



The Implementation of Self Determination theory in E-learning to Improve Listening Skills

David Darwin^{1*}, Uwes Anis Chaeruman² 

¹ Student of Jakarta State University, Jakarta, Indonesia

² Lecturer of Jakarta State University, Jakarta, Indonesia

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ABSTRAK

Tidak semua kegiatan pembelajaran di perguruan tinggi menjadikan mahasiswa sebagai pusat pembelajaran. Hal ini menyebabkan kegiatan pembelajaran tidak berjalan dengan optimal. Tujuan penelitian ini yaitu menganalisis implementasi teori self determination dalam E-learning untuk meningkatkan keterampilan mendengarkan. Penelitian ini menggunakan pendekatan kuantitatif dengan metode deskriptif. Penelitian ini dilakukan selama satu semester pada 67 mahasiswa yang terbagi menjadi 2 kelas; Kelas A (37 siswa) dan Kelas B (32 siswa). Seluruh mahasiswa yang terlibat, mengikuti mata kuliah listening. Metode yang digunakan untuk mengumpulkan data yaitu observasi, wawancara, dan tes. Instrumen dalam penelitian ini lembar tes. Teknik analisis data yang digunakan yaitu analisis deskriptif kualitatif dan kuantitatif. Hasil penelitian menunjukkan bahwa E-learning self-determination theory meningkatkan 'keterampilan mendengarkan' mahasiswa. Hal ini bisa terjadi, karena jika dibandingkan dengan metode tatap muka. maka self-determination theory E-learning lebih fleksibel, karena siswa dapat mengerjakan tugas atau ulangan dimana saja dan kapan saja. Kedepannya, diharapkan penggunaan E-learning self-determination theory lebih banyak digunakan di berbagai mata kuliah agar mahasiswa benar-benar menjadi pusat pembelajaran.

ABSTRACT

Not all learning activities in universities make students become the center of learning. It causes learning activities not to run optimally. This study aims to analyze the implementation of the theory of Self Determination in E-learning to improve listening skills. This study uses a quantitative approach with a descriptive method. This research was conducted for one semester on 67 students divided into 2 classes; Class A (37 students) and Class B (32 students). All students involved take the Listening course. The methods used to collect data are observation, interviews, and tests. The instrument in this study was a test sheet. The data analysis technique used is descriptive qualitative and quantitative analysis. The results showed that the E-learning self-determination theory improved students' listening skills. It can happen because when compared to the face-to-face method. Then self-determination theory E-learning is more flexible because students can do assignments or tests anywhere and anytime. In the future, it is hoped that E-learning self-determination theory will be more widely used in various courses so that students become the center of learning.

1. INTRODUCTION

Increasing EFL students' language skills and independent learning are issues of paramount concern because the contact hours in traditional face to face classes are not enough to help students develop their language skills (Soliman, 2014). Actually, there are 4 main skills in learning English language, namely Listening, Speaking, Reading, and Writing (Aydoğan & Akbarov, 2014; Johnson, 1997; Noaman, 2013). Of the four language skills that must be mastered by an English learner. Listening skill is one of the skills that sometimes gets less attention from Indonesian learners. Whereas listening skill is a very important skill to be mastered in learning English (Kutlu & Aslanoglu, 2009; Tyagi, 2013). There are many ways to improve listening skills, one of them is by using E-Learning. E-Learning was defined by many researchers one of them defined it as a medium of computer technology that could be utilized to develop the application of learning and teaching. E-learning permits data saving, sharing and updating, e-learning allows the building up of "learning experiences of information and computer technology" (Nurrohma & Adistana, 2021; Sari et al., 2019). It is important to note that all definitions agree to the fact that e-learning involves using computer or advance technology to facilitate and enhance learning (Adilkhanova, 2021; Córdor-Herrera et al., 2021; James-Springer & Cennamo, 2021). E-Learning in this paper refers to the E-Learning of listening skill with the method of Self-Determination Theory (SDT). Self-

*Corresponding author.

E-mail addresses: DavidDarwin_9905820001@mhs.unj.ac.id (David Darwin)

Determination Theory (SDT) is considered one of the leading theories of human motivation that has been adopted by thousands of scientists worldwide (M. A. T. Noour & Hubbard, 2015). Self-determination theory of e-learning or learning independence is one of the abilities that must be possessed by students who take distance learning method or e-learning users (Kwarikunda et al., 2020; Ryan & Deci, 2020).

Listening to English text is a language skill that is still considered difficult by students, because students are not familiar with the intonation and speed of native speakers. Based on the experience of the researcher as a teacher of English listening 1 subject, many students have some difficulties in participating in listening English courses assisted by a native speaker through loudspeakers even though the audio has been repeated 2 until 3 times. The difficulties faced in listening to shorter and longer conversations and also listening to mini-talks are caused by various obstacles, including: inadequate teaching facilities, the media used is still basic and traditional, low student motivation, and could be monotonous teaching methods. Currently, the Department of English Education has been equipped with internet facilities that can be accessed by students and teachers. However, the support for the success of student learning outcomes is still very lack. In this regard, the researcher wants to optimize the use of self-determination theory e-learning which can improve students' knowledge and skills in order to enrich learning materials which are expected to be able to overcome problems faced by students with independent learning systems (Appa, 2021; Thomas, 2021; Wren, 2021). The good use of e-learning will encourage a student-centered learning environment, because e-learning requires students to learn independently and construct their own knowledge (Simanihuruk et al., 2019). In e-learning, students' power in learning materials is no longer dependent on instructors/teachers, because students construct their own knowledge through teaching materials delivered through e-learning application interfaces (Lukashenko, 2021). In e-learning, teachers/educational institutions also function as mediators/supervisors (Simanihuruk et al., 2019; Thomas, 2021). The University of Borneo Tarakan (UBT) already has an e-learning account, but it does not use maximumly. The e-learning account is only equipped with some English subjects but rarely have learning and teaching activities in it. This is exacerbated by the lack of facilities and infrastructure in the English Laboratory that does not have equipment like a standard language laboratory. So, to teach the listening skills of students, teachers and students of semester 1 apply e-learning in order to learn the English Listening 1 course.

Prior to this research, there have been many studies on the use of self-determination theory (SDT) in learning, including learning using E-learning, both from Indonesia and abroad. Among the research on SDT and E-Learning are research that investigate Japanese EFL learners' intention to continue technology of class language learning and concerning the strong mutual relationship between the learners' motivation and their intention for learning, this study drawing on self-determination theory (SDT) (Bang, 2018; de Araujo Guerra Grangeia et al., 2016; Fandiño & Velandia, 2020; Fathali & Okada, 2017; M. L. A. Hsu et al., 2011; Mekheimer, 2017). The findings of the structural equation model indicated the positive effect of motivation determinants (competence, autonomy, and relatedness) on the learners' intention to continue the used of technology and Self-Determination Theory E-learning. Competence was the most significant predictor. Additionally, the model examined how the motivation determinants could explain the learners' actual achievements. It is supported by other previous study that study about consideration of learner motivation as premise for the Blended Learning method (H.-C. K. Hsu et al., 2019; M. A. T. Noour & Hubbard, 2015; Peng & Fu, 2021; Shi & Cristea, 2016; Torun, 2020). This paper contributes to the application of Self-Determination Theory (SDT) within the field of Blended e-Learning (BL) through an analysis of the views of learners towards the opportunities and challenges that BL offers to Logistics Education (LE). And there are many more similar researches. From all the articles and journals that we have been studied, researcher wants to find out the application and benefits of using the Self-Determination Theory E-learning method in the delivery of learning at universities. In this study, we will focus on the application of self-determination theory of e-learning of Listening Skill in English Listening 1 course.

2. METHODS

This research method uses quantitative method. Quantitative research is a research method based on the philosophy of positivism, used to examine certain populations or samples, data collection using research instruments, data analysis is quantitative/statistical, with the aim of to test the established hypothesis (Creswell, 2015; Sugiyono., 2014). The population in this study were the first semester students of the English Education Department, Faculty of Teacher Training and Education (FKIP) - University of Borneo Tarakan (UBT); with total of 67 students and divided into 2 classes, namely local A and local B, totaling 35 students at local A and 32 students at local B. Researchers will take the entire class as a sample, namely local A and local B. The instrument in this study was using test and non-test

techniques. The first instrument was a test. This was done to measure student learning outcomes through self-determination theory of e-learning. The types of tests used were various such as multiple choice, fill in the blank, guess the sequence event, etc. The second instrument was a non-test in the form of a questionnaire. The questionnaire was conducted with the aim of obtaining data and information in relation to the use of self-determination theory of e-learning. The form of the questionnaire was in the form of structured questions with answers that were open to respondents.

For each activity, logistics students were asked about opinion about the Blended e-Learning (BL) method, Intrinsic Motivation (IM), Extrinsic Motivation (EM) and Amotivation (AM) (A. T. Noour & Hubbard, 2016). Data collection in this study was carried out from the beginning to the end of English courses in the even semester of the 2019/2020 academic year. The data processing technique in this study aims to change the raw data that has been collected in the form of tests and non-tests into data that has been analyzed by following several steps. The steps used are editing, which is checking or correcting the data that has been collected, the aim was to eliminate errors in data collection in the field and were corrective. Coding in this study was to provide a code for the questionnaire to be analyzed, from the 67 questionnaires that have been distributed, each questionnaire was given numbers 1-67 which provide answers from each respondent; Tabulation was the creation of tables containing data that has been coded according to the required analysis. The tabulation in this study was students' test results were entered into tables according to the analysis such as overall student scores, percentages and so on. Analysis of the data in this study, namely the questionnaire data will be described based on the table to determine the distribution of responses to the questions that have been given. The results of the findings in this study will be interpreted in the form of a description of each instrument used. This interpretation was used to maintain the balance of a research, meaning to link the results of a study with other research findings and to create or produce an explanatory concept.

3. RESULT AND DISCUSSION

Results

UBT has an account for the teaching and learning process electronically using e-learning. The implementation of e-learning refers to the schedule for the implementation of English courses starting in English courses in the second semester of the 2019/2020 academic year. Optimization activities begin through the preparation of training materials in the form of quizzes and independent learning materials. This preparation stage includes several stages with the ultimate goal of achieving learning outcomes and student motivation in this case the use of e-learning.

Preparation stage

At this stage, first the participants or students are required to have an account on the e-learning system. There are two ways to register, namely by registering through the Central Information System Unit (PSI) of UBT by including the Borneo email. This email is an email that is also used in the Academic Information System. The second way is by registering independently. After registering, the teacher will enroll the student to be able to access the English course in question. At this stage students can view or download English subject matter that has been uploaded by the teacher, then students can also see a list of assignments given by the teacher. But before that, the teacher must prepare learning materials and assignments first, as shown in [Figure 1](#).

In each unit as shown in [Figure 1](#), the duration of an online activity is determined when the unit starts or is opened until the end of the unit where participants can no longer carry out activities on that unit. This open and close system applies student discipline in terms of doing the assignments given. Each unit is given 1 x 24 hours after the English course in class ends. In this English subject, the teacher has prepared several variations of assignments such as true or false, multiple choice, short answers and matching. In each unit there are also audio (multimedia files) and files (full text) which are uploaded and can then be accessed by students to make it easier for students to study independently. Where limited time in face-to-face English courses, students can spend more time in carrying out the assigned task. All materials uploaded in the English Listening 1 subject in this e-learning were previously also applied to face-to-face English courses. So the English learning material including materials contained in the Semester Course Plan.

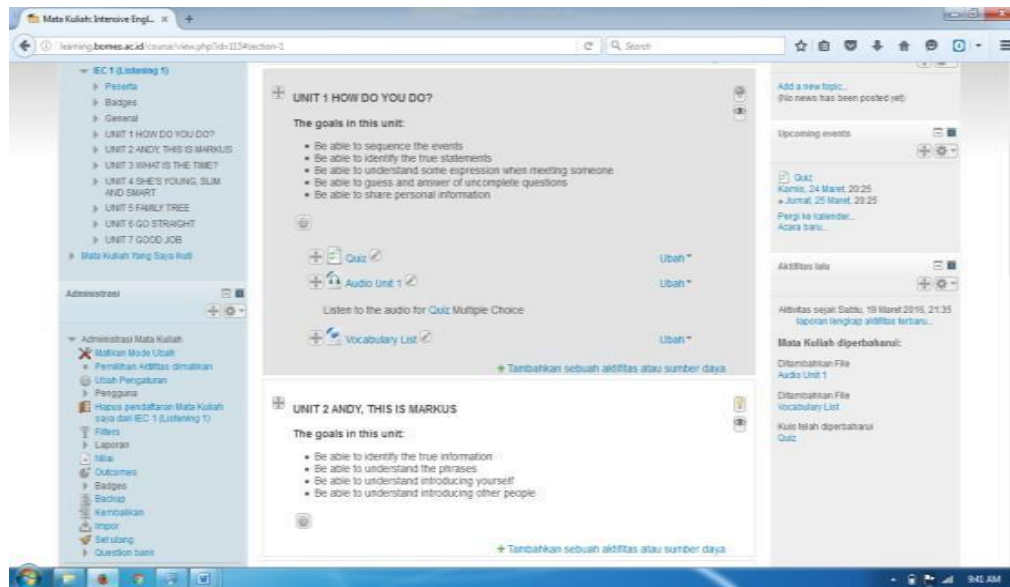


Figure 1. Display of Learning Materials and Activities

Stages of the Learning Process

The next stage is the stage of the learning process carried out by students through e-learning independently and can be done anywhere and anytime according to a predetermined time. Audio can also be repeated according to the needs of participants. After students complete the learning activities in each unit, the students concerned will immediately receive feedback in the form of scores obtained in doing the quizzes that have been prepared and comments from the teacher. At this stage the teacher has also prepared several materials to support the independent learning process that has been adapted to the ongoing topic. This material is in the form of a file (full text) in the form of a pdf or word and can be downloaded by students before working on the prepared assignments or quizzes. In addition to learning materials in the form of files (full text), teachers also prepare materials in the form of audio in mp3 or mp4 format because English subjects are English Listening subjects by prioritizing listening skills with supporting materials to be used by students in taking quizzes. In contrast to the audio that has been applied to the face-to-face English learning audio provided on e-learning still refers to the topic being discussed. Students will also be more flexible in terms of audio playback where if in face-to-face English learning in the class audio playback is limited to a maximum of 3 rounds considering the time provided is not much. Through this e-learning, students can repeat the audio until they can answer and understand what the speakers have said.

Evaluation Stage

Through e-learning, it not only makes it easier for students to be able to study independently whenever and wherever but makes it easier for teachers to carry out monitoring activities that have been prepared in the administration button where teachers can evaluate each unit and quizzes that have been done by students without having to do manual correction which takes a long time. Then, it can control the time students take the quiz provided and or learn using e-learning. Based on the results of the implementation of the use of e-learning above, it can be concluded that this activity was carried out in three stages, namely the preparation stage as the first stage starting with registration of participants in English courses in two ways, namely, how to register with the operator and independently. The next preparation is that the teacher will enroll the student and begin to prepare materials and some forms of exercise/quiz which are then done by the students. The second stage is the stage of the learning process, where at this stage each student learns independently wherever and whenever according to a predetermined deadline. At this stage, students can download materials and audio for each unit. The third stage is the evaluation stage, this stage is a stage to be able to assist teachers in monitoring and learning outcomes of each student and all learning achievements.

The learning objectives of English listening subject 1 are students are able to listen to specific personal information, listen to be able to predict, listen to introductions, listen to complete and take notes, listen to evaluate, compare the other person's reactions as well as assess and listen to specific information carefully. The topics contained in the English listening subject 1 are the same as the topics contained in e-learning. Students do face-to-face activities first and then learn through e-learning. From the test results

obtained by comparing student scores when doing assignments in face-to-face English learning activities and through e-learning which can be seen in [Table 1](#).

Table 1. Student Test Results Through Face-to-Face and E-Learning

Unit / Topic	Overall Student Scores		Percentages	Description
	TM (face to face)	E-Learning		
Unit 1 (How do you do)	3.268	4.730	21,82%	Increase
Unit 2 (Andi this is Markus)	3.750	4.352	64,96%	Increase
Unit 3 (what is the time?)	3.790	4.625	12,46%	Increase
Unit 4 (She's Young, Slim and Smart)	4.268	5.630	20,33%	Increase
Unit 5 (Family Tree)	3.981	5.387	20,98%	Increase
Unit 6 (Go Straight)	3.682	4.375	10,34%	Increase

Source: data processing, 2021

Based on [Table 1](#) shows the difference in the scores of all students who take face-to-face English courses (TM) and using e-learning. One of the causes of the difference in grades is that students only have limited time to study for 2 x 50 minutes with the opportunity to listen to the audio 3 times in each unit. In Unit 1 with the topic "How do you do?" students are asked to organize activities in sequence and identify true or false sentences, students also learn about expressions when meeting people for the first time. In this unit, the average student gets a score of 48.8 from the overall score 3,268. Using the same topic with different exercises or quizzes on e-learning, the average student gets a score of 70.6 out of an overall score of 4,730 with a percentage increase of 21.82%. Unit 2 in English Listening 1 uses a different topic from Unit 1, namely "Andi, this is Markus". The exercise on this topic is that students are asked to identify correct and accurate information and be able to use expressions when introducing themselves and introducing others and being able to rewrite examples of expressions contained in the video. Learning outcomes 67 students in a class of 3,750 with an average of students obtain 56 while the overall student learning outcomes using e-learning are 4,352 with an average of 65 and an increase of 64.96%.

The topic for unit 3 is "What is the time?" This unit provides practice for students to be able to read clocks and understand the use of clocks in English and be able to complete missing sentences based on audio. In this unit also, students get an increase in the value of learning in class (face to face) with learning through e-learning, where the value in class (face to face) is 3,790 and 4,625 in learning through e-learning with an increase of 12.46%. "She's Young, Slim and Smart" is a topic in unit 4. In this unit students are asked to be able to describe a person and understand the difference between comparative and superlative. Students get an increase of 20.33% with the value of learning in class (face to face) 4,268 and 5,630 in learning through e-learning. Unit 5 with the topic "Family Tree" given to students so that students able to identify the correct information, complete the missing sentences based on the audio and describe each family member. In this unit, students also experienced an increase in grades between learning in class (face to face) 3,981 and through e-learning 5,387 with a percentage of 20.98%. "Go Straight" is a topic in unit 6, students are asked to understand traffic signs in English, be able to give directions according to the map and identify the correct directions on the map. In this unit, the value obtained by students also changed as in other units which experienced an increase by using e-learning, this increase was 10.34%. From the test results above, the researcher concluded that there were differences in student scores from learning activities even though they used the same topic with different exercises/quizzes. This happens because in classroom learning (face-to-face) students are limited to audio repetition with a limited time (2 x 50) while in e-learning students can repeat audio as needed for a long time, namely 1 x 24 hours. Thus, optimizing utilization through e-learning can help and improve listening skills.

Discussion

The results of the study show that almost all students feel that the intensity of interaction between students and between teachers and students increases because of learning using the e-Learning model. Students can discuss with each other not only in class, but they can discuss using digital devices they have. Thus, the learning process is not bound by place and time. In addition, increased interaction between students and teachers occurs because teachers not only interact with students in the classroom during learning, but students can also interact with teachers through activities carried out by teachers using digital devices, such as Skype, Facebook, and online lecture activities. They reveal that the use of technology is very useful in supporting face-to-face learning activities where it allows students to have more control over the time and place to interact with learning materials.

The questionnaire was given after the meeting in the even semester of the 2019/2020 academic year ended with all students participating in learning either in class or using e-learning in English Listening 1. This questionnaire is in the form of an open questionnaire by not providing answer choices and providing opportunities for respondents to be free to answer according to the actual situation. Based on the results of the questionnaire given to 67 respondents for the first question, 56 respondents answered that they had never used e-learning applications and 11 respondents had ever used it. In this question, respondents were also asked to give their opinion about e-learning. From the respondents' answers openly, it can be concluded that the use of e-learning applications can help students in the learning process anywhere and anytime and can improve students' listening skills. The overall results of respondents' answers on average answered that it was easy to operate with an uncomplicated or simple e-learning interface. Students' opinions about the content of e-learning (question number three of the questionnaire) have varied results, The answer of questionnaire number 4 compiled several obstacles faced by students during the learning process through e-learning, and from the results of the questionnaire: as many as 53 respondents responded if the internet network was the biggest obstacle for respondents to be able to learn through e-learning. this. The e-learning system is a teaching and learning process using electronics, especially the internet as a learning system, thus enabling students and teachers to experience technical problems, namely the internet network.

Self-determination theory e-learning has an influence on student learning outcomes, especially in teaching and learning activities carried out (Dincer & Yeşilyurt, 2017). Electronic learning activities have the same meaning as the meaning of education in general. Looking at the results of the analysis conducted in this study, it appears that there are several items that researchers can highlight and consider as the content of each of the variables intrinsic motivation, extrinsic motivation, and motivation. The selected variables are tested whether they can belong to each specified dimension or not. Testing is based on the idea that multiple items together will increase learners' enjoyment when applying listening learning, including time management, feedback and judgment, and general awareness. These items are considered intrinsic motivational items. In terms of extrinsic motivation, the researchers' opinions were supported and revised by previous research, which claimed that four types of extrinsic motivation had different effects on learning, other researchers pointed out that lack of motivation, poor communication, fear of online communication and lack of guidance were the most important.

Prior to this research, there have been many studies on the use of self-determination theory (SDT) in learning, including learning using E-learning, both from Indonesia and abroad. Among the research on SDT and E-Learning are research that doing a research of the motivation based on Self-Determination Theory -SDT- and E-learning English with the Computer Assisted Language Learning approach -CALL which can provide tools to understand and improve the teaching-learning processes and motivate the students to learn a foreign language, while optimizing communication processes (Fandiño & Velandia, 2020). The other research indicated that self-directed learning is the strongest predictor of academic achievement, while motivation toward e-learning was found to be another predictor of academic achievement (Torun, 2020). From all the articles and journals that we have been studied before we did this study, we found that learning motivation that is built from within a student independently through online media is more helpful for these students to master and understand the material or skills being studied. This is in line with the results of this study in general, where the use of the e-Learning model with its self-determination Theory (SDT) makes students more enthusiastic in learning to master the Listening 1 learning material given by their lecturers.

The increasing intensity of interaction in learning is also followed by increasing the quality of interaction between students and between teachers and students. By using the Blended Learning model, students discuss more about lecture material. Online activities are more used by students to talk about things related to lecture material. In addition, students can more easily access information from the teacher. Students can communicate directly with the teacher if there are problems in learning through online devices. However, there are still students who say that the quality of interaction with the teacher

has actually decreased because they think the teacher should provide a description of the materials they learn fully in class. Students also expressed pleasure in participating in learning with the e-Learning model. They are confident in their understanding and satisfied with the learning that follows. This student satisfaction is generally expressed because this model makes it easier for students to understand the learning material. They are satisfied with the existence of learning resources that can be accessed anytime and anywhere.

This research was only conducted at the department of English education, FKIP UBT, with a total of only 67 students, of course it does not represent students majoring in English at UBT or English students from other universities. The type of e-learning used in this study only focused on one skill, namely listening; does not include 4 skills in English (listening, speaking, reading, and writing), so it cannot be directly applied to courses other than listening. Based on the results of the conclusions, the suggestions that can be proposed are that educators/educational institutions function as mediators/guiders, a restructuring of education system policies, curriculum and management is needed that can support the optimal use of information and communication technology for education. Through today's learning technologies, teachers and students can follow developments based on the principle of recency that is integrated with each other. The final impact will affect the knowledge and skills of the nation's successors. Suggestions for other researchers to review the use of e-learning or other learning media based on technology, information, and communication in the realm of education in order to be interconnected with one another.

4. CONCLUSION

Based on the results of student tests in the application of e-learning, it showed differences in the scores of all students who took face-to-face English courses and using e-learning. The scores obtained from students who use e-learning in overall learning are higher than students who do face-to-face learning. This proves that the self-determination theory of e-learning used in the listening 1 course for mastering listening skills has a significant positive impact when compared to face-to-face learning. As we know, motivation plays an important role in a virtual educational system. This study examined the influence of learner motivation on the opportunities and challenges of the Blended E-Learning (BL) method. The study found a positive and mutually causal relationship between learners' motivation and Intrinsic Motivation (IM), Extrinsic Motivation (EM) and Amotivation (AM). This study develops the opportunities as well as the challenges of Blended E-Learning (BL), whose opportunities were classified into intrinsic and extrinsic motivations. All variables referred to as IM are intangible rewards in adapting BL, in contrast with EM, which include tangible rewards for BL. On the other hand, challenges facing learners are referred to as AM. For further research, there are some topics that could be highlighted. One of them is to construct a comparison between developed and developing countries to be able to know different biases towards IM, EM, and AM. Also, further research could highlight barriers of AM, as well as challenges facing instructors through those barriers and how to overcome such challenges.

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