

WHAT WILL A CLASSROOM LOOK LIKE IN FUTURE? A STUDY FROM PRIVATE VERSUS PUBLIC UNIVERSITY IN VIETNAM

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ABSTRACT

Towards a future class model in Vietnam, this survey analyses the staff perception of the application of the flipped classroom (FC) model in teaching accounting and finance courses at Ton Duc Thang University (TDTU – public university) and Hoa Sen University (HSU – private university). The outcome shows that regardless of their different levels of teaching experience in both universities, there is limited experience and knowledge in FC, thus a need for more training throughout the course. However, there are disagreements in ranking motivations, challenges, and reasons for any failed FCs between the two respondent groups. This may be attributed to the different teaching philosophies and staff management at public/private universities. Nevertheless, they both agreed on the enhancement of student’s self-study and initiatives, with a few subjects to be implemented on the trial. This survey was conducted before the occurrence of COVID-19 and shed some light on the preparation of the teaching staff as well as raised some alarms on the university management.

Keywords: flipped classroom, private/public university, study style, teaching philosophy

1. INTRODUCTION

The need to innovate teaching methods has become increasingly urgent in the area of training and education. Whilst this need is globally important, it is usually overlooked in developing countries where there are limited resources and a lack of consistent cooperation between the local education department, the organization's management, and the determination of the teaching staff. The flipped classroom method was discussed by Lage et al. in 2000 but still maintains its attention. There have been a few international projects related to this issue, for example, “Radical Transformation: Re-imagining Engineering Education through Flipping the Classroom in a Global Learning Partnership”. This is the project of the Department of Education and Training – Australian Government in 2017. In Vietnam, there are studies on this method published in Vietnamese educational journals and trade magazines [19,20].

There is limited research article discussing on flipped classroom model particularly teaching accounting and finance. For example, only Introductory financial accounting [16] has been discussed so far. In Vietnam, this application applies partially to some extent at some universities. For example, HSU has commenced the e-learning from the foreign language faculty and gradually expanded to other faculties. TDTU and HSU were selected for this study as they represent the sample of high quality for public and private academic sectors in the south of Vietnam. Ton Duc Thang University has been established for more than 20 years but has developed strongly in research and teaching quality. It is highly ranked by prestigious organizations in the world. It established a talent teaching club - a collection of passionate teachers- to periodically discuss teaching methods, teach a demonstration class, and then implement massively. On the other hand, Hoa Sen University is popular for its recognition by the ACBSP (American Education Assessment) and AUN-QA (ASEAN University Quality). This sees accreditation in teaching quality in accounting and finance units at Hoa Sen University. HSU was one of the early universities to apply mass e-learning during the COVID-19 pandemic with excessive training and transforming

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from the traditional base to adequately fit the e-learning model. The survey was conducted before the occurrence of Covid-19 thus shedding some initial perception solely from the teaching staff and raising some alarms on the teaching philosophy toward a future classroom model. The research objective of this study is to analyze the perception of the application of the flipped classroom model with particular accounting units at public versus private universities.

Research questions

Although the flipped classroom is applied across the courses and teaching levels, so far there has been no study found applying flipped classrooms to teaching accounting courses. Furthermore, TDTU is looking for advanced and contemporary successful teaching methods to apply at the university. On the other hand, HSU launched an e-learning model on language programs and is expanding to other training programs. Even though the online teaching model has taken place more broadly after COVID-19 globally, the appliance of flipped classrooms in Vietnam's academic environment is still important from a long-term perspective. Therefore this research aims to explore the strengths, weaknesses, and ways to successfully flip the classroom model.

Three research this study aims to explore:

1. Motivations to apply the flipped classroom model: private vs state-owned university
2. Challenges to applying the flipped classroom model: private vs state-owned university
3. Perception towards a successful flipped classroom model: private vs state-owned university

In answering these three questions, the study is the first attempt to analyze different aspects of applying FC in teaching accounting and finance units at public versus private universities.

2. LITERATURE REVIEW

2.1. Flipped Classroom

The idea of a flipped classroom was introduced around 1993 when King [13] focused on how teachers organize time for students to learn about lessons rather than conveying information. Although the concept of the flipped classroom is not yet given, his paper is often referred to as an innovation of active learning. The term inverting the classroom and flipped classroom was introduced by Lage et al [14] as a teaching/learning method at colleges.

In 2004, Salman Khan began recording his lectures into videos and was very popular. Since then Salman Khan established Khan Academy. It is a non-profit organization established to improve the way of learning. Its website offers over 3,250 free lectures with videotapes of different subjects. Students and teachers can use the materials for free. Many teachers have exploited a wide range of resources to apply the flipped classroom method.

In 2007, Bergmann and Sams recorded their lectures on chemistry and provided students who did not fully attend classes to keep up with their classmates. Thus, they have built a model of flipped classrooms, completely changing the way of teaching and learning.

A flipped classroom involves bringing what used to happen inside the classroom to progress outside and vice versa [14]. This is also called an inverted classroom. This method is one of the typical blended learning forms. Thanks to technological development, it can move lectures out of the classroom with learning and practice activities being moved inside [27]. The important feature of this model is the increased interaction between teachers and students, between students and students. This inclusion of direct teaching and active learning through building knowledge has created an opportunity to personalize the educational process. Brame [6] argued that with the flipped classroom method, learners have to work on the lecture on their own by reading, and listening to lectures through supporting devices such as videos, powerpoints and exploit documents online. The entire time in class will be devoted to solving exercises, and group discussions to fully understand the subject under the lecturers' guidance.

From the view of the leaning tower, the flipped classroom differs from the traditional model where the lower levels of learning (eg., remembering and understanding) will be made in advance through recorded video and PowerPoints. This level also requires readings and basic application through practice at the learners' own pace. As such, the limited time in class can be spent working on higher levels of learning from application, and analysis to evaluation [18,30]. In other words, in flipped classrooms, students go from the lowest level (remembering) at their own pace to make sure the highest level (creating) is attended in class. In the traditional model, the highest level is always missed out.

Similarly, Lankford [15] discussed the higher level of the taxonomy for learners that the flipped classroom can nourish.

2.2. Theoretical Perspectives

There were four theoretical perspectives [16], detailed as follows:

Thanks to technology development, these can be adopted outside of the traditional classroom:

- Blended Learning Theory (BLT)
- The Cognitive Theory of Multimedia Learning (CTML)

Next, this makes active learning activities possible within the traditional classroom

- Problem-Based Learning Theory (PBLT)
- Cognitive Taxonomy Theory (CTT)

2.2.1. Blended Learning Theory (BLT)

Using blended learning, a teacher is going to find an appropriate combination of face-to-face and online teaching methods. The ultimate purpose is to maximize the students' active learning ability and amount of knowledge [22]. A right balance of these two elements can be different depending on the subject technology used and learners. With the latest technological development online-based teaching can meet some extension of interaction as if a face-to-face mode is used.

In addition, a blended learning environment can minimize and overcome the weaknesses of a 100% online course. Those students who do not dislike working on their own now have some interaction sessions with teachers and their peers to clarify any misunderstanding of difficult concepts and ambiguities [4].

As such, BLT is an integrating part of the flipped classroom since it employs technologies to help students improve their performance outside the classroom.

2.2.2. The Cognitive Theory of Multimedia Learning (CTML)

This theory assumes two separate channels in processing information auditory and visual with their limited capacities and learning as an active process of selecting, sorting, and integrating information. This explains how technology can be perfectly

used and fit in developing the BLT to maximize the learning ability of students.

CTML can be applied to fulfill the target of the flipped classroom design and help to understand insight the success of using visual and other online tutorials. These devices indeed facilitate the student learning process [8].

2.2.3. Problem-Based Learning Theory (PBLT)

While BLT mentions the organization of the class, PBLT discusses a particular strategy from a strategy of student-centered learning. This strategy is developed on the foundation that learning is an active, integrative, and constructive process [2]. Further, active learning is a shift away from a teaching-centered paradigm toward a learning-centered paradigm to move students from surface learning toward deep learning [10]. By employing PBL instructors can bring students to their highest possible level of knowledge in a problem. In the PBL model, small groups of students are formed to solve real-world problems. They have to face some complex reality without any assumptions. In solving those problems students are learning and developing their knowledge and skills through discussing, debating, and negotiation, while also maintaining teamwork to get the problem solved. In the PBL environment instructors are acting as facilitators or moderators of knowledge, rather than disseminators of knowledge [11,12].

2.2.4. Cognitive Taxonomy Theory (CTT)

CTT builds on Bloom's [5] taxonomy to reflect recent developments in the literature [23,29]. The revised CTT involves six levels of learning objectives: Remembering, understanding (access to documents), applying, analyzing, evaluating, and creating (stage of information processing, building knowledge through learning activities organized by lecturers in class) [1].

Opposed to the traditional classroom where the later stages are either ignored or missed out, the flipped classroom model allows students time to work and discuss actively in class with either their peers (group work) or on one with an instructor.

2.3. Characteristics of Flipped Classroom

2.3.1. Advantages

Advantages to students

(1) Facilitating students choosing the way, place, and time of study in accordance with individual conditions. Students can also study anytime, anywhere, and with all devices that need only that device can be online (smartphones, tablets, computers...) [19].

(2) Creating equal opportunities for receiving and processing knowledge information: Students who have poor grades can listen and watch many times until they understand the lesson [20].

(3) Students do not have to worry about the pressure to complete assignments and small studies because they have a lot of time to discuss and do lessons in class [21].

(4) As students are active learners from the early stages, they are fully aware of the required reality as opposed to their progress throughout the course [7].

(5) even those students who are aware of what they do not understand or need verification, they often afraid to ask a question during a lecture. This issue can be overcome in a flipped classroom where students can ask their instructor in one-on-one time or during group discussions [26].

Advantages to lecturers

(1) Providing a great deal of flexibility for teachers based on their students' needs. Lecturers do not have time pressure to teach lessons so they can observe and comment promptly in group discussions, and expand deeper knowledge [20].

(2) Allowing lecturers to spend more time with individual students who do not understand the lesson thoroughly [19].

(3) Lecturers just record their lecture one time but use it many times later

(4) Lecturers can use online Open Course Ware (OCW) for enriching materials. Examples:

ocw.mit.edu, oyc.yale.edu, www.extension.harvard.edu/open-learning-initiative, and openstax.org, just to name a few.

2.3.2. Disadvantages

Disadvantages to students

(1) Students find significantly added responsibility posed by the flipped classroom [17]. As such, the right balance between in-class time and online self-study is different depending on the subject requirements and the student's personality. This also takes considerable time for students to adapt and well respond to the new learning approach [3].

(2) Not all students are easy to access and get materials from teachers to study.

(3) Some students do not possess efficient self-motivation and initiative. They may struggle and fall behind or quit from the requirements of the flipped classroom [27]. Furthermore, they feel left behind and some culture shock [28]. These effects may have reduced recently after around ten years since this model was introduced.

Disadvantages to lecturers

(1) The flipped classroom model requires lecturers' skills to record their lectures, which can take some tens of times recording before one is acceptable. This includes knowledge of comprehensive and combined diversified multimedia software. They have to spend a considerable time converting many of their traditional teaching materials into alternative media to be able to post online [21,27].

(2) Lecturers must change their role from media to guidance and management to create a dynamic, flexible, and interesting learning environment for learners [21].

(3) Lecturers will have to be fully aware and always keep up with the ever-rapidly changing technological landscape to meet student demand [24].

3. RESEARCH METHOD

A questionnaire was sent to the staff at the Accounting Faculty of the TDTU and the Accounting and Finance Department of the Faculty of Economics and Business at the HSU. The Accounting Faculty of TDTU has 14 full-time lecturers of which 4 are in management. It has 3 administration staff, and 6 regular visiting lectures. Visiting lecturers are those who have full-time jobs in the industry. Amongst the lecturer group, 60% have more than 3 years of teaching experience and only under 15% are new with less than 1 year of teaching experience. On the other hand, the Accounting and Finance Department at HSU is the largest department of the Faculty of Economics and Business. It has 25 academic staff including four management positions. Due to the collaboration of the teaching staff at the HSU, this survey was sent to only active full-time groups (Table 1).

As such, the sample used in this study is taken from the fullest capacity of teaching staff at both universities. Questions are designed in this study by the authors to answer the research questions. The research method used in this study is quantitative analysis fit to the sample.

Statistics on participants

There were 20 respondents from TDTU including 4 management-lecturers, 10 lecturers, 6 regular visiting lecturers, and 2 administration staff, and 16 respondents from HSU with 4 management-lecturers, 11 lecturers, and 1 administration staff (Table 1).

Table 1: Survey respondent: TDTU vs HSU

Years of teaching experience	Number of staff (%)	
	TDTU	HSU
Under 1 year	3 (15%)	
1-3 years	5 (25%)	1 (6%)
More than 3 years	12 (60%)	15 (94%)
	20	16
	(100%)	(100%)

4. RESULTS AND DISCUSSION

4.1. Participants' knowledge of the flipped classroom methods

Although e-learning can be heard by academic staff, flipped classroom is new to most faculty personnel. Particularly, only 23% (27%) of the respondents said to were experienced in using flipped classrooms, 50% (40%) of the respondents had basic knowledge and 27% (33%) said to had limited knowledge of flipped classrooms at the TDTU and HSU respectively. In this regard, this shows a common feature in the academic environment for both private and public universities (Table 2).

Table 2: Respondents' knowledge of flipped classroom

	TDTU	HSU
Limited	27%	33%
Basic	50%	40%
Experienced	23%	27%
	100%	100%

With around one-third being inexperienced in the flipped classroom model, the respondents show diversified outcomes in their readiness toward the flipped classroom model. 64% of respondents in the public sector compared to 10% in the private sector are ready for this model. Nevertheless, a higher percentage shows their need for more training in methodology with 73% (ranking #1) vs 27% (ranking #2) for public vs private sectors. The next important need is the training for using support devices and online integrations, with 55% (#3) versus 35% (#1) for state-owned versus private sectors. Ranking last yet significant is the need for more training on preparation throughout the course, with 45% (ranking #4) versus 18% (ranking #3) for state-owned versus private sectors. In addition, the private sector shows their concerns on the side of students as well as their uncertainty, with 5% in each case. This result shows a reality in the survey that TDTU initiated the flipped classroom model before HSU with particular teaching accounting and finance courses.

Table 3: Readiness in using the FC model in teaching

	Percentage (rank)	
	TDTU	HSU
Ready in attitude/perception	64% (2)	10% (4)
Need more training on methodology	73% (1)	27% (2)
Need more training on using support devices and online interaction with students	55% (3)	35% (1)
Need more training on preparation throughout the course	45% (4)	18% (3)
Uncertain		5% (5)
Not suitable with current condition, students have no initiatives		5% (5)

4.2. Motivations to apply the flipped classroom model

Regarding motivations to apply the flipped classroom model to teaching accounting and finance courses (Table 4), there are some similarities and differences between the two respondent groups. First, they both rank #1 on the enhancement of the model on students’ self-study and initiative. Likewise, this model is an unavoidable trend to take on, with both ranking #3. The greatest discrepancy stands on the perception of the model improving students’ critical thinking, where the state-owned sector ranks #2 while the private completely disagrees. This may come from the experience that students at HSU are pretty good at critical thinking with the current traditional teaching mode. A similar percentage but different ranking across the two sectors is the motivation to improve student’s understanding of the lessons. At the same lower ranking but a different percentage is the perception toward motivations to enhance IT skills for students and lecturers, flexibility for lecturers to organize classes, and utilization of e-learning in this model.

In addition, the TDTU respondents took more motivations as applicable to their situations than those at HSU. TDTU group agreed with most of the suggested motivations than the HSU group. The different outcome reflects some current different teaching philosophies at public and private universities.

Table 4: Motivations to apply FC in teaching accounting and finance

	Percentage (rank)	
	TDTU	HSU
According to trend	73% (3)	50% (3)
Improve students' understanding of the lessons	59% (5)	56% (2)
Improve student's critical thinking	77% (2)	0% (8)
Enhance students' self-study and initiative	82% (1)	63% (1)
Provide opportunities for students who are shy to interact with lecturers and peers	41% (8)	0% (8)
Provide opportunities for students to enhance research IT skill	55% (7)	25% (7)
Lecturers are flexible in organizing their classes	68% (4)	31% (4)
Lecturers have opportunities to enhance/use IT skills in preparing teaching materials and interacting with students	59% (5)	31% (4)
Lecturers utilize E-learning in developing FC	68% (4)	31% (4)

4.3. Challenges in applying the FC model

Regarding the challenges in applying the FC model (Table 5), almost three-quarters of the respondents at TDTU expressed their most concern for more time consuming on the first time preparing a flipped classroom. This is only ranked #4 at HSU with 15% of the respondents. Ranking #2 at both universities is the concern for "lecturers spend time on learning skills to upload, posting and organizing a conference, online chat". Challenge ranking #3 at TDTU is this method is “not suitable for lazy/low initiative students” (64%). Interestingly, respondents at HSU rank this as the most challenging (24% of respondents). 17% of HSU respondents agree that "Lecturers spend time on learning/applying software to do video clips on the lectures" is the third important concern, while 45% of TDTU respondents rank this lower at #4.

In brief, while TDTU respondents consider time time-consuming for academic staff at the first preparation, HSU respondents worried about the lazy and low-initiative students. Each TDTU respondent chooses 3 times more options than HSU respondents.

Table 5: Challenges in applying FC in teaching accounting and finance

	Percentage (rank)	
	TDTU	HSU
Students' negative response to the method	27% (6)	15% (4)
Not suitable for lazy/low initiative students	64% (3)	24% (1)
Students don't have the means for online learning	32% (5)	5% (6)
Lecturers spend more time on learning/applying software to do video clips on the lectures	45% (4)	17% (3)
Lecturers spend more time on first time preparing teaching materials for FC	73% (1)	15% (4)
Lecturers spend time learning skills to upload, post, and organize conferences, online chat	68% (2)	22% (2)
Budget for this initial investment	0% (7)	2% (7)

4.4. Towards a successful classroom with FC model

There is a difference between the two groups when discussing the issue. For full-time lecturers and staff members at the public university, more than 80% of them think positively about the FC model but only 60% of the visiting lecturers agreed. This shows the low initiative from the visiting group.

On the other hand, they contribute that it is impossible to apply immediately. They need about one semester to prepare it before applying it. Some of them require splitting students into 2 groups participating in 2 classes according to 2 methods to compare and adjust in time.

To answer the reasons why FC might be impossible to teach accounting/finance courses (Table 6), the most concern to the TDTU respondents is “Lecturers don't have sufficient knowledge and skills in IT to develop the FC” (36%). This issue is ranked #3 at HSU with 21% of their respondents. While the concern for "Students get shocked/panic for FC being too different" is ranked #2 at TDTU (23% of respondents), it is ranked #1 at HSU with 37% of respondents. Another concern is that “Learning results are not different compared with those from traditional methods” (ranked #3 with 14% at TDTU and # 2 with 26% at HSU). Thus, for respondents at TDTU, the main reason that makes FC impossible

to apply in teaching accounting/finance” focuses on the lectures at TDTU and the students at HSU.

Table 6: What reasons make FC impossible to be applied in teaching accounting/finance

	Percentage (rank)	
	TDTU	HSU
Students get shocked/panic for FC being too different	23% (2)	37% (1)
Too time-consuming for lecturers	5% (4)	5% (4)
Lecturers don't have sufficient knowledge and skills in IT to develop FC	36% (1)	21% (3)
Learning results are not different compared with those from the traditional method	14% (3)	26% (2)
Not in the right mindset		5% (4)

There are agreements from the respondents at both universities on the number of units/subjects that can be applied on trial. The highest ranking is the response for "A few units/subjects should be applied on trial with 73% and 60% of respondents at TDTU and HSU respectively. Only one subject to be applied in the FC method is ranked second at both TDTU (23%) and HSU (20%). Interestingly, more respondents at HSU (20%) suggested "All can be applied" than at TDTU (5%). This shows a higher readiness of academic staff at private universities than at public universities. Respondents in both public and private universities are most highly informed about the need to apply FC method testing on a few units/subjects before mass adoption.

Table 7: How many units/subjects can be applied on trial?

	TDTU	HSU
One	23%	20%
A few	73%	60%
All can be applied	5%	20%

In response to what support they need to prepare the FC (Table 8), there are significantly different needs between the two groups of respondents. For the TDTU group, what they need most is more training (77%) and working in a team (36%), then reduced duty hours (32%). In contrast, the HSU respondents want most is

reduce duty hours (79%) and then work in a team (14%). More training is the least 7% for this group. Respondents at TDTU are most interested in additional training, while HSU respondents pay special attention to reducing duty hours.

Table 8: What do you need to have support in preparing FC

	TDTU	HSU
Reduce duty hours	32%	79%
Work in a team	36%	14%
More training	77%	7%

5. CONCLUSIONS

This study has conducted a survey of perceptions of the academic and administration staff regarding teaching accounting and finance units at TDTU (public university) and HSU (private university) on applying the flipped classroom method. We find the majority of the staff have basic or limited experience in the flipped classroom method, regardless of their levels of teaching experience. Also, there are significant differences between the two groups of respondents which can be attributed to the university culture and its operations. Particularly, the public university respondents pay more attention to the lecturers in terms of training skills whereas the private university respondents focus on the students' factors. Also, public university respondents need more training whilst private university respondents require a reduced hours. This can be explained in the light of private universities' focus on students' perceptions and staff KPI. A private university has already focused on improving soft skills for students and its staff had a high KPI before the implementation of the FC. This finding can raise alarm to the management at the private university in terms of its current workload and what should be prioritized for teaching staff.

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