



MOODLE AS A POTENTIAL ONLINE PLATFORM USED IN THE FLIPPED CLASSROOMS IN THE VIETNAMESE EFL TEACHING CONTEXT

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Abstract:

Flipped classrooms started to be adopted in the Vietnamese EFL teaching context a few years ago. Educational technology plays a crucial role in the implementation of this teaching model. Hence, choosing a suitable online platform for these classes is a critical decision for English teachers. The current study attempted to investigate Vietnamese students' perceptions of MOODLE as the online platform used in two flipped English grammar classes. Sixty-two students from a state university in Vietnam were recruited for this research. The study employed a mixed-methods research design to address the research question. Both quantitative and qualitative data were collected through a questionnaire designed based on Technology Acceptance Model (TAM) and semi-structured interviews. The data analysis revealed that the students had positive perceptions of MOODLE in terms of system characteristics, material characteristics, perceived ease of use, perceived usefulness, attitude toward use, and behavioural intention. Accordingly, this learning management system (LMS) could be seen as a potential online platform in flipped classrooms for Vietnamese students.

Keywords: flipped classroom, EFL, MOODLE, online platform, Vietnam

1. Introduction

Nowadays, computers, smartphones, tablets and many other mobile devices connected to the Internet have become indispensable parts of people's life. The advancements in technology have had a great impact on every aspect of life. As far as the field of education is concerned, these developments have drastically changed the ways of teaching and learning. Traditional teaching methods that rely solely on lectures and note-taking during in-person class meetings may not engage 'digital native' learners (Prensky, 2001). Hence, a variety of innovative instructional methods have been introduced and adopted in attempts to meet their needs with the aid of ICT.

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In the past years, flipped classroom, as one of the blended learning methodologies (Staker & Horn, 2012), has been introduced and implemented in Western countries as an alternative teaching method to the traditional one. This pedagogical model combines both e-learning and face-to-face classroom techniques. As suggested by Bergmann and Sams (2012), the flipped classroom is the teaching model in which the work is traditionally done in class is done at home, and homework is done in the classroom. The flipped classroom approach has demonstrated its effectiveness across different subject disciplines (e.g. Agyei & Razi, 2022; Chen, 2016; Cormier & Voisard, 2018; Lopes & Soares, 2018; Motameni, 2018; Roohani & Shafiee Rad, 2022). Regarding language teaching, the flipped classroom has been shown to be an effective instructional model (e.g. Fatemeh & Saman, 2021; Hung, 2015; Qader & Arslan, 2019; Vaezi et al., 2019; Zou, 2020).

In flipped classrooms, educational technology plays an important part as it helps students to acquire fundamental knowledge beforehand at home before coming to class (Bishop & Verleger, 2013). The class time is then mostly devoted to active learning activities to enable students to deepen their knowledge. Typically, students acquire homework content through digital lectures presented in video or podcast formats. Therefore, online platforms are of importance to the management of the pre-class online sessions in flipped classrooms (Zainuddin & Halili, 2016).

In Vietnam, teachers started to adopt this novel teaching approach in some fields including EFL education (Tran, 2017). However, finding a suitable platform to facilitate the pre-class session is not an easy job for them. This research project aimed to investigate students' perceptions towards MOODLE as the online platform used in a flipped English grammar class. The results of the study are hoped to offer several valuable implications to the application of this innovative teaching method in general and the MOODLE platform in particular in the Vietnamese teaching context. The following question guided the research: "What are the students' perceptions of the MOODLE online platform used in a flipped English grammar class?"

2. Literature Review

2.1. Flipped Classroom

The idea of the flipped classroom approach was first introduced in the 1990s by Dr. Wesley Baker, a professor at Cedarville University in Ohio (Baker, 2000). However, it was not only until 2007 that this teaching model started to be popularized among teachers thanks to Jonathan Bergman and Aaron Sams, two high school chemistry teachers from Colorado, USA (Bergmann & Sams, 2012). Since then, the flipped classroom approach has been adopted by educators all over the world across different subject disciplines.

According to Baker (2000), the flipped classroom is simply described as the pedagogical model where the lectures are moved outside of the classroom and the homework is brought into the classroom as illustrated in Figure 1.

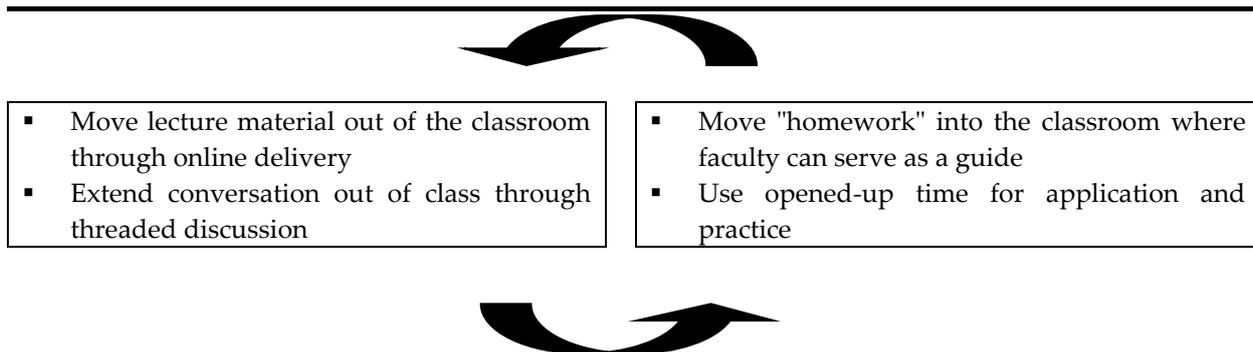


Figure 1: The Flipped Classroom Model (Baker, 2000)

Tucker (2012) defined the flipped classroom as the pedagogical method in which the lectures are moved out of in-class for students to learn online before face-to-face meetings and the classroom sessions are devoted to more practice and productive use of knowledge through a number of active learning techniques. The pre-class lectures are delivered via instructional videos or podcasts for students to watch or listen to anywhere at any time at their own pace. The class time is fully used for active learning activities. In the flipped classrooms, the students learn mostly independently with the aid of technology and their teachers merely act as guides, mentors or facilitators (Zainuddin & Halili, 2016).

The flipped classroom model offers various benefits that attract a number of administrators and educators in different disciplines (Bergmann & Sams, 2012). The teaching approach helps improve students' learning outcomes and achievement, address different learning styles, strengthen learning engagement and motivation, promote student-centered learning environment, increase teacher-student and student-student interactions in the classrooms, etc. (Lopes & Soares, 2018). Besides, flipped classrooms allow students to learn anywhere and anytime, personalize their own learning process, develop their reflective abilities and generic skills, improve their self-discipline and self-regulation skills and promote their learning autonomy (Yang, 2017). In the area of language teaching, the flipped classroom approach showed high potential as a teaching approach to English language education with numerous effects that are beneficial to language learners.

The flipped classroom model and technology are closely related. Online platforms are considered as crucial aids to the out-of-class session of the flipped classroom as they allow teachers to produce and present learning materials in multiple formats, deliver digital lectures, construct online activities, monitor students' progress and involvement, assess achievement, etc. (Bishop and Verleger, 2013). They enable students to learn in advance at home before coming to class for active learning activities.

2.2. MOODLE

In order to facilitate students' online learning, different learning management systems (LMS) such as MOODLE, Blackboard, Edmodo, and Schoology have been developed and introduced. Among the aforementioned LMSs, MOODLE is considered one of the most

popular and leading learning platforms used in educational institutions all over the world.

MOODLE stands for Modular Object-Oriented Dynamic Learning Environment. The LMS was originally developed by Martin Dougiamas in 1998 and now has a huge community of different users, including teachers, students, software developers, researchers, educational and system administrators in over 232 countries. It supports the creation and facilitation of online learning sites to be used for supporting online courses or supplementing blended learning. Millions of online courses have been created on this open-source system so far (Mushi, 2013).

MOODLE contains a set of features such as course content management, synchronous and asynchronous communication, content uploading, return of students' work, peer assessment, student administration, collection and organization of students' grades, online questionnaires, online quizzes, and tracking tools (Šumak et al., 2011). These features help deliver effective blended learning. Therefore, it can be adopted as a potential platform for the flipped classroom.

This LMS is preferred by educators around the world because of its cost-effectiveness, user-friendliness, free and secure online environment, and the ability to be modified freely, as well as its top teaching and learning website development, innovation, creativity, and literacy learning and communicating facility (Machado & Thompson, 2005). In the area of language education, MOODLE is believed to be helpful for teachers in language classrooms. Accordingly, MOODLE was chosen as the online platform for the flipped classroom to facilitate the pre-class session in the current study.

2.3. Technological Acceptance Model

Technology Acceptance Model (TAM) is one of the most popular frameworks that have been used by researchers to examine the acceptance and use of technology by users (Venkatesh, 2000). This model was originally proposed by Davis, Bagozzi and Warshaw (1989) as an adaptation of the Theory of Reasonable Action (TRA) developed by Fishbein and Ajzen (1975). The main purpose of the model is "to provide a basis for tracing the impact of external factors on internal beliefs, attitudes, and intention" (Davis, Bagozzi, & Warshaw, 1989, p. 985). TAM can enable researchers to investigate the aspects of a system that the users find unacceptable and then take corrective actions to address the recognized issues. The main constructs and relationships of the TAM model are illustrated in Figure 2.

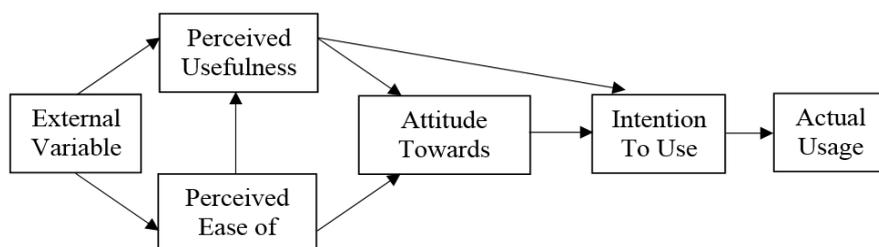


Figure 2: The Technology Acceptance Model (Davis et al., 1989)

The four main constructs to develop the model include perceived usefulness, perceived ease of use, attitude toward use, and behavioral intention or willingness to use the technology. Perceived usefulness refers to “*the degree to which an individual believes that using a particular system would enhance his or her productivity*” (Davis, 1989, p. 320) while perceived ease of use refers to “*the degree an individual believes that using a particular system would be free of effort*” (Davis, 1989, p. 320). These two constructs affect the attitude towards use which refers to a person feeling in relation to the favorableness or unfavorableness of some stimulus objects (Fishbein & Ajzen, 1975). Davis (1989) argued that perceived usefulness and overall attitude toward the usage of a system become an antecedent to the intention to use the system. In other words, these two constructs affect an individual’s behavioral intention to uptake a particular technology. According to Chatzoglou et al., (2009), behavioral intention is defined as an individual’s subjective probability that he/she will perform a particular behavior. Intention to use then eventually influences the actual usage of the technology. Apart from the aforementioned constructs, Davis et al. (1989) indicated that external variables such as system characteristics can have an impact on the intention to use and actual usage.

TAM has been widely used in various research studies as a means to investigate the application of ICT in education. Over time, the Technology Acceptance Model has been refined and extended into different versions such as TAM 2 (Venkatesh & Davis, 2000) and TAM 3 (Venkatesh & Bala, 2008). With specific regard to the current study, the questionnaire to collect data concerning the students’ perceptions of the MOODLE online learning platform used in the flipped English grammar class was developed based on the TAM model proposed by Davis et al. (1989) with four major constructs. Two more constructs, namely system characteristics and material characteristics, were added to the questionnaire, as the external variables which can affect the behavioral intention and actual use. The TAM questionnaire would help to evaluate the students’ perceptions of the acceptance of technology, that is the MOODLE platform used in the flipped classrooms.

2.4. Past Studies on the Online Platform Used in the Flipped Classrooms

Educational technology plays an important role in flipped classes since it enables students to learn new knowledge in advance at home. Most of the class-meeting time is for active learning activities to help students deepen and strengthen their knowledge. Typically, students learn by watching digital lectures of different formats including videos, podcasts, slides, etc. posted on an online platform (Bishop & Verleger, 2013). Hence, the online platform is of importance as a virtual place where teachers upload digital lectures and other learning activities for students to learn.

A variety of technology tools or online platforms have been utilized to facilitate the online session in the flipped classrooms (Zainuddin & Halili, 2016). Some educators use wikis, blogs, websites and social networking tools as the online platforms for their flipped classes in which they could share texts, pictures, and videos with their students during distance learning (Pempek et al., 2009). For instance, Roach (2014) adopted a blog

to share the digital lessons and his students had to watch instructional videos uploaded there every week. Galway and his colleagues (2014) developed a website to house the digital course content in their research project. However, according to Egbert et al. (2015), the most popular to be adopted as the online platform in flipped classrooms has been Learning Management System or LMS. LMSs like Blackboard, MOODLE, Edmodo, and Schoology have been developed to help manage the increasing online courses in educational contexts. In the flipped classrooms, LMS has been widely used for the purposes of storing course syllabi, presenting course announcements, managing student emails, providing online discussions and quizzes, supporting online submission of assignments, and hosting lesson videos (Egbert et al., 2015). However, no research has been found in the current literature to investigate the potential platform of MOODLE for the flipped classroom, especially in the Vietnamese teaching context so far.

Given the fact that the flipped classroom teaching model much depends on educational technology, choosing an appropriate online platform for this class is essential. Therefore, this study aimed at investigating the students' perceptions of the LMS MOODLE in the hope to find out a potential platform to create a conducive learning environment for the flipped classrooms.

3. Methodology

3.1. Research Design

The current study employed a mixed-methods research design that involved collecting and analyzing both quantitative and qualitative data to investigate the research question (Creswell & Plano-Clark, 2011). This design was deemed appropriate because relying solely on either quantitative or qualitative research design would not have been sufficient to achieve the goals of the study. By employing both approaches, researchers aim to gain a more comprehensive understanding of the research problem, which is not possible when using only one approach.

3.2. Participants

The study involved 64 second-year students from a Vietnamese university who were enrolled in an English course that was selected for the research project. The students were selected from two different classes. They were taught English grammar using the flipped classroom teaching method, which involved watching lecture videos and completing online quizzes before coming to class. The lecture videos were made available on an online learning platform, allowing students to watch them at their own time before the face-to-face class. After watching the videos, the students took a short quiz to test their comprehension. The online learning platform was an important element in the flipped grammar as it was where the lecture videos were uploaded for the students to access before their class-time meetings. MOODLE was chosen as the platform for the flipped classrooms in the research project.

3.3. Instruments and Data Collection

Both quantitative and qualitative data were collected using questionnaires and semi-structured interviews to answer the research question. The questionnaire utilized a 5-point Likert scale format with 17 items to explore the students' perceptions of the online platform used in the flipped grammar classes. This questionnaire was based on the Technology Acceptance Model (TAM) developed by Davis and colleagues in 1989, with additional constructs added by Huang et al. (2011) to account for external variables. The questionnaire was administered to the participants at the end of the semester. Additionally, semi-structured interviews were conducted with 15 students who were randomly selected from the two classes. The questions used in the interviews were developed by the researcher based on both the research question and the literature review in order to obtain more information and gain a deeper understanding of the students' perceptions of the online platform used in the flipped grammar classes.

3.4. Data Analysis

To address the research question regarding the students' perceptions of the online platform used in the flipped grammar class, a combination of quantitative and qualitative data were collected and analyzed. The quantitative data were analyzed using the SPSS statistical program, while the qualitative data were analyzed using thematic analysis. The close-ended items from the questionnaires were analyzed using SPSS, with descriptive analysis used to examine the frequency percentage and mean scores of each questionnaire item. On the other hand, the qualitative data collected through semi-structured interviews were analyzed to identify and interpret themes.

4. Results

The analysis of both quantitative and qualitative data showed that most of the students involved in the study had positive perceptions of MOODLE as an online platform in the flipped classrooms. The findings were presented based on the constructs in the questionnaire.

4.1 System Characteristics

Table 1: Students' Perceptions of MOODLE under the Construct of System Characteristics

Item	Mean	S.D.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. MOODLE can provide a stimulating English grammar learning environment.	3.94	.64		1 (1.6%)	12 (18.8%)	41 (64.1%)	10 (15.6%)
2. I can use MOODLE to interact with the environment to learn English grammar.	3.90	.56		1 (1.6%)	10 (15.6%)	47 (73.4%)	6 (9.4%)

3.	I can feel more comfortable in using MOODLE to ask questions about the grammatical points I do not quite fully understand.	3.89	.65		1 (1.6%)	14 (21.9%)	40 (62.5%)	9 (14.1%)
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As presented in Table 1, it was clearly shown that the students had a positive perception on the system characteristics. A very high proportion of them agreed or strongly agreed with items under this construct. The semi-structured interviews corroborated the quantitative findings, indicating that the MOODLE e-learning platform aided students in improving their grasp of English grammar, as two students shared:

"I find the MOODLE online platform to be quite effective for learning English grammar. It's truly useful."

"The interface is extremely intuitive and user-friendly. In my opinion, everything is quite satisfactory, so there's no need for many changes. The features are adequate for learning grammar, and I find it more enjoyable to learn on the online platform than from a tedious book."

4.2 Material Characteristics

Table 2: Students' Perceptions of MOODLE under the Construct of Material characteristics

Item	Mean	S.D.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
4. The lesson videos can lead to a better understanding of English grammar.	3.98	.65		2 (3.1%)	8 (12.5%)	43 (67.2%)	11 (17.2%)
5. The lesson videos can help me immerse myself in the learning atmosphere of the class.	3.45	.80		7 (10.9%)	26 (40.6%)	26 (40.6%)	5 (7.8%)
6. The lesson videos are useful for learning English grammar.	4.13	.58			7 (10.9%)	42 (65.6%)	15 (23.4%)

Regarding the lesson videos uploaded on the MOODLE e-learning platform for students to study before the face-to-face class, the responses to all the three items related to Material Characteristics was largely positive, as shown in Table 2. Consistent with the results of the quantitative data analysis, the students reported in the semi-structured interviews that the instructional videos were useful in improving their understanding of English grammar. For instance:

"To be honest, I found these video lectures to be immensely helpful. Being able to both watch and listen at the same time made it feel like the teacher was giving a live lecture."

This approach is far more engaging than the traditional format in which the textbook played a dominant role."

4.3 Perceived Ease of Use

Table 3: Students' Perceptions of MOODLE under the Construct of Perceived Ease of Use

Item	Mean	S.D.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
7. MOODLE can provide clear guidance information.	3.92	.65		1 (1.6%)	13 (20.3%)	40 (62.5%)	10 (15.6%)
8. Using MOODLE does not require too much time.	3.79	.74	1 (1.6%)	2 (3.1%)	17 (26.6%)	38 (59.4%)	6 (9.4%)
9. Learning to use MOODLE is easy.	3.83	.85		4 (6.3%)	17 (26.6%)	29 (45.3%)	14 (21.9%)

As demonstrated in Table 3, the respondents' perceptions of MOODLE under the construct of Perceived Ease of Use were mostly positive. The findings from analyzing the qualitative data corroborated the results obtained through quantitative analysis. During the semi-structured interviews, students expressed that the MOODLE platform for online learning was user-friendly, as two of them said:

"Was it difficult to use? Not really, but I did find it a bit challenging during my first attempt. However, after that initial experience, it was easy and straightforward."

"I absolutely love it! It's incredibly user-friendly, easy to access, and has a straightforward interface."

4.4 Perceived Usefulness

Table 4: Students' Perceptions of MOODLE under the Construct of Perceived Usefulness

Item	Mean	S.D.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
10. Learning through MOODLE can improve my English grammar.	3.92	.70		2 (3.1%)	12 (18.8%)	39 (60.9%)	11 (17.2%)
11. Learning through MOODLE can enhance my desire to use English grammar.	3.78	.74	1 (1.6%)		20 (31.3%)	34 (53.1%)	9 (14.1%)
12. Learning through MOODLE can improve my outcome with	3.83	.81	1 (1.6%)	1 (1.6%)	18 (28.1%)	32 (50.0%)	12 (18.8%)

regards to learning English grammar.							
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Table 4 indicates that the students generally concurred on the usefulness of MOODLE as an online learning platform in the flipped English grammar classes. The semi-structured interviews provided corroborating evidence to the quantitative results, indicating that the students perceived MOODLE as advantageous for learning English grammar in the flipped classes. One student stated:

“In my opinion, the videos that presented all grammatical points clearly and comprehensively with the aid of demonstrations were the most effective. I found that this approach allowed me to better comprehend and retain information over a longer period of time... Overall, MOODLE’s various functions contributed to my effective acquisition of the grammar points.”

4.5 Attitude about Use

Table 5: Students’ Perceptions of MOODLE under the Construct of Attitude about Use

Item	Mean	S.D.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
13. I like using MOODLE to learn English grammar.	3.78	.76	2 (3.1%)		15 (23.4%)	40 (62.5%)	7 (62.5%)
14. I have a positive attitude towards using MOODLE in this flipped grammar class.	3.72	.65		2 (3.1%)	20 (31.3%)	36 (56.3%)	6 (9.4%)
15. I feel that using MOODLE to learn English grammar is a good idea.	4.11	.65		2 (3.1%)	4 (6.3%)	43 (67.2%)	15 (23.4%)

As Table 5 reveals, the responses to three items related to how the students felt about using the online learning platform MOODLE were mostly found to be positive. Apart from the quantitative findings, the qualitative data uncovered some additional in-depth information. The followings are some of the students’ responses to the semi-structured interviews which shed further light on why they had favorable attitude towards utilizing MOODLE as an online learning platform in the flipped classrooms. For example:

“The reason I appreciate it is that MOODLE helped enhance both my proficiency in English grammar and my computer skills.”

“I find MOODLE’s features, such as videos, forums, and quizzes, to be much more enjoyable than traditional textbooks. In a lecture-based class, simply reading from a textbook and listening to lectures can be incredibly dull and can even make me feel sleepy. However, in a flipped classroom setting, I feel much more at ease learning the lesson content through the online platform.”

4.6 Behavioral Intention

Table 6: Students' Perceptions of MOODLE under the Construct of Behavioral Intention

Item	Mean	S.D.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
16. If I have access to MOODLE, I will continue to use it to learn English grammar.	4.03	.62		2 (3.1%)	5 (7.8%)	46 (71.9%)	11 (17.2%)
17. If I own MOODLE, I will be happy to use it.	3.92	.70		2 (3.1%)	12 (18.8%)	39 (60.9%)	11 (17.2%)

In relation to the final construct, a significant number of the students concurred with the statements in the questionnaire (as presented in Table 6). Consistent with the results obtained from the quantitative data, every participant in the interviews indicated a desire to employ MOODLE to study English grammar in the flipped classrooms in the future, as one stated:

"If given another chance, I would definitely be interested in taking English grammar classes that uses MOODLE in the flipped classrooms. The platform has given me the ability to manage my own learning schedule at home and address any learning difficulties that arise, making it an ideal learning environment for me."

Besides, some students highlighted certain areas of the platform that could be enhanced in order to make it more appealing, easy to use, and less boring.

"I believe that the site interface is straightforward and user-friendly, although it may be a bit monotonous. In my view, incorporating more color into the design would make it more visually appealing and draw in more users."

"In my opinion, the lesson videos could be improved by making them more lively and incorporating additional pictures or visuals. This would help to enhance their quality and make them more engaging and effective for learners."

5. Discussion

In a flipped classroom, the online platform is crucial as it provides the students with a virtual environment to acquire knowledge before attending the face-to-face class and to enhance their learning. In the present study, MOODLE was used to support individual learning as this LMS, designed for social constructivist teaching and learning within internet-based communities of inquiry (Vaiciuniene & Gedviliene, 2008), and offers important functions such as uploading videos, conducting online quizzes, and fostering discussions to help students learn grammar rules at home through pre-class activities.

The platform had a positive effect on the students' learning at home, a crucial aspect of the flipped class.

The students' perceptions of MOODLE were examined through a questionnaire that covered six constructs and was supplemented by semi-structured interviews. The analysis of the quantitative data revealed that the students' responses for all six constructs, namely system characteristics, material characteristics, perceived ease of use, perceived usefulness, attitude towards use, and behavioral intention, fell in the upper intermediate range. A large percentage of the students had positive perceptions of the MOODLE platform, with a high degree of agreement or strong agreement in their answers to each questionnaire item. The quantitative findings were confirmed and expanded upon through the students' responses in the semi-structured interviews. In general, the students held positive perceptions of MOODLE as the online platform employed in the flipped grammar class.

The findings showed a large number of students believed that MOODLE's system and material characteristics helped with their English grammar learning. The students felt that the platform provided a favorable learning environment and found the lesson videos to be effective in improving their understanding. Most students also felt that the platform was easy to use and useful in improving their learning and motivating them to study English grammar. Additionally, their responses showed a positive attitude towards using MOODLE in the flipped English grammar class and expressed interest in using it in the future. However, some interviewees pointed out that some aspects of the platform such as the interface and lesson videos could be improved to make it more engaging and prevent boredom.

It is not surprising that the students held positive views of MOODLE as a suitable online platform for the flipped classroom. MOODLE has proved to be useful in blended learning and been well received by students (Vaicuniene and Gedviliene, 2008). In Vietnam, it has become increasingly popular as an e-learning platform at many universities, with a large Vietnamese MOODLE community established in 2005. MOODLE is known to have several benefits that effectively aid students in their online learning experience. The platform offers a flexible virtual learning environment where students can access their lessons using mobile devices at any time and place during the online session. MOODLE satisfies the criteria for choosing CMC platforms for EFL instruction outlined by (Marek & Wu, 2012), including facilitating communication, promoting interaction outside the class, promoting student independence, simplifying administrative tasks, and allowing teachers to monitor and participate in interactions. Hence, MOODLE can be considered a valuable tool for teaching English grammar in a flipped classroom setting in Vietnam due to these advantages.

5. Conclusion

The current study aimed to examine the students' views of MOODLE as an online platform in the flipped English grammar class. The results showed that the students had

a positive perception of MOODLE, considering it effective and useful in different ways, such as with its lesson videos and online forum. Given that the flipped classroom much depends on the pre-class activities, the institutions should create favorable conditions with appropriate policies to ensure the success of this teaching approach. A well-designed e-learning platform should be developed for teachers to post lesson videos, quizzes, and create an online forum. As MOODLE received positive feedback from students for its ease of use and usefulness in learning English grammar and is free for educators to provide a stimulating and comfortable learning environment for students to do pre-class activities, institutions can consider incorporating this LMS into their e-learning websites in the Vietnamese EFL teaching context.

If possible, institutions should budget more for the library equipment to effectively adopt MOODLE. The library should be equipped with adequate computers connected to the Internet for their students who do not have the opportunities to learn online at home in order to make sure that every student completes out-of-class activities before coming to face-to-face meetings. Free and good Internet connection should be offered for students to use with their own devices. Last but not least, there should be the employment of technical staff to support their teachers and students when needed. In short, ICT facilities should be well offered to both teachers and students for successful adoption of MOODLE as an online platform in the flipped classroom.

Conflict of Interest Statement

The author declares no conflicts of interest.

About the Author

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