



PERCEPTION TOWARDS DIGITAL MODE OF TEACHING AT HIGHER EDUCATION: A QUALITATIVE RESEARCH

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Abstract

This article aims to explore the perception towards the digital mode of teaching at higher education for enhancing the quality education needed for 21st century. To achieve this objective, the researcher followed the qualitative research design. Altogether 10 teachers, 5 students and 2 IT experts were chosen as a sample population following the purposive sampling technique. Similarly, FGD, in depth interview and document analysis were main tools for collecting authentic data in the concerned area. Additionally, collected data were edited, transcribed, coded and thematized in a systematic way. Furthermore, the researcher triangulated the data to get meaningful results and conclusions. Finally, this study identified that the digital pedagogy have been creating new opportunities to seek and share information more easily. In the same vain, the government should focus on strengthening the digital pedagogy in all educational institutions. As a result, Digital technologies can support learning by providing necessary information at a convenient place and suitable time. The universal crisis demands the change in education sectors all over the world due to facing the bad situation of Covid pandemic. It caused a rising interest in the use of digital mode of teaching those who are staying in remote area.

Keywords: Perception, digital mode, higher education, pedagogy

Introduction

Embedded digital mode of teaching in higher education have been becoming essential for enhancement of quality education. Digital mode of teaching have been increasing as an incredible way of teaching now as the entire world moves towards digitalization in education sector. Technology has influenced in various ways in learning which has become a prominent role in today's world. Universities have a role in the transition to support a society with proper environment to learn with effective way at home (Crawford, et al, 2020). To prepare students for changes in society and the demands of the new global economy, one of the key focuses of Finnish basic education reform is to promote new learning environment that are suitable for

fostering students' 21st century skills such as digital literacy and collaboration (The Ministry of Education and Culture, 2016). There is not only teachers' technical skills in using digital technologies, but also the ability to use and apply digital technologies properly in their own teaching. However, several studies revealed that there is a lack of skills in using digital technologies among teachers, and needed them ICT integrated pedagogical support among teachers (Sumardi *et al.*, 2020). Enormous literature showed that using digital technology have been created some critical problems due to lack of coordination between learners and teachers, technological problems, attitudinal differences, fear of new technology and fear of losing reputation . Digital pedagogy seems to be a very useful medium of instruction to employ up

to date with modern technology in teaching and learning facilitating the learning environment either online or face to face. It allows reading, accessing, retrieving and reacting to complete the academic achievement (Nanjundaswamy *et al.*, 2021). They also focused that digital technologies bring new opportunities and challenges for teachers. We need to accomplish the various opportunities in academia into the curriculum and instructional strategies and practice through digital technologies which bring new opportunities and challenges for teachers as well. Incorporating identified new opportunities in academia into the curriculum and practices poses a significant challenge for teachers and policy makers. Researchers who were conducted research in this area found that only few teachers were satisfied with their knowledge and skills in working with digital technologies in the classroom, and they were not prepared to integrate the promotion of mandatory digital knowledge, skills and competence into their practice (Pongsakdi *et al.*, 2021). Teachers' attitudes towards technologies use in teaching may affect by good and bad experiences with digital technologies. Bad experiences may be the result of low efficacy and lack of positive experiences towards digital technologies. It may effect the students' achievement in a negative way (Vaataja *et al.*, 2020). The era of digital technologies allows to all individuals to access huge amount of knowledge from any location at any time. This access will continue to move faster than we can keep pace. Digital pedagogy provides educators with various knowledge and skills to use digital technology to facilitate and improve teaching learning. In the end of 21st century, there seems to be increased to implement the digital technologies in academic community with the rise of workshops, conferences and journals. Several research suggest that teaching in 21st century requires technological knowledge with content knowledge to provide fruitful

learning environment and be effective teachers for the digital generation (Sadiku *et al.*, 2019). Effective online instruction dependent on a. well-designed course content, motivated interaction between the instructor and learners, well-prepared and fully-supported instructors; b. creation of a sense of online learning community; and c. Rapid advancement of technology (Khatai and Bhatta, 2020).

Objective and Research Question

In modern era, digital mode of teaching have been showing as a crucial part of human life during and after this pandemic but in developing countries like Nepal, where technological, education/literacy background and socio-economic challenges exist. Related research revealed that these challenges might act as a hindrance to conduct online teaching effectively. Therefore, this study was carried out to explore "Perception towards Digital mode of teaching at Higher Education: A qualitative research design." To achieve this objective, a research question- What are the perceptions of both students and teachers towards digital mode of teaching in higher education? - has been answered.

Methodology

A qualitative approach was adopted in this study based on Institutional ethnography research design. It focused on the values, beliefs, thoughts, and social context of a particular population (Bryonan, 2012). The search focuses of inquiry goes from where actual people are in their own lives, activities, and experiences to open up relation and organization. Institutional ethnographers believe that people and events are tied together in ways that make sense of such abstractions as power, knowledge, capitalism, patriarchy, race, the economy, the state, policy, culture and so (Campbell & Gregor, 2002). This research design helped me to analyze the issues and the causes in detail obtaining the data through various modes such as in-depth interviews,

classroom observations, and focus group discussion etc. Neuman (1991) remarked that in the organizational research, where everyday activities are looked over in the microscopic way and try to understand the people's perception, in depth and full understanding of events and characteristics is essential and it demands the quality inquiry. In the same line, Best (1995) argued that for in-depth understanding of the events and characteristics, the qualitative method close to institutional ethnography of research is appropriate. As this research also attempts to identify the **perception towards digital mode of teaching at higher education** issues relating this topic, I confidently adopted the qualitative institutional ethnography research design. Altogether 10 teachers, 3 FGD and 2 IT expert were chosen as a sample followed by purposive sampling technique. In-depth interview, FGD were main tools for collecting authentic information. Researcher adapted three techniques namely triangulation, thick description (Flick, 2018; Creswell, 2015), and member checking (Creswell & Poth, 2018; Merriam & Tisdell, 2016) were also used to ensure the reliability and validity of results and conclusions derived through research process.

Findings and discussion for the Study

The researcher observed that the perception of both teachers and students towards digital pedagogy seems positive. They thought that the future will be digital. Also, digital pedagogy adds entertainment and is a fun way of learning. In their perception, familiarity with ICT will make digital pedagogy an easier medium for content delivery in an effective way. Also, easy access to technology makes the content delivery effective, especially for the contents containing audio and visuals.

Digital instruction as an innovative way of teaching

Most of the respondents have a positive

perception towards digital pedagogy. Even though both teachers and students have been challenged to expand their use of digital technologies in their teaching. Digital learning also needs an appropriate pedagogical approach that required teachers to integrate digital competence into their practices.

Focus group 3 claimed that, *“Digital pedagogy is the future of learning and will take over the traditional pedagogy.”*

FGD B revealed that *“although we are somehow familiar with ICT, the emergence in the digital medium and lack of knowledge update on the same is making us hard to properly utilize the digital medium for effective content delivery.”*

Focus group 2 summarized that, *“The contents delivered via digital medium is more effective than current mediums at higher level specially when the contents have multiple aspects of learning by using texts, audios, videos, and demonstrations.”*

After focus group discussion, the researcher found that, Digital Pedagogy can replace the traditional pedagogy and bring innovation in teaching learning process. In current context, there is the need to bring evolution in the teaching pedagogy. The multimedia tools will be helpful to enhance the learning process which can be a vital part of digital pedagogy.

Needed proper training and monitoring

Educational institutions need to promote digital pedagogical training on in-service teachers to support in their work with ICT focusing on mainly four things that are ; a. the technical skills needed to use digital technologies. B. the abilities to use and apply digital technologies in different working situation. C. the ability to evaluate digital technologies critically for their ethical issues, limitation and challenges. D. the motivation to participate in and commit to the digital culture.

Lecturer 2 stated that, *“Digital pedagogy have eased the teaching process, and is more flexible formaking the content understandable to students. For that teachers and students both can be achieved training as they required”*

Lecturer 5 stated that, *“Digital pedagogy has been increasing the effectiveness of contents that could only be delivered via audio and visuals.”*

Lecturer 7 stated that, *“Since the instructors and students at higher level are well familiar with ICT to facilitate the active learning.”*

IT expert 1 stated that. *“After getting the training to how to use digital technologies in the classroom , than after the stakeholders need to judge the technological competency among teachers and students concerning how well they perform in their practices and recognized what challenges have been faced in seeking to expand their use of digital technologies in their class room activities in order to meet the demands of the twenty – first century .”*

This study distinguished that digital learning also needs an appropriate pedagogical knowledge that required teachers to integrate digital competency to their practices.

Develop self-efficacy through digital technologies

This study revealed that the internal motivation of the teachers play the important role to develop self- efficacy through digital technologies. Integrating technologies with their daily classroom activities optimizes the self-efficacy and willingness to teach with different ways. Similarly, Lecturer 2 mentioned that *“one way to boost the quality of online learning environment is through preparing teachers with knowledge and skills of using digital technologies. These knowledge and skills help us to increase students’ motivation and engagement.*

FGD A stated that lack of familiarity with online educational applications and platforms, we faced difficulty in preparing an online class mainly to choose right online application according to the nature of contents”

Baroudi and Shaya, (2022) mentioned that having a trusting and cooperative relationship with parents from one side and believing in the engaging role of parents in their children’s learning from another side increased teachers’ feelings of accomplishment and self- efficacy. To keep the students’ engagement and promote the positive learning environment teachers herself/ himself build technical capacities and beliefs about the importance of ICT for learning. In addition the rise of online education necessitates that teachers should have the knowledge, skills and strategies to integrate different digital application effectively.

Sound administration and political commitment

Educational institutions need to be convinced on the perceived value of technology integration in classroom on teaching learning activities, in order to develop positive attitudes and beliefs in transmitting the information in a new way towards the students . In the same vain, lecturer 3 reported that *“Instruction integrating technologies was difficult for me to teach those children with learning difficulties or need additional support or even to differentiate the learning as per students’ levels and capacities .”* That’s why administration need to provide workshop and facilitate the training to develop teachers digital competency to teach the students according to their needs and interest . In my observation as a lecturer , the government have been committed with the universities’ authorities about providing digital tools and IT expert for successfully managing online classes in higher education but still any teachers cannot achieve support from the government to develop

their technological competency due to irresponsible government policy. The dominant cultural context is frequently used by education as a source for its conception of technological change. As a result, stories about how technology can change education are taught (Plowman & McPake, 2013; as cited in Lewin *et al.*, 2016). Often, the problematic social, ethical, and epistemic assumptions that underpin such changes are glossed over in the promise that digital education will revolutionize teaching and learning through digital technology for example, the widespread availability of digital learning resources or radically restructured virtual learning experiences.

Students highlighted digital pedagogy as the medium of fun learning and learning with entertainment. Students felt that with the emerging technology and familiarity with ICT, digital pedagogy could easily replace traditional pedagogy. Use of social media in education can enhance the teaching learning process. The expectations of students can be met by the use of social media techniques of digital pedagogy. Social media tools such as Facebook messenger, zoom and whatsapp are also used widely for learning process.

The use of digital tools and platforms is becoming increasingly integral to our personal and professional lives. In digital learning, students have increased access to education and knowledge. They acquire a mindset of capabilities that positions them for success in the present and in the future. Several studies suggest that simply giving learners access to devices does not always lead to better learning outcomes. Thoughtful integration and an actively tech-savvy digital mindset are essential for digital learning to truly improve student's outcomes.

Interestingly saying that the teachers' experiences revealed that unprepared and rapid shift to virtual education has been a major challenge in this

transitional phase of learning world. Due to pedagogical shift, people from marginal households were significantly affected (Kundu, 2021). Digital pedagogy although is a future but currently in Nepal it is in honeymoon phase and needs sometimes to bloom. The transformation of teaching and learning in higher education institutions can be heightened with the help of digital technology and literacy. Since digital technologies have become an inevitable and indispensable part of education and learning, there should be proper operational policies, governance, financial investments, and policymaking (Okoye *et al.*, 2022). Viewing digital technology as luxury still in some perspectives has limited the achievement of resources although digital technology has increased productivity, value-creation and social welfare in terms of content delivery (Husain, 2022). The limitations of classroom learning have been overcome by digital platforms. The necessary information ensuring quality learning have been provided by ICT and delivering content at convenient place and suitable time.

Particularly for developing countries the suitability of devices, internet speed, availability, are the technical constraints which have challenged the design, preparedness and effectiveness of digital platform (Muthuiprasad *et al.*, 2020). Either developed, developing or underdeveloped countries, teaching and learning via digital mode has becoming as a vital of human life, and hence development in ICT has been helpful for enhancing the teachers and students competency around the world. Pumptow and Brahm (2021) with 96% of our student sample owning a smartphone, 94% a laptop, and 45% a tablet. This increase again highlights the increasing relevance of digital media at universities and thereby of research on digital media behavior of university students.

The finding revealed that technology should be integrated at all levels of curriculum development

or input process. Procedures of learning process and delivery method for getting full benefits from technology leveraged learning method for getting quality education. Educators must create the content in a simple manner to have interaction which should be encouraging. Family environment to achieve the intended goal of transforming people from naïve learners to mature contributors. For successful online teaching, the interaction should be learner centric rather than teacher centric to enhance communication between educator and students and also among the participants. For this, there is the need to have good knowledge of ICT to both teachers and students. It should encourage group learning among the participants. Group learning induces proper information exchange leading to knowledge construction among the participants. Educators or professors must access the knowledge level by putting various assignments to judge the development process. For teachers' professional development, ICT related training plays the pivotal role to enhance their competency regarding digitalization of teaching. Furthermore, it enhances the performance of teachers in teaching with technology that can redress some of the problems students face (Compeau & Higgins, 1995; as cited Amhag, 2019)

The above mentioned discussion distinguished that institutes should accommodate the new challenges through the acquisition and installation of contemporary online education systems and provide necessary technologies to implement new policies. This would improve lecture/students' performance and increase the usage of the online learning tools. It allows individuals increased opportunities to cultivate the complex skills required to work productively with others. It can help students to pose and answer questions, to complete collaborative projects and more generally to engage in the social interactions foundational to learning.

Additionally, research has shown that having a clearer understanding of students' digital practices encourages the university to implement more student-centered support and services. However, technical training and skill development emerge as important factors, with students perceiving both as more important than the technology itself. Despite this, various obstacles come as a part of digital learning such as distractions, disturbances, household works, disconnection and even electricity problems.

In the very way, Professors and students need to be trained concerning the digital literacy to adopt successfully in their classes. In many instances, a government's investment in teacher training is more important than its investment in technology itself. Without guidance and instruction, professors will often use technology to do old things in new ways instead of transforming and improving approaches to teaching and learning. It has been proposed as an integral tool aiding students in understanding and developing their competencies in the subject.

In this study, we came to know that lecturers should also pay particular attention to how to develop teachers' evaluation strategies concerning digital teaching and how to increase their competency by using digital devices. When conducting the digital mode of teaching, most of the female students are engaging in household activities like caring of parents and their small children. As a result, the online classes did not fulfill the expected academic achievement. Similarly, the departments could not manage the effective technology integrated pedagogy in their classes concerning gender issues to guarantee the equity in education. For better students' engagement and to improve the overall quality of classroom instruction, technological tools seem more efficient concerning the skills and knowledge of students and instructional staff.

Researcher found that digital mode of teaching

has long been a major form of professional development for in-service and pre service teachers in developed and developing countries. The development of digital culture in the twenty-first century drives the use of multimedia and other communication tools in higher education sectors as well.

To benefit from this emerging learning trends, students need to be able to retrieve, select and collect useful information from the enormous digital sources , as well as able to judge suitable and reliable sources of knowledge . So in the 21st century students and teachers need to be trained for focusing the use of various digital application effectively. On the other hands digital mode of teaching techniques will be helpful to be introduced to compensate for interactive learning but several tutorials in these course were harder to deliver due to lack of in personal motivation and sufficient training for teachers and students. As a result unprepared for the pandemic situation and unable to provide quality education during this disastrous period (Ayo, 2022). For enhancement of motivation towards teachers and students, they need to have sufficient training and equipment to achieve the educational goal. Ng, (2015) revealed that the integration of digital technology into the curriculum is intended to foster innovative pedagogy as well as prepare students for future work and citizenship.

The respondents claimed that there has been a lot of research on the challenges of effective curriculum content delivery in higher education. Similarly, students use digital technology for such learning activities as reading and sending email, assessing learning management systems, reading e-journals or e-books, doing online quizzes, participating in discussion forums, and so on. Digital literacy skill is considered as the knowledge and ability to utilize computers and related technologies efficiently, with some range of skills. Barber (2015) identified that the engagement of students in online courses is

challenging as instructors face a huge inundation of competition from text, you-tube, Facebook, Twitter and more. Students are wired in, and teachers' instructional strategies need to acknowledge that keeping their attention requires them to use some of the same engagement strategies that are used so successfully by social media, video games and digital environments. Despite every challenging part is always there. As per, social, some may have introvert behavior. Thus, both teachers and students can't get closer to each other which may lack communication. Mercader et al. (2020) identified that time management, training, pedagogical approaches, experience and teaching approaches using digital technologies, etc are main issues for strengthening teachers' professional development in terms of digital competencies.

Conclusion

The development of digital technologies have been increased day by day in all sectors including education for fostering digital transformation in society. This research findings showed that poor connectivity of internet, insufficient infrastructure, lack of appropriate policy regarding technology integrated pedagogy and lack of trained human resources are main problems on digital mode of teaching. The most beneficial aspects of digital mode of teaching depicted time saving and facilitate the classes arranging few human resources. Insufficient attention is paid to the issues of digital ethics, digital culture and digital reputation. It may come some issues on human relationships concerning copyright of digital content, a partial awareness of the respondents of the need to respect digital reputation, digital ethics and digital culture. Similarly, the problem of the digital transformation in society raises professional development of teaching staff, improving digital literacy for lectures, students and institutions staff in order to provide a new quality of life in the era of the digital transformation in educational

institutions. The result revealed that lecturers and students need sufficient training regarding digital literacy program in order to develop the convincing learning culture.

Digital mode of teaching might be used as a tool to relocate the teaching from physical classroom to digital friendly environment. It can be effective as a teaching learning tools for pedagogical purposes which is needed for creating digital teaching learning environment and addressing students' learning needs across several disciplines at higher education. Both students and lecturers are needed digital related training to improve and use it properly. While teaching through digital devices, teachers noticed that all students have or have not internet connectivity, availability of digital devices, and be careful about disability of students.

The study result revealed that there are many challenges and issues faced by teachers and students to use digital devices in the teaching learning activities. Researchers also found that inadequate infrastructure problems that causes poor internet access, lecturers and students did not have any knowledge and skill as a result they are not familiar with digital technology, sometimes electricity problem occurs. In the case of higher education, most of the aged lecturers feel hesitation to adopt the technology integrated teaching instead of traditional chalk and talk teaching methods. These numerous events identified that in Nepalese higher education, digital mode of teaching seems very challenging task due to the lack of familiarity with online/offline educational applications and platforms, lack of positive relation with teachers and students, connectivity issues, gender issues, inclusion issue and lack of technical support.

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