Students' Perceptions to Online Education

Since the emergence of the COVID-19 pandemic, governments around the world have had to take extreme measures to curb its spread. These measures have included limiting the movement of individuals, instigating city-wide lockdowns, and closing schools and universities. The closure of educational institutes has prompted a transition from the traditional face-to-face learning methods to online or distance learning modes to ensure the continued delivery of learning.

1. Introduction

Since the emergence of the COVID-19 pandemic, governments around the world have had to take extreme measures to curb its spread. These measures have included limiting the movement of individuals, instigating city-wide lockdowns [1], and closing schools and universities. The closure of educational institutes has prompted a transition from the traditional face-to-face learning methods to online or distance learning modes to ensure the continued delivery of learning [2][3][4]. This sudden transition from traditional to online education has affected students in many ways. According to the International Association of Universities [5], the school and university closures have impacted more than 1.5 billion students and youth globally. UNESCO estimates that as many as 60% of the global student population has been affected due to nationwide closures of educational institutions [6]. The adoption of online modes of education has been particularly challenging for developing countries such as Pakistan where financial constraints and accessibility and connectivity issues hinder the transition to online learning [7]. Only those already familiar with e-learning, blended learning, and ICT tools have found this shift manageable [3][8][9]. However, despite the inherent difficulties, the COVID-19 pandemic has allowed educators and students to explore more flexible learning possibilities with blended methods such as mixing synchronous and asynchronous methods [2]. Furthermore, the lessons learned from this transitional process would make institutes around the world more resilient and better equipped to deal with such crises in the future [2][10]. Given the emergent nature of this transition, careful consideration must be given to assessing the quality of online education provided during the pandemic. It has been implemented without any proper planning and deliberation and may have some shortcomings. Many researchers have used the term "emergency remote teaching" [4][8][11][12] when referring to the education being provided during the pandemic.

Previously, several studies have analyzed the different aspects of e-learning and online education [13][14][15][16][17][18][19][20] [21]. However, most of them have examined online education in instances where it was being offered as a planned modality and not as a response to an emergency. It is important, therefore, to note that in the context of this study online education is referring to the education provided as an emergency response during the pandemic. There is a need to research and formally document the experiences and challenges being faced by teachers and students while engaged in online teaching and learning during the COVID 19 pandemic. This would help identify learning and teaching strategies best suited to the online academic environment keeping in mind the socio-cultural norms of the users [22].

2. Students' Perceptions to Online Education

Online learning encompasses the use of the internet, intranet, or extranet along with animations, simulations, audio, video sequences, discussion groups, online mentoring, online feedback, online sharing of learning and resource materials. Mayes, Luebeck, Ku, Akarasriworn, and Korkmaz [15] have identified "two-way audio and video communication, electronic whiteboards, interactive formative assessment tools, Java-based applets, blogs and wikis, and shared access to software" as the major resources used in an online environment.

Online education is not a new phenomenon in the international educational landscape and has long been explored around the world in various forms and magnitudes. Over the years, the use of online and distance education has grown exponentially and become very popular [18]. It has been argued that online education has made its mark and would persist

as a relevant way of education in the future due to the various benefits it offers [14][23]. However, online or distance education in the current scenario, where it might be referred to as 'emergency online education' [2], is relatively new and one whose implications are constantly unwrapping in front of the international community.

2.1. Factors That Facilitate Students' Learning Experiences in Online Environments

2.1.1. Organizational Support in Facilitating Online Learning Environments

Institutional facilitation of the students and instructors is an important aspect of online education that can affect the quality of online education. It has been posited that organizational policies significantly contribute towards instructors' satisfaction [24], and organizational decisions can impact the quality of instruction [25]. In addition, active communication from university officials in times of crisis helps the students and faculty to stay informed, motivated, and positive throughout the process [8][26]. Literature has also suggested that instructors in online settings relied on institutional support and resources in offering student-centered learning environments [25][27]. From the instructors' perspective, factors such as collaboration, training, and support from the institution have been considered critical for effective teaching [25]. However, it should be noted that the training provided to the instructors may sometimes be incongruous to the needs of the educators or be simply not fit for purpose [28]. The collective outcome of all these issues might directly or indirectly affect the students' satisfaction with the online teaching and learning processes. The importance of institutional role becomes even more crucial in times of crises, and the COVID-19 pandemic has recently highlighted this. Rajab et al. [29] have recently indicated that faculty members surveyed by them appreciated the help given to them by their institute in making resources and real-time support services available.

As far as students are concerned, research indicates that if the learners were well versed with the use of educational technologies and tools, their level of satisfaction with an online course would be higher than those who were not [30]. However, even self-reported technologically savvy students might require technical support at times [27]. Students have identified factors such as ease of use, user-friendliness, security, speed, and responsiveness as having an impact on their online learning environment and experience [31]. The recent pandemic has also revealed the need for systemic support and guidance during such times [10]. It has been reported that students required a clearer indication and implementation of ICT policies while studying online [32]. Lack of equity and support devices were key issues that required consideration at the institutional level [33][34]. The University of West Indies has been applauded in literature for the timely provision of short-term loans and internet access to the students and staff during the transition [8]. However, it has been noted that institutes in developing countries might not be able to achieve the same levels of preparedness, response, recovery, and mitigation strategies as their developed counterparts [35].

2.1.2. Instructors' Role in Facilitating Online Learning Environments

There is a strong connection between instructors' actions and students' satisfaction in an online course [21]. Brocato et al. [20] reported that even though students' perceptions regarding traditional and online classroom settings might differ, they were primarily interested in gaining 'mastery' of the course through meaningful learning experiences. Estelami [36] indicated that student satisfaction was directly affected by the course content, student-teacher communications, use of effective learning tools, and instructor's way of presentation. Timely and constructive feedback on course activities was also considered helpful by students in studying in online environments [15][37][38]. Furthermore, instructors' accessibility and timeliness of their responses could significantly improve students' positive perception of the value of online courses [21]. Adnan and Anwar have reported that during the COVID 19 pandemic, students have indicated that face-to-face contact with instructors was very important for their effective learning but was considered difficult during distance learning [7]. Recently, many researchers [29][39][40] have reiterated the importance of quick and concise feedback when making the transition to remote modes during the COVID-19 pandemic.

2.1.3. Modes of Communication and Assessment Methods Used in Online Education

Instructors can use a variety of communication modes in an online setting based on different factors. These tools could be synchronous or asynchronous [41]. In a well-structured course with effective course content and an appropriate communication plan, online courses could be as effective as face-to-face courses [19]. It has been suggested that dividing the students' learning experiences into an offline self-learning phase and an online teaching phase could enhance their overall learning experience [39]. Abramenka [41] reported that students preferred using e-mail and other asynchronous communication tools for interaction between them and their instructors. Although educational institutes and instructors were largely unprepared for the massive shift from traditional to online modes of teaching, instructors/institutes tried to use different modes of communication and assessment methods to facilitate students' learning experiences [8][42][43].

Literature originating during the pandemic suggests that the sudden shift from a traditional to an online mode of education has significantly impacted the student assessment and evaluation processes [26]. Students were more likely to find online examinations difficult as compared to traditional examinations [44]. Under such circumstances, instructors and institutions need to implement safe, reliable, valid, and fair methods of assessment [45]. However, this could be a challenging endeavor due to the multifaceted implications of the pandemic.

2.1.4. Students' Study Environment and Resource Readiness for Online Learning

Student satisfaction with online systems could depend upon their personal attributes, environmental pressures, and e-learning facilities available to them [28]. Callo and Yazon [46] have noted that factors such as learner familiarity, capability, preparation, device and access connectivity, self-efficacy and experience with technology influenced learners' readiness and conduct during online teaching and learning. Likewise, the participants of a study by Paudel [32] mentioned that computer literacy, technological preparedness, and time management skills were important for online learning.

Students' home-study environment or other demographic aspects might also have significant positive or negative influences on their study processes and experiences. Aristovnik et al. [47] recently conducted a study and concluded that students possessing certain demographic characteristics tended to show significantly less satisfaction levels regarding their academic work/life during the COVID 19 crisis. Furthermore, those belonging to Africa, Asia, and South America reported the lowest availability of a quiet place to study. Other factors like unstable network speed, noisy environment, and lack of professional equipment [48] and familiar learning space [49] might also hinder the students' learning experiences during the ongoing emergency remote education. Similarly, disparities in access and use of online learning between students living in rural and those living in urban areas have also been reported to impact the level of student satisfaction in the two areas [50].

2.2. Positively Influential Factors and Motivators in Online Education

Factors such as intrinsic motivation, maturity, good time management, and active participation in class activities have been deemed crucial for determining a student's success during online learning [25]. Students tended to view flexibility and convenience in online education as an advantage [14][31][51][52], and also considered online education beneficial for them since it allowed them to take additional job opportunities or continue existing ones [53]. Other benefits of positively influential factors included cost-effectiveness and time saving [53][54] aspect of online learning and a reduction in transportation costs [30], motivation to use technology [55], as well as the ability to have self-directed [37] and self-centered learning [56]. Although online education during crises situations received less satisfaction among students, a recent study by Rafique, et al. [57], surveying LIS students in Pakistan, found that the students were not only receptive to new ideas but also motivated to learn online, and were willing to interact and engage with fellow students.

2.3. Negatively Influential Factors and Demotivators in Online Education

One of the biggest challenges in online education, especially in the context of an underdeveloped country, has been identified as the unavailability of electricity [30]. Furthermore, the presence of weak satellite connections [58] and poor or no internet access [25][59] may hinder student performance in online education. Difficulty in collaborating with fellow learners could also affect students' satisfaction and academic performance in online environments [41]. Lack of clarity in course design and layout could also contribute to students' confusion [41]. The utilization of social media platforms for learning could also lead to distracted students if quality content is not created [60]. Researchers have noted that online programs are not always successful in arousing interest among students [59] and that it was easy for students to lose focus in online environments [34][40]. Online learning can also engender a feeling of isolation among students [15][30][37][41][61][62] and also encourage procrastination [41][52][61].

Recent studies have pointed out that distraction, workload, and technological problems [63], connectivity issues [51], and anxiety due to the uncertainty of the situation [29] were some of the major challenges inherent in online learning. The effects of social distancing, isolation, and uncertainties related to the pandemic may also impact the mental health of students and staff [60].

According to the available literature, students' online learning experiences are greatly influenced by various factors such as the organization's support provided during online education, the instructors' role such as methods of instruction, modes of communication, and assessment methods, as well as their home study environment and resource readiness. Certain factors such as flexibility, convenience, and motivation to use technology can contribute positively while factors such as internet and connectivity issues, lack of concentration and isolation may affect the students' experiences negatively.

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