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A Comparison between Online and on-campus Classes: Taking University Students' Perspective

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ABSTRACT

During the current pandemic Covid-19, the universities had to start their online classes instead of traditional on-campus classes. The students are a pivotal point as well as a significant stakeholder of education, so they must be given the opportunity for expressing their perspectives in this regard. So, this study aimed to investigate university students' perceptions regarding online and on-campus classes. The students' perspectives were further compared regarding the abovementioned to get insight into what they prefer to be taught with. The survey was conducted for this study. The sample consisted of 440 university students enrolled in the BS Program at three public whereas three private universities at Lahore. The sample includes students of both genders (male=221, female=219). The instrument for data collection was developed by the researcher which was consisted of five point Likert's rating scale with 40 items. Based on findings, it is concluded that overall university students prefer to learn through on-campus classes as compared to online classes. Moreover, males students are more inclined towards learning through online classes, whereas female students were in favor of on-campus classes.

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1. Introduction

In the modern age, the developing countries make massive advancements in every walk of life, most importantly in the field of technology which allows humans to have a life full of facilities. Even the advancement in technology has revolutionized every field of life, and education is one of its

beneficiaries. Developed as well as developing countries are considering shifting the mode of teaching and learning from traditional to modern (by incorporating the electronic gadgets to deliver the information) (Smart & Cappel, 2001). Higher education institutions working to provide learning opportunities to young adults by offering web-oriented courses (Haugen & Melrose, 2001). This innovative way of teaching demands revisions in exited curriculum and the traditional way of teaching (Neill & Donoghue, 2004).

E-learning is considered as an integrated product of education and technology. The learning that utilizes technology (multimedia gadgets and the internet etc.) to develop a better understanding among students is said to be e-learning. It also categorizes as web-based learning (Altman, Mittal, & Pagalthivarthi, 2007). Such learning could be occurred by employing different ways for instance: self-learning by managing study units at the individual level, asynchronous as well as synchronous sessions. Where students are allowed to interact as per their convenience either at different times or learn in real classrooms (Ryan, 2001).

Despite the tremendous increase in the trend of e-learning, still, there is a space for advancement. Similarly, teachers and administrative authorities should understand the students' learning needs of e-learning regarding their perceptions and implications. The consideration of ways that promote learning attitude among students is also important, as motivation and students' attitude plays a significant role in students' learning (Koohang & Durante, 2003).

Excited literature highlighted the importance of active involvement of students in studies promotes learning among students (Pike, Kuh, & Gonyea, 2003; Thomas & Higbee, 2000; Ullah & Wilson, 2007; Wagenaar, Scherpbier, Boshuizen, & Van der Vleuten, 2003; Watkins, 2005). That includes students' learning activities that make them involved in the process of learning that provoke them to think about their progress in learning. Modern e-learning programs promote the active engagement of students in their learning activities as students are supposed to complete their assignments on their own through the utilization of e-resources. Such learning allows students to refine their previous concepts on the bases of their new understandings (Johnston & Killion, 2005).

Students are more capable to resolve their problems either they belong to their educational field or from their professional life, as they have the proficiency to understand the existing context and then apply the knowledge to resolve it. Students' involvement not only promotes students' learning but also helps to motivate students for learning. They become able to realize their problems and active thinking support to resolve those problems (Driscoll & Carliner, 2005).

The use of e-learning provides an opportunity to have a context of real-life that promote students' engagement to resolve their academic issues. The availability of such context facilitates students by developing their critical thinking skills. As they practice to analyze the problem and then apply the knowledge that they have (Scriven & Paul, 2004). For this purpose retention of learned content and application of this information to improve the performance plays an important role. e-learning provides such a platform where students learn through their own learning experiences, actively involved in their learning activities, not only analyze their problems and context but also synthesize all the required information to construct new knowledge (Driscoll & Carliner, 2005).

E-learning provides many opportunities to the learners due to its flexible nature, they conveniently manage time from their routine life to learn the lectures and complete their assignments. Moreover, one of the benefits of e-learning is the cheap availability of learning content that students

could utilize as per their requirement (McDonald, 2000).

The current pandemic situation due to the COVID 19, bounds the university authorities to shift the traditional way of teaching to online learning. Such circumstances raise the teachers' and students' dependency on technology. However, the existing literature proves that online learning positively affects students' learning (Caywood & Duckett, 2003; Holzweiss, Joyner, Fuller, Henderson, & Young, 2014). But there is a grey area concerning the comparison of both modes of classes regarding university students' perspectives in the Pakistani context. Therefore, the current research was conducted to find out the university students' perspectives regarding their experience of online classes and on-campus classes.

2. Research Questions of the study:

These research questions were articulated to achieve the aforementioned objective:

- What is university students' perception of traditional class formats?
- What is university students' perception of the online class format?
- Is the mean difference in university students' perceptions of online classes significant regarding their gender?
- Is the mean difference in university students' perceptions of on-campus classes significant regarding their gender?

3. Research Methodology

This study was quantitative in nature and the descriptive approach was utilized to investigate the students' perceptions of online and on-campus classes at the university level. The population was comprised of all the students who were enrolled in BS programs at district Lahore (either in public or private universities). The sample consisted of 440 students (219 female and 221 male), selected by convenient sampling technique. The 216 respondents belonged to public universities and 224 were from private universities. The researcher developed the questionnaire to collect data that was comprised of three parts. The first part reflects the demographic characteristics of the participants whereas the second and third part was about the university students' perspectives regarding online and on-campus classes respectively. The questionnaire consisted of 5 point Likert scale with 60 items. The validity of the instrument was made sure by educational and assessment experts' opinions. However, a pilot study was conducted on 30 participants to ensure reliability. Its value was 0.821 which is statistically acceptable.

4. Findings of the Study

Collected data were analyzed by applying descriptive (mean, standard deviation) and inferential statistics (Wilcoxon signed-rank test and Mann Whitney U tests) with the help of SPSS version 23.

Table 1: University Students' Perception Regarding Online Classes and On-Campus Classes

	Factors	Mean	Std. Deviation
Online Classes	Instructional Clarity	3.3677	.84893
	Conceptual clarity	3.4927	.73552
	Communication	3.6114	.76873
	Teachers' Support	3.5918	.73762
	Assignment Submission	3.4286	.72432
	Learning Experience	3.2850	.75882
Total Online Classes		3.4629	.55735
On Campus Classes	Instructional Clarity	3.9532	.38925
	Conceptual clarity	4.0077	.48769
	Communication	3.8405	.55388
	Teachers' Support	3.8464	.62756
	Assignment Submission	3.7641	.59465
	Learning Experience	3.8968	.48672
Total On Campus Classes		3.8848	.36648

N= 440

Values of mean and standard deviations against the students' perception regarding online and on-campus classes are presented in the aforementioned table. The mean of the factor teaching methodology ($M = 3.6114$; $SD = .76873$) was greater than the mean score of all other factors of online classes. Conversely, the table also depicted that students felt comfortable while learning through on campus classes as values along conceptual clarity was ($M = 4.0077$; $SD = .48769$).

Table 2: Comparison of students' Perception Regarding Online Classes and On-Campus Classes

	Online Classes		On-Campus Classes		z	p
	M	SD	M	SD		
Instructional Clarity	3.3677	.84893	3.9532	.38925	-11.137	.000
Conceptual clarity	3.4927	.73552	4.0077	.48769	-10.075	.000
Communication	3.6114	.76873	3.8405	.55388	-4.843	.000
Teachers' Support	3.5918	.73762	3.8464	.62756	-4.921	.000
Assignment Submission	3.4286	.72432	3.7641	.59465	-7.010	.000
Learning Experience	3.3677	.84893	3.8968	.48672	-12.065	.000
Total	3.4927	.73552	3.8848	.36648	-11.346	.000

The Students' perspectives regarding their classes (online and on-campus) were analyzed

through Wilcoxon Signed-rank test. The results indicated that university students were more satisfied with on-campus classes. As the value of online classes ($M = 3.4927$, $SD = .73552$) is significantly lesser than the mean value of on-campus classes ($M = 3.8848$, $SD = .36648$), ($Z = -11.346$, $p = .000$). These results are evidence that the difference in mean score is significant.

Table 3: Comparison of University Students' Perception of Online Classes based on gender

	Gender	N	Mean	U	<i>p</i>
Instructional Clarity	Male	221	201.95	-3.087	.002
	Female	219	239.22		
Conceptual clarity	Male	221	208.58	-1.985	.047
	Female	219	232.53		
Communication	Male	221	208.17	-2.052	.040
	Female	219	232.94		
Teachers' Support	Male	221	210.03	-1.745	.081
	Female	219	231.07		
Assignment Submission	Male	221	221.10	-.100	.920
	Female	219	219.89		
Learning Experience	Male	221	215.71	-.797	.425
	Female	219	225.34		
Total	Male	221	233.45	-2.126	.033
	Female	219	207.67		

To have a comparison of male and female students' mean scores that reflect their perceptions regarding online classes, the Mann-Whitney-U test was utilized. The result shows that $U = -2.126$, $p = .033$ ($p < .05$). These results highlighted the existence of a difference between the responses is significant. The mean score of females is 207.67, lesser than the mean score of females that is 233.45. It shows that males are more inclined towards learning through online classes.

Table 4: Comparison of Students' Perception of On-Campus Classes based on gender

	Gender	N	Mean	U	p
Instructional Clarity	Male	221	218.94	-.262	.793
	Female	219	222.07		
Conceptual clarity	Male	221	227.52	-1.172	.241
	Female	219	213.42		
Communication	Male	221	217.54	-.495	.621
	Female	219	223.49		
Teachers' Support	Male	221	225.67	-.863	.388
	Female	219	215.28		
Assignment Submission	Male	221	209.73	-1.795	.073
	Female	219	231.37		
Learning Experience	Male	221	214.65	-.976	.329
	Female	219	226.40		
Total	Male	221	219.87	-.104	.917
	Female	219	221.13		

To compare the mean scores of male and female students' perceptions of classes that they attended on their campus, the Mann-Whitney-U test was utilized. The results indicate that $U = -.104$, $p = .917$ ($p > .05$) which highlights that difference between the responses is not statistically significant as the mean score for males is 219.87 and females that is 221.13.

5. Conclusion and Discussion

Based on findings, it is concluded that overall university students prefer to learn through on-campus classes as compared to online classes. It is so because many students belong to the rural areas where they don't have proper facilities like stable internet connection, personal computer/ laptop, and generator or UPS in case of load shading, etc., that raise a communication barrier between the student and teacher. Due to such circumstances, they faced difficulty in concept clarity. Therefore, students were not satisfied with the online classes. These results have an inconsistency with the previously conducted research by Mgutshini (2013), as she highlighted that students perform better in their online classes as compared to on-campus. She claimed that students' better performance is indicated that they were satisfied with their online classes. The reason behind such contradictory results might be the contextual difference. As the aforementioned study was carried out by the researcher in normal circumstances where students had choices either to prefer study through traditional format by visiting the campus and study in formal classrooms, or study by utilizing online resources. But in the current study, all students were bound to attend on-line classes as they have no other choice due to the pandemic situation.

It is also concluded that male students are more inclined towards learning through online

classes, whereas female students were in favor of on-campus classes. These findings are inconsistent with the results of Paul and Jefferson (2019). They identified that all students equally perform better in their traditional/on-campus as well as online classes because the results of their study showed no significant difference in students' means scores concerning gender. The reason behind this disagreement may be the circumstantial difference. Because in the Pakistani context, girls are supposed to perform domestic chores along with their studies. That may create difficulty for them to manage their academic activities along with their domestic responsibilities. By considering these results, it is suggested that qualitative research should be carried out on the same topic by future researchers that may highlight students' problems that they faced during this pandemic situation while attending online classes.

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