

The role of digital materials: student engagement and output in E-learning

By

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A thesis submitted to the Department of English and Humanities in partial fulfillment of the requirements for the degree of Bachelor of Arts in English

English and Humanities

BRAC University

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Declaration

It is declared hereby that-

- The thesis presented results from my original research at BRAC University when I finished my Bachelor's degree.
- Except if a comprehensive and detailed reference is correctly mentioned, the thesis does not contain material previously published or written by a third party
- The thesis does not include any content that has been authorized or submitted before any other degree or diploma at a university or other institution.
- I have acknowledged all the primary sources of help

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Approval

The thesis titled "The role of digital materials: student engagement and output in E-learning" submitted by Amrina Ahmed (17303015), has been acknowledged as acceptable in part completion of the requirements for a Bachelor of Arts in English Degree.

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Abstract

The study is concerned with how tertiary-level students use digital materials to adapt and engage themselves in the E-learning environment. Moreover, it also focuses on the problems students face during E-learning and finds out the possible solutions to particular issues. As the system of E-learning environment is new in the field of education, both the students and teachers face some difficulties adapting to this new learning environment. This study aims to find out how students are adapting and engaging themselves in the E-learning environment by utilizing digital materials, the advantages they are getting from E-learning, the problems they are facing, and the possible solutions to them produce a better output. For this research, the study uses a closed-ended and opinion-based questionnaire online survey for the students and a semi-structured questionnaire interview for the teachers to collect information for analyses. After analyzing the results, both the students and teachers face some difficulties, such as internet issues, electricity problems, not finding the classes interesting, lack of concentration, monotonous, lack of interaction, and teacher training in E-learning. Finally, it recommended some suggestions to overcome the problems for producing a better output by engaging the students in the E-learning environment.

Keywords: E-learning, Digital materials, online learning, Student-Teacher interaction, Student Engagement.

Dedication

I would like to dedicate this work to my parents, who always become the supreme support of my life.

Acknowledgment

First and foremost, by the grace of Almighty Allah, I can continue my studies and use my real potential to use in my studies. Next, I would like to express my gratitude to my parents, without whom I would not pursue my academic goals and aspirations. Moreover, I would like to convey my sincere appreciation to my supervisor, Mohammad Mahmudul Haque, who has constantly encouraged me to finish my thesis. Furthermore, I would also like to thank my classmates and friends who were always willing to provide a helping hand whenever I needed it. In addition, I would like to convey my sincere gratitude to all of the participants and interviewees in my study for their willingness to share their perspectives and willingness.

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Table of contents

Declaration.....	1
Approval.....	2
Abstract.....	3
Dedication.....	4
Acknowledgment.....	5
Table of contents.....	6
Chapter 1: Introduction.....	9
1.1 Introduction.....	9
1.2 Objective of the study.....	9
1.3 Methodology.....	10
1.4 Limitation of the study.....	10
Chapter	
2 Literature review.....	11
2.1 Academic engagement and E-learning.....	11
2.2 Idea of student engagement.....	11
2.3 Student engagement in technology-mediated.....	12
2.4 Technology in the classroom.....	13
2.5 Teachers' perspective on technology.....	13
2.6 Students' perspective on technology.....	13

2.7 Impact of technology on student engagement.....	14
2.8 Barriers to implementation.....	14
2.9 Classroom interaction.....	15
2.10 Elicitation.....	16
2.11 Teacher talk time and student talk time.....	16
2.12 Communication activities include.....	17
2.13 The value of participation.....	17
2.14 Monitoring.....	18
2.15 Corrective feedback	18
Chapter 3: Research methodology.....	20
3.1 Methodology.....	20
3.2 Method of data collection.....	20
3.3 Sampling.....	20
3.4 Survey.....	20
3.5 Interview.....	21
3.6 Data Analysis.....	21
3.7 Obstacles encountered	21
3.8 Ethical consideration.....	22
3.9 Conclusion.....	22
Chapter: 4 Findings and analysis.....	23
4.1 General Perspective.....	23

4.2 Online classroom interaction.....	27
4.3 Personal Experience.....	31
4.4 Analysis of the interviews.....	33
Chapter 5:	
Conclusion and recommendation.....	39
5.1 Conclusion.....	39
5.2 Recommendation.....	39
References	40
Appendix	45

Chapter 1: Introduction

1.1 Introduction:

Universities have created enriched E-learning environments that fulfill different learning objectives to generate higher quality education (Islam, 2013). For example, with the excellent quality of digital learning materials, traditional classrooms are being transformed into flipped classrooms or blended learning sites. These modifications reflect the belief that utilizing an E-learning environment may improve conventional learning. As a result, universities are investing funds to establish an E-learning environment as a preferred delivery method for students or as a supplement to traditional face-to-face learning (Parkes, Stein, and Reading, 2015). E-learning uses digital technology to create educational resources for teaching and learning to attain a high level of student academic achievement (Fry,2001). In E-learning settings, technological tools and systems improve learning outcomes by delivering materials and approaches for individual learners' requirements and preferences (Means, Toyama, Murphy, and Bakia8, 2013). The higher education sector is adopting blended learning as the norm to improve the effects of using E-learning environments as more active approaches to continue student engagement.

1.2 Objectives of the study:

This research aims to find out how digital materials engage students during online learning. Moreover, it also focuses on the benefits and students enjoying and facing respectively during their engagement with digital learning and how the study can overcome the problems to produce a better output.

1.3 Methodology:

The methodologies employed in this study are as follows:

- Data collection through an online quantitative survey
- Teachers Interview through zoom meeting and phone calls

1.4 Limitations of the study:

First of all, due to the pandemic, every educational institution was closed. As a result, the data collection survey has to be conducted online. The researcher was able to collect all the information on a small scale. Only 43 university students responded to the online survey. The students who participated in the survey are from five different institutions. The participants are from both private as well as a public university. Secondly, only four teachers gave interviews. The interviews were taken through zoom meetings and phone calls. The data would have been richer if there had been a large number of participants.

Chapter 2: Literature Review

2.1 Academic engagement and e-learning:

Using technology to link students, teachers, and course material to promote academic performance will improve academic engagement (Mehdinezhad,2011). Experiencing E-learning will inspire them. Students' interactive learning environments improve their learning level by providing easy access to support, services, and additional materials and encouraging communication with the teacher and other students (Abbad, Morris, and de Nahlik,2009). E-learning has become more relevant in Higher education in terms of improving students' experience by providing course materials and even whole classes, thus completing conventional teaching and learning approaches in the classroom. The use of e-learning benefits university students in various ways, including the versatility of learning in terms of both time and place, the effectiveness of accessing content and information, instructional interactivity based on individual students (Arkoful and Abaidoo,2015). Handelsman, Briggs, Sullivan, and Towler created a scale to assess academic participation (2005). Intellectual engagement is characterized as a student's psychological behavioral efforts and commitment to scholarly work studying, knowing, mastering skills and information (Frederick, Blumenfeld, and Paris, 2004). Students' interactions with e-learning programs may affect their academic performance.

2.2 Idea of student engagement:

The behavioral intensity and emotional quality of a person's active involvement in an activity are referred to as engagement(Connell,1990). It is a broad concept that includes several interconnected

forms of motivation, including self-determined motivation, motivated behavior, and task orientation (Furrer and Skinner, 2003).

Engagement is essential in academic settings because it serves as a behavioral path by which students' motivating processes contribute to their later learning and growth (Wellborn,1991). Moreover, students' success is predicted by their engagement (Skinner, Zimmer-Gembeck, and Connell, 1998). Teachers use engagement as an observation sign of their students' underlying motivation during class (Furrer and Skinner, 2003).

2.3 Student engagement in technology-mediated:

Technology-mediated learning environments are becoming the trend (Clarke and Svanaes,2014). Digital technology is increasingly being used to provide information, link learners, and facilitate, but keeping students engaged in technology-mediated learning is difficult. If we wish to use digital instructional technology successfully, we must use instructional methods that promote greater participation. We need helpful indicators of student participation to assess the effect of new teaching activities on learning.

Student involvement has been described as an investment or contribution on the part of the student(Marks,2000) or active participation in studying (Astin, 1984). Researchers have coined concepts like "academic engagement," "student engagement," and "learner engagement" to describe this concept (Reschly and Christenson, 2012).

While student engagement is essential in any learning situation, the present study focuses on student engagement in technology-mediated learning experiences, which involve any interaction of the learner with teachers, other students, or learning material through digital technology. Furthermore, many of the programs used in technology-mediated learning are maintained. Again,

many of the programs used in technology-mediated education preserve a track of summative and real-time data about student encounters with the system, including meaningful student participation data inaccessible in more conventional contexts.

2.4 Technology in the classroom:

Various studies have found that adding technology into the classroom promotes meaningful learning, increased use of prior knowledge, elaboration, and greater understanding and unique practice (Hillman, 2014). The integration changes the learning environment's attention to the students, allowing them to acquire autonomy and control over education.

2.5 Teachers' perspective on technology:

Teachers are enthusiastic about integrating technology into the classroom. Teachers believe that if they are given proper training in professional digital competencies, they will be able to employ technology tools to improve student's learning (Kirksey, 2012). The abilities to handle the technology, technology infusion into educational activities, curriculum integration, motivating Cooperative exercise with technology, providing feedback on performance, and actively contributing to the participation of technology in the classroom are the examples of professional competencies that teachers believe should be included in training (Guzman and Nussbaum, 2009).

2.6 Students' perspective on technology:

When integrating technology into the classroom, it's vital to think about how learners react to it. When students believe that a technology's features are exciting and advantageous to their learning, they are more likely to accept it and use it to improve their grasp of course material (Sub, Lee, Lee

and law, 2016). Accessibility, flexibility, effectiveness, and general involvement are aspects that make technology more desirable to students. In general, research suggests that students are satisfied with the usage of educational technology since it allows them to participate actively in learning (Miller, Milholland and Gould, 2012). Students also feel that technology helps them grasp course materials better, contributes to increased academic accomplishment, and better prepares them for a technological reliant workforce (Schindler, Burkholdee, Moras and Marsh, 2017).

2.7 Impact of technology on student engagement:

The use of technology in the classroom has been shown in several studies to increase overall student motivation and involvement in learning (Mo, 2011). Technology, in particular, engages students on behavioral, emotional, and cognitive levels. Students can communicate with the instructors, share with classmates, and participate in the learning process when technology is introduced. Social networking sites, digital platforms, and Web-conferencing software are just a few examples of technology found to increase students' involvement (Schindler, 2017).

2.8 Barriers to implementation:

According to studies, teachers say there is inadequate time to deliver material and develop students' digital skills (Kirkscey, 2012). While many teachers believe they have sufficient training and are confident in teaching students how to utilize technology, there simply is not enough time. Other obstacles to classroom technology adoption include students' inadequate technical abilities, a lack of financing, difficulty interacting with classmates, and feeling isolated while studying and diverting from other applications (Sun, 2016).

2.9 Classroom interaction:

Classroom interactions are related to the interpersonal activities that take place during face-to-face interaction. Interaction implies connecting. It can also refer to the interactional activity that occurs during mental processing. (Ellis,1999, p.3). Pavia claims that " the prefix interaction, which connotes unity and reciprocity, is combined with the noun action to create interaction. As a result, interaction is a mutual activity that involves the participation of at least two people and equivalent outcomes." Furthermore, we are conscious that classroom interaction may be interpreted in various ways; that students' and teachers' actions have significant implications for fundamental issues such as knowledge, power, and social system.

Kumpulainen and Wray, say that the most well-known classroom interaction structure is the Initiation- Feedback/Evaluation process. In a tropical classroom environment, a teacher asks his or her students questions. After the students have replied, the instructor completes the interaction chain by providing feedback on the student's response (Kumpulainene,2002, p.9). Gradually, this process has shifted, and students are now the "active participants" in classroom interactions. Furthermore, " the instructor and the students share the knowledge and accountability of conducting the exchange on the substance of the portions of the text they jointly attempt to interpret through classroom interaction (Kumpulainene,2002, p.10). Furthermore, Kumpulainene says the instructor gives directions and provides feedback according to the various requirements of the participants in interactive activities such as group work, pair work, or the class discussion by both the teacher and students.

2.10 Elicitation:

Elicitation is the tool for extracting language, knowledge, and ideas from students (Scrivener, 1994). By asking questions and encouraging and leading participation, a teacher can remove students' knowledge about a subject (Grower, 1995). In addition, elicitation is helpful in classroom engagement because students may contribute their knowledge, and it helps to reduce the teacher taking time and maximize the students' talk (Scrivener, 1994). In addition, Scrivener claims, through elicitation, a teacher can draw the ideas, meanings, context, memories, feelings, etc., of a student. Moreover, elicitation allows teachers to observe what students know and do not know by allowing them to adjust their speech to the class (Doff, 2009). Furthermore, Scrivener adds that students will benefit from using elicitation strategies by a teacher in the classroom since they will be more engaged in the learning process, and their confidence will grow.

2.11 Teacher talk time and Student talk time:

Kumpulainen claims, teacher- student's relationship in the classroom was mainly based on whole-class engagement. According to Menegale, instructors talked for most of the lesson time (even over 90%), and students did not appear to find a reason to interrupt. Thus, students are denied involvement from a class. As a result, STT (Student Taking Time) and TTT (Teacher Talking Time) should be balanced, and the balance between teacher and student is dependent on the type of class and activities included, as well as the student's level (Grower, 1995, p.33). In addition, "a teacher can increase STT by grouping students into pairs or small groups and encouraging them to converse with one another. Thus, in this way, the students will be able to practice in a short period (Scrivener, 1994, p.85).

2.12 Communication activities include:

According to Scrivener, the purpose of communicative activities is to encourage students to speak and listen to one another. When students communicate with each other, they frequently exchange their information (Scrivener,1994, p.152). Furthermore, Lee says, instructors adopt a total hand-off method to allow learners to interact among themselves while working on a task, resulting in a student-student interaction pattern that is highly learner-centered. Moreover, role play, pair work, group work, and other communicative activities are the ways for a student to get an opportunity to engage (Scrivener, 1994, p.146).

2.13 The value of participation

Learning is often done in a group environment, where participating in joint events fosters a sense of belonging (Wenger 1998). Online interaction has evolved into an activity in which people collaborate to build awareness, negotiate to mean, and form a learning group (Salmon, 2000). Students have the option of participating in face-to-face or online interactions or discussions. However, some students choose not to participate and miss out on learning and engaging in the classroom.

Teachers may be disappointed if students do not participate in online conversation, despite their adherence to the importance of online discussion as an essential tool for building a group of learners. " I had always wanted my students to flood in as soon as the simulated classroom door swings open at the start of the semester, but this has not always been the case for all students" (Bender 2003, 47).

2.14 Monitoring:

Monitoring is a way of observation used to determine the level of conformity with a predetermined standard or the degree of departure from the expected norm (Brown,2000). Furthermore, monitoring is a set of activities that include gathering data regularly, assessing that data, and, most crucially, implementing the assessment findings through institutional measures (Kiesler and Sproull, 1982). Moreover, when a teacher refers to classroom monitoring, they are usually referring to the following behavior -

- During class discussion, questioning students to ensure that they understand the content.
- Engage students by giving classwork
- Assigning, receiving, and correcting homework; keeping track of grades and completion; conducting frequent reviews with students to ensure that they comprehend the topic and identify gaps in their knowledge.
- Giving corrective feedback and recording their progress.
- Examining and recording performance data and using that information to make necessary instructional improvements (Kathleen Cotton, 1988).

2.15 Corrective Feedback:

According to the progression and awareness of the students (Gower,1995, p.163). Moreover, Gower says, a student can make mistakes while he or she is learning or doing any classroom activities; for that reason, a teacher needs to give oral or written feedback. According to Gower, when a student engages in a classroom activity, the instructor should allow the student to complete the speech. "The teacher might then correct the student's answer and make a gesture, such as waving a finger or saying something encouraging (Grower, 1995, p.165)." Furthermore, the

instructor can repeat the incorrect speech in such a way that the student is aware of the part of the speech that is incorrect" (Grower, 1995, p.165)." In addition, Grower says, the goal of providing positive feedback or correcting errors is for pupils to speak the correct version. Moreover, Students will be able to assess their success and progress if the teacher or the students themselves fix the errors or offer feedback in the utterance of the classroom engagement (Grower, 1995).

Chapter 3: Research Methodology

3.1 Methodology:

This chapter offers a description of the research methodology which was followed to conduct the study. The data collection procedure was a survey and semi-structured interview where a prepared questionnaire was made for the participants. Moreover, this chapter comprises data organizations data, sampling, survey, discussion, and data analysis. The research methodology used for this study is based on a mixed-method approach.

3.2 Method of Data Collection:

According to Atmowardoyo, a research technique is a systematic approach used by researchers to discover the answers to research questionnaires (Atmowardo,2018). Rather than being seen as contrasting, qualitative and quantitative methods should be considered two sides of the same continuum (Newman and Benz, 1998). The present study uses a combination of both qualitative and qualitative research, which is a mixed method.

3.3 Sampling:

To collect the data, the researcher selected two samples. One is for the students' survey by collecting data, and the other is for a semi-structured questionnaire interview with the teachers.

3.4 Survey:

The researcher gathered responses from 43 participants(Students) for the study. The participants involved in the survey are students from both the private and public universities of Bangladesh.

Most of the respondents were from private universities. Due to the pandemic, this was collected from online data collection through Google form. The participants willingly participated in the survey.

3.5 Interview:

Five teachers were interviewed for this study. Due to Covid-19, it was possible to question the teachers in person. It was a qualitative questionnaire interview. Not everyone was comfortable and prepared to give an interview through zoom meeting. Three of the interviewees agreed to give an interview via zoom. On the other hand, one interviewee decided to give an interview over the phone. The interviewers gave the interview spontaneously as they were not given the questionnaire beforehand. Therefore, the interview process runs smoothly.

3.6 Data Analysis:

Three questionnaires for the students were both close and opinion-based questions. They were asked twenty questions based on general perspectives, classroom interaction, and personal opinion based. As this study attempts to assess the reality of inclusive education in Bangladesh, the participant's personal ideas and viewpoints were taken into account. After collecting all the data information from the students and interviews of the teachers, the research was analyzed.

3.7 Obstacles Encountered:

During this research, the researcher encountered different obstacles. The very first difficulty was the pandemic situation. The researcher came across many potential data subjects, but only a handful of them agreed to participate. Moreover, it was not easy to interview the teachers as they

were too busy to schedule the interview. Due to societal acceptability, researchers in Bangladesh find it challenging to collect data effectively.

3.8 Ethical considerations:

The researcher was concerned about obeying ethical principles. The goal of the study was explained to each participant before the interview. All the interviewees were done with the permission of the individuals who agreed to participate in the study. Furthermore, the researcher was concerned that the participant's identities and personal information would not be revealed, which would hinder them. The participants were allowed to express their thoughts because the interview questions were open-ended, and they were not required to agree with any proposition. The researcher was also cautious about discussing sensitive topics with the subjects that would make them feel uncomfortable. Furthermore, certain sensitive information given by the participant's interest during the interview was kept secret not to damage their work lives.

3.9 Conclusion:

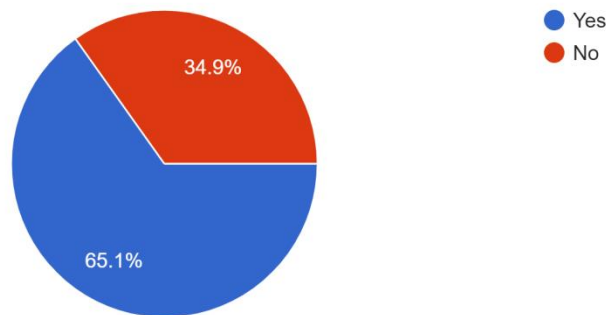
In the following chapter, the survey and interview results have been examined and given in-depth.

Chapter 4 Findings and analysis

4.1 General Perspective

Chart 4.1.1

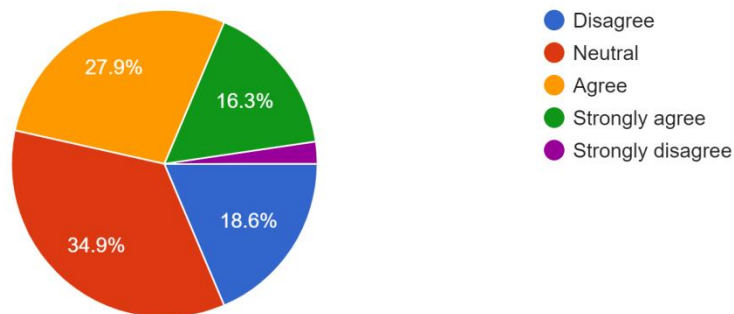
Do u think online learning is time consuming?
43 responses



The survey shows that 65% of students think that online learning is time-consuming. However, 34.9% of students believe that online learning is not time-consuming.

Chart 4.1.2

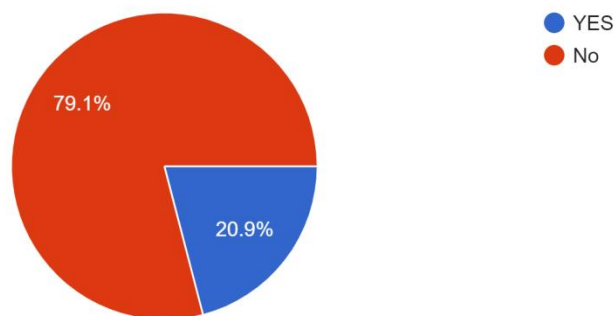
Is the technology involved in online teaching satisfactory?
43 responses



This survey shows a mixed result. This survey shows that 34.9% of the students give neutral answers on whether the technology involved in online learning is satisfactory or not. On the other hand, 50% of students agree, and another 16.3% of students strongly agree and are satisfied with the technology. Only 8% of students disagree with it.

Chart 4.1.3

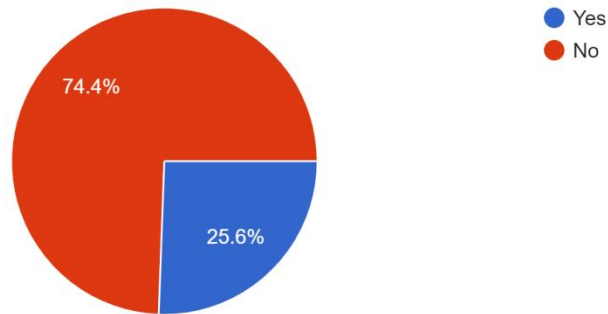
Can online learning provide sufficient knowledge of the subject matter?
43 responses



The survey found that 79% of students think online learning does not provide sufficient knowledge of the subject. On the other hand, only 20% of the students think online education can provide enough knowledge of the subject matter.

Chart 4.1.4

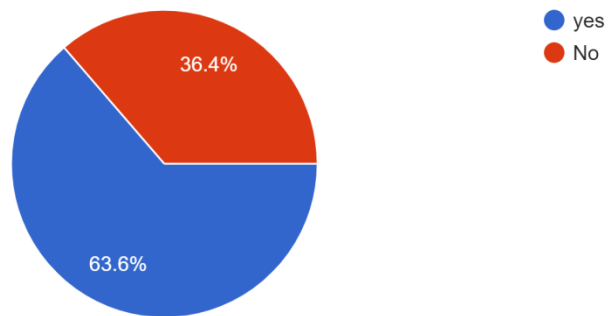
Do you find your online class interesting?
43 responses



Moreover, this survey shows that only 74% of the students feel that online class is not interesting, where 25 % of students agree that online course is interesting.

Chart 4.1.5

Does students lack adequate access to participate effectively in online courses?
44 responses

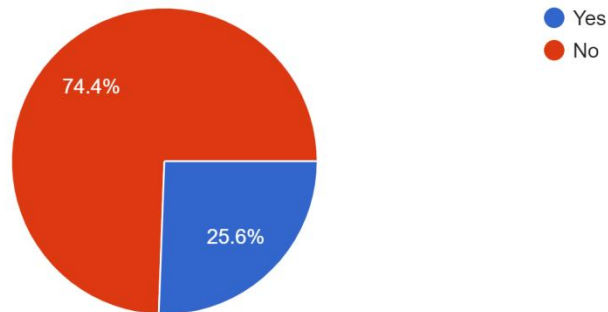


Furthermore, 63.6% of the students lack adequate access to participate effectively in online courses. However, 34% of the students think the opposite.

Chart 4.1.6

Do you think the materials are sufficient for learning?

43 responses



74% of the students say that the students' materials provided during online classes are not sufficient. A small portion, 25% of them, says that the provided materials are not enough for learning.

Analysis:

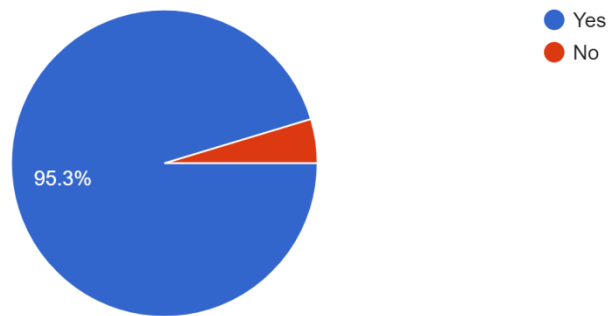
The researcher found that students face difficulties during online class as online class is very time-consuming for them to prepare and understand any lecture. In addition, the technology involved in online learning is neither satisfactory for them. As a result, they are not getting enough knowledge of the subject matter. Moreover, they are not finding their online classes interesting. Thus, students are not participating in online courses regularly and lacking behind in learning.

4.2 Online classroom interaction:

Chart 4.2.1

1. Do you think face-to-face interaction with the teacher is necessary for learning?

43 responses

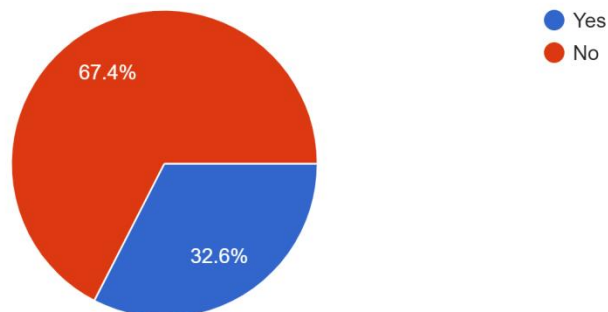


This survey shows that 95% of the students believe that face-to-face interaction is necessary for learning. On the contrary, only 5% of students think face-to-face interaction is not required for learning.

Chart 4.2.2

Do you get enough student talking time in the online class?

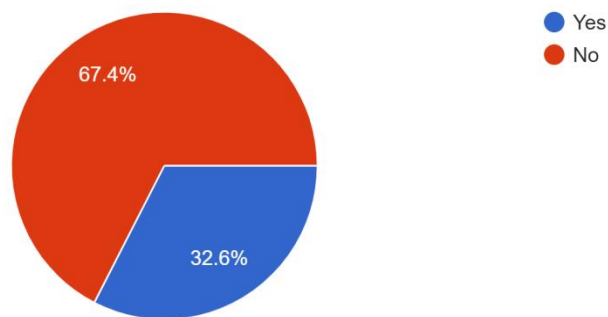
43 responses



This survey finds that 67% of the students think that students do not get enough space to talk during online class, where 32% of the students oppose them.

Chart 4.2.3

Do you think students get enough opportunity to ask questions during online classes?
43 responses

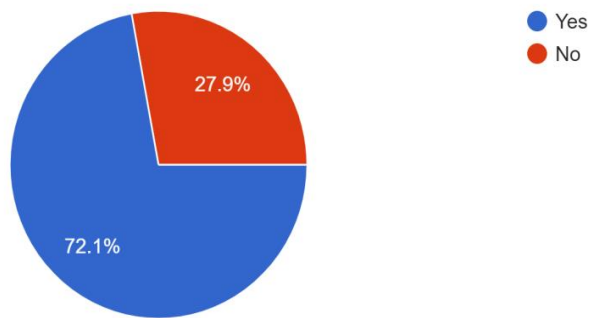


67% of the students say that they are not getting enough opportunity to ask questions during an online class. On the other hand, 32% of the students agreed they could ask questions in the class.

Chart 4.2.4

Does your instructor give any group or pair work during the online class?

43 responses

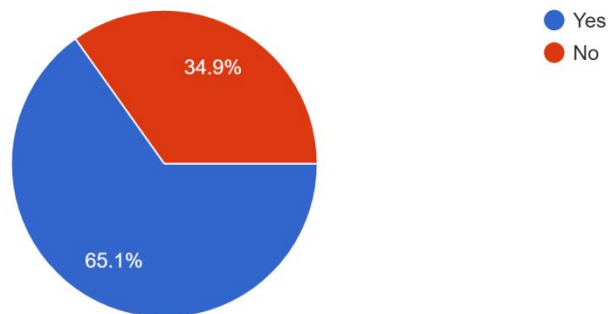


The survey shows that 72% of the students say that their instructor gives them pair or group work during online class, where 27% of them oppose.

Chart 4.2.5

Does your instructor give feedback after the task?

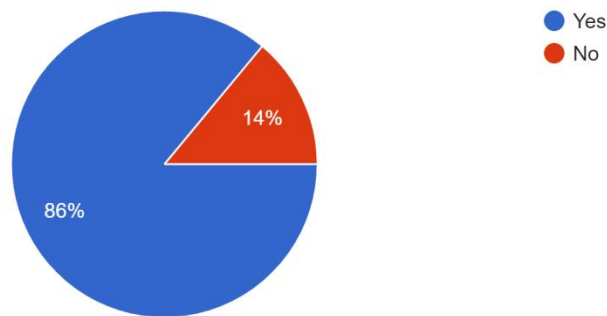
43 responses



65% of the students agree that their instructor gives feedback after the task. However, 34% of the students say they do not get any feedback from their instructor.

Chart 4.2.6

Does your teacher assign any homework or assignment to you?
43 responses



This survey shows that 86% of the students say their teachers assign them homework and assessment, where 14% disagree.

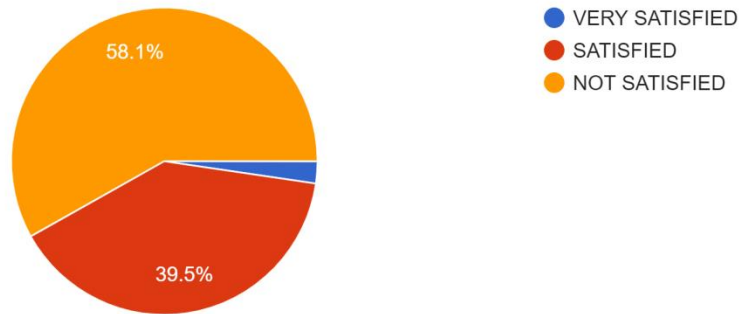
Analysis:

This part focuses on online classroom interaction. The students think face-to-face interaction is necessary for learning, but it is not possible in online classes. Moreover, in the online classroom, it is not easy to interact. As a result, students are not given enough opportunity to talk. As they cannot interact one by one, their instructor gives them group and pair work to interact appropriately in the class. Moreover, after their group or pair work, they get enough feedback from their teacher. In addition, the instructor assigned them homework and assessment to get prepared.

4.3 Students personal opinion:

Chart 4.3.1

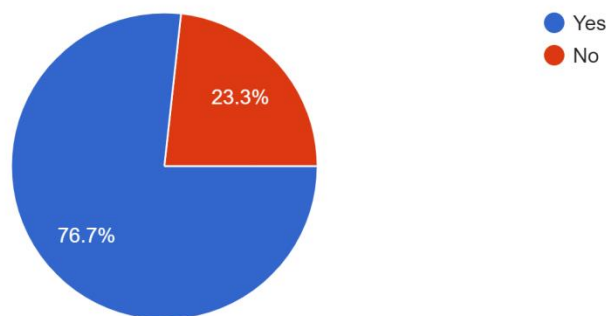
How do you describe your online class experience ?
43 responses



This survey finds that 68% of the students are not satisfied with the online class. On the contrary, 28% of the students oppose them.

Chart 4.3.2

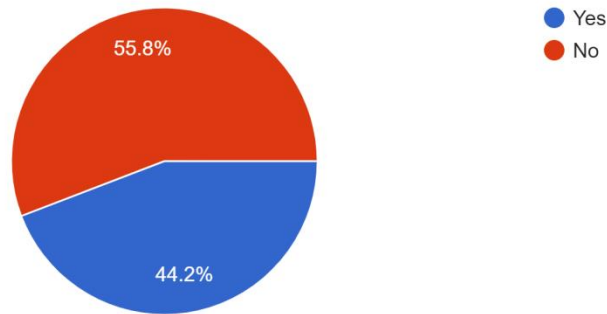
Do you face any kind of difficulties during online classes ?
43 responses



68% of the students face different problems during online classes, where 32% do not face any issues.

Chart 4.3.3

Are you getting any benefits from online e-learning?
43 responses



This survey indicates that 60% of the students are not getting benefits from online learning. However, 40% of them say they are getting help from online classes.

Analysis:

The data shows that the online learning experience has been a mixture of both advantages and disadvantages to this point. Online learning has been helpful. However, it is difficult for the students to cope with the situation.

The students who are facing problems in their online learning have different opinions. Most of them are facing similar issues. They do not concentrate on online classes properly because of electricity problems, network problems, and technical issues. Moreover, some of them say they are not getting benefits from online courses. However, some others say they are getting services based on learning and experiencing something new, which is fun.

It seems that online learning is both time-consuming and time-saving at the same time. Through this online education system I, it became more accessible for the students to do classes without wasting time rushing to university. However, it is time-consuming to understand any lectures a student needs to spend a lot of time on as it is difficult for every student to continue a smooth conversion during the online class.

Moreover, online learning has been a bit hectic sometimes. One of the students from the survey says, " Internet and electricity issues are one of the biggest problems in the way of online learning. For example, one day, I was giving a presentation, and suddenly my power cut off, and I switched to mobile data, which was, unfortunately, unable to connect. After trying several times, I joined and became so nervous and stressed that I could not give the presentation the way you planned to."

4.4 Analysis of the questionnaire interviewees:

Question 1- Which online platform is your university using for an online class?

Theme: Online learning platform

Emergent categories: Digital platforms

To answer this part, most of the teachers said their university does not follow any particular platforms. They follow google meet, google classroom, zoom, discord, Facebook, and other social media to take classes and other purposes. On the other hand, only one teacher said their university has a platform named "bu-x," which they use to do all the activities like uploading video lectures, lecture notes, taking examinations, and discussion.

Question 2- How do you describe your online teaching experience?

Theme: Teaching experience

Emergent categories: time-consuming

The online class is not as smooth as the regular classroom. Online learning is time-consuming as the teachers need to prepare video lectures, notes, live courses, and extra effort, which is very different from conventional classrooms. To make the online class fruitful and for the students' betterment, the teacher's extra effort is required. One interviewee claims, "Physical learning is always best. But as we are facing some problems, we cannot go outside and cannot attend the physical class. So if we can spend some of our time learning from home, it is a great thing that at least we use our time wisely".

Question 3 - Do you face any difficulties during online teaching?

Theme: difficulties during online teaching

Emergent categories: Networking issues

Almost all interviewees agreed that they faced electricity and Internet issues as the main obstacles during an online class. When the Internet and electricity lines are cut off, it creates an interruption not only for teachers but also for the students. Furthermore, they have to postpone the classes due to networking issues. Moreover, it is difficult to look into the computer's screen for a long time.

Question 4- Is technology involved in online learning satisfactory?

Theme: E-learning technology

Emergent categories: Training

All the interviewees were satisfied with the technology which is involved in the online classroom. However, two interviewees suggested that it takes proper training and preparation for the teachers to be spontaneous during online classes.

Question 5- Do you think online teaching provides sufficient knowledge of the subject matter?

Theme: sufficient knowledge

Emergent categories: lack of knowledge

The interviewees argued that online teaching does not provide sufficient knowledge of the subject matter. One of the interviewees said that "it is difficult to demonstrate any practical work in the online classroom which creates a lack of learning for the students because it is not possible to demonstrate any practical work in an online learning platform.

Question 6- Do you elicit from the students?

Theme: Elicitation

Emergent categories: Idea or knowledge

All the interviewees agreed that they elicit from the students during online class as it helps the student get connected with the topic. Moreover, it also helps a teacher to know about the ideas of

the students. One teacher emphasizes that it is really interesting to hear the ideas of a student before giving a lecture on a topic because sometimes they come up with very different thoughts and perspectives which helps others to think differently.

Question 7- Do the students eagerly participate in the classroom?

Theme: Students participation

Emergent categories: student's engagement in the classroom

The teachers claim that the students are not interested and feel monotonous during an online class. The students need to push to engage in the type. Only a handful of students are interested in attending and participating in the traditional style.

Question 8- How do you engage the students during online classes?

Theme: student's engagement

Emergent categories: classroom activities

It is really difficult to give a task to an online classroom as the time seems very short for a class. However, it is important to engage the students in the class by giving them small activities. Through different tasks, activities, and discussion boards, the teachers try to engage the students in the online class. One of them mentioned, he liked to give mostly pair or group works because it helps students to interact with other members by exchanging their ideas. On the other hand, another teacher says, he finds it difficult to manage an online activity. Thus, he gives homework to monitor students' progress.

Question 9 - Do you give enough student talking time?

Theme: student taking

Emergent categories: the shortage of time, disconnecting issues.

The teachers said it is difficult to give every student a chance to talk. It is challenging to run a class smoothly due to different obstacles, such as shortage of time, disconnecting issues because of poor intranet, and cutting off the electricity. However, two of them say they use discussion boards to answer and interact with the students, which helps students clarify their problems.

Question 10- how do you monitor your students during the task of online class?

Theme: Monitoring

The teachers claim it is difficult to monitor in the online classroom after assigning any task. However, they added that they ask questions during the class to watch students' attention. Moreover, one of the interviewees says that he creates room for the students to do group and pair work during zoom class, and during task time, he enters the room to monitor the students.

Question 11- How do you give feedback to your students?

Theme: feedback

Emergent categories: oral and written feedback

It is challenging to give oral feedback because it disrupts the class. Most of the interviewees agreed that they provide written feedback on students' assignments or homework. Only one interviewee said he liked to give feedback orally. However, most of the teachers took notes of the students' progress for class presentation and participation and then gave detailed written feedback to the students. Two of them mentioned that, they also provide consultation hours for the students to discuss their problems.

Question 12- In your opinion, what are the roles a teacher should take to make an online classroom more engaging and interactive?

Theme; Teachers opinion

Emergent categories: Attentive and sincere

Teachers need to be attentive, sincere about the procedures and should communicate with the stand needed to keep pace with the classes. Thus, the classroom environment will be more engaging and interactive with the students to produce a better output.

Chapter 5: Conclusion and recommendation

5.1 Conclusion:

Online learning is a new experience for Bangladesh. Students and teachers both face difficulties, but they can adapt to produce a better outcome if they try. The students need to attend and participate in engaging themselves in the E-learning environment. The teachers also need to be attentive and sincere and help students adapt and engage in an E-learning platform. Lastly, Teachers and students should cooperate to produce a better output.

5.2 Recommendations

- Students need to be attentive and sincere about the procedures, without any fear should communicate with the course faculty, and keep pace with the classes.
- By joining the class regularly, asking a relevant question
- If a teacher-student relationship gets better and understanding, supportive both of them can continue their studies properly.
- Teachers need the training to handle the E-learning platform smoothly.

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Appendix

Student survey questionnaire

General Perspective

1. Do you think online learning is time-consuming?

- Yes
- No

2. Is the technology involved in online teaching satisfactory?

- Yes
- No

3. Can online learning provide sufficient knowledge of the subject matter?

- Yes
- No

4. Do you find your online class interesting?

- Yes
- No

5. Students lack adequate access to participate effectively in online courses?

- Yes
- No

6. Do you think the materials are sufficient for learning?

- Yes
- No

Online classroom interaction

1. Do you think face-to-face interaction with the teacher is necessary for learning?

- Yes
- No

2. Do you get enough student talking time in the online class?

- Yes
- No

3. Do you think students get enough opportunity to ask questions during online classes?

- Yes
- No

4. Does your instructor give any group or pair work during the online class?

- Yes
- No

5.Does your instructor give feedback after the task?

- Yes
- No

6.Does your teacher assign any homework or assignment to you?

- Yes
- No

Personal opinion

1.How do you describe your online class experience?

- Very satisfied
- Satisfied
- Not satisfied

2.Do you face any kind of difficulties during online classes?

- Yes
- No

If yes explain one reason_____

3.Are you getting any benefits from online e-learning?

- Yes
- No

If yes, explain the benefits are you getting from online classes_____

4. What is your general opinion about online learning? Explain_____

5. In your opinion, what are the roles a student should take to make an online classroom more engaging and interactive? Explain_____

Teachers interview questionnaire

1. 1.How do you describe your online teaching experience?
2. 2.Do you face any difficulties during online teaching?
3. 3.Is technology involved in online learning satisfactory?
4. 4.Do you think online teaching provides sufficient knowledge of the subject matter?
5. 5.Do you think the materials you provide are sufficient for both learning and teaching?
6. Do you elicit from the students?
7. 6.Do the students eagerly attend and participate in the classroom?
8. 7.How do you engage the students during online class?
9. 8.Do you give enough student talking time?
10. 9.How do you motivate your students?
11. In your opinion, what are the roles a teacher should take to make an online classroom more engaging and interactive?
12. How do you give feedback to your students?