Self-regulation and metacognition in a flipped classroom: EFL students' perspectives at a Vietnamese university

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While the flipped classroom (FC) has been increasingly used and well-researched in Western countries, little is known about its implementation in Vietnam. Utilising symbolic interactionism as the theoretical perspective, this study reports on research into English as a foreign language (EFL) students' perspectives of self-regulation and metacognition and how they went about these strategies in the FC at Hanoi University of Industry (HaUI). The study employed semi-structured interviews with 20 EFL students and five EFL teachers, and 30 observations of students' learning activities in both online learning and face-to-face settings. The findings revealed that students expressed a range of beliefs about self-regulative and metacognitive strategies, but these revealed inconsistencies across the cohort. While many students believed that they needed to be self-regulated learners, they lacked self-regulation and metacognition skills in the FC. The authors pointed to the underlying factors contributing to students' inadequate skills of self-regulation and metacognition. Suggestions are offered for Vietnamese higher education institutions.

Introduction

The advance of web-based technology has led to innovative changes in teaching and learning in higher education (Nguyen et al., 2018; Namaziandost et al., 2020). Numerous applications and functions of web-based technology have contributed to the emergence of new innovative instructional forms in EFL education such as e-learning, online learning, and hybrid learning (Samadi et al., 2024). Of those modes, the flipped classroom (FC) is a type of blended learning "whereby students are presented with web-based lectures prior to classroom sessions" (Thai et al., 2017, p. 113).

The adoption of the FC presents challenges to higher education regarding students' low level of self-regulation and metacognition (Dianati et al., 2022). This study explores students' perspectives and experiences of self-regulation and metacognition at Hanoi University of Industry (HaUI), Vietnam, where the FC has been adopted in a bid to improve the quality of the teaching and learning of English as a foreign language.

In light of rapid development of technological advances, the Ministry of Education and Training (MOET) of Vietnam has identified the integration of information and communication technologies (ICTs) in education as a key feature in the *Higher Education Reform Agenda* (HERA) (MOET, 2008). A number of policies that require the adoption of ICTs, especially web-based technology, in higher education, have been issued by the Vietnamese government (Peeraer & Van Petegem, 2011). Presently, English has been mandated as a compulsory course of study in Vietnamese universities in minor, major or

full-time learning modes. In alignment with the objectives of HERA and Vietnamese government policies of integrating ICT in education, and in response to the exponential growth of English language teaching in Vietnamese higher education, in 2015 HaUI mandated the implementation of the FC in English for occupational purposes (EOP) courses, with the purpose of enhancing students' English communicative skills inside and outside class. The university reduced the number of face-to-face teaching hours in EOP courses to 53% of the course duration and implemented web-based learning which accounted for 47% of the course time. Consequently, the FC implementation changed every aspect of the English program such as: teaching and learning methods; teachers' and students' roles; teaching and learning materials; content delivery; class hours; and assessment. In the role of a teacher as well as a course and/or learning designer participating in the FC reform, the lead researcher realised that EFL undergraduate students were not sufficiently prepared for the demands associated with the FC, including technology, learning management, and their learning strategies, to become successful flipped classroom learners. The lead researcher noticed the need for greater independence and active learning in the FC. Therefore**,** the study aimed to address the following questions:

1. What perspectives do EFL students have towards self-regulation and metacognition in the FC?
2. How do they go about self-regulation and metacognition in the FC?

Literature review

The term 'flipped', or 'inverted' classroom is a type of blended learning "whereby students are presented with web-based lectures prior to classroom sessions" (Thai et al., 2017, p. 113). In the most general sense, the FC is an instructional method that swaps post-class homework with pre-class instruction, and learning content is accessed outside the classroom prior to face-to-face sessions (Adnan, 2017; Shih & Huang, 2020). In this approach, teachers provide videos, notes, or online materials for students to view before class so that class time is used to apply the knowledge learned in online components of the FC through higher-order class activities such as pair work, group work, discussions, and presentations (Yilmaz & Baydas, 2017).

For the purposes of this paper, and especially in relation to the Vietnamese higher education context, the FC is defined as follows:

> The FC reverses the traditional classroom model so that new content is learned prior to classroom activity via diverse online instructional materials such as videos, podcasts, tutorials, or tasks whereas class hours are used for activities such as pair- and group-work that force students to apply the knowledge they have learnt online previously.

The definition employed in this study describes the diversity of the flipped learning model and stresses the importance of one parameter of the study; that it is concerned solely with the FC that employs ICT as the means of out-of-class learning, prior to face-to-face sessions.

Self-regulation

Self-regulation, one of the best predictors of students' learning, motivation, and performance, requires students' autonomy in planning, self-monitoring, self-regulating and self-evaluating their learning (Pintrich, 2000; Zimmerman, 2008). Zimmerman (2005) argued that self-regulated learning is a central notion in education because self-regulated learners, who are cognitively, metacognitively, and emotionally active learners, are more successful in their learning than those lacking self-regulated learning skills.

Some seminal models of self-regulation are briefly explained below. Zimmerman (1998, 2008) proposed a cyclical model of self-regulated learning which includes three phases: (1) forethought (task analysis such as goal setting and strategic planning, performance, and self-reflection; and those relative to self-motivation beliefs such as self-efficacy, outcome expectations, and intrinsic motivation); (2) performance (self-control and self-observation); and (3) self-reflection (self-judgement and self-reaction).

Pintrich's (2000) model of self-regulation comprised four phases: (1) forethought, planning and activation; (2) monitoring; (3) control; and (4) reaction and reflection. The earliest models of self-regulation were the *Adaptable Learning Model* and the *Dual Processing* self-regulation model (Boekaerts, 1996) which stressed the role of goals and how students activated various categories of their learning goals in association with self-regulation (Panadero, 2017). Efklides (2011) proposed *Metacognition and Affective Model of Self-Regulated Learning* with two levels: the person level (also called macro level) where grasps students' personal features of: (a) cognition, (b) motivation, (c) self-concept, (d) affect, (e) volition, (f) metacognition in the form of metacognitive knowledge and skills, and the task x person level (also called micro level), where the interaction between the task type and students' traits occurs.

Common to all the models is that self-regulation is a cyclical process comprising three main phases (Chen & Bonner, 2020): (1) a preparatory phase including task analysis, planning, and goal setting; (2) a performance phase consisting of strategies and approaches learners use to monitor and control their learning progress, or how the actual task is done; and (3) an appraisal phase referring to learners' reflection, self-assessment, regulation, and adaptation for their future performance. All these models regard self-regulation as goal-driven, so students' final self-regulatory actions are directed by their goals (Panadero, 2017).

Self-regulation is vital within online and blended courses because these modes require a much higher level of autonomy and self-regulation (Etemadfar et al., 2020). The flipped learning environment needs students to become self-regulated learners who can initiate, monitor, and control their own learning. Students' lack of self-regulated learning skills is often attributed to their lower academic achievement, notwithstanding their beliefs about their intellectual capability, motivation, and self-efficacy (Zheng, Ward & Stanulis, 2020). As self-regulation is a key to students' success in the online and blended learning environment and an essential requirement in the flipped learning environment for

students to become successful learners (Yoon et al., 2021), our study examined what perspectives students had towards self-regulation strategies, and how they went about self-regulation in their EOP flipped courses at HaUI, where the FC is still in an infancy stage of implementation.

Metacognition

The stages of self-regulation and metacognition are often similar. Some authors regard self-regulation to be a subordinate element of metacognition (Weinert & Kluwe, 1987) while others consider self-regulation as a concept superordinate to metacognition (Zimmerman, 1998). Metacognition refers to thinking about how to plan, monitor, evaluate the learning process and regulation approaches and strategies learners use to control these processes (Churches et al., 2017).

Fogarty (1994) proposed three stages of metacognition: (i) planning (a pre-task phase); (ii) monitoring (performed during the task); and (iii) evaluation (the post-task phase). Planning, known as the first stage*, forethought,* in a three-phase model of self-regulated learning prosed by (Zimmerman, 1998), refers to strategies and skills of setting the goals, deciding on action plans and allocation of resources (Yilmaz & Baydas, 2017). Monitoring, defined as the second phase, *performance control*, refers to the learning skills and strategies that students use to regulate their learning process. These strategies include attention, affect, and action monitoring, such as help-seeking strategies, time management and task strategies (Zimmerman, 1998). Evaluating is the third and final stage known as *self-reflection* in a three-phase model of self-regulated learning as suggested by Zimmerman (1998). In this stage, learners self-evaluate the outcomes of their performance based on success criteria, feedback and social comparisons and adjust the skills and strategies implemented in the forethought and performance phases.

In higher education and EFL education, topics such as the effectiveness, benefits, and challenges of the FC have been explored in empirical studies such as in Das et al. (2019), Turan and Akdag-Cimen (2020), Etemadfar et al. (2020), Fathi and Rahimi (2022), and Samadi et al. (2024). Nevertheless, extensive searches of the literature have shown a scarcity of studies conducted on what learning strategies they employ to become successful learners. Shih and Huang (2020) and Kermani et al (2023) appear to have focused on this question to date. The findings of Shih and Huang (2020) revealed that EFL tertiary students used five main metacognitive strategies: planning, self-monitoring, self-evaluation, directed attention, and selective attention inside and outside the classroom, and indicated factors affecting the students' use of metacognitive strategies: students' expected learning outcomes and peer learning. The other study by Kermani et al (2023) indicated that integrating flipped classrooms with metacognitive development increased EFL learners' reading comprehension and self-regulation levels. However, Kermani et al (2023) did not explore how students used each of metacognitive strategies separately such as planning, monitoring, and evaluating to study in the FC. Therefore, this study was conducted to bridge this gap in the literature on the FC.

Method

Drawing on symbolic interactionism which explores the meaning people have for things and how they act in accordance with the meanings they give, stressing the social interaction/ social contexts where meanings come from (O'Donoghue, 2018). Our study compared what students said about self-regulation and metacognition (their perspectives), and how they actually acted (their observable behaviours). Semi-structured interviews and observations (both face to face and via the LMS , an in-house built university LMS with no commercial name) were used to explore, in depth, what student and teacher participants said, in their own words. Observations documented the actions of student participants in the FC. Students' involvement in EOP was analysed using the LMS learning analytics which reported students' login frequency, access date and time, course progress, and online test results.

The participants were drawn from HaUI with a student body of 45,000, which among 53 universities and institutions in Hanoi alone, reflects its typicality as a case. Their ages ranged from 18 to 22. The participants were selected through 'purposive sampling' (Cohen et al., 2013). With ethics approval from the universities where the lead researcher studied and worked, and after informed consent was obtained from the EFL student and teacher participants, semi-structured interviews with 20 EFL students and five teachers, alongside observations of both online and face to face classes were conducted between February and March 2019.

Interviews with students and teachers as well as observations of online and in person classes took place at a time and place were chosen by participants at their convenience. Each interview, conducted in Vietnamese to make sure the participants thoroughly understood the interview questions and topics covered, lasted between 30 and 45 minutes and were audio recorded for data analysis. Field notes were written in English to record observation data. The lead researcher focused on the completion percentage and how much time students spent on each task and unit during online observations, which enabled researchers to triangulate the data from the face-to-face classroom. Face-to-face class observations were employed to record all students and teachers' activities through field notes. Observation data were then used to triangulate with interview data to see the differences and similarities between what students said in the interviews and what they did in the observations.

The lead researcher transcribed the interviews and translated them into English. Data were analysed using three stages of data analysis as suggested by Miles et al. (2014): (1) data condensation; (2) data display; and (3) conclusion drawing/verification. Data analysis focused on identifying components and phases of self-regulation and metacognition which are now presented here.

Findings

What students said about self-regulation and metacognition and how they went about those learning skills

We present three meta-themes: (1) planning with subthemes of choice of time and places for online learning and understanding course strategic goals; (2) monitoring with subthemes of time management, help seeking, note taking, giving, and receiving comments, and sharing materials; and (3) evaluating.

Planning

Planning refers to strategies and skills of setting the goals, deciding on action plans and allocation of resources (Yilmaz & Baydas, 2017). In our study, the planning strategies were reflected in students' choice of time and place for their online learning as well as understanding of their learning goals and the overall goals of the course.

Choice of time and places for online learning
Thirteen out of 20 student participants chose the most suitable time for their study online such as "after dinner time" (Student #3); "when my roommates go to bed because I need quiet time for not being distracted by the surroundings" (Student #7); or "an empty room at university before the next class begins" (Student #14). These students' choices of time and place for their online learning imply that they were making attempts to use appropriate planning strategies for time management and environment structuring in their online learning process to achieve better learning outcomes.

Understanding the strategic goals of the English flipped courses
The results of interviews from both students and teachers showed that students appeared to have varied and superficial understandings of the concept of 'FC' as well as the strategic goals of the entire set of English flipped courses. Nine out of 20 students reported that they understood the purposes of the English flipped courses. For example, one student said that "I think the school's strategic purpose mainly helps us to try to improve our English and focuses on improving students' English communication skills" (Student #5). However, 11 students responded they had no idea of the course objectives because they did not hear about them, or simply, they seemed to care about whether they passed the course or not. For instance, Student #14 stated: "I have not learned about the school's strategy. I have not heard anything about this from my friends either. My teachers might talk about it, but I don't care much." The students' viewpoints were supported by their teachers. Two teachers stated that even though they told students about the strategic goals of the course at the beginning of the first semester, it appeared they soon forgot or did not pay attention. One teacher commented that students only cared about passing the exam.

Regarding their approaches for setting learning goals and plans, most students did so at the beginning of the course. As one said: "I do not know why I need to study English in the FC. I learn it because it is a compulsory subject at university. I think the university

wants us to self-study more" (Student #4). This was because they appeared to have superficial understandings of the concept 'FC' as well as the strategic goals of the entire English flipped courses. The analysis of student interviews showed many students did not have any idea about the structure rationale of the flipped model, nor why they needed to study the English component. Most of the students, therefore, could not use planning skills and strategies to set their learning objectives to achieve good academic results in the flipped learning environment as intended. Two important themes already emerge. First, the primary focus in the Vietnamese educational setting is on exam success. Second, when students are given control of their learning in the FC, they need to be taught metacognitive strategies to self-regulate their learning process.

Monitoring

Monitoring skills and strategies include students' approaches of time management, help seeking, note taking, giving and receiving comments, and sharing extra materials.

Time management
Eighteen students stated that they managed time effectively for completing 100% online tasks prior to face-to-face classes. Such an approach is reflected in the statement of Student #2: "I access the LMS many times and spend much time learning online until I finish all the tasks required."

However, the perspectives of these students were different from the views of three teachers who had been using the online weekly reports to determine how much time their students spent on each unit or task online. For example, Teacher #4 said her students spent very little time on online tasks as illustrated in her response:

> While only some students spent from five to seven hours doing online units, most of them do each unit in about 20 or 30 minutes, even from 10 to 50 seconds per task. The total time is not accurate because some students learn seriously, while others cheat by using tools to time each unit or task automatically.

Interestingly, the observation data and teacher interviews indicated the divergence between what students said, in their own words, and what they did in online components of the course. For example, the analytics of the online data of Student #4 in Table 1 indicate that he did not use his time well when studying online; that is, he invested only 55 minutes in completing the whole of Unit 6 with 32 online tasks. Moreover, he spent only ten seconds on many tasks such as pronunciation and listening tasks.

Table 1: Comparison of time spent on one unit's online tasks by two students

Student	No of activities	Shortest learning time	Longest learning time	Total time spent per unit	Average time spent per task
Student #11	32	34 seconds	50 minutes 15 seconds	4 hours 21 minutes	9 minutes
Student #4	32	10 seconds	5 minutes 59 seconds	55 minutes	1 minute 7 seconds

The analytics from online observation data raised the important question of how this student could master the new content in such a brief time. As a result of the students' lack of engagement with online units, "the quality of students' learning of online components does not meet my expectation and the requirement of the course objectives" (Teacher #4).

Help seeking

Help seeking requires the learners to find appropriate sources of information or guidance to solve a task (Fletcher, 2018). The interview data revealed students' overall help-seeking strategies were not effective because they sought help only for technical problems with the Internet and the LMS, but not seeking help for content knowledge.

Ten out of 20 students asked their teachers for help with their troubles with online knowledge and the LMS technical problems. Some students contacted their teachers immediately by phoning or sending the screenshot with the LMS errors. As Student #12 said: "When I had technical problems, I phoned my teacher. She checked the LMS and fixed it. She told me to contact IT staff if she could not handle it."

The statements by these students were reinforced by statements from four teachers who had been talking about how they helped their students with their content and technical problems. As Teacher #1 stated: "They almost never asked me for help with the new knowledge even [though] they did not understand it". Students' different approaches to using help-seeking strategies did not seem to help improve their English language ability, which is the most important outcome the flipped learning approach aimed to achieve. It is important to note that students asked teachers only for help with technical problems; they did not ask for teachers' assistance with new content of a lesson.

What students and teachers said supported each other in this theme. That is, to some extent, students could handle the problems in their learning process of online components in the English flipped courses. This means they can adopt help seeking strategies – one of the most important learning strategies for online learning to become more successful learners in this new approach.

Notetaking strategies

Fifteen out of 20 students reported that they used different approaches, such as screen shots or notebooks, to record the new content for later revision. The following response illustrates what these students said: "I note down new content like new words and grammar structures while learning online. By doing this, I can remember these longer and use them in face-to-face classes for revision" (Student #13). However, five reported they did not write down anything while self-studying online components. For example, one stated: "I do not take notes as the textbook includes everything" (Student #11).

Giving and receiving feedback

Thirteen out of 20 students said they positively received feedback with from teachers and others in pair and group work, then gave feedback on their peers' work. Students often commented on their friends' mistakes regarding sentence structures, pronunciation, stress,

and intonation speaking components. Three of these 13 students believed the process of giving and receiving comments as well as correcting the mistakes was an inevitable part in their learning, so they easily accepted they needed to receive feedback from others to make more improvement in their English learning. One further explained: "I do not feel shy or bad when my friends correct my mistakes because it can help me understand the lesson better." (Student #3).

However, seven of the 20 students often did not give feedback on their friends' work, even though they were required to do so by teachers. According to teachers and students, the reasons were that they either "feel shy" (Student #15) or "did not want to show that they did not know anything to comment on their peers' work" (Teacher #4). Therefore, their shyness and face-saving cultures can be considered as obstacles for their participation in the face-to-face speaking lessons, which can be explained by cultural factors outlined in the discussion section of our article.

What teachers said differed from students' statements in their interviews. While most students responded that they often made comments on their peers' work during face-to-face classes, four out of the five teachers reported that only a few high-achieving students did so actively and had positive attitudes towards others' feedback because they were confident about their English language. As one teacher said:

> Only [a] few higher achieving students receive feedback from teachers positively. Those lower achieving ones rarely make comments on their peers' work as they are shy and do not have anything to say. They are afraid of giving wrong feedback. (Teacher #4)

What most of the face-to-face classroom observations showed was contradictory to the viewpoints of students, but was supportive for teachers' statements. Most students did not volunteer to give comments on their friends until their teachers made them do so. The following excerpt from one face-to-face class observation illustrates this point:

> After two students have finished their pair work activity, the teacher asks if any other students volunteer to give comments. No students answer her question. All of them keep quiet. The teacher must call one student and he says: "They made some pronunciation mistakes". The teacher asks: "Could you please tell what mistakes are?"

> The teacher calls another student to comment on this pair work "Any other ideas?" This student says: "He (one student doing the pair work) used the wrong personal pronoun". (FTF Observation 15-Teacher #4)

Searching for and sharing supplementary materials
The interview data revealed that nine out of 20 students searched for supplementary materials related to the topics of their majors and English language areas from different sources such as social networks, websites and those suggested by their teachers. These students also shared helpful materials with their friends in face-to-face classes and via *Facebook* or *Group Chat*, which could help "to expand students' understanding of their major areas as well as English language" (Student #1) and "create a strong community of English learning in which students are willing to support each other to make

improvements in their learning process" (Student 11). However, the remaining eleven students had never found any extra resources to supplement what they learned in the course, because they thought they only needed to focus on the main points covered in the exams to meet course requirements.

Evaluating

Evaluating refers to students' judgement of their learning progress, such as examining and correcting their cognitive processes, evaluating their learning goals and progress, and making revisions if necessary (Akamatsu et al., 2019).

Only seven of the 20 students were able to self-assess their learning progress in the FC by clearly understanding the objectives they had to achieve and what improvements they needed to make. The following response illustrates these students' perspectives:

> I can evaluate my learning progress. Based on my teachers' and friends' comments, I realise what my mistakes are and what I cannot do. I practise more about that part at home. However, I do not do the self-assessment sections at the end of each unit. (Student #19)

However, thirteen of the 20 could not evaluate their learning process, although they were required to do so at the end of each unit. Student # 7 elaborated: "I do not know how to self-evaluate my learning progress. I have never done self-assessment section because I think it is not important".

The teachers provided strong evidence to support students' perspectives. All five mentioned that very few students were able to evaluate what they had achieved after they completed each unit. One noted:

> My students are not able to assess their own learning because they do not know what progress they have made. They only need to know if their answers are right or wrong. Very few students can do this because they are unaware of the importance of self-assessment. (Teacher #3)

Discussion

From deeper reflection on the findings, and moving the analysis to a higher level, the major claim can be made as follows:

There was a difference between students' perspectives (what they said) and actions (how they went about) towards self-regulation and metacognition

The article provides further evidence via the sub-sections below, namely planning, monitoring, and evaluating.

Planning

Although some students reported they made choices of time and places to study online prior to class, they did not extend their planning further. Most did not understand the strategic goals of the courses; they did not set their own personal goals and plans for each unit as well as the whole course; they did not conduct important task analysis because they only tried to complete online work as they were told by teachers at the beginning of the semester. Most of the students, therefore, failed to use metacognitive planning skills and strategies to set their learning objectives and plan to achieve good academic results in the flipped learning environment as intended.

Monitoring

It was evident only few higher-achieving students employed some of the skills and strategies of monitoring, although it appeared they were not aware of, nor could they articulate, what the strategies were. In contrast, lower achieving students did not apply any skills or strategies clearly evidenced in online observation data. Those who majored in technical areas often completed their online work in the last minute on the due dates. Some students completed listening tasks in about 15 or 20 seconds while they were meant to take three to five minutes. The interview data revealed these students only asked their teachers for help with technical issues, not the knowledge they did not understand because they had often skipped such content in the first place. They generally took the view that they only needed to complete online work to meet the minimum requirement of the attendance in each unit. Therefore, they rarely noted down the key areas of each unit, nor engaged with the content, therefore could not ask for teachers' explanation of unsure content later in face-to-face classes.

Observation data indicated students did not actively engage in giving comments on their peers' work, but instead kept quiet in these activities. When being asked why they kept quiet in face-to-face class activities, they stated that they had nothing to say. These students never searched for any extra materials because they thought the program was too heavy for them to complete all online tasks, let alone access supplementary resources.

Evaluating

All five teachers reported most students did not complete the self-evaluation section at the end of each unit. They often left this section blank because they were not aware of the importance of evaluating strategies and did not know what they needed to do. As they could not effectively apply planning approaches such as goal setting and task analysis, they could not self-assess their learning related to what they could, could not, and needed to do after each unit. The findings clearly indicated the strong connection between the forethought or planning stage and the evaluation stage in the cyclical nature of the self-regulated learning model by Zimmerman (1998). If self-regulated or metacognitive strategies were applied right from the forethought stage, students would be able to self-assess their learning process in the last stage.

Overall analysis

Considering the self-regulation process as a sum of three parts, most students were unaware of how to self-regulate their learning which resulted in negative impacts on their learning outcomes and experiences in the FC. The way students demonstrated their perceived self-regulation and metacognition proved they lacked the necessary learning strategies to study as self-regulated learners in the FC. Most students did not apply self-regulated learning or metacognitive strategies; and even if they could use some of these skills, they were not aware of what they were. Becoming a self-regulated learner in higher educational contexts is critical to the demands of higher-level thinking skills and the emphasis on independent and personalised learning using digital technology (Hooshyar et al., 2020). In this regard, the adoption of metacognitive strategies as the main part of self-regulation is believed to be most important in effective learning in both online and face-to-face components of the FC. What is also most important is that metacognition must be taught in context because it is not an inherent skill.

Students' low level of self-regulation and metacognition can be attributed to student-related or individual factors which affected their learning experiences in the FC. Extensive searches in the literature indicated the importance of student-related factors or personal factors in the FC. These factors included gender and self-efficacy (Namaziandost et al., 2020), academic ability (Lee et al., 2018), self-direction (Lee & Choi, 2019), and motivation (Cho & Kim, 2019). This study also agreed with other previous studies which stressed the importance of self-regulation (Yoon et al., 2021) and metacognition (Shih & Huang, 2020; Yilmaz & Baydas, 2017) in the FC. However, none of these studies pointed out that students' self-regulation and metacognition was an individual factor that strongly affected students' learning experiences in the FC. This study has focused on this personal factor, finding that using a metacognitive strategy can help students to take more control of their learning by setting learning goals and monitoring their learning progress in accomplishing those (Bransford et al., 2000).

The study revealed that students are not being inducted or instructed into the necessary learning behaviours and approaches when transitioning from the traditional classroom to the flipped learning environment. More specifically, students have not yet chosen, or been guided in, appropriate self-regulated learning strategies in general and metacognitive strategies in their learning process. In other words, they have not developed their metacognition skills in the new learning model, a problem deepened because metacognitive strategies are not naturally developed and require instruction (Veenman et al., 2006).

Viewed from the perspectives of symbolic interactionism, and the links between meaning and action, this study has also showed the underlying reasons for students' current behaviours and learning approaches, which were strongly affected by contextual factors including institutional and socio-cultural aspects. Institutional factors including teachers' inadequate preparation for pedagogical knowledge, material-related issues, and classroom conditions stemmed from a hasty implementation of the FC. Both individual and institutional factors are, to some extent, heavily influenced by socio-cultural factors,

comprising traditional ways of teaching and learning as students are considered as listeners and note-takers, whose role is to memorise the knowledge transmitted by teachers (Ho & Reich, 2014). Students were heavily affected by an over-emphasis on examination-driven achievement based on traditional value and priorities within the Vietnamese context in which students were expected to try their hardest to pass exams with high scores. Teachers were more concerned about the pass rate of their students, rather than their teaching quality. Education is regarded as 'a ticket to ride' and possession of diplomas or qualifications is much more prized than competence and capability (Little, 1997). Significantly, these individual and contextual factors are interrelated and function together to shape EFL students' perspectives and influence their learning experiences in the FC.

Conclusion

Although the FC has been widely used in higher education globally, it is still in an infancy stage in Vietnamese educational contexts. As a result, the implementation of FC is varied and unsystematic across many Vietnamese universities. While it is inevitable that poses challenges to students' traditional perspectives and experiences of learning strategies occur, this paper has outlined those specific to the EFL students at HaUI. The implementation of the FC should not be done lightly or be seen as a simple, quick fix which could help to improve the quality of higher education as determined in the objectives of the Vietnamese higher education reform agenda from the Ministry of Education. At a minimum, it requires careful and thorough preparation for students and teachers to be ready for the FC (Comber & Brady-Van den Bos, 2018).

Of all stakeholders involved in the FC implementation, students are the most important ones whose perspectives and experiences are significant. Given Vietnamese students' marginal readiness for online learning (Hoang & Hoang, 2022) and the mismatch between their perceptions and real-life use of technologies in EFL education (Hoang et al., 2022), they demonstrated low levels of self-regulation and metacognition, especially in monitoring and evaluating phases of these two learning approaches which led to their surface learning evidenced in observed online and actual classes. Their lack of self-regulation and metacognition skills was heavily affected by contextual factors including institutional and socio-cultural aspects, traditional ways of teaching and learning, as well as examination-driven learning. Realising and understanding students' low level of self-regulation and metacognition in implementation can help important stakeholders including EFL students themselves, EFL lecturers and universities change their mindset and practices when transitioning from the traditional teaching and learning mode to the FC implementation.

Implications

Given the FC continues to be common practice not only in HaUI in Vietnam, but also in Western countries, the following implications are still highly relevant now in 2024. University leaders need to understand, and communicate through professional development of teachers, the educational philosophies and cognitive psychological theories underpinning each education paradigm, such as teacher-centred and student-

centred approaches. This research suggests the need to develop a comprehensive change management plan with practical guidelines and a thorough preparation agenda for different steps of implementing the FC. The outcomes of this study stress teachers' professional development, as teachers play a vital role in promoting the FC continuously, until its principles adhere to the students.

Another implication is that teachers need to receive professional development on self-regulation theory and models to understand how they can maximise students' learning in the classroom (Li, 2022; Dignath-van Ewijk et al., 2013). The findings clearly indicated this issue in teachers' professional development because teachers still mainly took control of students' learning in the FC. As teachers stated, they did not get adequate training on the teaching methods as well as theories underpinning the FC before participating in this new model. The adopters of the FC need to organise training workshops on self-regulation for teachers before implementing the FC. More importantly, teachers themselves need to gain understanding self-regulation theories as learners because it will influence their pedagogical knowledge and skills (Li, 2022).

The next implication lies in how self-regulation is taught at different levels of education. Different models of self-regulation work better at different levels of education as teachers' approaches to self-regulation vary, but not in the expected direction (Dignath-van Ewijk et al., 2013). Our study found that teachers tended to emphasise the course content without providing many opportunities for supporting self-regulation. There is a misalignment between what research says about the implementation of self-regulation and what actually teachers do in their practices (Moos & Ringdal, 2012). Therefore, professional development needs to be tailored so that the implementation of self-regulation can bring the most effectiveness to each educational level.

Last, self-regulation and metacognition are vital parts of being able to do well in the FC. Teachers need to learn the principles of self-regulation themselves, and then learn how to apply these theories by creating learning activities for students that incorporate planning, evaluating, monitoring, and giving feedback on students' work. Another implication is that universities need to choose or design the software for the learning management system so that it can help to gradually promote students' self-regulation and metacognition.

Limitations and further research

This qualitative research study also recognises some limitations. Qualitative studies are invariably based on in-depth information provided by deliberately small samples. While the data obtained from the processes of interviewing, observing and resultant data analysis with some 20 – 25 participants was quite large, the findings do not translate to external generalisability "beyond the case, setting or group, to other persons, times, or settings" (Maxwell, 2012, p. 137). Based on the findings of this study, future research could involve different stakeholders' perspectives in different universities such as EFL teachers' practices and university executives' perspectives of implementing the FC to identify what else needs to be done to enhance the effectiveness of students' learning. Further research could also be conducted to explore how the flipped classroom can be implemented in

other subjects and disciplines other than EFL education to explore how the flipped classroom, a Western constructivist approach to education, might work best in a Confucian culture.

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