

Students' Perceptions of Flipped Classroom Application in a Study Skills Course

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ABSTRACT

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In the context of strong digital transformation, integrating information technology into teaching to enhance learning beyond the classroom has become an increasingly widespread trend in global education, particularly at the university level. Since then, the flipped classroom model has become increasingly popular in the education sector, both domestically and internationally and breathed new life into the innovation of teaching methods. This paper aims to explore students' perceptions of the implementation of the flipped classroom model in a study skills course. To achieve the research aims, the author combined both quantitative and qualitative methods including questionnaires with the participation of 100 students from two study skills classes that the author directly taught and interviews with 20 students. The findings show that students expressed favorable attitudes regarding the flipped learning approach and indicate that the method enhanced students' lecture understanding and engagement in the lessons. Besides, some limitations when applying this model were also revealed, typically problems with access to technology and the Internet. It is hoped this research can not only create initiative and interest in learning but also contribute to innovating teaching methods and improving learning efficiency.

Introduction

In the current educational context, research into educational innovation is receiving attention from many countries around the world, including Vietnam. Vietnamese students are accustomed to traditional teacher-centered teaching approaches at all school levels (Nguyen, 2014). The teacher will be the interpreter of knowledge, while the learner will listen, take notes, and memorize. Students who learn in this manner are not particularly excited about their studies (Hoang, 2021). Therefore, in the comprehensive reform strategy of the Education sector, innovating teaching methods are of decisive significance (Vo, 2022). There is an inevitable

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tendency in educational innovation toward a competence approach, which aims to promote learners' cognitive capacities, independence, creativity, discovery, and problem-solving to accomplish the objectives of higher education programs.

One of the dynamic, contemporary teaching strategies that satisfy the aforementioned criteria is flipped classroom instruction (Alten et al., 2024). The flipped classroom is a dynamic teaching model. Accordingly, the term "flipped" here is understood to mean that compared to traditional teaching, lectures will be learned at home and homework will be done in the classroom (Lo & Hew, 2017). Rather than giving lectures as they have in the past, teachers will now serve as guides. Students will no longer be able to passively receive information from their teachers; instead, they will need to do research, experiment, and gain personal expertise about the material being covered. This model helps students develop and practice their self-study ability and initiative rather than being passive in the process of discovering knowledge, thereby improving learning results (Wanner & Palmer, 2015; Cheng et al, 2019; Singh et al, 2019; Nguyen & Nguyen, 2020; Vo, 2022). Furthermore, technology is rapidly evolving, providing our younger generations with a wide range of Internet-connected gadgets. This provides educators with the tools they need to flip a classroom easily (Nguyen, 2021). It seems that flipped classrooms are more appropriate for today's learners and the modern-day than traditional classroom settings. The flipped classroom model gives educators a fantastic chance to leverage the available technology both inside and outside of the classroom to improve the efficiency and flexibility of teaching and learning.

It can be seen that the effectiveness of this model has been proven in many countries in the world. In the Vietnamese context, the flipped classroom model was mainly applied in the field of English language teaching (Nguyen & Nguyen, 2022; Nguyen et al., 2021; Nguyen, 2021; Nguyen et al., 2018). However, there is a dearth of research on training and implementation of this teaching model for study skills courses. At Vietnam National University (VNU), the study skills course is a required prerequisite course that aims to provide first-year students with the fundamental skills they need to succeed in university: planning study and organizing life; critical thinking; implementing learning projects and other skills such as communication, information technology application, problem-solving, and presentation. The learning outcome of the course is that students are equipped with appropriate qualities; self-awareness, positive attitude; open-mindedness, willingness to share; critical thinking, and self-study habits. To improve efficiency in teaching in the modern educational context, the flipped classroom model has been implemented in teaching this module to help learners proactively learn and access knowledge through the process of pre-studying documents, and preparing tasks and exercises according to the teacher's guidance. To determine whether this model applies to the course with the anticipated effectiveness, it is vital to learn about the students' viewpoints regarding the application procedure. Therefore, this study was conducted to ascertain students' perceptions regarding the use of flipped classrooms in the study skills course.

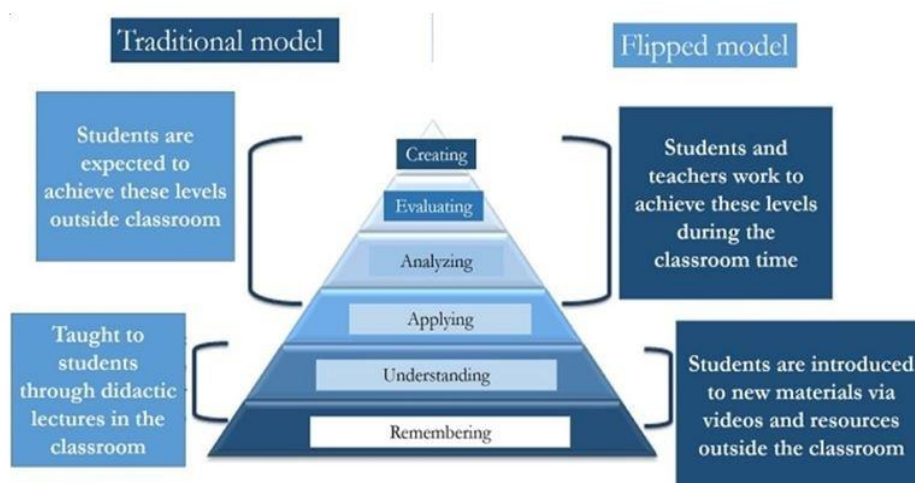
Literature review

Overview of Flipped Classroom Models

In early research, the flipped classroom model was designed based on Bloom's (1956) six cognitive scales from low to high: remembering, understanding, applying, analyzing, evaluating, and creating. In the traditional learning model, class time was limited, so learners were only able to absorb lesson content at the first three levels of cognition: remembering, understanding, and applying. To achieve the following levels, learners needed to make an effort to study and research at home. With the flipped classroom model, the first 3 levels would be done by learners at home. Learners could arrange their own personal schedule for learning convenience as well as depending on each person's level of understanding, which helped learners achieve the first 3 levels easily. During class time, the lecturer would support learners to achieve the following 3 levels of cognition. Figure 1 illustrates the flipped classroom and the traditional classroom associated with Bloom's taxonomy of thinking.

Figure 1

Bloom's Taxonomy related to traditional and flipped learning (Bloom, 1956).



It can be seen that the flipped classroom model is a teaching method based on a combined model. In recent years, many researchers have compared the flipped classroom model with the traditional classroom model to highlight the differences.

Brame (2013) showed that when applying the flipped classroom model in teaching, learners were required to study the lecture in advance in combination with reference materials from the Internet. The content learned in class according to the traditional learning model would become homework according to the flipped classroom model. Therefore, real-time spent in class was used to apply the theories learned and researched at home in solving problems provided by the lecturer or answering the difficulties and problems of learners when studying at home.

Besides, according to Abeysekera and Dawson (2015), the flipped classroom model was a model that “reversed” the teaching sequence compared to the traditional teaching model. In a flipped classroom, learners had to preview lectures provided by the lecturer through online

tools, do exercises, and research at home. Then, in direct class time, learners only focused on discussing in-depth issues with the support and guidance of the lecturer.

Sharing the same views, Do and Hoang (2020) stated that this model fully exploited the advantages of information technology and contributed to solving the limitations of the traditional teaching model by "reversing" the teaching process compared to the traditional teaching model. The "reversal" was defined as the change in pedagogical intentions and strategies expressed in the way of implementing teaching content, objectives, and teaching activities different from the previous traditional way of teaching.

Nguyen et al. (2020) further elaborated on this. They explained that the flipped classroom changed the roles of teachers and learners. The nature of the flipped classroom model was aimed at activating the learning of learners, focusing on the interaction between learners and the learning environment to update and improve knowledge from students' inherent knowledge to the knowledge that needed to be mastered. Teachers must create an environment to promote creativity in acquiring knowledge for learners as well as create opportunities to practice and develop thinking for learners. In the flipped classroom model, teachers needed to clearly identify that teaching must take students' learning activities as the center.

From the above perspectives, when comparing the two models, it is possible to see the fundamental differences in the organization of teacher activities, and learners' tasks inside and outside the classroom between the flipped classroom and the traditional classroom models. According to Do and Hoang (2020), this change can be summarized in Table 1 below.

Table 1.

Comparison of traditional classroom and flipped classroom organization

	Teachers	Learners
Traditional classroom	<ul style="list-style-type: none"> - Teacher guides the class. - Teacher evaluates the learners. 	<ul style="list-style-type: none"> - Learners take notes. - Learners follow instructions. - Learners have homework.
Flipped classroom	<ul style="list-style-type: none"> - Teachers share lectures, documents, books, videos, and websites... for learners to study at home. - Teachers guide students, organize discussions, and finalize the lesson content in class. 	<ul style="list-style-type: none"> - Learners gain a deeper understanding of concepts, applications, and connections to content generated during class discussions. - Learners receive support when needed.

Review of Studies on Students' Perceptions of Flipped Classroom Application in the World

Studies examining how students perceive the application of the flipped classroom typically show positive results. According to Chester et al. (2011), the flipped classroom application enhanced the behavior of the students. Ruddick (2012) claimed that students thought the flipped classroom approach was superior or more effective. Similarly, in the study of Herreid and Schiller (2013), students showed positive attitudes towards flipped instruction. Adnyani and Ratnadi (2020) also reported some benefits of flipped classroom implementation in the Classroom Management course. The use of flipped classrooms helped students understand the

material ahead of time, encouraged them to participate in more in-class activities, helped them learn from feedback, and got them ready for the simulation session (Adnyani & Ratnadi, 2020). According to Díaz et al. (2021), students highly regarded the flipped classroom model from an academic perspective, competence perspective, personal perspective, and social perspective. In addition, findings from the study of Kissová and Lengyelfalussy (2021) stated that the flipped classroom improved speaking skills, decreased anxiety associated with speaking in front of an audience, and raised learners' motivation, self-awareness, and satisfaction. The majority of students in the study of Hoshang et al. (2021) also agreed that flipped classrooms enabled them to learn more and get more involved in the activities in the classroom. Sharing the same attitudes, Lestari (2021) showed that the students felt positive about the flipped classroom and listed a number of advantages such as positive psychological state, interaction enhancement, engagement in learning, soft-skill training, and better learning management. Besides, Geomayra and Sofia (2023) claimed that due to its adaptability to various learning styles and individual student demands, the flipped classroom model revolutionized the way in which students studied independently. The students appeared to find this strategy to be adaptable and easy-going (Geomayra & Sofia, 2023). Gustian et al. (2023) also mentioned some benefits of the flipped classroom model for EFL learners such as lowering anxiety levels in students, improving critical thinking and self-efficacy and helping them become more autonomous, and motivated in learning.

While flipped classrooms offer numerous benefits for learning environments, there are drawbacks to this type of instruction as well. The majority of teachers restrict the concept of flipped classrooms to substituting in-class instruction with videos before class and using class time for homework, according to Kim et al. (2014). This has been identified as a barrier to the implementation of flipped classrooms. Besides, in the study of Kissová and Lengyelfalussy (2021), some students shared that compared to traditional classes, not only was the flipped experimental group's home preparation more efficient, but it also required more time, as they had an excessive amount of homework and home study. In the study of Díaz et al. (2021), despite undeniable benefits, a small percentage of students continued to have serious concerns about the model and would rather go with the traditional approach. This is mostly because they were not accustomed to adopting active methodologies and the learning commitment that these methodologies needed (Díaz et al., 2021). Some students were not accustomed to self-guided learning and preferred to have the teacher walk them through the process step-by-step. They also found it difficult to get an answer from the teacher right away (Hoshang et al., 2021). According to Lestari (2021), the utilization of videos and other technical aids, together with motivation, were deemed as potential hazards during the implementation of flipped classrooms. Similarly, according to Geomayra and Sofia (2023), due to differing experiences with the learning process, not all students agreed about the advantages of the flipped classroom. Students believed that traditional schooling, where reading skills are practiced under the supervision of the teacher, was the best option for them (Geomayra & Sofia, 2023).

Review of Studies on Students' Perceptions of Flipped Classroom Application in Vietnam

In Vietnam, the application of flipped classrooms in universities has received moderate attention from authors. Nguyen (2020) mentioned six main benefits of the flipped classroom

application in translation classes including enhancing students' interest in subject matter, deeper understanding of translation skills, greater participation and contributions, more preparation and commitment, improving English language capabilities, promoting motivation, confidence, and cooperation. Besides, the use of the flipped learning model also demonstrated that it not only fostered engaging and dynamic learning for students but also assisted in the innovation of teaching strategies, enhanced learning effectiveness, and helped students develop their critical thinking and problem-solving abilities (Do & Hoang, 2020). According to Nguyen (2021), students had a positive perception of flipped classrooms in terms of flexible learning modes, expectations, and assessment of learning. Moreover, compared to a traditional classroom, a flipped classroom was more learner-centered (Nguyen, 2021). Nguyen and Ta (2021) examined the implementation of flipped classrooms in political theory courses and identified some advantages for students such as being proactive in learning, thereby forming the habit of self-reading and self-research, quick access to knowledge sources, and developing necessary soft skills. Similarly, Do (2022) also revealed positive students' attitudes toward flipped writing teaching and enhanced learning outcomes, especially for lower-ability students. Students expressed what they valued in their experiences through five aspects: learning materials, opportunity for self-regulation, quality of interaction and feedback, technology use improvement, and language skills enhancement. Some other advantages reported by Hoang (2022) included improving the learning environment in universities, creating a new learning culture for students, and optimizing study time. In addition, the findings of Nguyen (2023) showed that the most often mentioned advantages of flipping EFL classrooms were raising student motivation, encouraging autonomy, facilitating language skill development, and raising student involvement.

Besides the above advantages, the drawbacks of the flipped classroom also attract the attention of Vietnamese scholars. In the study of Nguyen (2020), when the flipped classroom model was applied in translation classes, students faced some challenges caused by the tools/ instruments, the classroom procedures, the community, and the division of labor. Do and Hoang (2020) discovered that in addition to the benefits already mentioned, learners continued to face challenges that required attention. It took a lot of work and time for lecturers and students to organize this teaching because they had to choose and prepare lessons and content. Technical proficiency was another element that had a significant impact on a learner's learning success (Do & Hoang, 2020). Nguyen (2021) also pointed out some limitations of the flipped classroom such as a lack of preparation time, no recorded or voice-over self-made videos, and a lack of instruction on how to use the pre-delivery materials (questioning, taking notes, and critical thinking) for students. According to Nguyen and Ta (2021), with the characteristics of a class with a large number of students, it was difficult to divide groups into effective discussions and when participating in class, students' self-awareness was not very high. Besides, according to Vo (2022), the flipped classroom caused some challenges for teachers such as planning a workload for creating their own films or creating in-class activities. Students were also concerned about certain technical issues since they made it difficult for students to access networking or pre-activities at home without immediate assistance from teachers (Vo, 2022). Moreover, the majority of Vietnamese students were accustomed to the traditional style of instruction, which involved listening to lectures in one direction, but they were not proficient

in the active style of learning, which involved independent research (Hoang, 2022). Despite the many benefits of implementing flipped classrooms in English language teaching (ELT) in Vietnam, Nguyen (2023) identified several challenges, including the rapid pace of video lectures, which could make it difficult for learners to absorb pre-class materials, a heavy workload, a lack of timely assistance, difficulties with self-regulated learning, and a shortage of ICT resources.

Research Gap and Research Questions

As we can see from the review of the literature, the flipped classroom model has been of great interest to authors all over the world. The implementation of flipped teaching in Vietnam has also brought many encouraging results. However, it can be seen that although the flipped classroom model was researched at the university level, only a few authors applied this model to a specific subject. No research has concentrated on the application of the flipped classroom in teaching study skills to Vietnamese students. In order for teachers to use the flipped classroom model effectively, they must have a clear understanding of how students assess it. Thus, the purpose of this study was to explore students' perceptions of the flipped classroom application to a study skills course for university students. It sought to evaluate both the advantages and difficulties that students faced when engaging in flipped classroom learning activities. These objectives can be attained through the following two research questions:

1. What are the benefits of the flipped classroom application as perceived by the students in the study skills course?
2. What challenges did students encounter with the flipped classroom model in the study skills course, according to their perceptions?

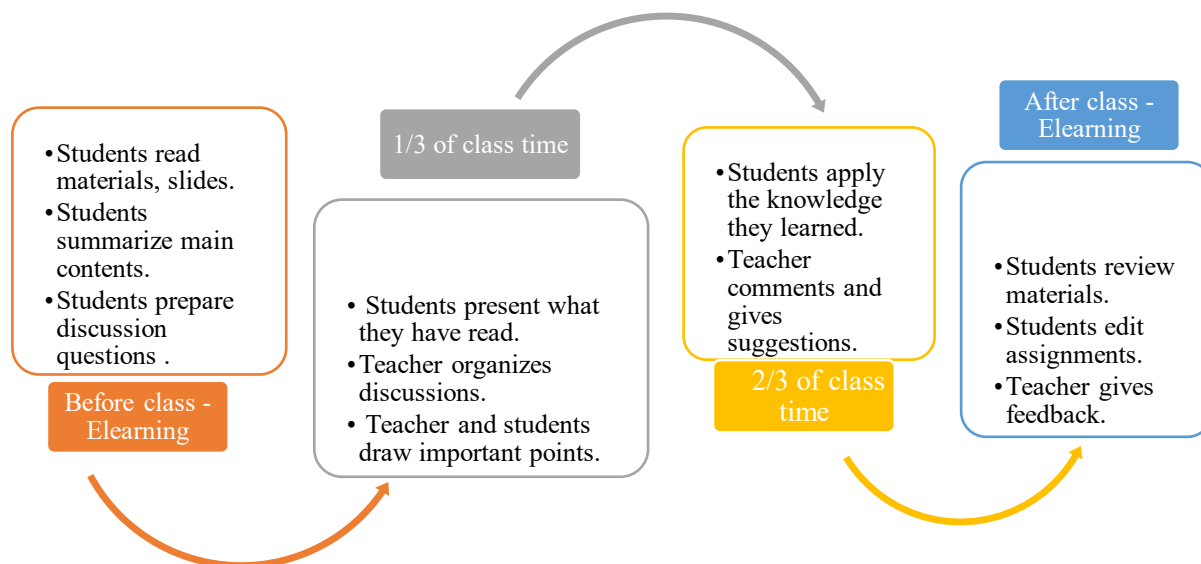
Methods

Research Design

This study employed purposive sampling to select participants, comprising 100 first-year students from two study skills classes directly taught by the author. The study skills course is a mandatory prerequisite course for first-year students, aiming to equip them with basic skills to enter the university environment, choose an appropriate learning style, and know how to proactively carry out a learning project. This course was organized according to a flipped classroom model combining face-to-face learning and self-study at home with documents uploaded to the Microsoft Teams system. This model was based on Bloom's (1956) taxonomy related to flipped learning and the comparison of traditional classroom and flipped classroom organizations by Do and Hoang (2020) as mentioned in the Literature Review section. The process of implementing the flipped classroom model is shown in Figure 2 below.

Figure 2

The implementation of the flipped classroom model



The flipped classroom implementation process was divided into 3 stages: before class, during class, and after class.

- Before class: the teacher uploaded videos, reference materials, and exercises/tasks to the Teams platform. After reading materials and slides, students summarized the main contents of what they had read to prepare for the class presentation. They also prepared some questions for class discussion.

- During class: In the first 1/3 of class time, students made presentations on what they had read at home to the teacher and the whole class. After that, class discussion was organized to draw important points of the lesson. In the remaining 2/3 of class time, students applied what they had learned to practice exercises and the teacher gave them comments and suggestions.

- After class: Students continued to review materials and did individual assignments on the Teams platform. The teacher gave feedback on their assignments and answered students' questions.

With the implementation of the flipped classroom above, there are requirements for teachers and students as follows.

In terms of teachers' duties, they need to select appropriate content and lessons, design lectures and videos, share materials, and assign learning tasks to students. During class, teachers organize the activity of giving opinions, discussing among students, and then concluding the main issues of the lesson. Then, teachers continue to support, discuss, and answer learners' questions about the lesson content in the online classroom space after the direct lesson, as well as conducting tests and evaluating the learners' acquisition of knowledge and skills.

As regards students' requirements, they need to watch/study the lectures, materials, and videos

at home and complete the learning tasks assigned by the teacher before class. In the direct class, students spend time discussing in groups and talking with the teacher and other students. Then, students do exercises and perform the tasks assigned by the teacher after each class.

Data Collection and Analysis

To investigate the students' perceptions of the flipped classroom application in the study skills course, the researcher combined both quantitative and qualitative methods including questionnaires and interviews as follows.

Questionnaires

According to Mazikana (2023), questionnaires are a very efficient and economical method of gathering a significant quantity of data on topics pertaining to basic education. Therefore, in this study, the questionnaire was adopted as the primary method to collect data from 100 first-year students from two study skills classes that the author directly taught (Appendix 1). The questionnaire was divided into two parts following two research questions about the benefits and challenges of the flipped classroom application. Part 1 included 12 statements on the benefits of the flipped classroom application, which were adapted from the flipped course benefits suggested by Choi et al. (2015) and Alamri (2019), including four groups namely comprehension improvement, flexibility and efficiency, enhanced learning experiences, and diverse knowledge sources. Part 2 also had 12 statements on the challenges of the flipped classroom application adapted from the classification of Taghizadeh and Adhami (2021), including four groups namely tools, procedure, community, and motivation challenges. For all 24 items divided into two parts, the author used a 5-point Likert scale (strongly disagree, disagree, neutral, agree, and strongly agree). With 5-point Likert scales, it was easy for the participants to read the whole list of scale descriptions, which would lead to higher response rates and less confusion (Bouranta et al., 2009).

In this study, the author also adopted a split-half method based on the Spearman-Brown formula to check the data reliability of the questionnaire. The results showed that both two parts had high Spearman-Brown reliability (R_{sb}), with $R_{sb} = 0.77$ for part 1 and $R_{sb} = 0.72$ for part 2 in the questionnaire, exceeding the threshold of 0.7. After ensuring the data reliability, both statistical and interpretative methods were used to assess the information gathered from the questionnaire. First, interpretive approaches were used to discuss the results. The interpretations were compared to find any discrepancies or additions. Second, statistical techniques were used to synthesize the data and present them in tables. Comments were then offered on the key information addressed in the literature review.

Interviews

Wengraf (2001) asserted that by giving the interviewer the chance to probe further into the interviewee's comments, the semi-structured interviewing style helps achieve depth. In semi-structured interviews, the researcher can establish open-ended subjects and obtain greater insight by using a series of open-ended questions pertaining to the research topic area (Harvey-Jordan & Long, 2001). Thus, the author used semi-structured in-depth interviews (Appendix 2) with 20 students (10 students per class) to get as much information as possible about the topic that had been previously investigated using questionnaires. The interview questions were

adapted to be more appropriate based on the questionnaire. There are 10 questions in the interview which were designed to shed light on the causes, further delve into the opinions of students regarding the solutions they devised to overcome challenges in the flipped classroom, and offer some recommendations for making this learning model more successful in the next semesters. Prior to the interview, a summary of the study and an explanation of key concepts were provided. Besides, interviewees were able to openly express their thoughts in a straightforward and suitable manner, which gave the researcher access to a vast and valuable collection of data.

To analyze the information obtained from the interview, there were three small steps: transcribing the interviews, classifying the data, and interpreting the data. First, all of the interviews had been transcribed. The researcher then started the process of turning the audio files and notes into readable text while also locating and eliminating any unnecessary records. To enable reference when necessary, the transcripts included the page number of each quotation. Second, transcripts were then categorized in accordance with the research questions. These included the benefits of the flipped classroom application as well as the challenges students encountered with the flipped classroom model in the study skills course. Third, the researcher performed comparisons and contrasts in each set of responses to interpret the data gathered from the respondents. To give further context for the subject, all of the participant notes from the interviews were compiled and included as quotations where necessary. Besides, interview responses were also selected to supplement and clarify the results obtained from the questionnaires. Therefore, not all interview questions appeared to have been addressed in the results. Excluding unnecessary responses would help the interpretation of the research results to focus more on the most important ideas emerging from the questionnaire.

In short, this section presents the process of implementing the flipped classroom model in the study course and the methods the researcher used to conduct this study. Specifically, data were collected by the researcher using questionnaires and interviews. Then, the researcher analyzed the data clearly and carefully by applying statistical and interpretive methods, contributing to the reliability of the research. With the combination of both quantitative and qualitative methods mentioned above, the main results of the research are presented in detail in the next section.

Results/Findings and Discussion

Research Question 1: What are the Benefits of the Flipped Classroom Application as Perceived by the Students in the Study Skills Course?

To investigate the advantages of flipped classroom models, the researcher relied on data obtained from a survey combined with interviews. Findings from part 1 of the survey are shown in Table 2 below.

Table 2.

Benefits of Flipped Classrooms

Statements	Mean	Standard Deviation
Comprehension Improvement		
1. Learners can review and preview materials.	4.60	0.53
2. Learners can prepare questions for teachers.	4.51	0.52
3. Learners can identify key concepts of the lessons.	4.56	0.50
Flexibility and Efficiency		
4. Learners can choose the best time and place for learning.	4.48	0.50
5. Learners can study the material at their own pace.	4.44	0.54
6. Learners can regularly review the subject to avoid cramming for exams.	4.31	0.53
Enhanced Learning Experiences		
7. Learners can experience a sense of accomplishment in self-directed learning.	3.76	0.68
8. Learners can get more engaged in the process of learning.	4.64	0.50
9. Learners take responsibility for their learning and become more motivated.	4.48	0.54
Diverse knowledge sources		
10. Learners can be exposed to diverse lecture content.	4.43	0.71
11. Learners can gain quick feedback and assessment from teachers.	4.20	0.57
12. Learners can pursue in-depth knowledge through critical questions.	3.89	0.71

Table 2 shows that students have a positive view of the benefits of the flipped classroom in all four aspects: comprehension improvement, flexibility and efficiency, enhanced learning experiences, and diverse knowledge sources with the mean scores ranging from 3.76 to 4.64.

First, in terms of benefits related to comprehension improvement, this is the group that achieved the highest mean scores ($M > 4.5$). Students perceived that the most obvious benefit of the flipped classroom model is to increase student understanding of lessons by allowing them to review lessons, understand key concepts of lessons, and prepare questions that they want the teacher to answer in the next class. During the interview, these benefits were confirmed and explained more specifically by students. One student admitted “*Before attending the class, the online resources help me to review the lecture material and get ready for the class discussions*” (S1). Sharing the same opinion, another student said, “*As an additional way for the students to deepen their comprehension and contribute to class discussions, the materials also encouraged them to read more about the subject from a range of online sources*” (S2). In agreement, according to Adnyani and Ratnadi (2020), the use of flipped classrooms facilitated students' comprehension of the topic in advance, motivated them to engage in additional in-class activities, and prepared them for the simulation session. Moreover, students' preparation for the next class was also mentioned in the study of Alamri (2019) who claimed that students preparing for the session were more adaptable and eager to learn from their peers to gain a thorough comprehension of the subject. Sharing the same viewpoints, 78.6% of the students in the study of Gustian et al. (2023) agreed with the statement, “I feel sure to know the major topics of the class in advance”. It can be seen that students were able to participate more actively in class activities because they already prepared some basic concepts. This is consistent with

Aycicek and Yelken's (2018) assertion that these kinds of learning environments enabled students to develop their critical thinking skills and strengthen their comprehension. Students could develop their lesson comprehension during the learning process in the flipped classroom model because of the environment that pushed them to learn more, ask more questions, and study more of the materials in a collaborative way (Aycicek & Yelken, 2018). Besides, some authors also mentioned particular fields of knowledge comprehension that could be enhanced by the flipped classroom model. Accordingly, flipped classrooms helped students grasp the information in the areas of speaking (Kissova & Lengyelfalusy, 2021), critical thinking (Gustian et al., 2023), and problem-solving (Do & Hoang, 2016). In addition, it could enable learners to improve their comprehension of English language proficiency and translation abilities (Nguyen, 2020).

Second, as regards flexibility and efficiency benefits, all 3 statements in this group also achieved high mean scores ($M > 4$). All students agreed that flipped learning provided them with a flexible learning environment. One student shared that, *“With a flipped classroom, we have greater autonomy over our own learning and can select when and where to review the materials”* (S3). Similarly, another student said, *“The flipped class gives me the opportunity to study the material at my own pace, so it allows us to have more time to focus on a given subject than others”* (S4). In agreement, one student also explained more clearly:

Watching the lectures and slides that had been pre-recorded was also convenient for me. I started by watching the video lectures at home, and then I spent my commute to school listening to the audio files over and over. I was able to manage my time well. (S5)

This finding is consistent with that of Choi et al. (2015) who emphasized the efficiency and flexibility of the flipped classroom model because students were allowed to view lectures at a time and location that were convenient for them. Moreover, students in Alamri's (2019) study could learn whenever it was convenient for them thanks to the online course materials, especially those who were unable to attend in person due to illness or travel. Additionally, students had multiple opportunities to repeat the course material in order to enhance their comprehension (Alamri, 2019). Nguyen (2021) also revealed the flexibility of space and time in the flipped classroom model when students could go through the materials at their own speed, in the location and time that worked best for them. Similarly, according to Hoang (2022), the flipped classroom enabled students to optimize their learning time because students were able to learn knowledge on their own at home, so they would have more time in class to expand and exploit knowledge in a practical way and develop learners' thinking. In agreement, the findings were also reported in the study of Lestari (2021) who demonstrated how the flexibility of class time could help students manage their learning more effectively. Furthermore, according to Geomayra and Sofia (2023), the flipped classroom model transformed how students study on their own because it could be adjusted to different learning styles and specific student needs.

Third, the flipped classroom model is proven to help students enhance their learning experiences. The statement 8 in Table 2 “Learners can get more engaged in the process of learning” gained the highest rating of mean score ($M = 4.64$). It was followed by the benefit of making students more responsible and motivated in learning ($M = 4.48$). During interviews,

many students explained these aspects more clearly. One student shared that, “*With the flipped classroom model, we build a culture of actively absorbing knowledge, which in the long run will create good habits of critical thinking and logical thinking*” (S6). Similarly, another student expressed her positive attitude toward the flipped classroom model, “*This learning model enables us to actively learn, which will help us absorb knowledge naturally, understand core issues, and thereby be better prepared in terms of skills to meet future job requirements*” (S7). This finding was reported by Hoang (2022) who stated that the flipped classroom model could create a new learning culture for Vietnamese learners, and enable learners to increase their autonomy in acquiring knowledge. Similarly, according to Kissová and Lengyelfalussy (2021), the flipped classroom improved students' motivation, self-awareness, and contentment. Gustian et al. (2023) also highlighted certain advantages of the flipped classroom model for EFL students, including fostering greater motivation and autonomy in their studies. Taghizadeh and Adhami (2021) also explained that they employed the flipped classroom to increase student engagement through a variety of opportunities for learning activities.

The implementation of the flipped classroom model results in a notable change from a passive approach to an active one, increasing student involvement (Taghizadeh & Adhami, 2021). Besides, Nguyen and Ta (2021) emphasized that in the process of participating in a flipped classroom, the learner as a "center" would have to be proactive and active in the process of acquiring knowledge, thereby forming the habit of self-reading and self-researching. Similarly, according to Hoshang et al. (2021), the majority of students concurred that flipped classrooms allowed them to learn more and participate more actively in class activities. Sharing the same attitudes, Lestari (2021) and Geomayra and Sofia (2023) all emphasized learners' engagement in learning when participating in flipped classes. Besides, Nguyen's (2023) research revealed that increasing student enthusiasm and involvement were the most frequently cited benefits of flipping EFL classrooms.

Last, concerning benefits related to diverse knowledge sources, all students supported the fact that with the flipped classroom model, learners can be exposed to diverse lecture content ($M=4.43$). This benefit was confirmed in the interviews when one student expressed his feelings:

Normally in class, we mainly learn knowledge through textbooks, but the documents integrated on Teams are very diverse such as slides, videos, Google forms, audios. This suits the learning styles of many students and makes studying at home very interesting for us. (S8)

Sharing the same findings, Nguyen (2021) asserted that students had more options thanks to the uploaded resources, including textual materials (worksheets, handouts) and audio/visual materials (slides, videos), all of which were thought to accommodate various learning styles. In agreement, according to Taghizadeh and Adhami (2021), in a flipped classroom, content could be delivered through a range of digital platforms, including games, films, and e-learning modules that could be accessed on desktop computers or mobile devices. Regarding diverse learning resources, Nguyen and Ta (2021) also explained more specifically that the flipped classroom model allowed learners to access knowledge sources quickly, providing timely current information, many in-depth and extensive analytical documents by leading experts in the field of social sciences, and having a practical connection that the textbook cannot do.

Sharing the same views, students participating in Do's (2022) revealed positive attitudes toward diverse learning materials that they could access in the flipped classroom.

Besides, the knowledge sources are also related to the feedback and assessment from teachers that all students agreed that they could receive them quickly ($M = 4.20$). One student expressed her positive opinions of this aspect, *"Every week after we submit our assignments on the system, we always receive careful feedback and assessment from the teacher and two teaching assistants in the class"* (S9). Another student said:

Even during direct classroom sessions, the teacher also takes time to summarize and give praise for good work, and timely reminders for bad work submitted in the system. This activity allows us to see progress updated weekly throughout the term, and gain experience for the final project. (S10)

These opinions on the effectiveness of teachers' feedback are consistent with those of students in the study of Adnyani and Ratnadi (2020). Accordingly, flipped classrooms prepared students for the simulation session and allowed them to learn from the useful comments of the teacher. Similarly, according to Do (2022), students also valued the quality of interaction and feedback from the teacher in the flipped classroom, which allowed them to recognize mistakes in the exercise so that they could gain experience and make progress for the next assignments. More specifically, in the study of Alamri (2019), students perceived the role of the teacher in the flipped classroom as a mentor, facilitator, and guide for offering support and direction both within and outside of the classroom, making the learning atmosphere more engaging, interactive, and productive for students. Similarly, Nguyen and Ta (2021) stated that teachers played the role of guiding and supporting learners' learning activities in the flipped classroom, and they could provide feedback and evaluate students' activities and learning outcomes more specifically for each individual student.

Based on the analysis of the results obtained above, students had a very positive view of the undeniable benefits of applying the flipped classroom model to study skills classes at universities. However, based on the literature review, the flipped classroom model still has certain limitations, which need to be explored more deeply in the context of teaching in Vietnam. Therefore, the results obtained about the challenges of the flipped classroom model are presented in the next section.

Research Question 2: What Challenges did Students Encounter with the Flipped Classroom Model in the Study Skills Course, according to their Perceptions?

Challenges related to the flipped classroom model were divided into four groups: tools/instruments, procedures, community, and motivational challenges. Table 3 below presents the data obtained from the survey.

Table 3.

Challenges of Flipped Classrooms

Statements	Mean	Standard Deviation
Tools/ Instruments Challenges		
13. Learners have a personal dislike of technology.	3.34	0.74
14. Learners have difficulties logging in to their accounts.	4.31	0.42
15. Learners encounter the low quality of the server and the Internet system.	4.35	0.52
Procedure Challenges		
16. Learners experience overload due to the amount of shared material.	3.92	0.58
17. Learners do not have enough time to complete exercises outside the class.	4.17	0.65
18. Learners worry about the extra effort for lesson preparation before class.	4.23	0.51
Community Challenges		
19. Learners do not have sufficient guidance on the materials from teachers.	2.36	0.69
20. Learners do not have enough support out of class from friends.	3.09	0.60
21. Learners lack timely feedback on their exercises from teachers.	2.33	0.53
Motivation Challenges		
22. Learners have difficulties with self-regulated learning.	2.88	0.66
23. Learners consider the study skills course not to be important.	2.41	0.55
24. Learners are not proactive in learning and rely on other students in the group.	2.70	0.69

Table 3 shows that students did not encounter too many difficulties with the flipped classroom model. The difficulty with the highest mean score belongs to the low quality of the server and the Internet system ($M=4.35$), followed by the obstacles in logging in accounts ($M=4.31$). The study skills course is a mandatory course for first-year students, so, understandably, they are confused when accessing online learning materials systems. During the interview, students explained more clearly about these issues. One student shared:

This is the first time I have been provided with an account and logged into the lesson system on Teams. Due to poor network quality, sometimes I have an error logging in or cannot load all the exercises on the system. (S11)

Some students expressed a lack of technology skills because students did not have much experience in accessing LMS systems at high schools. One student admitted, “*I’m not very proficient in using computers, so I feel a bit worried when I have to manipulate many skills when viewing online documents*” (S12). These challenges were similar to those of students in the study of Alamri (2019) who claimed that computer skills were the main obstacles encountered by students. Students in this course were required to use computers and the internet to accomplish numerous activities before class. Even though every student had access to a computer and the Internet at home, many of them struggled with their computer abilities to finish the assigned assignments (Alamri, 2019). Similarly, according to Taghizadeh and Adhami (2021), one drawback of the flipped classroom model is that students without access to technology might have trouble downloading and playing videos at home. Besides, the quality of Internet access was considered to be another problem for the flipped classroom (Taghizadeh

& Adhami, 2021). In agreement, Lestari (2021) also claimed that the use of technological tools was a possible challenge in the flipped classroom. Many students in the study of Do and Hoang (2020) also agreed that technical skill was a factor that significantly affected a learner's success in the flipped classroom. Sharing the same views, in the study of Vo (2022), students were also concerned about certain technical difficulties that prevented them from accessing networking or pre-activities at home.

The next group of difficulties involves procedural aspects. All students agreed that they worry about the extra effort for lesson preparation before class ($M=4.23$) and do not have enough time to complete exercises outside the class ($M=4.17$). One student said, *"In addition to homework in this subject, we also have a lot of homework for other subjects. It takes more than two hours a day to prepare well enough to participate actively in class discussions"* (S13). Sharing the same opinions, another student admitted, *"There were moments when I felt overloaded with the quantity of information provided and ran out of time to thoroughly review everything"* (S14). This finding is in line with the study of Taghizadeh and Adhami (2021) who stated that because flipped courses were so demanding, many students found it difficult to find time outside of class to watch video lessons. Similarly, according to certain students in Kissová and Lengyelfalussy's (2021) study, the flipped classroom required more time than typical classes because they had an excessive amount of homework. Lack of preparation time and a heavy workload were also mentioned as the main challenges that students encountered in flipped classrooms (Nguyen, 2021; Nguyen, 2023). Sharing the same opinions, Díaz et al. (2021) explained that due to their lack of experience with active techniques and the commitment to learning that the flipped classroom model required, students' reservations over the flipped class model remained severe. Besides, some students preferred to have the teacher guide them through the procedure step-by-step because they were overloaded with the assigned homework and they did not have time to prepare for the lessons (Hoshang et al., 2021). According to Do and Hoang (2020), as the flipped classroom model requires students to research and prepare lessons and content before class, they must invest a great deal of time and effort into organizing their learning. Furthermore, this obstacle could be due to Vietnamese students' familiarity with the traditional teaching method, which involves listening to lectures in one direction (Hoang, 2022).

Table 3 also shows that students did not have difficulties related to community and motivation. This result is quite consistent with the data obtained in Table 2 in the previous section when students affirmed their interest and inspiration with flipped classroom models. In terms of community challenges, in the interview, students explained:

With this course, I am quite satisfied with previewing documents on the Teams system. I received detailed instructions from the teacher from the first session of the course, and support from the teacher and two teaching assistants throughout the semester. This makes my learning process more convenient. (S15)

This finding contrasts with that of some studies worldwide and in Vietnam. Among the disadvantages of the flipped classroom, Taghizadeh and Adhami (2021) mentioned the lack of support from teachers and friends before class time. Specifically, while viewing the materials in the online system, students were unable to raise questions because there was little support

available outside of the classroom, and insufficient supervision was given (Taghizadeh & Adhami, 2021). Besides, a lack of timely assistance and feedback was also regarded as one of the main obstacles revealed by Choi et al. (2015) and Nguyen (2023).

As regards challenges related to motivation, students in this study did not seem to have many difficulties, with all three statements having low means scores ($M < 3$). It is very interesting to see that this result is completely different from the results obtained from some previous studies by Vietnamese and foreign authors. For example, some students in the study of Hoshang et al. (2021) would rather have the teacher guide them through the process step-by-step because they are not used to self-guided learning. Similarly, students also preferred traditional schooling to the flipped class model (Geomayra & Sofia, 2023). In the Vietnamese context, Hoang (2022) also claimed that the majority of students were not skilled in the active style of learning, which required independent research. The reason was that they are used to the traditional method of education, which is listening to lectures in one direction (Hoang, 2022). To better investigate why there is a difference in this aspect among this group of Vietnamese students, the researcher asked students to further explain in the interviews. A few students also shared that as first-year students, at first, they also had difficulty with self-directed learning, but with the companionship of friends and advice of teachers and subject assistants, they gradually managed their time to arrange subjects properly and complete assignments each week. Through interviews, the main reason emphasized by students lies in the role of the teacher in the flipped classroom. One student shared that:

In the flipped classroom, the teacher acted as a supervisor, not just a source of information, over the entire process of learning. We were encouraged to develop self-learning capabilities in accordance with our unique abilities and learning style differences in this way. (S16)

The role of the teacher in the flipped classroom was also reported by Alamri (2019) who regarded the instructor as a mentor, facilitator, and guide for every student, offering support and direction both within and outside of the classroom. This explains why the challenges related to motivation gained low ratings of mean scores and emphasizes the important role of the teacher in the flipped classroom model.

In short, from the results obtained in part 2 of the questionnaire, students faced certain inevitable difficulties because of their limited technical skills, poor Internet system quality, and additional preparation for lessons before class. Curiously, though, students were able to gradually manage their time and finish their work with the teacher's help and orientation, and they had no obstacles with motivation or community. From the researcher's perspective, it is a positive result for teachers to gradually help students overcome difficulties to achieve the best learning results with the flipped classroom model.

Conclusion

This research was conducted to investigate the perceptions of 100 students about the flipped classroom application in the study skills course at VNU. Through the integration of both quantitative and qualitative approaches, the findings reveal that students perceived the flipped

classroom as beneficial in all four aspects: comprehension improvement, flexibility and efficiency, enhanced learning experiences, and diverse knowledge sources. Among them, the biggest benefits of the flipped classroom are to increase student understanding of lessons, provide them with a flexible learning environment, and make students more responsible and motivated in learning. Thus, it can be seen that the flipped classroom model is perceived as an effective form of teaching, helping to minimize the disadvantages of the traditional teaching model such as less interaction, passive learners receiving knowledge, and lack of confidence. In addition, this model appeared to make learning more effective and lessons more interesting.

Besides, when applying this classroom model, there are some unavoidable challenges students encounter coming from students' computer skills, the low quality of the server and the Internet system, extra effort for lesson preparation before class, and lack of time to complete exercises outside the class. However, it is interesting to see that with assistance and direction provided by the teacher, students gradually managed to arrange their time and complete their assignments, and they did not have difficulties related to community and motivation. The research results also emphasized the important role of teachers. In the flipped classroom, the teacher acts as a supportive moderator, presenting problem situations to guide learners in solving them, saving time and creating opportunities to develop thinking for learners.

With the stated difficulties of the flipped classroom model, some solutions can be proposed for university lecturers in Vietnam to raise the standard of teaching and learning. First, teachers need to have a certain foundation of information technology knowledge and invest a lot of time in preparing materials so that students can self-study effectively before going to class and help make class time more effective. In reality, students in Vietnam are not really proactive in the learning process. Therefore, in the beginning, when applying the flipped classroom model, teachers should pay closer attention to students' lesson preparation at home, and promptly give comments and corrections. At the end of each lecture, teachers also need to summarize the main points in the content of knowledge that students need to grasp.

As this study was conducted at only two study skills classes that the researcher directly taught at VNU, the number of participants is still small, which is an unavoidable limitation. Another limitation that needs to be addressed would be in terms of ethical concerns since the author is both the instructor and the researcher. There might be potential bias in student responses and the analysis process as well. Future research could involve more participants from different courses to gain insight into whether the flipped classroom model could be widely used as a strategy in other subjects. It is hoped that this research can partly provide both teachers and learners with the reality of applying the flipped classroom model. From there, solutions can be proposed to contribute to improving the effectiveness of this model when applied to actual teaching and learning at universities in Vietnam.

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Biodata

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Appendix 1 – Questionnaire

Circle the number that best describes your choice.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

Benefits of Flipped Classroom					
Comprehension Improvement					
1. Learners can review and preview materials.	1	2	3	4	5
2. Learners can prepare questions for teachers.	1	2	3	4	5
3. Learners can identify key concepts of the lessons.	1	2	3	4	5
Flexibility and Efficiency					
4. Learners can choose the best time and place for learning.	1	2	3	4	5
5. Learners can study the material at their own pace.	1	2	3	4	5
6. Learners can regularly review the subject to avoid cramming for exams.	1	2	3	4	5
Enhanced Learning Experiences					
7. Learners can experience a sense of accomplishment in self-directed learning.	1	2	3	4	5
8. Learners can get more engaged in the process of learning.	1	2	3	4	5
9. Learners take responsibility for their learning and become more motivated.	1	2	3	4	5
Diverse knowledge sources					
10. Learners can be exposed to diverse lecture content.	1	2	3	4	5
11. Learners can gain quick feedback and assessment from teachers.	1	2	3	4	5
12. Learners can pursue in-depth knowledge through critical questions.	1	2	3	4	5
Challenges of Flipped Classroom					
Tools/ Instruments Challenges					
13. Learners have a personal dislike of technology.	1	2	3	4	5
14. Learners have difficulties logging in to their accounts.	1	2	3	4	5
15. Learners encounter the low quality of the server and the Internet system.	1	2	3	4	5
Procedure Challenges					
16. Learners experience overload due to the amount of shared material.	1	2	3	4	5
17. Learners do not have enough time to complete exercises outside the class.	1	2	3	4	5
18. Learners worry about the extra effort for lesson preparation before class.	1	2	3	4	5
Community Challenges					
19. Learners do not have sufficient guidance on the pre-delivery materials from teachers.	1	2	3	4	5
20. Learners do not have enough support out of class from friends.	1	2	3	4	5
21. Learners lack timely feedback on their exercises from teachers.					
Motivation Challenges					
22. Learners have difficulties with self-regulated learning.	1	2	3	4	5
23. Learners consider the study skills course not to be important.	1	2	3	4	5
24. Learners are not proactive in learning and rely on other students in the group.	1	2	3	4	5

Appendix 2 – Interviews

1. Have you ever participated in the flipped classroom in other subjects before?
2. Did you have any difficulties in understanding the implementation of the flipped classroom in the study course?
3. Can you share some learning experiences you had in the flipped classroom?
4. Can you explain more about the benefits you gained in the flipped classroom?
5. What is the most beneficial aspect in your opinion? Why?
6. Are there any aspects you were not satisfied with the flipped classroom application?
7. Can you explain more about the reasons for the difficulties you encountered?
8. What is the biggest obstacle of the flipped classroom model in your model? Why?
9. Did you achieve good results with your study skills course with the flipped classroom application?
10. Can you give some recommendations to apply this model in other subjects at university?