An Explorative Study To Document Challenges Of Virtual Teaching And Learning Due To COVID 19 Among Graduate Students At The SPH, CHS, Addis Ababa University At 2020.

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Short Report

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Abstract

Due to COVID 19 pandemic, school over the world has been closed. Globally 1.2 billion students are out of the classroom. Virtual learning is usually associated with online courses or online environments, but it has much broader dimensions. The objective of this study was to explore the challenges of virtual teaching and learning among graduate students at the SPH, CHS, Addis Ababa University.

Methods: the phenomenological qualitative study was conducted at Addis Ababa University, on graduate students. Participant was selected by Purposive sampling and data collection was in-depth interview and analyzed by using open-code 4.03.

Results

In this study two participants participated: one student and one teacher. As the student explain the virtual learning and education was new mode to delivery education in Ethiopia and he told that he did not have any experience before. Despite, teacher states that he has an experience on the online learning and teaching. The participants states that virtual learning have an advantage. However, there are many challenges they list, from these: inadequate internet, costly ineffective, inflexible are the majors.

Conclusion: based on the finding from the participants, student hasn’t experience of virtual learning. The factor influence to follow virtual learning is that student was beginner for online learning, and teacher was also beginner in giving virtual teaching, connection problem in our country and teacher behavior are the main problem explored by this study. Even though student and teacher feel it is difficult, they suggest the virtual learning have to be trained in Ethiopia for the future.

1. Introduction

1.1 BACKGROUND

The COVID 19 was a reason for the school was closed across the entire world. Globally 1.2 billion students are out of the classroom. As result the education has changed dramatically to distinctive rise of e-learning, where by teaching is undertaken remotely and on digital platforms.

Virtual learning is usually associated with online courses or online environments, but it has much broader dimensions. Virtual learning is a learning experience that is enhanced through utilizing computers and/or the internet both outside and inside the facilities of educational organization. Teachings are carried out online whereby the teacher and learners are separated.

Online education is newest and popular form of distance education todays. It is education that takes place over internet. It is often referred as e-learning among others. With the fast development of the Internet, many colleges and universities have offered online courses as a viable alternative to traditional face-to-face instruction. At the current time due to COVID 19 pandemics many countries changed face to face education to online education. However, considerable concerns and problems have developed,
particularly as it relates to the quality of online education. Online education, according to Harasim (1989), is a new domain of learning that combines distance education with the practice of face-to-face instruction utilizing computer-mediated communication.

Online learning has now become an integral part of higher education institutions' expanding curriculum. The term online education is often associated with Internet education, virtual education, cyber-learning, and asynchronous learning (Office of Sustainable Development, 2000). The following themes shape online education: collaboration, connectivity, student-centeredness, unboundedness, community, exploration, shared knowledge, multisensory experience, and authenticity.

In the developing country like Ethiopia, there is no experience of online education before COVID-19. The problem that may affect the utilization of virtual education in Ethiopia is that there is not widely spread of network, economy of student will not afford the online education, and political issue etc.

Online courses and degrees have been widely adopted by higher education institutions as another method to substitute traditional classroom instruction. WHO recommend the learning and teaching curriculum better if it is online since the Rise of COVID 19.

The benefit of online learning and teaching is when there outbreak or such COVID 19 pandemic is happen it have benefit to save a life and continuing education. The minimum requirement for students to participate in an online course is; access to a computer, the internet and the motivation to succeed in a non-traditional classroom. Online courses provide an excellent method of course delivery unbound by time or location allowing for accessibility to instruction at anytime from anywhere.

Basic characteristics and benefits

- Remote access to unlimited array of educational services and offered worldwide
- Individualized learning process that takes into consideration the personal level of competence, individual needs and different learning style
- Safe and secure learning environment
- Flexible learning in terms time, location, and place
- Cost effectiveness, time effective, easily scalable

Challenges during online learning and teaching

Challenges or problems faced due to online learning are: adaptability struggle, technical issues, computer literacy, time management, and self-motivation, not being able to read non-verbal cues, fewer tools, and distracted learners and gaining learners’ confidence. The followings are some challenges to follow Virtual education.

Isolation
Without the buzz of classroom setting and the company of their peers, it is no surprise that some students can begin to feel a strong sense of isolation that slowly erodes their desire to learn. Isolation can also undermine many of the instructional strategies that we take for granted in our classrooms. Group work, class discussion and collaborative activity can disappear from the program entirely.

**Lack of motivation in online learners**

As hard as distance teaching might be for teacher, it’s likely even harder for their students.

**Technical difficulties with online teaching tools**

Not every home or city will always have a reliable internet connection or readily available device for student to use. It’s also important to remember that, for all the talk of our students being ‘digital natives’ many of them are not that proficient when it comes to tackling unfamiliar software or using it in a responsible manner.

Time-consuming resources: recording instruction and lecturer and posting it online is one way of avoiding the hassle, although be aware that the technical dimensions of this take time as well.

**Setting and forgetting online learning activities**

Students are not the only who might feel diminished accountability in a distance education setting. It can struggle for teachers too.

**1.2 STATEMENT OF PROBLEM**

Education is basic for health and economic of one's country. The education style that is common and widely used in Ethiopia is the face to face (traditional) program in a university. However, due to the COVID 19 pandemics the educational in all worlds stopped. The option to continue the education is applying virtual learning or online learning and teaching method. In developing country like Ethiopia online learning is not learnt. Addis Ababa University is one of Ethiopian university which start online learning and teaching methods after COVID 19 pandemic happen.

Although the online education have a benet it have also challenges, there is many question rose from both side (student and teacher), does the student have an experience? Does the student and teachers afford it? How does the internet availability in country encourage? This study tries to explore the perceptions of students and teachers towards of online learning due to COVID 19.

**1.3 SIGNIFICANCE OF STUDY**

As the pandemic of COVID 19 deliver Ethiopia, the Ministry of Education of Ethiopia declare to continue the education of graduate students by online education courses in higher education. The concerns and issues arisen is how the students and teachers have accept the virtual curriculum, does they afford and how is the quality.
Thus, research is needed to explore the perceptions of students and teachers and quality of online education.

There are two different arguments on the online education. The first proponent reported as; online education presents a bias-free teaching and learning environment for instructors and students. The other proponents are believes the online education have more challenges. This study is needed to explore the perceptions of students and teachers since it is the beginning due to the COVID 19.

2. Objectives

General objective:

To explore Students and teacher’s challenges of virtual teaching and learning started due to COVID 19 among graduate students at the SPH, CHS, Addis Ababa University.

Specific objective:

- To understand positive perception of students and teachers on online learning started during COVID 19.
- To understand challenges/negative perceptions of students and teachers on online education in postgraduate studies because of COVID 19

3. Methods

Study setting

Addis Ababa University was one of the biggest universities from Ethiopia; it is located in Addis Ababa city. Addis Ababa University’s students was 48,673 (33,940 undergraduate, 13,000 masters and 1733 PhD) and 6043 staffs (2,408 academic staffs and 3,635 support staff.) And it has 14 campuses, 293 graduate programs (72 PhD and 221 masters) and various specializations in health science.

Study approach

Content analyzed by the inductive approach on the base of phenomenological perspective to explore the challenge of virtual learning and teaching of students and teacher due to COVID 19 on the virtual education.

Study population

- Source population: all students and teachers in Addis Ababa University
• Study population: all graduate and post graduate CHS, SPH students and all instructors.
• Study sample: all students and teacher of CHS, SPH applying online learning and teaching
• Study unit: purposively selected students and teachers.

**Data collection technique**

The study was done by applying in-depth interview through cell phone on the selected student and teacher to explore perception of student and teacher on virtual learning due to COVID 19. Data collection was done according to guide on the question for the discussion and the participant was interviewed after consent has taken. The question was open ended question help to explore in detail what he/she perceive.

**Sampling**

Purposive sampling method was used to select sample from all post graduate students and teachers who are using on learning due to COVID 19 and who are willingness to participate on the study to share its perception in detail.

**Data analysis**

The data collected was analyzed by using an approach of thematic approach to identify and understand the issues/ challenge student or teacher faced due to online learning. After transcription done from interview of the participant, software used to analyze, by using open code 4.03, all coded and categories are done by using this software.

**Reporting the findings and Ethical Approval**

The result finding reported to the Addis Ababa University and other related stakeholders like, ministry of education and other. Ethical approval was taken from the Addis Ababa University school of public health

**4. Findings**

**Experience on virtual learning and teaching**

Student who participate on this study report that she have an experience of 7 years on the working in hospitals, but she hasn’t experience or training on the online learning.

• “I didn’t use before the online teaching or any training”.

Thus when the participant from student asked about how it is easy or difficult, they answer it that is difficult because due to the lack of experience and no technical support from institution. From teacher
participant he told that he has prior experience by taking online training from foreign university. During this time he didn't faced any challenge, he got internet access from his university. He also recommends increasing access of internet service and tutorial in our country to improve virtual learning.

**Factor influence virtual learning and teaching**

In using virtual learning there many factors or challenges during following virtual learning is there, the participants suggest that the main problem is a problem of connection, accessibility of internet, cost payee and teachers behavior will determine. “here there is a problem of connection in our country thus why it makes difficult.”

**Methods used in virtual learning and teaching and other method suggested**

Even though students didn’t have an experience, they got a support to enjoy the class by using different materials and sometimes they use online Zoom. “Even though I haven't any experience of the online learning, our teacher helps us by sharing different materials through the email and sometimes we can use the Zoom and meet. The shared materials were not time bounded, and on the online zoom. The other method teacher participant explain was, the method of evaluation on the virtual learning was giving assignment, receive feedback(reflection), participation and interview through phone call. Participant respond other way to follow during this COVID 19 pandemic, like distance learning.

**Recommendation to improve virtual education**

As participant states on the factors and challenges the main needed on online learning was the access of internet connection. So they recommend to get a free service or support from an institution. “an institution who used online have to be award an free service on the internet or have to work with ethio-telecom for the students.” A teacher also recommends the same thing as student participant and in addition he recommend that institution have to give for the students a tutorial and fund for the use of internet and teacher have to record a session as reservoir.

**Students and teacher’s positive perception on virtual education**

From student side they perceive positively on the free PPT they get, multi-method. “sharing the PDF and meeting by zoom or meet per day a day is best.” Virtual learning gives a free to follow not makes them on challenge as the participant said, free fro stress and follow the class. As teacher participant talks he feel positively on the accessibility of internet since it is awarded from the university. The other is same as student participant that online learning obviously decrease the stress and fear of student. The evaluation method also engage student to actively participate because they give them daily reflection and assignment thus student active. “ I gave them an assignment and project that is done every day and submitted at last day”. 
Students and teacher's negative perception on virtual education

Student participant rise that never used before and thus makes difficult to use in some point in addition internet connection in our country have the problems. More focus of the student participant that they see as negative perception of disadvantage was that there is difficult to follow online learning through zoom and meet, this is due to costly on using internet connection and there is inadequate connection in the country. “even though there is a difficult on the following by using zoom and meet.”. “there is biggest challenge I face is network or connection problem, when using zoom and meet.”. Participant also suggest that lack of group discussion is makes them feel as negative perception. The teacher participant also highly accept that online learning is not cost effective for students.

5. Discussion

Factor influence virtual learning and teaching

There are many factors that will influence online learning experience. According to this study factor which influence was problem with connection(internet), cost paid and teachers behavior was the main factor dictated. This is same with the study done by Song, Singleton and Koh's (2004) survey which technical problem and lack of understanding instructional goals which is related with the behavior of teacher, since instruction is given from the teacher.

Students and teacher’s positive perception on virtual education

In this study students and teachers rise different positive perception like, sharing Materials, free from stress, evaluation method makes student to actively engage in the teaching methods. In contrast the research done by Vonderwell(2003) done on 22 participant dictate that flexibility of online learning is as positive perception , but in this study the participant states that virtual learning is not flexible and cost effective.

Students and teacher's negative perception on virtual education

In this study participant perceive that online learning was not cost effective, not flexible, difficult to follow by the internet connection of this country, there is no group discussion or no discussion. In contrast with the study done by Petrides 2002: Schrum, 2002: he reported that participant revealed that it was easier to work in collaborative groups in all online course and participant says that discussion through the online is convenient.

6. Conclusion

Based on the finding from the participant, student hasn't experience of virtual learning or online learning. The factor influence to follow virtual learning is that student was beginner for online learning, connection problem in our country, and teacher behavior are the main problem explored by this study. Even though
student and teacher feel it is difficult, they suggest the virtual learning have to be trained in ethiopia for
the future.

The main method used to deliver education in this study was moderate as a student and teacher suggest. The
main method used in this study is sharing supporting materials, having online learning through Zoom and Meet. Here the teacher and student raise the problem or challenge they face and they tried to put the solution for it. The problem was; internet connection, costly, not flexible. They putted a solution or recommendation to improve the virtual learning started in the country, these are an institution have to support by technical or have to work with collaboration with other sector to improve.

The participant feeling was both positively and negatively. The positive perceptive of participants toward virtual learning were free to follow, free from stress and increase access to internet. The negative perception was not cost effective, not flexible, accessibility of connection, and other. The participant is highly recommending that the virtual learning have to be continued in Ethiopia. This is the first time virtual learning tried in Ethiopia due to COVID 19 pandemics, but in the normal circumstance it has also to be trained and have to be continued as one method of delivering education by solving the problem raised.

7. Recommendation

Based on the study, I recommend some point to solve the problems and to make improvement on the virtual learning and teaching to make it one method of delivering education in the Ethiopia.

- Federal ministry of education has to work in a collaboration with the ethio-telecom to support the students and teacher free service internet or make it cost effective.
- The university/institution who provide virtual/online education have to give a training for the student prior to start the class.
- Student have to manage self-regulation, motivation and like.
- Teachers have to a manage his/her behavior in the way it attracts the student to convey what is needed.

8. Limitation

The limitation has to considered/ addressed in this study was

- The participant I used was small in number
- May be the department I choose was may not generalizable for the other, it may not explore problem in the other.

Declarations

The authors declare that they have no competing interests.
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Annexes

An explorative study to Students and teacher’s perceptions of virtual teaching and learning started due to COVID 19 among graduate students at the SPH, CHS, Addis Ababa University.

Thanks you for agreeing to be part of this study, the question takes approximately 20 minutes.

Discussion guide:

1. Can you introduce yourself?

Probing questions:

1. Education,
2. Track,
3. Work experience
4. Year of service
5. Rank etc...

2. Do you have any experience of virtual teaching prior to the pandemic?

Probing questions:

1. When was that?
2. Were you a student or a teacher in this practice
3. How do you evaluate your prior experience of teaching or learning? Was beneficial, easy to deliver or to follow etc.
4. Do you think your experience has contribution in the current teaching?

3. Can you tell me your current engagement in virtual teaching?

Probing questions:

1. What channels do you use?
   1. Material sharing via email
   2. Sharing printed material
   • Zoom or google
1. If online, zoom or google, how long is your online class on the average days and hrs.
4. How did you make sure whether student was following?
5. Do you believe that your students had benefited from the class?
6. How did you evaluate the students?

Probing questions:

1. Continuous evaluation
2. Final evaluation

7. Dis you face any challenge in delivering your class /teaching?
8. Do you think there are some advantages in virtual teaching?

Probing questions:

1. What are the advantages for teachers?
2. For students

9. Do you suggest any other way of teaching that could help at this epidemic other than face to education?
10. What do you recommend to improve virtual learning?
11. Do you want to mention any thing that I did not mention?

Thank you!!!
An explorative study to Students and teacher’s perceptions of virtual teaching and learning started due to COVID 19 among graduate students at the SPH, CHS, Addis Ababa University.

Thanks you for agreeing to be part of this study, the question takes approximately 20 minutes.

Discussion guide for Graduate students

1. Can you introduce yourself:

Probing questions:

1. Education,
2. Track,
3. Work experience
4. Year of service
5. Rank etc...

2. Do you have any experience of virtual learning before the pandemic occur?

Probing questions:

1. When was that?
2. Can you tell me your experience with this regard?
3. Were you a student or a teacher in this practice
4. How do you evaluate your prior experience of teaching or learning? Was it beneficial, easy to deliver or to follow etc.

3. Can you tell me about your current engagement in virtual learning?

Probing questions:

1. What channels or modalities are used by teachers to give you classes?
   1. Material sharing via email
   2. Sharing printed material
   • Zoom or google

1. If online, zoom or google, how long is your online class on the average per day
2. How many days was your class?
3. Do you think your class was covering all topics and the necessary hours had it been in a regular face to face class?

4. Was it easy or difficult to follow the online classes?

Probing questions:

1. Clarity of the lectures
2. Continuity of audibility
3. Were the classless supported by reading materials

5. Do you believe that you had benefited from the class?

6. Can you tell me about your evaluation method?

Probing questions:

1. Were you evaluated continuously (assignments, tests, home take works etc.,
2. What do you say about the appropriateness of the final evaluation?

7. Did you face any challenge in attending the classes?

8. Do you think there are some advantages in virtual teaching?

Probing questions:

1. What are the advantages for you?
2. Do you think there are some advantages for teachers?

9. What do you recommend to improve virtual learning?

10. Do you want to mention any thing that I did not mention?