COMPARISON OF ONLINE TEACHING AND TRADITIONAL TEACHING AT UNIVERSITY LEVEL

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Abstract

This study was conducted for comparison of online teaching and traditional teaching at university level. Main aim of the study was to investigate the students’ opinion regarding the comparative effectiveness of online teaching and traditional teaching at university level. Descriptive survey design was used to achieve the aims of the study. Three thousand four hundred and ninety nine (3499) students (1638 males and 1861 females) are studying at BS, Masters, MS/M.PHIL and PhD level in the faculties/departments of Education, English, Mathematics and Computer Sciences of university of Okara constituted the population of the study. As the population of the study was large enough; therefore, the researcher used convenient sampling technique to select the sample and finally, 601 students (281 males and 320 females) were selected. A 33-item questionnaire for students was used to investigate the students’ opinion regarding online teaching and traditional teaching at university level. Six hundred and twenty nine (629) questionnaires for students were distributed among the participants and 601 of students’ questionnaire were finally returned. Researcher used both the descriptive statistics and inferential statistical techniques to analyze the collected data of 601 participants by using SPSS. Overall results revealed that the majority participants are of the point of view that traditional methods of teaching are comparatively more effective and convenient than online teaching methods at university level.

Keywords: Online teaching, Traditional teaching.

1. Introduction

To impart knowledge is to teach. Educating people is commonly understood to mean teaching someone something new. There are many ideas in education that students will struggle to grasp unless they are presented in a variety of formats. It's clear that how instructors present material has a significant impact on students' ability to absorb it. Correct presentation aids students' learning (Chalmers & Fuller, 2012).

Up to this point, a number of material- and learner-specific approaches of instruction have been found. Teachers who were well-versed in pedagogical principles were better able to help their students learn and thrive. Good teaching practices and the characteristics of competent educators are discussed in depth in this engaging course (Heick, 2014).

A student's ability to learn is directly related to the quality of the instructor leading their class. Teachers are professionals who engage in an applied field and who confront the realities of the world every day in the shape of developing minds (Algozzine& Anderson, 2007).

Learning how to teach is both an intellectual and artistic endeavour. Multiple strategies are used to pique pupils' interest in learning during this process. A teacher usually starts a lesson by asking students what they already know and think about the material. The instructor takes the pupils' prior knowledge into consideration. The ways in which pupils think, act, and feel are shaped by teachers (East et al., 2012).
It is generally agreed that teaching is the act of preparing students for learning by laying out an overarching framework within which students can understand the desired learning outcomes and derived learning strategies. Teachers provide students many opportunities for hands-on learning and application in the classroom, and then provide constructive criticism for how to better apply what they've learned (Sternberg & Zhang, 2014).

Teachers aid students so that they can participate effectively in educational activities.

In the course of instruction, pupils progress from a state of ignorance to one in which they can use the new knowledge they have gained. Therefore, a good teacher is one who helps create a conducive learning environment by piquing their students' curiosity. It is generally agreed that a school's educational system is centred on its teachers (Stronge, 2018).

The term "improvement of learning" describes a constant focus of both educational practise and research. There are many factors that lead to better learning, but one of the most important is the idea of successful teaching. Sometimes the teacher takes over the class discussion. According to Alonso de Castro and Garca-Pealvo (2020), teachers are the ones who can make a difference in the classroom.

The calibre of their teaching has a direct bearing on student achievement in class. Communicating with and listening to students is essential to good teaching. Teachers have a crucial role in the academic achievement of their students, so it is imperative that they have strong abilities in the areas of lesson design, classroom management, and student assessment.

Most people would agree that great educators are empathetic, encouraging, worried about their students' success, well-versed in their field, able to communicate effectively with both students and parents, and enthusiastic about their jobs.

Successful educators have the ability to facilitate student learning (Pigozzi, 2007).

When we talk about "Effective Teaching," we're referring to a wide variety of practises that, when put into place, lead to productive education and development. People generally believe that teaching exists to facilitate learning. In today's information- and knowledge-based culture, this idea needs some refinement to meet the needs of the next generation. Therefore, we need to expand our understanding of education beyond the simple transfer of information (Devlin & Samarawickrema, 2010).

Students need to be given the tools to apply and improve existing knowledge as well as to generate new information. Many factors contribute to a successful classroom experience, including: establishing a specific goal at the beginning of each lesson, using several methods of questioning to keep kids interested, ascertainable through comprehensive classroom observation and student surveys, course review and error diagnosis at the end of each class hour.

Across the country, universities and colleges are adjusting to the impact of shifting political, economic, social, and technological norms. They are better at meeting the needs of...
students and preparing them for contributing members of society. Teachers can better fulfil their roles in the classroom by encouraging student participation, incorporating technology, and employing collaborative learning practises (So & Brush, 2008). There is evidence that shows how using a wide range of teaching methods can improve students' retention and comprehension. It goes without saying that the goals of a lesson plan should inform the pedagogical approach taken in that lesson.

Higher education has long employed both traditional and online teaching methods, with the latter enjoying a recent uptick in popularity. Before the widespread availability of the internet, education could only be obtained via the tried and true method of traditional teaching. This method of instruction is beneficial since it allows for lots of one-on-one time between the instructor and the student. By itself, this creates a highly inspiring setting for the students, with the capacity to captivate even the most unmotivated of students. The influence of the internet and other forms of electronic media has spread to every corner of the globe and become an integral part of everyone's daily lives. It is also a useful supplement to more conventional methods of education. The greatest benefit is that it allows for the physical and temporal separation of classroom instruction and student learning (Pokhrel & Chhetri, 2021).

The primary purpose of any university is to educate its students under the guidance of trained faculty. The onus of ensuring that pupils learn what they need to in the classroom was traditionally placed squarely on the shoulders of the teacher.

When dealing with a large student body, the tried-and-true methods of instruction often make the most sense and are the most practical. The lecture format allows the lecturer to speak to a large group at once. The method allows the teacher to have complete control over the presentation's goals, material, structure, tempo, and overall trajectory. This can be a great way to supplement and explain the text. On the other hand, traditional teaching methods necessitate that the teacher be articulate and articulate in writing and speech. Despite improvements in training systems and the proliferation of computers, conventional methods of instruction are still relied upon at all educational levels. The education system has experienced numerous shifts as time and technology have progressed. The new approach to instruction was put to the test by teachers. More and more classrooms are moving away from using a lecture format in favour of student-teacher dialogue. Due to the rapid development of IT, the educational system must adapt. Recent technological advancements allow for more effective forms of classroom learning to be implemented (2016).

The term "online teaching" refers to any method of imparting knowledge through the medium of the internet. Webinars, video chats, and online meetings are just a few examples of possible approaches. Your students can come from all over the world, and you can start teaching right away from anywhere (your own house, a local coffee shop, a shared office space, etc.). You should be somewhat proficient with computers and the internet if you want to teach online. This is because most kinds of communication with students, such as messaging apps, emails, and video chats, will take place digitally. Many online educators also need to develop and provide digital teaching materials to their students. These can take the form of anything from PowerPoint slides to video or audio recordings of lectures to
downloadable PDF handouts. The convenience and accessibility of online education is its greatest strength. As opposed to expecting people to travel to educational institutions, we must bring them. This is an ideal use case for online education. The accessibility of the internet has made it possible for anyone to watch live-streamed university classes, study a foreign language through video chat, or train under their own guidance with the help of online video courses. In addition, students can form dynamic discussion groups to explore themes from a variety of angles (Coman et al., 2020).

2. Statement of the Problem

This research looked into how online education at the University of Okara stacked up against more conventional methods of instruction. The widespread adoption of online education has ensured that all students continue to have access to the same high-quality education regardless of where they may be located. Thus, there are numerous pros and cons to online learning, and not all college freshmen are prepared for the new approach.

3. Objectives of the Study

The following were the objectives of the study:

1. To ascertain the difference between students’ opinion regarding online teaching and traditional teaching at University level on the base of demographics i.e. gender, age, program of study, Locality and Faculty etc.

4. Research Questions

Research questions of the study were:

1. Does there any significant difference between students’ opinion regarding online teaching and traditional teaching University level on the base of demographics i.e. gender, age, program of study, Locality and Faculty?

5. Research Methodology

The chapter presents the research approach that was used to complete the study. In this first section of the chapter, we will discuss the research strategy that was used. Section 2 of this chapter delves into the study's demographics, sampling strategy, research instrument development, validity and administration. In the final section, we discuss the methodology behind the analysis's score system.

6. Research Design

This study used a cross-sectional survey layout with a quantitative methodology. Getting data from a sizable population was a priority, hence this study method was selected. All information was collected through surveys, making the system completely objective and error-proof. This study was possible because to the use of a statistically valid and sufficiently
large sample drawn from the general population. The data was analysed and interpreted to draw conclusions and draw recommendations.

7. Population

Simply said, a population is a large number of people from whom researchers collect data for further study, as defined by Sauvignon (2008). The following table shows the population distribution based on faculty/department and by gender.

Table 1

<table>
<thead>
<tr>
<th>Sr</th>
<th>Faculty Department</th>
<th>Students of University of Okara</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>1</td>
<td>Social Sciences</td>
<td>853</td>
</tr>
<tr>
<td>2</td>
<td>Applied Sciences</td>
<td>785</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1638</td>
</tr>
</tbody>
</table>

Source: HOD Offices of departments, University of Okara, 2022

8. Sample

Convenient sampling technique is employed in this study to select the sample size. Our results were based on representative sample of male and female students of two faculties i.e. social sciences and applied sciences of University of Okara. The detail of the sample is presented in the table below.

Table 2

<table>
<thead>
<tr>
<th>Sr</th>
<th>Faculty/Department Department</th>
<th>Students of University of Okara</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>1</td>
<td>Social Sciences Education, English</td>
<td>173</td>
</tr>
<tr>
<td>2</td>
<td>Applied Sciences Computer Science, Mathematics</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>281</td>
</tr>
</tbody>
</table>
Table 2 shows that 601 students (281 male and 320 female) of University of Okara were selected as the sample of the study.

9. Instrument Development

The researcher developed questionnaires after researching the literature and consulting with the supervisor. These instruments have two distinct divisions labeled, A and B section. Section A examines respondents’ personal and demographic data, and section B enquired about students’ opinion.

10. Validation of the Tool

The validation of the tool was insured by following two steps.

11. Expert Opinion

Four experts (listed in Appendix-A) were consulted to verify the correctness of the tool during the validation process. There were only a few grammatical errors in the statements that they read. For better comprehension, they suggested correcting the grammar errors. In light of the feedback from the experts, changes were made to the questionnaire.

12. Pilot Testing

Pilot testing is carried out to make certain that the tool's material is valid. Data were gathered from 33 students of University of Okara, Pakistan. Because of this, they were left out of the sample. It is accepted as accurate and logical. Because of this, the questionnaire was deemed acceptable to use in the research.

<table>
<thead>
<tr>
<th>University</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Okara</td>
<td>15</td>
<td>18</td>
<td>33</td>
</tr>
</tbody>
</table>

Table 3 demonstrates that the students for pilot study are 33 (15 male and 18 female) from University of Okara.

13. Reliability of the Tool

During pilot testing, data was evaluated using the reliability method Cronbach alpha, in which correlation coefficients across variables were checked for consistency. The
dependability of the variables and factors was examined, and a correlation coefficient was found. A Chronbach Alpha of .86 is regarded legitimate and dependable.

**Table 4**

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.86</td>
<td>33</td>
</tr>
</tbody>
</table>

Above table shows the reliability statistics of the scale. Chronbach Alpha value is .86 which shows high reliability of the tool.

### 14. Questionnaire Administration

The use of a questionnaire to gather statistics is a more valid method of accumulating data. It takes less time, is much less steeply-priced, and lets in for facts collection from a drastically large sample.

After vital permission was obtained from the administration of University, the researcher turned to the classrooms, briefly introduced the tools and asked them to mark their alternatives on the optical answer sheet. When the instruments are collected, the optical solution sheet is processed and then the statistics is used when you want to view the records. The participants’ response size was calculated to get a general rating from them. The frequency of each item is then tested to see in which areas people feel safe.

### 15. Statistical Tools and Techniques

The facts evaluation is imperative to realize the output of the facts which have been accrued. In the respective studies look at, we've got carried out one of a kind statistical equipment by way of the usage of software program SPSS which might be:

#### 16. Descriptive Analysis

The descriptive analysis in facts is important because it defined the average values of variables from the collected facts. It has one-of-a-kind elements that covered percentage, mean, standard deviation and frequency value.

#### 17. Inferential Statistics

Inferential statistics were used to analyze the difference between teachers’ opinion on the base of demographics i.e. gender, age, locality, program of study.
18. Ethical Consideration

A written consent form was approved from ethical committee of university. After approval the researcher took permission from the teachers of the University for Data Collection.

Inclusion Criteria

Participants included in study who were

1. Willing to participate in study.
2. Students of University of Okara.

Exclusion Criteria

Participants excluded from the study that were not willing to participate in study.

19. Results

Analysis of Difference between Participants’ Opinion Regarding Online Teaching and Traditional Teaching at University of Okara on the base of Demographics i.e. Locality, Gender, Age, Program of Study, Faculty

This section reveals the analysis of data to find the difference between participants’ perceptions regarding online teaching and traditional teaching at university of Okara on the base of demographics i.e. locality, gender, age, program of study and faculty. One way ANOVA and independent sample t-test were used to analyze the data.

Table 5

Analysis of Difference between Participants Regarding Online Teaching and Traditional Teaching at University Of Okara by Locality

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Df</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locality</td>
<td>Urban</td>
<td>557</td>
<td>79.61</td>
<td>12.26</td>
<td></td>
<td>.930</td>
<td>.325</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>44</td>
<td>77.84</td>
<td>11.34</td>
<td>599</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 indicates the difference between participants’ opinion regarding online and traditional teaching at university of Okara by locality. The calculated p-value is .325, which is greater than 0.05. The p-value shows that there is statistically no significant difference between participants’ opinion by locality i.e. urban and rural.
Table 6

Analysis of Difference between Participants’ Perceptions Regarding Online Teaching and Traditional Teaching at University Of Okara by Gender

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Df</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>281</td>
<td>79.54</td>
<td>12.50</td>
<td></td>
<td>.107</td>
<td>.915</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>320</td>
<td>79.43</td>
<td>11.95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 shows the difference between participants regarding online teaching and traditional teaching at university of Okara by gender. The mean score of male teachers (79.90) is less than the mean score of female (93.41). The calculated p-value (.915) is greater than 0.05, which indicates that there is no statistical significant difference between participants’ responses. The mean value of female students’ perceptions is more positive as compare to male students.

Table 7

Analysis of Difference between Participants’ Perception Regarding Online Teaching and Traditional Teaching at University of Okara by Faculty

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Df</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social Sciences</td>
<td>535</td>
<td>79.55</td>
<td>12.17</td>
<td></td>
<td>.365</td>
<td>.722</td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applied Sciences</td>
<td>66</td>
<td>78.96</td>
<td>12.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7 demonstrates the difference between participants’ perception regarding online teaching and traditional teaching at university of Okara by faculty. The calculated significance value is .722, was greater than 0.05 which displays the statistically no significant difference between the opinions of different students having different qualifications. F value (1.00) also supports the claim.
Table 8

Analysis of Difference between Participants Regarding Online Teaching and Traditional Teaching at University Of Okara by Age

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>656.17</td>
<td>3</td>
<td>218.72</td>
<td>1.472</td>
<td>.221</td>
</tr>
<tr>
<td>Within Groups</td>
<td>88713.98</td>
<td>597</td>
<td>148.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>89370.15</td>
<td>600</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8 shows the difference between participants’ opinion regarding online teaching and traditional teaching at university of Okara by age. The calculated significance value is .221, was greater than 0.05 which displays the statistically no significant difference between the opinions of different students having different ages. F value (1.472) also supports the claim.

Table 9

Analysis of Difference between Participants Regarding Online Teaching and Traditional Teaching at University Of Okara by Program of Study

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>230.58</td>
<td>3</td>
<td>76.86</td>
<td>.515</td>
<td>.672</td>
</tr>
<tr>
<td>Within Groups</td>
<td>89139.57</td>
<td>597</td>
<td>149.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>89370.15</td>
<td>600</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9 shows the difference between participants’ opinion regarding online teaching and traditional teaching at university of Okara by program of study. The calculated significance value is .672, was greater than 0.05 which displays the statistically no significant difference between the opinions of different students having different qualifications. F value (.515) also supports the claim.

Discussion

The study was conducted to compare the online teaching and traditional teaching at University level. Evidence suggests that teaching using traditional teaching method has better impact on the students teaching learning process as compared to teaching using online
teaching method at university level. The academic outcomes and perspectives of students in both face-to-face and online settings were investigated by Fadol. The pupils who were taught online outperformed those who were taught in the more conventional classroom setting. This research fits in with Piaget's idea of active learning. When a teacher interrupts a lecture and encourages student participation, active learning takes place (Fadol et al., 2018).

Academic quality of the online course and learning outcomes were evaluated in a study assessing the revamping of a graduate-level course for educators. The research looked at how well professors could save their institutions money by adapting their courses for online distribution and creating dynamic multimedia simulations. Students who were given tests showed that they had learned just as much as those who had taken the face-to-face course, proving the efficacy of the online learning platform (Herman & Banister, 2007).

Another analysis compared face-to-face versus online instruction for a non-STEM course (Foundations of American Education) and surveyed students about their experiences. Satisfaction with both face-to-face and online courses was examined quantitatively and qualitatively. Quantitative analysis of course evaluations revealed that online course satisfaction was lower than F2F course satisfaction. Course satisfaction was equivalent across delivery methods when qualitative data was considered (Werhner, 2010).

We analysed student ratings and comments to propose many changes to the online delivery of the course that would improve the quality of instruction and engagement for its students. The study's author stated that "students who devote themselves conscientiously should be successful in either format" when comparing the online and face-to-face learning environments (Dell et al., 2010). To reach their conclusion that online courses have more work than face-to-face classes, the authors assume that "problems surrounding class size are under control and that the instructor has a course load that makes the intensity of the online course workload viable" (Stern, 2004).

The results of other research comparing online and face-to-face learning have shown that, when given the option, students prefer online learning, but this does vary by subject matter and online learning platform (Ary & Brune, 2011). When classes were available in the late morning or early afternoon, 2-3 days per week, students favored in-person instruction.

20. References


