

Dynamics of Learners in an Online Classroom and Social Media

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ABSTRACT

Learners of today's generation are considered Millennials. They are multitasking, communicate intensively using social networking, and technology-savvy. Online classroom and social media are now being utilized in instruction since the learners are attached to technology, they can easily use it to access learning materials, collaborate, interact, and communicate with their classmates, teachers, and parents. The purpose of this qualitative study is to describe the dynamics of learners in an online classroom and social media and generate a theory. This study is anchored on the grounded theory using the Glaserian approach, and it follows the inductive approach for theory development. Results revealed that learners used online classroom and social media as a portal of information, they easily adapted to the new technology finding it easy and convenient to use. The availability of online information motivated the learners to learn new concepts, and thereby promoted self-directed and independent learning. Learners shared significant information, but atrocious information on social media tends to distract them and leads into wrong information. The accessibility and adaptability to technology provide higher exposure to updated information because it contributes to knowledge development. With the availability of information online and proper management of learning resources, learners are motivated to learn.

Keywords: Educational technology, grounded theory, ICT in education, online classroom, social media

INTRODUCTION

The trend in technology has noticeably transformed the teaching and learning environment nowadays. The 21st century education offers various technologies to improve the teaching and learning process; these tools include web-based technology, online classrooms, and social media. Now with the ASEAN Integration, and the implementation of the K to12 Program for students to prepare for higher education, educational learning institutions are already using these educational technologies to prepare the students to be globally competitive, and promote more collaborative curricular activities. This educational reform addresses the issues on globalization and lack of graduates' skills.

Today's generation of students entering higher education is considered digital natives, belonging to the generation of millennials who consider technology as a part of their lives (Buzetto and More, 2012). According to Pew Survey last March 2015, the internet has seen as a positive influence on education, and education is also associated with internet use rates. In the survey, those with secondary or higher education were more likely to access the internet than those with less than a secondary degree. Data from the Philippines showed that 40 percent are more likely to access the internet, 64 percent is from age 18-34, and 67 percent are secondary or more. In 24 nations surveyed including the Philippines, the majority said that the internet has a good influence on education in their country.

According to Brady *et al.* (2010), the simultaneous growth of social networking sites (SNS) including Facebook is rising among today's college students, and an increasing number of higher education instructors are beginning to combine distance education delivery with SNSs. The result of their study revealed that the use of education-based SNSs is very effective in distance education course, and they also suggested using these technological tools to improve online communications among students in higher education courses.

Paliktzoglou and Suhonen (2014) research findings support that using Facebook can increase student engagement through communication and collaboration which makes it an important educational tool to support Problem Based Learning, (PBL). Past researches indicated that incorporation of social media in learning and teaching brings new ways of communication, interaction, collaboration, and knowledge development. (Gao, Luo, and Zhang, 2012; Greenhow and Burton, 2011; Pimmer, Linxen, and Grohbiel, 2012; Ranieri, Manca, and Fini, 2012).

Among the recent technology that has been adopted by many higher education institutions is the Massive Open Online Courses (MOOCs) which brings together people interested in learning and an expert or experts who seek to facilitate the learning. Connectivity is usually provided through social networking, online classroom, and a set of freely accessible online resources that provides the content or the study material, and it is free. (McAuley, Stewart, Siemens, and Cormier, 2010). Online classrooms provide convenience, the currency of material, flexibility, personalized learning, increased student engagement and feedback over a traditional classroom. Educators are increasingly adopting the use of educational technologies such as online classrooms, and social media to supplement teaching and learning in both online as well as traditional classroom learning environments. With the development of educational technologies, teaching and learning process are more enhanced, delivery of course materials are faster, students are more engaged with each other, they can share ideas and creativity, and create a better way to communicate with their teachers, peers, and parents.

The researcher, as an Information Technology Professor at Iloilo Science and Technology University (ISAT U) Miagao Campus, and a user of online classroom and social media in class believes that these tools can enhance the teaching and learning process, create an opportunity for social and communicative interactions between student and teacher and therefore contribute to knowledge development.

There had been so many success stories that educational technologies enhanced the teaching and learning outcomes. However, these only focused on the effects of the use of educational technologies in instruction. A variety of researches about the use of social media and online classroom had been conducted, how it improves instruction, its advantages to the learners, and how it improved the learning outcomes. However, few studies had been conducted about how the learners adapt to these new tools, how they embrace technology as a part of teaching and learning process, and if these tools are found useful in their course. This study may contribute knowledge in the field of online learning and is crucial for curriculum planning. Feedback from the learners on the implementation of educational technologies is essential in curriculum design, and this will result in a better teaching strategy that will suit the learning style of learners and adapt to the changing educational system from the traditional face-to-face instruction to online learning.

There is a significant gap of knowledge among previous studies since most of the studies focused only on the effect of technology in the learning process, and

the design of online learning systems which only served as a repository of learning materials without taking into consideration the end users perception on the use of these tools. This motivated the researcher to conduct a study on the dynamics of learners in an online classroom and social media to address the gap and focus on how learners adapt to alternative learning, and how do they adjust to the new learning environment, and further investigate if these innovative learning tools are acceptable to them. This study may suggest improvements to the providers of educational technology to provide a feature based on the end user's perspective to suite the learning styles of the learners.

FRAMEWORK

This study is anchored on the grounded theory using the Glaserian approach (1992), and it follows the inductive approach for theory development. Glaser (1992) summarized the process of developing grounded theory as (1) entering the field or proceeding with research without a hypothesis, (2) describing what one observes in the field, and (3) explaining why it happens on the basis of observation. These explanations become the theory, which is generated directly from observation.

Charmaz (2002) identifies a number of features that all grounded theories have: (1) simultaneous collection and data analysis, (2) creation of codes and categories developed from analyzed data and not by pre-existing conceptualizations, it is the theoretical sensitivity of data, (3) discovery of basic social processes in the data, (4) inductive construction of abstract categories, (5) theoretical sampling to refine categories, (6) writing analytical memos as the stage between coding and writing, and (7) the integration of categories into a theoretical framework.

In grounded theory, the research is started by identifying an area of interest, avoiding theoretical preconceptions and using theoretical sensitivity, done through analytical procedures and sampling strategies and it stops when theoretical saturation is reached (Dey, 1999). The data collection method commonly used in-depth interviews and relied on open-ended questions and can be modified to reflect emerging theory. To achieve theoretical sensitivity, the researcher must begin with as few predetermined ideas, particularly hypotheses, so he can be as sensitive to the data as possible. Literature can be used as 'data' and constantly compared with the emerging categories to be integrated in the theory (Glaser 1992). For data collection and sampling strategies, Glaser and Strauss (1967) indicate that theoretical sampling can be obtained from data collection

for generating theory whereby the analyst jointly collects, codes, and analyzes the data and decides what data to collect next and where to find them, in order to develop theory as it emerges. Charmaz (2002) suggests that theoretical sampling is best used when some key concepts have been discovered. Initial data collection is commenced with a fairly ‘random’ group of people, who have experienced the phenomenon under study, to begin to develop concepts. Theoretical sampling is then used to generate further data to confirm and refute original categories. For theoretical sampling to be implemented successfully, there needs to have concurrent data collection and analysis. The ongoing analysis informs the direction of the next interview or group of interviews and is explicitly aimed at developing theory. Glaser (1978) and Charmaz (2002) identify a two-step coding process in data analysis, line by line, open coding.

Theoretical coding conceptualizes how the substantive codes may relate to each other as a hypothesis to be integrated into a theory (Glaser, 1978). Memo writing is the intermediate step between coding and the first draft of the completed study, hypothesis and ideas recorded during analysis, and should not be treated as complete and fixed, as they are initial analytical thoughts and can be altered as thinking changes. It is useful to go back to the field to test out some of the assumptions developed in the memo.

Theoretical saturation of concepts is the point at which the data collection and analysis cycle can conclude, ‘saturation means that no additional data are being found’ Glaser and Strauss (1967). The point of saturation can be reached if the data is already sufficient.

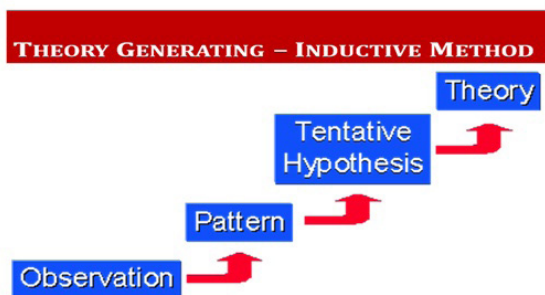


Figure 1. The Inductive Approach.

An inductive method for theory development is often referred to as “bottom-up” approach to knowing, in which the researcher uses observations to build an

abstraction or to describe a picture of the phenomenon that is being studied. It begins with detailed observations of the world, which moves towards more abstract generalizations and ideas. Based on observations, data will be gathered, and analytical data mining techniques are used to analyze data and detect the pattern, then a testable hypothesis is formulated, and lastly a theory is generated. The inductive approach for theory development starts with observations and theories are formulated towards the end of the research and as a result of observations (Goddard and Melville, 2004). Inductive research involves the search for a pattern from observation and the development of explanations theories for those patterns through series of hypotheses (Bernard, 2011).

Generally, adoption of inductive approach is associated with qualitative methods of data collection and data analysis. Neuman (2003) affirms inductive research to begin with detailed observations of the world, which moves towards more abstract generalizations and ideas. In other words, when following inductive approach, beginning with a topic, the researcher tends to develop empirical generalizations and identify preliminary relationships as he progresses through his research.

OBJECTIVES OF THE STUDY

This study aimed to generate a theory of the dynamics of learners in the use of online classroom and social media which sought to establish knowledge on the following scenario: 1) how do learners collaborate and interact; 2) what are the features that interest or disinterest the learners; 3) how do online classroom and social media improve the learning process; 4) how can the dynamics of the learners in an online classroom and social media; 5) be best described; and 6) what theory can be generated based on the findings of this study.

METHODOLOGY

Qualitative research was chosen for this study for several valid reasons. Qualitative research method is effective in obtaining specific information about the values, opinions, behaviors, experiences, and social contexts of particular populations (Denzin and Lincoln 2011). Since the researcher aimed to describe and understand experiences, ideas, beliefs, and values of learners, a qualitative method was appropriate for this study. For the present study, the researcher described the dynamics of the learners in an online classroom and social media

by asking the following how and what questions: (a) How the learners collaborate and interact? (b) How do online classroom and social media improve the learning process? (c) What are the features that interest or disinterest the learners?

For theory generation, the Grounded theory using Glaserian approach (1992) was utilized to generate the theory on the dynamics of learners in an online classroom and social media. Grounded theory was defined by Glaser (1992) as the discovery of theory from data systematically obtained from social research. The focus of this method is to uncover basic social processes. It is a deal for exploring integral social relationships and the behavior of groups where there has been a little exploration of the contextual factors that affect individual's lives (Crooks, 2001).

The inductive method for theory development was followed which began with observation, detection of patterns, formulation of a tentative hypothesis, and lastly generation of a theory. The primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant or significant themes inherent in raw data, without the restraints imposed by structured methodologies (Thomas, 2003).

The study was conducted at the Iloilo Science and Technology University (ISAT U) Miagao Campus, Miagao, Iloilo, a newly converted university which serves 3,635 students. It is located at Brgy. Igtuba, Miagao, Iloilo, situated in the first district of Iloilo and one-hour ride from the City. The university offers academic and technological degree programs, and each program is accredited by the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACUP). These programs are the B.S. Information Technology, B.S. Hotel and Restaurant Technology, Teacher Education, Bachelor of Industrial Technology, and B.S Automotive, Electrical, and Electronics Technology.

The participants in this study were the B.S. Information Technology Fourth Year students enrolled in Research Course, and Teacher Education Third Year students enrolled in Educational Technology Course. The students were officially enrolled for the Second Semester A.Y. 2015-2016, has a Google Classroom account, and a member of the Facebook Page. The ages of the participants range from 19-20 years old. Twenty participants or up to the point of saturation were selected using purposive sampling. The selection of the participants was based on a strategy referred to as, "purposeful selection" in which particular settings, person or activities are selected deliberately in order to provide information that cannot be gotten from other choices (Maxwell, 2005). The selection of the participants was purposive since they were users of online classroom and social

media in their class. A selection criterion was used to select the participants, who were regular students based on their enrolment record, members of the class social media page, and had an account in the online classroom and active users based on their profile account. Aside from being regular users of social media and online classroom, the participants were also smartphone users and most of them were engaged in mobile games and social media applications.

The instrument used in this study was the interview guide, and using the audio recorder as a tool was highly valuable to record all conversation that took place during the interview. To ensure that the content of the research instrument is valid, it was presented to three experts for content validation. The research steps conducted for this study followed a uniform protocol to ensure that the outcomes of the interviews produced consistent data in accordance with the purpose of the study. Upon the approval of the study, the participants were identified from the B.S. Information Technology and Teacher Education Program. A letter of request was given to the Campus Administrator to conduct the study. After the approval of the Campus Administrator, the researcher personally gave a letter of invitation to the participants for the schedule of the interview indicating the date, time, and venue. Two sets of the interview were conducted on March 17, 2016, from 1:00 P.M. to 5:00 P.M. for B.S. Information Technology students, and March 22, 2016, from 1:00 P.M. to 5:00 P.M. for the Teacher Education students. The interview was held at the University Library Office.

An in-depth (semi-structured) interview was held with the participants, and interviews were audio-recorded. During the interview, the participants were relaxed and answered the questions with utmost confidence. The researcher created a friendly atmosphere where their trust was gained. All their responses were transcribed, and each participant gave his or her respective transcript for member-checking and verified the transcript content. Lastly, the researcher coded the data for emergent themes. In order to safeguard the rights of the informants of this study, an informed consent form indicating approval by the IRB was given to the informants together with the discussion of the nature of the research study. Participation in the research study is completely voluntary, and agreement to the said research was validated by the informant's signature in the consent form. Ethical consideration was observed in this study.

RESULTS AND DISCUSSION

A descriptive analysis of transcripts using open coding revealed that seven major themes characterized the participants' responses to the use of online classroom and social media. Themes, however, are not to be interpreted as independent from each other but as complementary aspects of a unified pattern. The seven themes from the transcripts of the participants were:

Theme 1: Portal of Information

Theme 2: Adaptability to New Technology

Theme 3: Accessibility

Theme 4: Motivational Learning

Theme 5: Independent Learning

Theme 6: Significant Information Sharing

Theme 7: Atrocious Information

Theme 1: Portal of Information. The participants used the online classroom and social media as a portal of information where they can store and share their document, access lecture materials, view class announcements, and submit class activities. The instructor also uploads the lecture materials, assignments, activities, and post class announcements.

Theme 2: Adaptability to New Technology. The significant experiences of the participants on the use of online classroom and social media revealed that integrating new technology in the instruction was easy to use since they were users of technology, they can easily adapt to the new learning environment. It was only in the first attempt that they found it difficult to use but continuous exposure to technology, they found it easy to use.

Theme 3: Accessibility. The participants found it convenient and accessible since the course materials were already available online and they can access it anytime and anywhere using the internet or mobile devices.

Theme 4: Motivational Learning. The more the participants were exposed to new technology, the more they were motivated to learn. With the use of the internet and social media in class, they developed the interest to learn more, explore, and much eager to learn. They were motivated to learn since the use of educational technologies helped them in acquiring the knowledge and skills in their subject matter.

Theme 5: Independent Learning. The availability of class materials online promotes self-directed and independent learning. The participants can access the materials posted by the teacher even if they missed the class but still catch up

with the lesson. They have to access the material and study it; they even study in advance. They were notified of the latest activities posted by the teacher and their classmates. The activities provided enabled them to learn at their pace.

Theme 6: Significant Information Sharing. Significant information was shared online by the participants. They collaborated and interacted through chat, group message, email, and even video call. They also shared their documents, group projects, and communicated with their teacher and classmates. They shared relevant and significant information to their classmates.

Theme 7: Atrocious Information. It revealed that atrocious information tends to distract the participants, and it led them to wrong information. Unnecessary information, spams, advertisements on social media was considered irrelevant and annoying by the participants.

Hypotheses Derived from the Results

Going into narrative interview analysis, the researcher was able to generate the following hypotheses to explore the ideas as explanations about the dynamics of learners in an online classroom and social media.

In grounded theory, hypothesis generation is always derived from the empirical data. The main method of forming a hypothesis in this study involved interviews with the purposive participants. This means forming questions appropriate to the study. In each hypothesis generation, the investigator asked one central interview question and a few guided questions which are described below.

Generation of Hypothesis 1. The study participants were asked how they used online classroom and social media in class.

Theme 1: Portal of Information.

Hypothesis 1: The more learners can access lesson online, the more they gain information.

Proposition 1: The availability of Portal of Information yields more learning.

Generation of Hypothesis 2. The study participants were asked to describe their experiences when online classroom and social media were introduced in class.

Theme 2: Adaptability to New Technology

Hypothesis 2: The more learners adapt to new technology, the more information they learn.

Proposition 2: Adaptability to new technology entails new opportunity to learn.

Generation of Hypothesis 3: Theoretical categories on how the participants find the online classroom and social media useful in class, and how they are motivated to learn. Theoretical theme three which is accessibility combined with theoretical theme four motivated to learn generated the hypothesis 3.

Hypothesis 3: Constant access to technology, the higher the motivation to learn.

Proposition 3: Accessibility of new technology leads to motivational learning.

Generation of Hypothesis 4: Theoretical categories described by the participants on the benefits of an online classroom and social media in the learning process.

Theme 5: Independent Learning

Hypothesis 4: So much exposure to self-directed online learning, the more chances independent learning will be acquired.

Proposition 4: Access to online learning resources promotes independent learning.

Generation of Hypothesis 5: Theoretical categories on how the study participants collaborate and interact online.

Theme 6: Significant Information Sharing

Hypothesis 5: The most significant information is shared, the more collaborative learning is introduced.

Proposition 5: Significant information sharing creates collaborative learning.
Generation of Hypothesis 6: Theoretical categories on the features of online classroom and social media that disinterests the participants.

Theme 7: Atrocious Information

Hypothesis 6: Too much bad information is shared online, the more learners will be distracted.

Proposition 6: Atrocious information impedes learning.

Generated Grounded Theory

Knowledge Information is maximized when the Information Management System is highly significant, and the learners are motivated in the context of new learning concepts.

Lumauag’s Knowledge Information Theory shown in Figure 2 is drawn based on the result of the study. The model highlights the three essential components that contribute to the source of knowledge: (1) Information Management System; (2) Learners Motivation; and (3) Learning Concept.

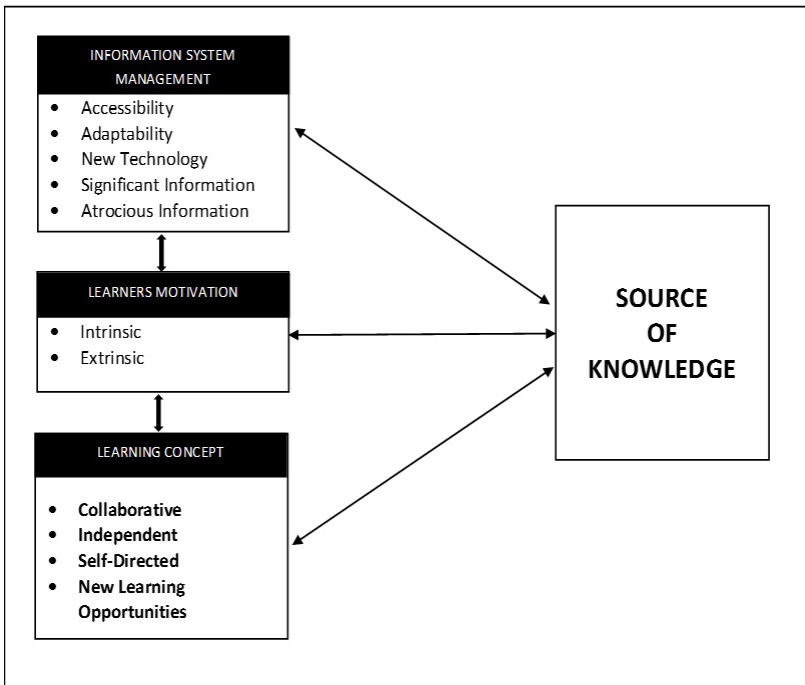


Figure 2. Lumauag’s Knowledge Information Theory.

The source of knowledge refers to the online classroom and social media wherein all the class information is stored and shared. It is the repository of information about the subject matter, lecture materials, online resources, assignments, quizzes, projects, and any other class materials. In order to contribute to the learning process, the stored information should be managed properly.

The sources of knowledge are not a repository of information alone but rather include features that are intended for the learner's needs. The information system management component allows the proper management of information to be delivered to the users and ensures that this information is relevant and properly evaluated because it is the main source of knowledge. Accessibility of information is essential especially nowadays that we are in the information age; it should be made available anytime and anywhere using the internet or mobile technologies.

The utilization of new technology in instruction contributes a lot in knowledge generation since the learners of today's generation are considered Millennials, their exposure on the use of technology contributed a lot to its adaptability, since learners are users of technology they can easily adapt to the new learning environment. The adaptability to educational technologies leads to a more innovative learning and also improves the teaching process which results in quality education and globally competitive learners.

Access to mobile devices and social media allows significant information to be shared among learners. The availability of free and updated information online can be shared easily, and information sharing can help a lot in information dissemination.

However, not all available information online is significant; there are also atrocious information being shared that tends to distract the learners, and this might affect the learning process which will lead them to wrong information. The information management system ensures that only significant information is being shared, and unnecessary information is properly handled in such a way that this will not distract the learners. A mechanism to evaluate the shared information is to take into consideration to allow significant information to be shared and restrict atrocious information.

The learner's motivation component provides activities that will motivate the learner to learn; this motivational process will either be intrinsic or extrinsic. This component allows the learners to engage in an activity, participate, and develop the eagerness to learn using the new educational tools. Since learners nowadays are considered digital natives, they were motivated intrinsically because they are already exposed to technology, and technology is already a part of their lives,

and this is already given. Extrinsic motivation will occur as part of their learning process, knowing that using the use of these technologies will help them gain more information and knowledge which can help them in learning. They are motivated to learn since it will help them develop their skills and knowledge to be equipped and globally competitive.

The learning concept component provides a new learning opportunity to the learners wherein they can collaborate, interact, and share ideas. It provides activities for collaboration wherein they work together as a group, utilizes social media applications to communicate with their teacher, classmates, and peers, interact with other groups, share relevant ideas related to the class, and continue the discussion even outside the classroom. This component allows the learners to learn independently and promotes self-directed learning since the materials are available online; they can study at their pace, and utilize research tools to search for information.

The Knowledge Information Theory illustrates that knowledge is generated from a new learning concept that motivate the learners to learn using new technology and the incorporation of relevant information that is properly managed and evaluated.

CONCLUSIONS

Since the learners belong to the millennials, they are technology-savvy and multitask, they easily adapt to new technology and exposed to the latest information online. The use of online classroom and social media in class is acceptable to them, useful in the learning process and the use of technology motivated them to learn and develop independent learning. They share significant information, collaborate and interact with their peers, although they are distracted by atrocious information found on social networking sites.

The Lumauag's Information Knowledge Theory was formulated which states that information knowledge is maximized when the information system is highly significant, and the learners are motivated in the context of new learning concepts.

RECOMMENDATIONS

Based on the findings of the study and conclusions drawn, the following are the recommendations for further improvement of the study:

1. The result of the study implies that learners easily adapt to new technology as an educational tool, therefore learning institutions should also adapt to the new trends in teaching, utilize educational technologies in instruction, and provide online access to students wherein they can access class materials. The school should establish a partnership with industries like Google that provides free access to online classroom, and provides free technical support to learning institutions;
2. Educational Technology providers should also consider the feature based on end users perspective, not only as a repository of learning materials, but a learning environment that promotes collaboration, interaction, and develops innovative teaching and learning;
3. Proper management of information should be ensured to avoid the learners to be distracted by annoying information online, a mechanism must be developed to filter that unnecessary information, and restrict students from accessing it. Proper guidance must also be considered on the part of the teachers considering that all of the information is freely available online; they must see to it that the references they share to their students are relevant. Proper orientation will be given to the students on the responsible use of social media, to instill proper moral and ethical values, and explain the effect of sharing malicious information. If possible cybercrime law will be discussed to them so that they will be aware of its implications;
4. Training of faculty should be conducted in the use of online classroom and social media in order to be updated with the latest technology and teaching methodologies so that they will not be left behind by the students who are considered Millennials;
5. The university should consider the sustainability of technology since it is rapidly changing, and allocate budget to sustain the program; and
6. Since this study focused on the learners, a similar study is also recommended that will focus on the dynamics of teachers in an online classroom and social media to describe their experiences in the use of educational technology, and how they adapt to the paradigmatic shift in instruction. It is also recommended to include the ethical use of technology and social media.

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