Exploring the Nature, Opportunities, and New Challenges of Online Teaching- Learning Process at University Level: A Faculty's Perspective

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ABSTRACT

The primary aim of the current qualitative study was to investigate faculty perspectives on the online teaching and learning process at the higher education level. The investigation encompassed 3,782 teachers, the targeted population being those from the five public-sector higher education institutions in South Punjab, Pakistan. A semi-structured interview protocol was designed to collect data from 18 respondents using convenience sampling. The data were transformed in NVivo 12 for thematic analysis after being organized in an Excel sheet. The findings indicate that a robust learning platform should be developed for teachers to engage students in group projects, discussion boards, and peer-review activities that make the online learning environment feel like a community. The study recommends that universities adopt a reliable and effective learning management system (LMS) to enhance online teaching and support teachers' professional development, enabling them to utilize online learning platforms better.

Keywords: *Online Teaching, Learning Process, University Level, Faculty Perspective, Opportunities, Challenges, Higher Education, E-learning, Digital Education, Remote Learning.*

INTRODUCTION

The acceleration of global events (pandemic) has transformed traditional teaching into online teaching, not only at the primary level but also at the secondary and tertiary levels. Higher educational institutions (HEIs) have adopted digital learning platforms to ensure educational continuity and to reach a diverse range of learners. This transformation has forced faculty to upgrade their knowledge, skills, and teaching experience to leverage interactive technologies across platforms for online learning, with WhatsApp, Google Meet, Zoom, Skype, Microsoft Teams, and YouTube among the most commonly used. These platforms enable the smooth delivery of online instructions to facilitate immediate learning. In this way, the transformative mode of learning is considerably similar to traditional learning (Purwanto, 2020).

However, the role of faculty members in this transformation is akin to that of a guide, a helper, or a facilitator, acting as a catalyst to accelerate the teaching-learning process. While executing their roles, they had several opportunities and faced multiple challenges. That is why they needed to assess the pros and cons of the online teaching and learning process as they evaluated their opportunities and unexpected challenges. A detailed understanding of the study was essential for the researcher to elucidate the utility of this transformation.

Numerous research studies have examined faculty's perspectives on the obstacles to the online teaching-learning process at the tertiary level (Mounjid et al., 2021; Hassan, Mirza & Hussain, 2020; Lucas & Vicente, 2023; Gurung, 2021). A few studies in the literature examine the prospects of online teaching

and learning; however, this study offers a comprehensive analysis of its nature, opportunities, and associated obstacles. This study aims to guide policymakers and institutional administrators in developing new regulations for online education, with an emphasis on quality parameters. The study's conclusions may offer guidance to the educational institution on modifying its traditional learning culture for an online setting.

LITERATURE REVIEW

The integration of technology in education has transformed traditional learning environments into online ones. To facilitate this transition, faculty members actively participated, reaping the rewards of this productive endeavor. Consequently, they encountered numerous challenges (Akhtar & Khurshid, 2023). Subsequently, numerous studies were conducted at both the national and international levels to investigate faculty responses to the opportunities and challenges of online teaching and learning at the university level. In this context, Baylen and Zhu (2009) examined faculty views on the prospects of the online teaching and learning environment. They claimed they were prepared to use technology more effectively and innovatively. They addressed the needs of remote students while improving their engagement. They also encountered flexibility in both geographical and class timing. They also had the opportunity to comment on administrative efforts to promptly improve online learning.

Furthermore, Hashemi (2021) highlighted faculty members' perspectives to analyze the advantages and disadvantages of the online teaching-learning process during its transition. He asserts that the online teaching-learning process enhances digital literacy skills, facilitates the creation of new materials, improves student-teacher interaction, fosters collaboration among educators and learners, promotes self-paced learning, offers geographical flexibility, and enhances critical thinking and problem-solving abilities. Moreover, the challenges of online teaching include social isolation, insufficient mentoring, inadequate professional training, network connectivity problems, technical difficulties, time constraints, limited knowledge of ICT tools, lack of institutional support, scarcity of digital equipment, health concerns, work-related stress, lack of engagement, economic status, and issues related to student evaluation and supervision. Jain & Sharma (2022) and Omar et al. (2024) also referenced analogous issues.

In this context, Faza, Santoso, and Putra (2024) also mentioned the faculty's perspectives regarding the pros and cons of online learning. According to them, the online mode of learning offers greater flexibility in terms of time, making it more effective. It encourages collaboration with peers and negates geographical barriers. It is also a source of bringing innovation in its pedagogy. As for its issues, they are categorized into several themes related to institutional affairs, learners' affairs, and technology. They also highlighted that these constraints significantly impacted the delivery of online instructions.

Subsequently, Ferri, Grifoni, and Guzzo (2020) highlighted several technological, pedagogical, and social problems that faculty members may encounter in online teaching and learning. They also indicated that these difficulties may impede the seamless provision of online instruction. Similarly, Hassan, Mirza, and Hussain (2020) also examined the obstacles that faculty members may encounter during online teaching and learning settings. They assert that these issues may pertain to the management of digital equipment, digital illiteracy, and insufficient knowledge of online platforms. Naik et al. (2021), Hafeez, Tahira, & Leghari (2021), and Akram et al. (2021) also identified analogous issues. They assert that these problems may impede the efficient delivery of online training.

Additionally, Rosalina, Nasrullah, and Elyani (2020) and Ismael (2021) identified analogous challenges in the online teaching and learning environment. They assert that these obstacles may include network connectivity issues, inadequate learning environments, communication barriers, insufficient engagement, the absence of platforms, students' resistance to change, and a lack of digital equipment. Consequently,

Kellen and Kumar (2021) identified the obstacles faculty members face during online instruction. These barriers may include challenges in managing digital technology, time allocation, workload distribution, and obstacles to attaining professional success.

In addition, Almazova et al. (2020) highlighted the hurdles of online learning, including digital incompetence, an inappropriate virtual learning environment, insufficient technical support, and a lack of intrinsic drive among academic personnel for online learning. Following this, Jabin & Kausar (2023) also mentioned the parallel challenges, including health issues.

Research Objectives

The objectives of the study were:

1. To assess the perspectives of the teachers about the nature of the online teaching-learning process at the higher education level

2. To examine the perspectives of the teachers regarding the challenges of the online teaching-learning process at the higher education level

3. To analyze the perspectives of the teachers regarding the opportunities of the online teaching-learning process at the higher education level

Research Questions

The research questions of the study were:

1. What are the perspectives of faculty members regarding the nature of the online teaching-learning process at the higher education level?
2. What are the perspectives of faculty members regarding the opportunities of the online teaching-learning process at the higher education level?
3. What are the new challenges that faculty members may face during the online teaching-learning process at the higher education level?

MATERIAL AND METHODS

The current investigation implemented the qualitative research design. The Multan Campus of Bahauddin Zakariya University, The Women University, The Emerson University Multan, The Islamia University of Bahawalpur, and The Government Sadiq College Women University Bahawalpur were the five public-sector universities in the South Punjab province of Pakistan selected for this exploratory research design. A convenient sampling technique was used to select faculty members from the specified institutions. To achieve this objective, 18 faculty members, including both male and female members, from the Faculty of Natural Sciences and the Faculty of Arts and Social Sciences were chosen for the study based on their availability for interviews. The objective was to collect qualitative data on the nature of online teaching and learning at the tertiary level, including the nature, opportunities, and new obstacles that arise during online classes. The researcher used semi-structured interview protocols to get qualitative data from faculty members for this study. The researcher interviewed faculty members to learn more about three areas: the nature of the online teaching-learning process, the opportunities available to faculty in online education, and the new challenges arising in the online teaching-learning environment. Microsoft Word was used to record each respondent's answers, enabling us to analyze and organize the qualitative data. Subsequently, it was incorporated into NVivo 12, which is regarded as the premier and most widely used tool for qualitative analysis. The researcher followed ethical considerations to safeguard participants' consent.

RESULTS

The researcher conducted a thematic analysis of the research questions pertinent to the study's aims. For that purpose, word clouds were created in NVivo 12 for qualitative analysis in the study to elucidate numerous themes reflecting participants' perspectives on online teaching practices. Based on such analysis, specific results and conclusions might be articulated in the subsequent section.

Fig. 1: Nature of Online Teaching-Learning Process

This word cloud query presents the nature of the online teaching-learning process as expressed by the teachers at the universities. The more frequently words are used, the more self-paced learning technology-driven, student-centered, reduced in-person interaction, global classrooms, lack of physical presence, and time flexibility are used. The emerging theme from this word cloud indicates that the core and key characteristics, as highlighted by the faculty members, are reduced face-to-face sessions, asynchronous and synchronous learning, and diversified learning experiences via an online teaching-learning environment.

Fig. 2: Word Cloud of Opportunities for Faculty in Online Teaching-Learning Process

This word cloud presents the perceptions of faculty members regarding future potential and opportunities they are gaining during the online learning process. In this context, the most frequently repeated words indicate that the positive outcomes and experiences gained by the instructors include flexibility, the remote nature, cost-effectiveness, a digital orientation, and the asynchronous nature of online learning. Moreover, the faculty also highlighted future opportunities, such as interactive platforms, diversified learning modes, digital equity, and global outreach, as the real potential of the Online teaching-learning process.

Fig 3: Word Cloud of New Challenges for Faculty during Online Teaching-Learning Process

This word cloud query highlights the challenges teachers face in online teaching and learning. The more frequently words are used: a lack of technical personnel, connectivity issues, fragmented communication, digital readiness, resource constraints, unclear protocols, and poor online infrastructure. The emerging theme from this word cloud indicates that the significant challenges highlighted by the faculty members are a lack of appropriate resources and an inappropriate technological environment, both of which are prerequisites for a practical learning experience in an online teaching-learning environment.

Table No. 1: Summary of the Challenges Faced by Faculty Members during the Online Teaching-learning Process

Word	Length	Count	Weighted Percentage (%)
Internet	9	7	8.64
Awareness	9	4	4.32
Technology	12	3	3.70
Consideration	10	2	2.47
Skills	9	2	2.47
Equipments	10	2	1.85
Evaluation	12	1	1.23
Engagement	11	1	1.23
Electricity	11	1	1.23
Training	9	1	1.23
Connection	9	1	1.23
Structure	14	1	1.23
Time	10	1	1.23

Table 1 lists some problems teachers may face when teaching and learning online. The most important words that keep coming up are internet, equipment, time, engagement, training, assessment, awareness, and structure. It indicates that teachers gave different kinds of feedback in the following manner. "One of the biggest problems faculty members may face is getting students to pay attention and participate in online classes." As a result, teachers raised several significant issues at the conference, including insufficient structure for online learning, power outages, network connectivity issues, and inadequate teacher training.

DISCUSSION

This qualitative study focused on faculty perspectives on online teaching and learning, including its nature, opportunities, and emerging concerns. According to the results, online education is an excellent way to learn because it allows for extensive student-teacher communication. Additionally, it encourages several forms of asynchronous learning. The results are consistent with those of the study by Baylen and Zhu (2009), which addressed comparable issues. In addition, the study's qualitative data showed that respondents had positive views on the benefits of online instruction.

Restricted accessibility, poor network connectivity, a lack of support services, ineffective training, time constraints, and inadequate teacher competency are among the difficulties faculty members face when teaching online, according to the present study's results. Aisha and Ratra (2022), Kebritchi, Lipschuetz, and Santiague (2017), and Ghavifekr et al. (2016) all highlighted similar results. According to them, these issues could pose a significant hindrance to practical online training. So, universities must understand these difficulties and work to resolve them. The qualitative research showed that professors need professional training to perform their jobs effectively in online classrooms.

CONCLUSION

The findings of this study and the viewpoints of faculty members suggested that the online teaching-learning process is an effective method that facilitates asynchronous learning and promotes contact and collaboration among its stakeholders. Higher education institutions (HEIs) are obligated to furnish essential prerequisites to faculty members, including structure, technical proficiency, and user training, to optimize the benefits of this change. Furthermore, to ensure a smooth and effective transition, higher education institutions must be attuned to the challenges they face, formulate appropriate solutions, and allocate resources accordingly. Consequently, it is essential to enhance faculty members' professional competencies to enable them to design and administer their online curricula. Additionally, it is essential to establish a framework to enhance the technology infrastructure and offer more affordable data packages, enabling learners to benefit from this transformative educational modality fully. In this way, students from rural areas can be equally engaged.

RECOMMENDATIONS

There are some tips institutions can use to promote an online teaching and learning culture. These tips were drawn from the findings and conclusions.

1. Higher education institutions should arrange various seminars and workshops for faculty regarding digital literacy skills to enhance technical awareness.

2. To promote community, the institution should provide a learning platform that allows teachers to engage students through group assignments, discussion boards, and peer review activities.

3. Establish professional development groups for professors to discuss online learning platform success stories and challenges.

By implementing these recommendations, both educational institutions and educators can enhance technical awareness through workshops and seminars, student engagement, and the establishment of professional groups, thereby creating an effective learning environment.
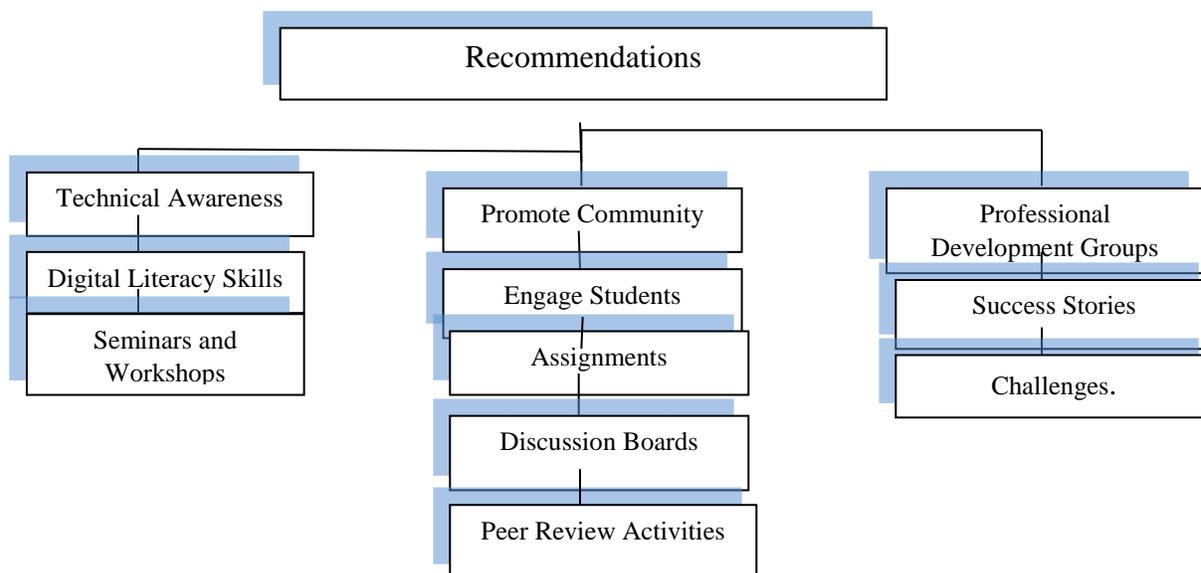

Fig 4: Recommendations

LIMITATIONS OF THE STUDY

Observing the faculty's opinion on the nature, opportunities, and new challenges of the transformative learning process provides greater insight into the academic landscape. The study was conducted at the University of South Punjab, Pakistan. That is why its results may not be generalized due to its geographical constraints. Additionally, faculty attitudes and aptitudes towards technology vary across regions due to cultural differences, which may hinder the generalizability of the findings. The study examined the views of only 18 faculty members from two disciplines (the faculty of natural sciences and the faculty of arts and social sciences). That is why its results may not be generalized to other disciplines.

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