by the students and teachers at university level.

## **Hypotheses**

There will be no significant impact of online teaching and learning on the challenges which are being faced by the students and teachers at university level.

There will be no significant impact of online teaching and learning on the opportunities which are being achieved by the students and teachers at university level.

## **2. Research Methodology**

The chosen methodology was Quantitative, using Cross-sectional Survey Research Method and applying Random Criterion Sampling Technique to study the impact of online teaching-learning on the student achievement. The researcher selected overall ten teachers and twenty students from each of the discipline; Bachelor, Master, M.S/M.Phil levels from East Karachi, respectively.

### **Population and Sampling**

The targeted population of this study was three universities in the East Karachi District from public and private, both sectors. From which the researcher selected thirty teachers teaching at Bachelor, Master and M.S/M.Phil level and sixty students in total from the mentioned disciplines.

### **Data Collection**

Researcher structured two separate Likert scales (close ended questionnaires) for teachers as well as for students. The relevant research respondents were required to fill 14 statements of each of the Likert Scale via online considering variables and purpose of the study. Both were conducted in a natural environment using primary method of data collection.

### **Pilot Testing**

Reliability was tested prior the conduction of questionnaires on nine of the participants, from which five were students and four were teachers. Content validity was checked by expert/supervisor of researcher.

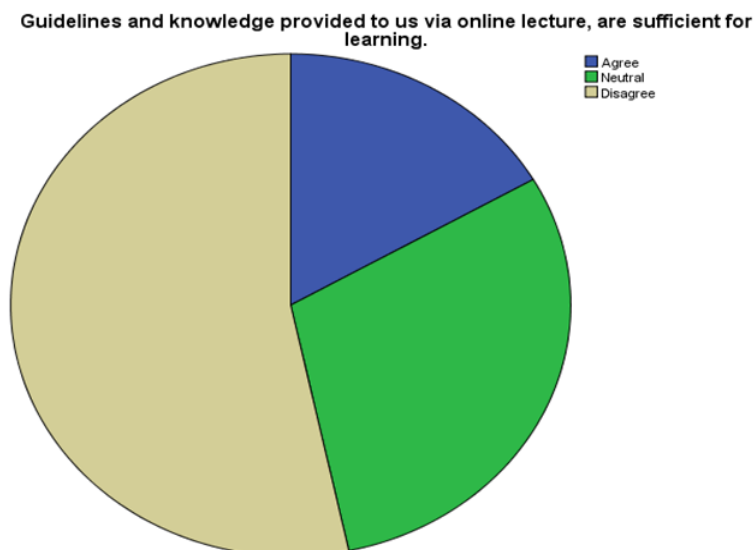
### 3. Results And Analysis

The statements of each Likert Scale were analyzed by Simple Linear Regression using SPSS Software. The analysis of teachers' survey reported that the value of R was 0.54, P value was 0.01, t value was 6.80 and F value was 53.06.

The analysis of students' survey reported that the value of R was 0.74, P value was 0.00, t value was 9.60 and the value of F was 58.02 respectively.

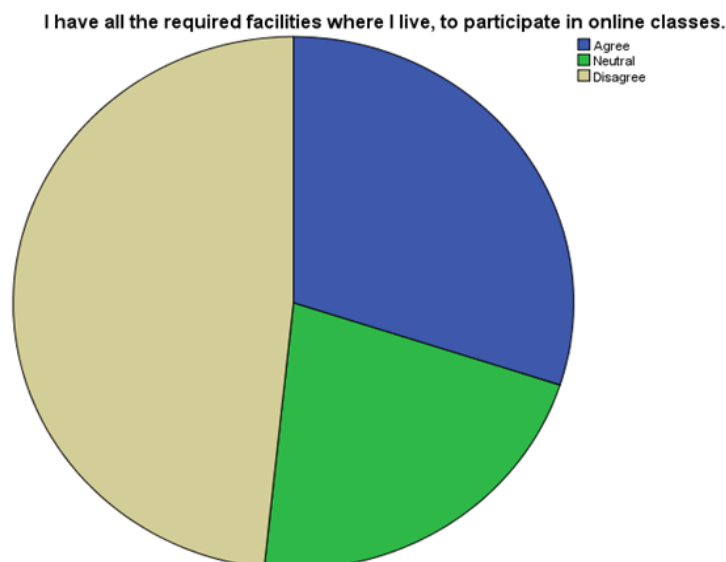
The detailed analysis and interpretation of few of the statements of each survey:

#### Students' Survey:



**Figure 4.1**

In the above statement, mostly respondents (53.3%) disagreed that guidelines provided to them are sufficient, a few (16.7%) agreed and some (30.0%) were neutral in their thoughts.



**Figure 4.2**

In the above statement, mostly respondents (48.3%) disagreed that they have all the required facilities where they live to participate in online classes, some (30.0%) agreed and few (21.7%) were neutral in their thoughts.

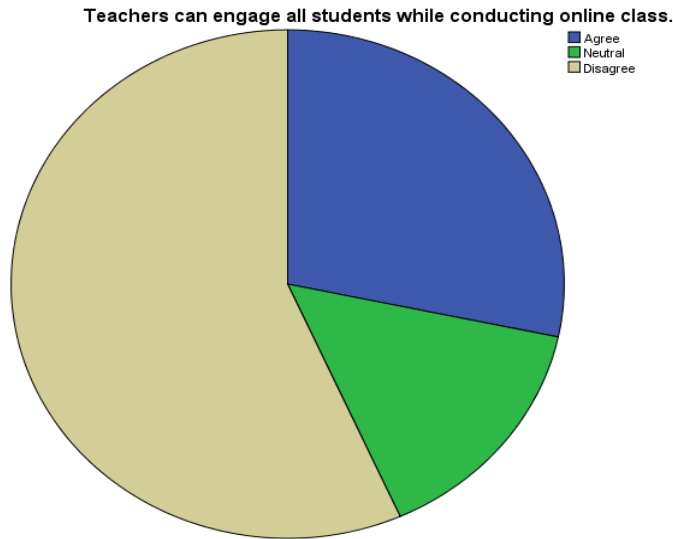


Figure 4.3

In the above statement, mostly respondents (56.7%) disagreed that teachers can engage all students while conducting online classes, some (28.3%) agreed to it and a few (15.0%) were neutral in their thoughts.

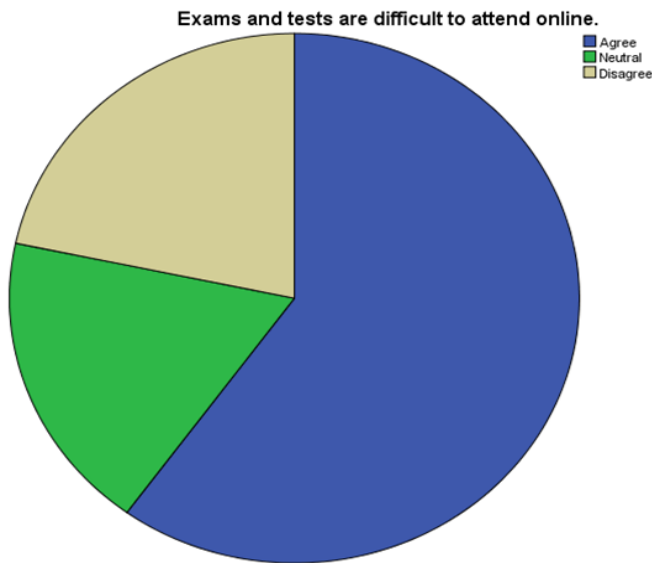


Figure 4.4

In the above statement, mostly respondents (60.0%) agreed that exams and tests are difficult to attend online, some (21.7%) disagreed with it and few (18.3%) were neutral in their thoughts.

Online education reduces discrimination over the standard of education among countries.

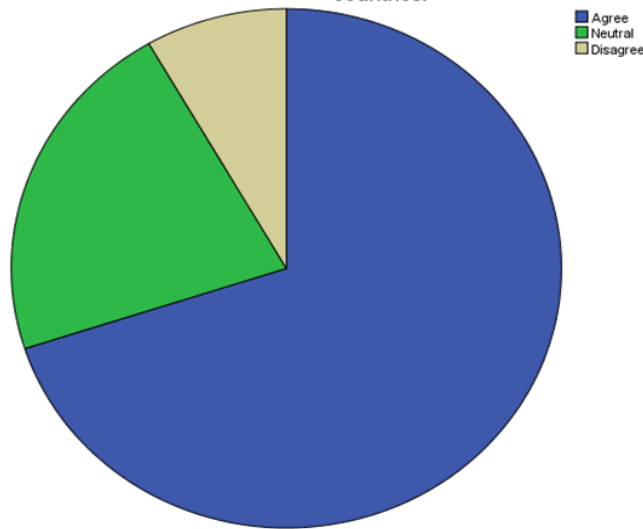


Figure 4.5

In the above statement, mostly respondents (70.0%) agreed that online education has reduced discrimination over the standard of education among the countries of the world, very few (8.3%) disagreed and some (21.7%) were neutral in their thoughts.

It has helped to resolve the issues of educational process during pandemic situation.

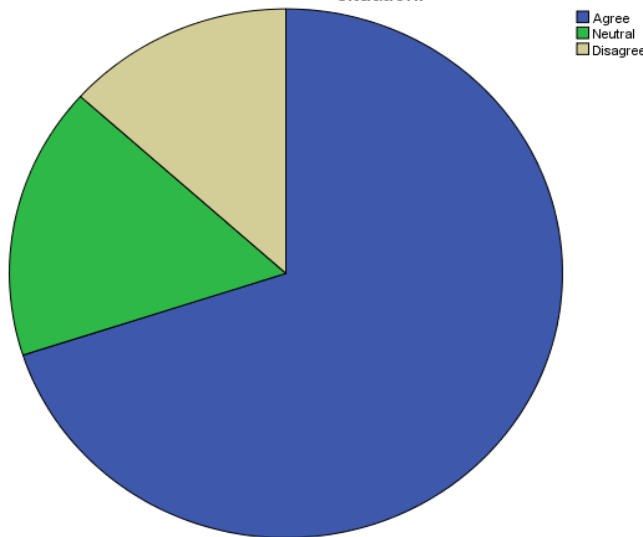
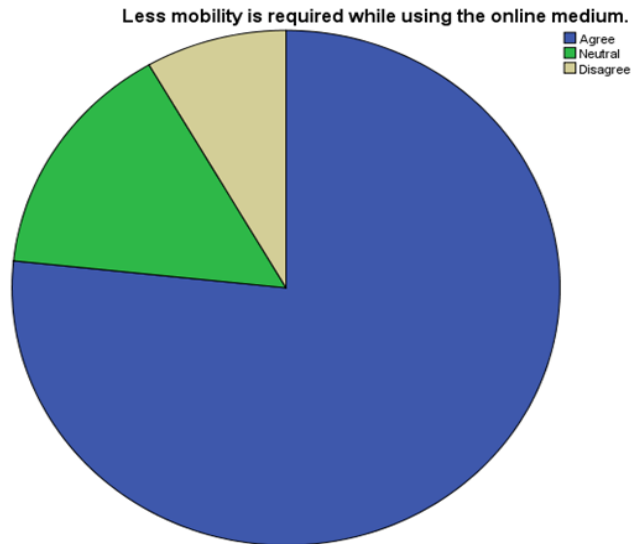


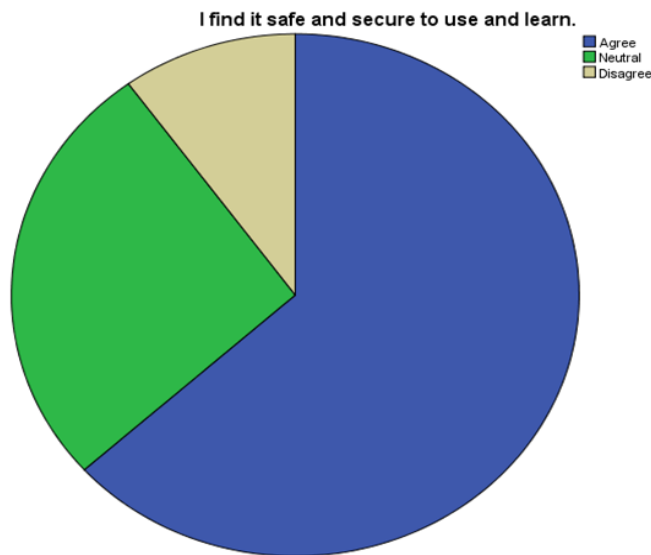
Figure 4.6

In the above statement, mostly respondents (70.0%) agreed that online teaching and learning has helped to resolve the issues of educational process during the pandemic situation, very few (13.3%) disagreed with it and few more (16.7%) were neutral in their thoughts.



**Figure 4.7**

In the above statement, mostly respondents (76.7%) agreed that less mobility is required while using the online medium, very few (8.3%) disagreed with it and some (15.0%) were neutral in their thoughts.



**Figure 4.8**

In the above statement, mostly respondents (63.3%) agreed that they find online teaching and learning safe and secure to use and learn, a few (10.0%) disagreed and some (26.7%) were neutral in their thoughts.

Teachers' Survey:

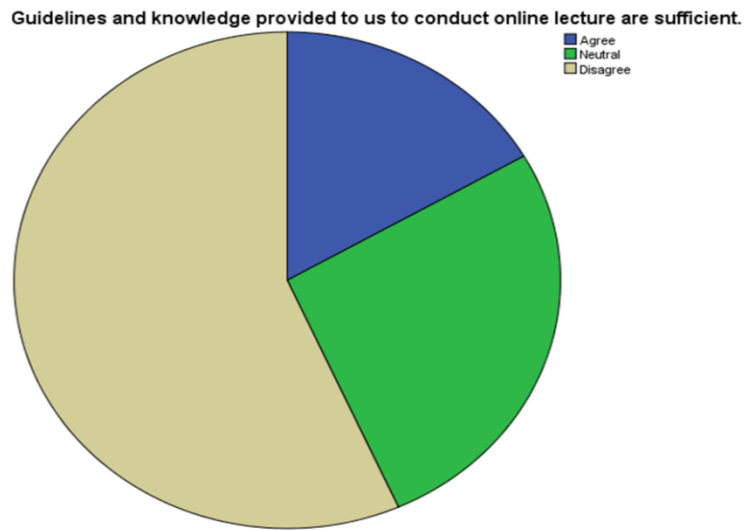


Figure 4.9

In the above statement, mostly respondents (56.7%) disagreed that guidelines and knowledge provided to conduct the online lectures are sufficient for them, few (16.7%) agreed to it and some (26.7%) were neutral in their thoughts.

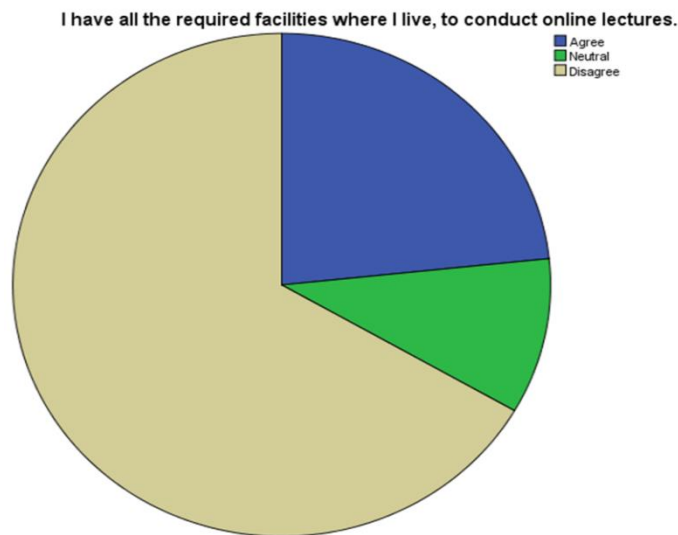
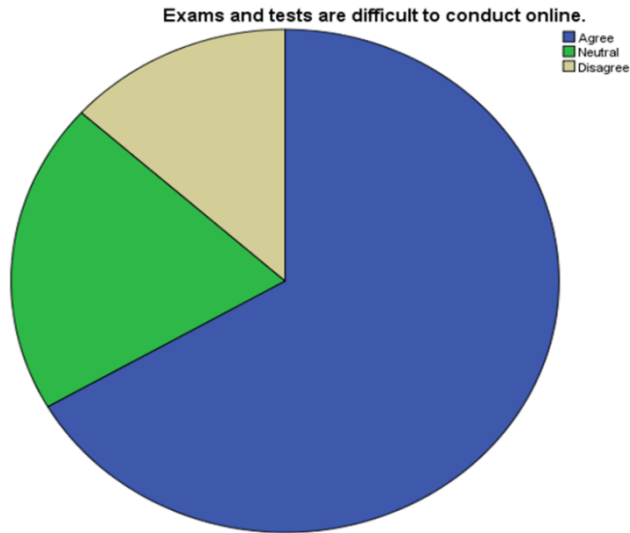


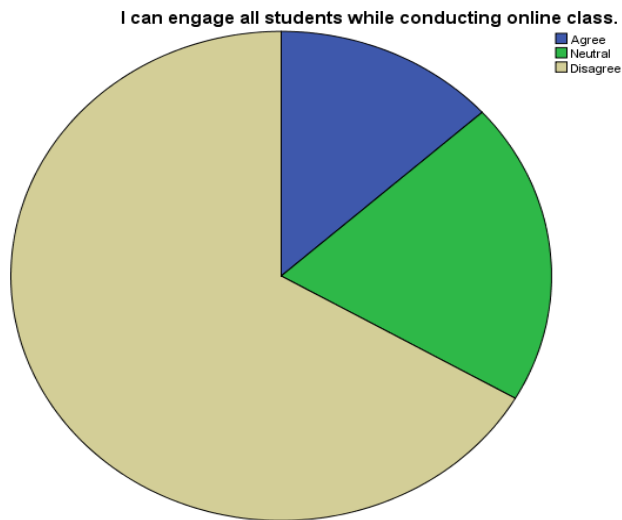
Figure 4.10

In the above statement, mostly respondents (66.7%) disagreed that they have all the required facilities where they live to conduct the online lectures, some (23.3%) agreed and a few (10.0%) were neutral in their thoughts.



**Figure 4.11**

In the above statement, mostly respondents (66.7%) agreed that exams and tests are difficult to conduct online, a few (13.3%) disagreed and some (20.0%) were neutral in their thoughts.



**Figure 4.12**

In the above statement, mostly respondents (66.7%) disagreed that they can engage all students while conducting the online classes, a few (13.3%) agreed and some (20.0%) were neutral in their thoughts.



Online education reduces discrimination over standard of education among countries.

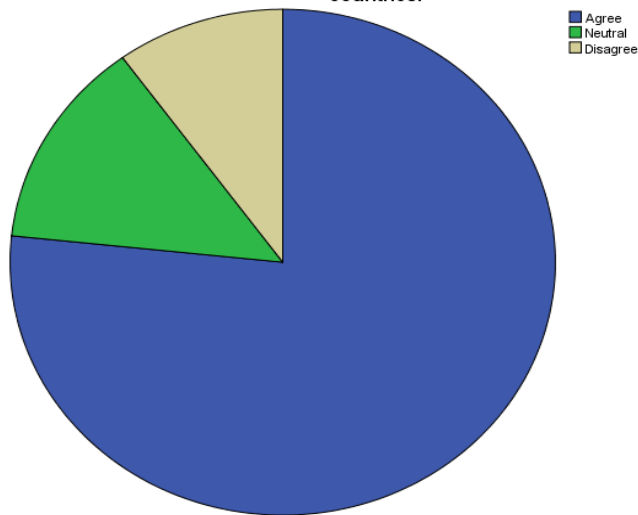


Figure 4.13

In the above statement, mostly respondents (76.7%) agreed that online education has reduced discrimination over the standard of education among countries, a few (10.0%) disagreed and some (13.3%) were neutral in their thoughts.

It has helped to resolve the issues of educational process during pandemic situation.

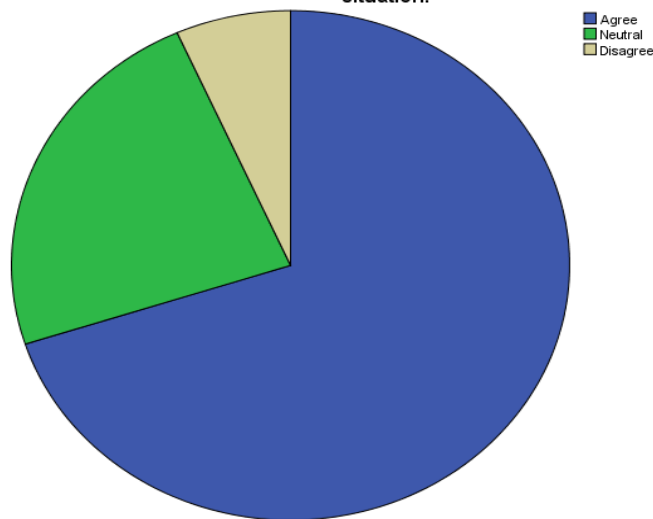


Figure 4.14

In the above statement, mostly respondents (70.0%) agreed that online teaching and learning has helped to resolve the issues of educational process during the pandemic situation, very few (6.7%) disagreed with it and some (23.3%) were neutral in their thoughts.

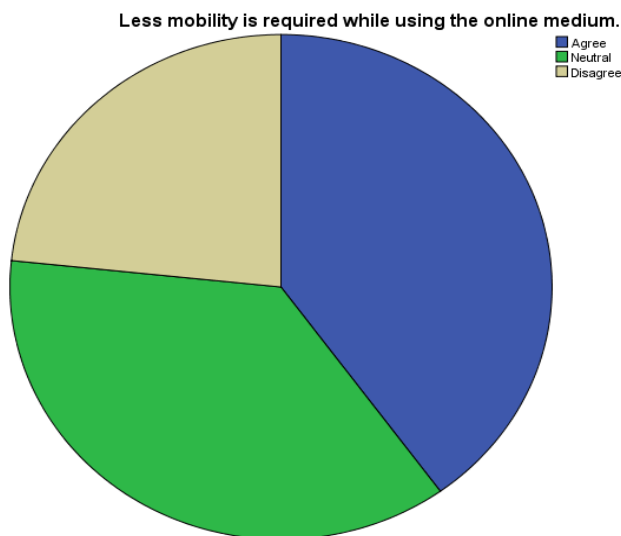


Figure 4.15

In the above statement, mostly respondents (40.0%) agreed that less mobility is required while using the online medium, few (23.3%) disagreed and many (36.7%) were neutral in their thoughts.

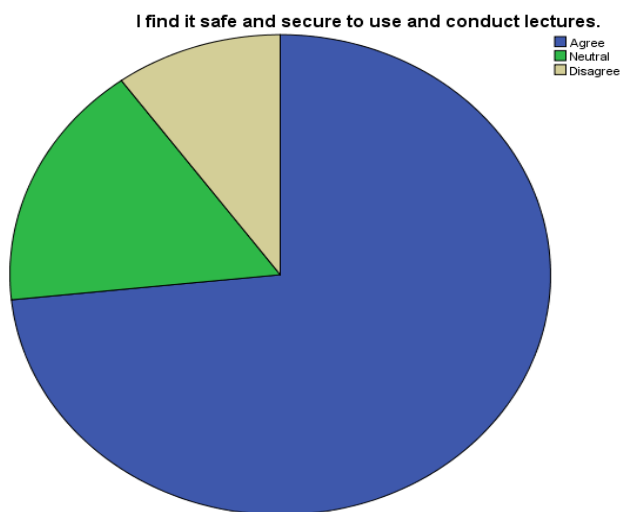


Figure 4.16

In the above statement, mostly respondents (73.3%) agreed that they find online teaching and learning safe and secure medium to use and conduct the lectures, a few (10.0%) disagreed and some (16.7%) were neutral in their thoughts.

#### 4. Findings And Conclusion

Findings revealed that online teaching-learning has somewhat both, pros and cons for the teachers as well as for the students of university level. It is impacting the student achievement and progress in both ways, that is, positive and negative. However, the ratio of challenges, issues and problems faced, was higher than the opportunities or strengths they achieved. They faced similar obstacles and barriers living in remote areas, lack of proper resources and facilities as refer to the medium or devices being used, internet facility, fluctuation of electricity which is not provided appropriately in every area of the country. Others include: proper equipments to teach and learn and the environment which they are provided with. Not providing complete or proper guidelines by the teachers as well as admin to both the factors which also leads to miscommunication, dissatisfaction and low self-interest. They also faced miscommunication and non-accessibility issue because of the poor network coverage or low quality internet devices and less knowledge on how to use such devices and benefit from it. Financial issues, like some of the participants do not afford to buy good quality mobile phones or laptops etc. on their own. It is also found that conduction of and attending the online examination and tests are quite difficult for all the participants. The analysis report that they also met with some positive aspects or opportunities such as, less

requirement of mobility which saves their time, much efforts as well as energy and their cost. It is found to be a secure, safe and sound medium to use, learn and conduct the instructional practices. It has also helped somewhat to resolve the issues of educational process during the pandemic situation. It created indiscrimination over the standard of education in the educational institutions, within and outside the country and introduced inclusiveness of methods as refers to something new from daily routine lecture method, conducting physically. In contrast, the responses of students do not support the statement much. However, a vast majority of both the participants agreed that providing full attention to all the students at the same time and engaging them in the activities during the lectures is not quite possible and interest level of both factors was find low in the process.

Based on the above discussion, it can be argued here that both, students and faculty members are facing issues and it is a difficult task to do online teaching and learning for both factors in Pakistan and it still needs time to be complete successful strategy with reference to the current unstable situation of the country (Aziz, 2020; Nazia et al., 2021).

## 5. Suggestions

For sustainable education now onwards it is required to have an online medium for teaching and learning during Global or National Crisis scenario as an alternative plan. As world has recognized the worth of online education during the spread of the virus, COVID-19. Up to secondary education level, general familiarization of subjects; local and national visions and values are being taught. It may differ from country to country and area to area. At Higher Education Level, where Research and Innovation is pertinent and it is considered to be a global platform; global competitiveness and standards are required. For development in any field of education or life and to meet the global competitiveness and standard of education, online education system needs to be strong, beneficial and successful in future. For the betterment of our coming generation, the country and the entire globe, it is compulsory (Wendy & Julio, 2021).

To overcome such challenges and obstacles,

- Good governance and frequent evaluation of the process, is necessary.
- Appropriate training and enhancing skills of the teachers is required of which admin needs to take the responsibility.
  - Resolving such issues of the students immediately by the teachers and to enhance the opportunities they get, is mandatory.
  - High quality internet facility should be provided to teachers for academic purpose only, as to eliminate the issues of disconnectivity, miscommunication and inaccessibility.
  - There must be an appropriate teaching-learning environment created by the teachers as well by parents at their homes in order to omit the disturbance and non-seriousness of the students.
  - Teachers must use interactive strategies and techniques to involve the students more in their lectures.
  - International assistance can be used to conduct some of the lectures online.
  - Webinars and workshops must be conducted additionally, for both; mutually or separately.
  - Administrative support must be provided to teachers and to students as well, where necessary.
  - Governmental involvement and assistance is required in providing free laptops and internet devices on subsidy to students and teachers, who do not own such devices and cannot afford it.

These devices should be provided under the supervision of teachers and administrations of the universities over the criteria and security that it would be specifically used for educational purposes..

## References

1. Abbas, S., Muhammad, S. D., & Ali, S. (2016). Globalization Challenges and Opportunities: An Empirical Analysis of Pakistan. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 10(1), 192-199.
2. Adnan, M., & Anwar, K. (2020). Online Learning amid the COVID-19 Pandemic: Students' Perspectives. *Online Submission*, 2(1), 45-51.
3. Ahmed, S. S., Khan, E., Faisal, M., & Khan, S. (2017). The Potential and Challenges of MOOCs in Pakistan: A Perspective of Students and Faculty. *Asian Association of Open Universities Journal*, 12(1), 94-105. DOI 10.1108/AAOUJ-01-2017-0011
4. Anwar, M., Khan, A., & Sultan, K. (2020). The Barriers and Challenges faced by Students in Online Education during COVID-19 Pandemic in Pakistan. *Gomal University Journal of Research*, 36(1), 52-62.
5. Baloch G. M., Sundarasan S, Chinna K, Nurunnabi M, Kamaludin K, Khoshaim H. B., Hossain S. F. A, AlSukayt A. (2021). Covid-19: Exploring Impacts of the Pandemic and Lockdown on Mental Health of Pakistani Students. *PeerJ* 9:e10612. DOI 10.7717/peerj.10612

6. Bao, W. (2020). COVID-19 and Online Teaching in Higher Education: A Case Study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113-115. DOI: <https://doi.org/10.1002/hbe2.191>
7. Blackmon, S. J., & Major, C. (2012). Student Experiences in Online Courses: A Qualitative Research Synthesis. *The Quarterly Review of Distance Education*, 13(2), 77–85. Retrieved from URL: <https://eric.ed.gov/?id=EJ1005840>
8. Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, 49(1), 5–22. DOI: <https://doi.org/10.1177/0047239520934018>
9. Farooq, F., Rathore, F. A., & Mansoor, S. N. (2020). Challenges of Online Medical Education in Pakistan during COVID-19 Pandemic. *J Coll Physicians Surg Pak*, 30(6), 67-69. DOI: 10.29271/jcpsp.2020.Supp1.S67
10. IIEP-UNESCO, (2020). What Price will Education pay for COVID-19?. International Institute for Educational Planning. Retrieved from URL: <http://www.iiep.unesco.org/en/what-price-will-education-pay-covid-19-13366>
11. Ion, S., & Prica, I. M. (2020). Higher Education and Globalization in the Context of the COVID-19 Crisis. *European Journal of Education*, 3(2), 117-128.
12. Iqbal, M., & Arif, M. I. (2011). Globalization and Paradigm Changes in Teacher Education: Revolutionizing Teaching Learning Process at School Level in Pakistan. *International Education Studies*, 4(4), 99-110. DOI: <http://dx.doi.org/10.5539/ies.v4n4p99>
13. Kazmi, S. W., & Quran, H. (2005). Role of Education in Globalization: A Case for Pakistan. *SAARC Journal of Human Resource Development*, 1(1), 90-107.
14. KHAN, A. H. (2017). Globalisation and Higher Education in Pakistan. *Journal of Advanced Research in Social Sciences and Humanities*, 2(4), 270-276. DOI: <https://dx.doi.org/10.26500/JARSSH-02-2017-0405>
15. Khuwaja H. M. A., Maqbool, A., Gul S., Hanif, S., & Karim S. (2020). Status of Digital Learning Practices in Health Sciences Education in Pakistan. *Journal of the Pakistan Dental Association*, 29(S), 30-35. DOI: <https://doi.org/10.25301/JPDA.29S.S30>
16. Mahmood, S. (2020). Instructional Strategies for Online Teaching in COVID-19 Pandemic. *Human Behavior and Emerging Technologies*, 3(9), 199-203. DOI: 10.1002/hbe2.218
17. Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, Limitations and Recommendations for Online Learning during COVID-19 Pandemic Era. *Pakistan Journal of Medical Sciences*, 36(4), 27-31. DOI: <https://doi.org/10.12669/pjms.36.COVID19-S4.2785>
18. Mumtaz, N., Saqulain, G., & Mumtaz, N. (2021). Online Academics in Pakistan: COVID-19 and Beyond. *Pakistan Journal of Medical Sciences*, 37(1), 283–287. DOI: <https://doi.org/10.12669/pjms.37.1.2894>
19. Naz, S. (2016). Impact of Globalization on Higher Education in Pakistan: Challenges and Opportunities. *International Journal of Innovation in Teaching and Learning (IJITL)*, 2(2). DOI: <https://doi.org/10.35993/ijitl.v2i2.363>
20. Purcell, W. M., Lumberas, J. (2021). Higher Education and the COVID-19 Pandemic: navigating Disruption using the Sustainable Development Goals. *Discover Sustainability*, 2(6). DOI: <https://doi.org/10.1007/s43621-021-00013-2>
21. Rajput, N. H., Noonari, N., Bukhari, S. M. A., Dehraj, M. A., & Rajput, J. A. (2020). Exploring the Impacts of COVID-19 Pandemic on Education Divide in Pakistan. *Journal of Pharmaceutical Research International*, 32(33), 32-39. DOI: <https://doi.org/10.9734/jpri/2020/v32i3330946>
22. Rehman, A. (2020). Challenges to Online Education in Pakistan during COVID-19 & the Way Forward". *AJIR Preprints*, 241(1). DOI: 10.13140/RG.2.2.17222.70726. Retrieved from URL: <https://preprints.ajir.org/index.php/ap/preprint/view/241>
23. Saeed, A., Zulfiqar, S., Ata, G., & Rathore, K. (2015). Impact of Globalization and the Role of International Agencies in Education Policy Making Process of South Asian Countries-A Case of Pakistan. *South Asian Studies*, 30(2), 297.
24. Sarwar, H., Akhtar, H., Naeem, M. M., Khan, J. A., Waraich, K., Shabbir, S. & Khurshid, Z. (2020). Self-Reported Effectiveness of e-Learning Classes during COVID-19 Pandemic: A Nation-Wide Survey of Pakistani Undergraduate Dentistry Students. *European Journal of Dentistry*, 14(1), 34-43. DOI: 10.1055/s-0040-1717000
25. Sun, A., & Chen, X. (2016). Online Education and its Effective Practice: A Research Review. *Journal of Information Technology Education: Research*, 15, 157-190. Retrieved from <http://www.informingscience.org/Publications/3502>
26. Swan, K. (2019). Research on Online Learning, Research on Online Learning: Students, Faculty, Institutions, 11(1). DOI: 10.24059/olj.v11i1.1736. Retrieved from URL: <https://olj.onlinelearningconsortium.org/index.php/olj/article/view/1736>