Perceptions of students' online learning experience during the Covid-19 pandemic in the state of Nagaland: Are teachers dispensable or indispensable actors in an era of digital education?

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Abstract

This study examines students' perceptions of the online mode of learning during the Covid-19 pandemic in the state of Nagaland. It also seeks to understand students' perceptions of the role of teachers in their learning process. The sample comprised 80 students, who were pursuing bachelor's programs in the colleges of Nagaland, India. Tools for gathering data include interviews and questionnaires. Data gathered emphasized three aspects of online learning—students' motivation for online learning; students' digital competency; and students' perceptions of the role of teachers in their learning process. One significant finding on the first aspect indicates students' lack of interest and motivation owing to issues such as internet connectivity and the ratio of students to the teacher in the classroom. In the second aspect, it was found that there is a gap between the level of students' expected digital competency and their actual digital competency; and on the roles of teachers, students' perceptions of teachers as mentors necessitate their indispensability in the learning process. The study has implications for a pedagogical discourse for promoting scientific inquiry in pre-service teacher education program.

Introduction

The term 'digitising' is referred to the process of retrieving analogue information and encoding it so that computers can recognise, process, and then transmit it to users (Bloomberg, 2018). And the term 'digitalisation' is understood as "changes associated with the application of digital technology in all aspects of human society". It is also accepted as the "ability to transform existing products or services into digital variants, thus offering advantages over the tangible product" (Parviainen, Tihinen, Kaarian-inen, & Teppola, p.64). In education, it refers to the use of technology and digital devices, such as, computers, mobile devices, software applications, and any other kinds of digital technology that are used in the process of teaching and learning. It involves converting text, images, audio, and videos into digital formats that can be played by digital devices. Digitalisation tools include devices, such as, computers, smartphones, the internet, projectors, etc. And some of the means of digitalisation in education are online submissions of forms and documents; conducting online classes; taking online tests; sending out online assignments and assessments; giving online presentations;

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sharing digital support materials, and digital publications.

The importance of digitalisation in education is felt to such an extent that Tihinen & Kaariainen, (2016) opined that in the future, digitalisation will be the criterion to determine the existence or the non-existence of Higher Education Institutions (HEIs). Tim Berners-Lee a founding member of the World Wide Web (WWW) believes that the transition of education in the digital scene is a turning point in the history of education. And true to his statement, digitalization in education has brought forth benchmark changes in the education sector.

During the Covid-19 pandemic when schools and colleges in India switched to functioning online, if any teaching and learning were to happen—having access to software applications such as Google-classroom or Zoom— through digital devices became a necessity. In light of this scenario, the study focused on the students' view on three pertinent aspects regarding their perceptions of learning online rather than a traditional face-to-face mode of learning. As such, the aims of the study were to understand the perceptions of students regarding the online mode of learning using digital devices by examining the perceptions of students regarding their level of motivation on learning online; finding students' digital competency; understanding the views of students regarding the role of teachers in their learning process. And depending on the data findings of this study, the discussion on the dispensability or the indispensability of the teacher's role in the teaching-learning process will find its relevance.

Data findings were gathered through an interview or by sending out a questionnaire via email. All questions were formulated with the intention to make students provide an explanation or provide reasons in support of their answers. Findings show interesting insights about the students' views with regard to online learning. In addition, it also shows how students perceive the role of teachers in their learning process.

The phenomenon of digitalisation of education in India

In India, the use of technology in teaching and learning has been a rising phenomenon since the beginning of the 21st century. However, the onset of the Covid-19 pandemic has brought forth an unprecedented surge in the use of technology in the education sector. Its necessity was felt both in rural as well in urban areas. Criteria identified by Basilaia et.al., (2020) for all online teaching and learning platforms during the Covid-19 pandemic were found relevant in the Indian context as well. Some of the criteria are:

a. student-teacher connectivity through an online interactive session or via a recorded video using digital devices

b. conducting assessments for students such as, homework, quizzes, presentations, and tests using digital devices.

In such a scenario, there has emerged a conversation about digital technology replacing the traditional physical classroom meeting and the roles of teachers in the teaching and learning process. Today more than ever, the discussion on digitalization in education is viewed both as a pivotal opportunity to bring India to the global education platform as well as a significant means of widening access to educational institutions. Also, a key discussion on this aspect includes mitigating the problem of teacher shortages and thus, taking quality education to every part of India. Since the onset of the Covid-19 pandemic, the Indian HEIs which were earlier restricted from offering more than 20 per cent of the degree online have now lifted that restriction. And the New Education Policy (2019) emphasises both digitising and digitalisation of education. It also talks about furthering the scope of education technology (EdTech) for inclusive and quality education to reach every part of India.

Thus, digitalisation in education is seen as an important means to improve and augment the teaching-learning process. And the Covid-19 pandemic has led to the

accelerated growth of acceptance of EdTech as part of mainstream education in India. Taking the cue, many EdTech companies and online portals have come up to impact e-learning for all sections of learners. And this transition in the education sector has brought forward the conversation that the line between traditional learning and EdTech will likely get blurred as the new normal in the post-pandemic world. Keeping this importance of e-learning in mind, the study aims to accentuate the ground reality by seeking to understand the perceptions of students towards online learning.

Methodology

The objective of the study was to understand the perceptions of students about the digital mode of learning. And using this finding as the basis, find out the relevance of the role of teachers in the teaching-learning process in this digital era. Tools used to collect data include interviews and questionnaires. Therefore, the researcher has adopted a qualitative approach to data analysis and interpretation.

Participants

The sample comprised 80 students who were pursuing a bachelor's program in the colleges in Nagaland, India. There were 50 female students and 30 male students, in the age group between 18-25 years. Their fields of specialisation were divided between humanities and science. However, the majority of the students belonged to the humanities discipline i.e., 71 out of the total 80 students.

Instrument

Data were collected through interviews or by sending out a questionnaire via email. Questions were formulated to understand the perceptions of students with regard to the three pertinent aspects of online learning during the Covid-19 pandemic. Those three aspects were: students' motivation and attitude towards an online mode of learning; students' digital competency; and students' perceptions of the role of teachers in their learning process.

And data on these aspects were gathered by asking them the following questions:

a. On the motivation for and attitude towards an online mode of learning—questions on this aspect were based on their perceptions such as their interest and their experience of learning online during the pandemic. Questions asked included: how was your experience of attending online classes during the Covid-19 pandemic? Was it motivating to experience online learning?; in what ways did attending classes on Zoom or Google-meet during the Covid-19 pandemic help or hinder your learning process? Please explain. According to you, which mode of learning was more beneficial, online or face-to-face? Please provide reasons in support of your answers; on a scale of 1 to 5, 1 being the lowest and 5 being the highest, how much would you rate the level of your satisfaction with attending online classes? Please provide reasons for your answer.

b. On students' digital competency—questions asked were: how often did you use digital devices as learning aids in your face-to-face classes prior to the pandemic? What digital device(s) did you use to attend the online classes? How often do you use digital devices such as laptops, desktops, tablets, etc., in your day-to-day life? On a scale of 1 to 5, 1 being the lowest and 5 being the highest, how comfortable are you with using digital devices as learning aids?

c. On the roles of teachers—students were asked questions, such as, according to you, what are the roles of students and teachers in the classroom? Was there any difference in the roles of your teachers and you as a student when classes were conducted online rather than face-to-face? How? According to you, what roles do teachers play in your learning process

and in your performance; do you agree that having subject matter knowledge is a sufficient criterion to indicate a teacher's teaching efficiency? Please provide reasons in support of your answer; in this digital age, how important do you think are the roles of teachers? Kindly elaborate.

Procedure

The researcher intended to meet as many students as possible and conduct an interview, however, owing to circumstantial inconvenience, some of the students opted to participate in the study by responding via a questionnaire. Participants were assured of their anonymity and of the use of data only for the purpose of this study.

Data analysis

The data collected were analysed qualitatively with an inductive approach i.e., without any preconceived notions. The study did not attempt to formulate or test any hypothesis but rather attempt to investigate and describe the study according to the emergent themes. Creswell's Data Analysis Spiral (2007) was followed as the framework for this study. The first step was collecting data from the respondents, and then transcribing the data into specific folders. The second step involved careful consideration of the specified folders and taking notes of the emergent ideas. Then, the third step was classifying the emergent ideas thematically. It was followed by developing and assessing interpretations i.e., considering what is meaningful in the categories and themes gathered by analysis (Patton, 2010). To ensure validity and reliability, Conway et.al., (1995) suggested one-to-one interviews with standardised questions as an intervention to ensure the highest reliability, the same was adopted in this study. Here, it is pertinent to mention that this study followed a qualitative approach rather than a quantitative one, as it was important to understand the

respondents' personal views on questions. The quantitative nature of the study mostly adheres to close-ended questions that restrict the respondents from giving their personal views. Thus, the questions formulated for this study were predominantly open-ended with enough scope for the respondents to express their views.

Findings

The following sections will present the data findings and the research interpretation as gathered from the students:

a. students' motivation for attending online classes—responses to these questions showed that students were less motivated to attend online classes. The gathered data revealed that students were demotivated because of barriers such as internet access and connectivity issues; lack of good digital devices; and inability to have their doubts cleared on time. Another finding on this aspect was that the majority of the students found online learning put more burden on them. Unlike meeting in physical classrooms, having online classes made it difficult for students to have interactions as they had to log out as soon as the session was over. It also made it difficult to complete the syllabus on time, which added more pressure on the students in their preparation. Moreover, students were of the opinion that having large numbers of students in online classes adds to the inefficiency of the learning process, they had less opportunity to clarify their doubts or have discussions with their teachers and their peers. And all of these factors combined made students less motivated on attending online classes. Also, the data gathered showed that most of the students rated between 1.5-2 out of 5, when asked to rate their level of satisfaction with attending classes online. And the most common reasons they cited for their low level of satisfaction were— learning was more stressful as they had to

manage most of the topics in the syllabus by themselves; lack of confidence in their preparation for the exam; and not having easy access to the materials and help they needed from their teachers and friends. Some sample responses on this aspect are shown below—

Face-to-face is better any day. We had issues with online classes every day due to bad network, noise, and connection problems, so it was very discouraging.

Another student commented — *Online classes were very difficult for all of us due to network issues and there was no time to ask questions or [clarify] doubts. I will rate my level of satisfaction as 2 out of 5.*

Another student responded — *We have more than 60 students in our class and many of us faced network problem, so we could not finish our syllabus and we had to study by ourselves. Finding study materials and books was also difficult for us during online classes. Online classes are not very helpful, my rating is 1.5 out of 5.*

As it is very clearly stated in the above statements, students preferred meeting in physical classrooms rather than attending online classes. Their attitudes towards online learning exhibit a lack of motivation and a heightened level of stress.

b. On students' digital competency— students' responses to questions on this aspect showed that most of them (85 %) never used digital devices as learning aids when classes were conducted face-to-face. The majority of them (65 %) also responded that they rarely used digital devices such as laptops and desktops in their usual life activities. Taking a cue from these data suggests a gap between the level of students' expected digital skills and their actual digital skills. Another data that points towards this gap was obtained from responses to a question that asked students to rate their level of comfort in using digital devices as learning aids. More than 50 per cent of students gave a rating between 1 to 2.5 out of 5, and only seven students gave a rating of 4.5 out of 5. One of the students responded—

I don't have a laptop and we don't have computer class in our college, so my level of comfort is 1 to 2 out of 5.

c. On the role of teachers in the teaching-learning process—data gathered on this aspect showed that students have high regard for their teachers as mentors and facilitators in their learning process. An important factor that emerged on this aspect was that students responded on the same line of thought that being an expert in a subject matter alone is not a sufficient criterion to indicate a teacher's teaching efficiency. On the other hand, an efficient teacher is one who has both the knowledge and the skills to teach and also understand the classroom dynamics and create a conducive environment to facilitate students' learning. Here it must be noted that students' perceptions of the role of teachers in their learning process were not limited to imparting knowledge, but that they also had the understanding that their teachers are the ones who motivate them and lead them to both social and educational development. As one of the students responded—

teachers are our mentors, they guide us not only in our studies, but they also impart to us other values and responsibilities. I think, they play a huge role in our performance thorough clearing our doubts and also motivating us in a lot of ways.

Responses gathered also showed that for the majority of the students (80 %) a sense of confidence in their preparation and performance comes through having interactions and discussions with their teachers. Also, all students commended in affirmative about the need for classroom discussions. They stated that having discussions helped them in clearing their doubts and also give them a sense of belongingness and participation in the classroom. As one of the students responded—

Yes! I think classroom discussions are important. When you have discussions, it helps in clearing our doubts, we get to participate in the discussion and feel more prepared.

Implication

It can be inferred from student respondents' perceptions, that for any successful learning to happen, it calls for students' willingness and motivation. What it found needs to create a positive online learning experience is knowledge about the target students i.e., their context in terms of geographic location, their academic background, and their technical skills. Also, there was also a need to provide technical and academic support to students and to boost their interest and participation in the learning process; it is essential to have meaningful learning activities where they feel engaged and motivated. Moreover, one of the pertinent findings from this study indicates that teachers have a paramount role in facilitating the teaching-learning process; whether teaching is done face-to-face or online, the need for effective teachers can never be overemphasised. Therefore, another important measure is to ensure that teachers are not only subject matter experts but also possess skills to facilitate students' optimal learning whether classes are conducted face-to-face or online.

Limitation

This study is limited to students in the state of Nagaland. And therefore, the difference in context in terms of geographic location and administration; the difference in relevance in terms of issues with internet connectivity and access; and the difference in viability in terms of the state-of-the-art facilities and the technical know-how of different stakeholders in the education sectors, may not find its relevance for context that is different from that of the sample students.

Conclusion

The Covid-19 pandemic brought an unprecedented situation to all aspects of our lives, and the education sector has been no exception; such circumstances created a phenomenon of emergency e-learning for students. And in this context, the study was conducted to understand the perception of students' online learning during the pandemic situation. It also seeks to find out what students perceive of the roles that teachers play in the teaching-learning process. Data were collected through interviews and by sending out questionnaires. Findings show that owing to many technical and personal challenges, students preferred face-to-face mode of learning to online classes. Although technology and its uses are here to stay, it is apparent that the need to focus on human development can never be substituted. The data gathered also revealed that students think of their teachers as mentors who are irreplaceable not just in their learning process but also in their overall growth and development.

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Appendix 1

Questions

1. Which course are you pursuing?
   a. Bachelors
   b. Masters

2. How were your classes conducted during the Covid-19 pandemic?
   a. Face-to-face
   b. Online
   c. Both

3. Prior to the Covid-19 pandemic, did you have any experience with an online mode of learning?
   a. Yes
   b. No

4. Which digital device(s) did you use to attend your classes online? (Tick the options that you used).
   a. Smartphone
   b. Laptop
   c. Tablet
   d. Desktop
   e. Others (Please specify)

5. Did you or did you not have the option to choose the digital devices for your online classes? (For example, an option between using a smartphone rather than a laptop, kindly specify what options were available for you).

6. How often did you use digital devices as learning aids in your face-to-face classes?
   a. Always
   b. Sometimes
   c. Rarely
   d. Never

7. How often did your teachers use digital devices as teaching aids in face-to-face classes?
   a. Always
   b. Sometimes
   c. Rarely
   d. Never

8. According to you, which mode of learning is more beneficial (online or face-to-face)? Please provide reasons in support of your answer.

9. How often do you use digital devices such as, laptops, desktops, tablets, etc. in your day-to-day life?
   a. Always

  b. Often

  c. Sometimes

  d. Rarely

10. On a scale of 1 to 5, 1 being the lowest and 5 being the highest, how comfortable are you with using digital devices as learning aids?

11. How was your experience of joining classes online during the Covid-19 pandemic? In what ways did attending classes on Zoom or Google-meet help or hinder your learning? Please explain.

12. On a scale of 1 to 5, 1 being the lowest and 5 being the highest, how much would you rate the level of your satisfaction with attending online classes? Please provide reasons for your answer.

13. According to you, what are the roles of students and teachers in the classroom?

14. According to you, was there any difference in the roles of your teachers and you as a student when classes were conducted online rather than face-to-face? How?

15. Do you think there is a need for discussion between teachers and students in the classroom? Why?

16. According to you, what roles do teachers play in your learning process and in your performance?

17. Do you agree that having subject matter knowledge is a sufficient criterion to indicate a teacher's teaching efficiency? Please provide reasons in support of your answer.

18. In this digital age, how important do you think are the roles of teachers? Kindly elaborate.