

## **Scrutinizing online instructional approach: What drives faculty to adopt synchronous virtual classroom**

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### **ABSTRACT**

The successful implementation of a method appliance can be attributed to the method itself. The matter of synchronous virtual classrooms is influenced by several factors. The adoption of synchronous virtual classrooms by faculty members provides a valuable experience for both students and lecturers. This study aims to identify the triggering factors that motivated faculty members to adopt synchronous virtual classrooms. Additionally, it seeks to examine the challenges faced by students and lecturers in implementing this method. The researchers utilized interviews and literature sources as instruments for data collection. A total of five lecturers were selected as respondents for this research. The criterion for selection was their implementation of this method in their department's courses and their experience with synchronous virtual classrooms. The collected data was thematically analyzed. The results revealed that the main triggering factor for adoption was the Covid-19 pandemic. The challenges faced by students and lecturers were not limited to technological and internet issues but also included a lack of preparation from the faculty. Based on the data analysis and interviews, future research could explore the potential of combining methods to create a more effective approach in different situational conditions.

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## **1. Introduction**

The proliferation of technology, especially with the invention of Web 2.0, the second internet generation, has amplified its integration into teaching, including language teaching. The augmentation that technology offers into teaching quality in the form of a technological-enhanced pedagogical approach has been well-documented (Wach, 2012). There has been ample evidence on how the technology-enhanced instructional method such as flipped learning enables and fosters innovative learning management systems (Chang & Hwang, 2018), promote learners' higher-order thinking skills (Blau & Presser, 2013), triggers learners' autonomous learning (Lin & Hwang, 2018), and personalized learning (Green & Schlairet, 2017) to name a few. While switching to technology is an obvious choice, implementing the actual teaching by adopting technology as instructional media is not as simple as it sounds, especially for digital immigrant, the term coined by Prensky (2001) to refer to people "who were not born into the digital world but have, at some later point in our lives, become fascinated by and adopted many or most aspects of the new technology" (2001, p.2). According to Prensky, "the single biggest problem facing education today is that our digital immigrant instructors, who speak an outdated language (that of the pre-digital age), are struggling to teach a population that speaks an entirely new language" (2001, p.3). Understandably, to facilitate active learning, digital immigrant instructors and teachers must first and foremost habituate themselves with the language of digital natives, those who are born and brought up surrounded by digital technology.

Successful integration and adoption of technology into teaching depend on various determinants, and one of them is the intention and acceptance of faculty members towards technology. Faculty motivating antecedents determine whether students benefit from the amalgamation of technology into teaching. Even though abundant research on students' acceptance of technology in learning is readily available, limited scholarly works have been carried out on the faculty technology acceptance, especially within the context of language learning. Today more than ever, due to the unprecedented global pandemic preventing face to face classroom interaction, the integration of technology into teaching is paramount. In fact, under the current circumstances, it is the only plausible option if we are to have some sort of normality into the teaching-learning process. Educational practitioners must adjust their instructional method to adhere to the new norm by instructional technology that can emulate a presence of brick and mortar traditional classroom presence online.

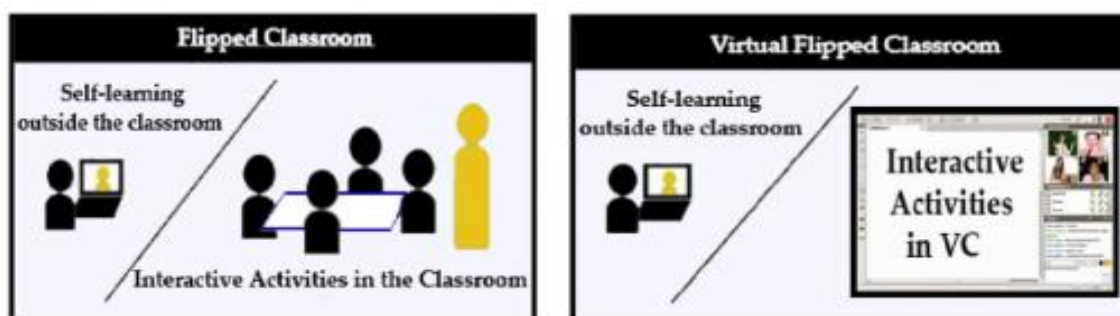
To understand and identify behavioral determinants affecting the adoption of innovative instructional technology by faculty members, especially the utilization of virtual synchronous flipped classrooms (VSFC), the current research employed the Unified Theory of Acceptance and Use of Technology (UTAUT). UTAUT framework identifies several contributing factors such as performance expectancy, effort expectancy,

social influence, and facilitating conditions as predictive of users' decision in adopting technology (Venkatesh et al., 2003). El-Masri and Tarhini (2017) elucidated that UTAUT, despite its bias across different contexts (Negahban & Chung, 2014), is the most extensively utilized theory to scrutinize the factors prompting users' decision to adopt the technology (Chopdar et al., 2018). Further, this framework has been considered to have a greater projecting capability to examine users' technology acceptance (Okumus et al, 2016). This research is aimed to (1) explore the deciding factor to why faculty adopt Virtual Classroom (VC) into teaching and (2) explore the challenges faced by the lecturers in the teaching learning process through using VC.

## 2. Literature review

### 2.1. Synchronous virtual flipped classroom

The flipped classroom is an instructional approach that requires students to conduct pre-class activities, usually by watching pre-recorded instructional videos, before attending face-to-face classroom settings. Essentially, this blended learning instruction comprises two learning phases, pre-class and in-class phases. Pre-class learning activities are intended to trigger and motivate students' independent learning that prepares them for the in-class active learning activities in the form of group discussions, and peer interactions. As such, "the flipped-class pedagogy facilitates content retrieval autonomously before attending class, enables peer communication and facilitates an asynchronous channel for watching video lectures while replacing repetitive conventional classroom lectures" (Zainuddin, et al., 2019, p.679). Unlike conventional FC instruction, the current study proposed a modified FC, by substituting face to face classroom setting with Synchronous Virtual Flipped Classroom (SVFC). Thus, all learning activities were conducted in the form of asynchronous and synchronous online learning.



**Figure 1.** Comparison of traditional FC and virtual synchronous flipped classroom

Pre-class online asynchronous interaction and discussion were facilitated via WhatsApp and Google classroom. As for the in-class activity, synchronous virtual flipped classroom (SVFC) was conducted via the Zoom platform in real-time (Figure 1). In this phase, students were required to present their summary of videos learning materials,

answer the quizzes, and present short speeches. In the current study, SVFC was intended as a substitute to emulate in-class synchronous classrooms.

Synchronous virtual classroom, a commonly implemented method in the 21<sup>st</sup> century education sector, is a method that consists of the use of instructional tools and media such as; Google meet, Zoom, Microsoft teams, and Skype group. The appliance of a synchronous virtual classroom has many outcomes depending on the challenges it faces, whether it is from the students perspective or the educator.

The specific conditions for conducting a virtual classroom are linked with two main factors – the time when learning takes place and participants’ location. As a kind of distance learning, virtual classroom presupposes a different location for the learners and tutors. As far as time of learning is concerned, however, virtual classrooms come into two main forms: synchronous and asynchronous. Effective online instruction depends on learning experiences that are specifically designed and facilitated by knowledgeable educators. Teaching models should also be adapted to the new learning environments. Because learners have different learning styles or a combination of styles, online educators should design activities that include multiple modes of learning. Due to the opportunities offered by the virtual learning environment participants contact each other and communicate at the same time.

Professional development (PD) is basically perceived as teachers’ common growth. It usually caters to a long-term goal and helps teachers grow their understanding of teaching and themselves as teachers (Richards & Farrell, 2005). PD consists of many activities designed to improve teachers’ competence. It is very strategic to improve teachers’ quality. It is also possible to be undertaken in many forms, starting from informal, simple, and individual activities such as reading professional articles to formal, well-organized, and large-scale activities held by institutions and organizations such as Ministries of Education (Borg, 2018). Recently, online PD is increasingly flourishing. The advancement of technology has allowed language teachers all over the world to obtain professional development credentials and academic degrees online (Shin & Kang, 2018).

Online teacher professional development (OTPD) is then prospective for enhancing teachers’ knowledge, skills, and competencies through flexible, low-cost, and large-scale EFL teachers’ online teacher professional development experiences amidst the COVID-19 pandemic: In the form of courses, seminars, workshops, discussions, resources, and other forms within an online environment, synchronously, asynchronously, or blended through websites, blogs, wikis, podcasts, social media, and other platforms. However, excellent outcomes are not guaranteed by just having access to OTPD. Technology will not be effectively employed if it is only utilized as a medium of delivery and ignores effective design or implementation principles (Powell & Bodur, 2019).

## *2.2. The UTAUT framework*

Nikou and Economides (2018) argued that the UTAUT framework is one of the most widely used models in relation to user acceptance of the technology. This theoretical framework, proposed by Venkatesh et al (2003), was based on the social cognitive theory. Venkatesh et al (2003) elucidated that several determining factors can be used to explain users' acceptance of the technology. These factors are performance expectancy, effort expectancy, social influence, and facilitation condition. Performance expectancy refers to the users' confidence in the benefits that the technology offers to their performance, while effort expectancy relates to the ease of technology use. Social influence denotes the degree of users' belief about why other people think they should adopt the technology, whereas facilitation condition relates to the ones' confidence about existing supports that help them utilize the technology (Venkatesh et al, 2003). The first two determinants are considered as users' internal drives, while the last two factors are referred to as external key determinants.

### *2.2.1. Performance expectancy*

Performance expectancy is also commonly referred to as perceived usefulness, "the degree to which an individual believes that using the technology will help him or her to attain gains in job performance" (Venkatesh et al., 2003, p.447). The willingness of the faculty members to adopt technologies as an instructional approach depends on whether they are convinced with the advantages offered by the technology on their performance (Ajjan & Hartshorne, 2013). If the faculty perceive that adopting technology affects their teaching positively, it is very likely that they will incorporate the technology into teaching (Kang, 2014). Understandably, the trade between technology usefulness with the efforts that the faculty put in to adopt the technology is one of the most influential factors. In the current study, the performance expectancy represents the degree to which the faculty members convince that the SVFC is able to elevate their teaching and help advancing students' learning experiences and achievements. Their belief that the new pedagogical approach can improve students' academic achievements, promote active learning, trigger students' critical thinking and collaborative skills is also of great importance in their decision to adopt the technology into teaching. Conversely, if users have doubts about the usefulness of technology or perceive instructional technology does not offer competitive advantages to their works, it is very unlikely that they adopt it as instructional intervention in their teaching.

After being given the most appropriate OTPD, the EFL teachers are expected to perform better in the future OTPD and achieve better improvements in all targeted skills to improve. Having successfully improved their competence for teaching online language learning, the EFL teachers can refine their online teaching practices which lead to the improvement of students' learning outcomes Atmojo (2021).

### 2.2.2. *Effort expectancy*

Effort expectancy which is also known as perceived ease of use signifies users' belief on the hassle-free usage of technology in their tasks. If users are convinced that integrating the technology does not take up much of their time and efforts (Venkatesh et al., 2003), and they believe that the rewards are worth trying (El-Masri & Tarhini, 2017), it is very likely that they have a positive outlook on the notion of integrating technology in their job (Pynoo & van Braak 2014). In this study, faculty members invested their time and effort to develop materials and design pedagogical approaches to SVFC that enhance students' collaborative and active learning.

### 2.2.3. *Social influence*

Koral and Akay (2017) defined social influence as the extent to which the users are convinced that the stakeholders should adopt the technology. In the context of teaching, Teo, et al., (2016) suggested that, "meeting the expectations of school leaders and the ministry has become one of the important factors teachers consider when making decisions in using technology" (p.1036). In this current study, the researchers extend the notion of social influence to include the instruction of physical distancing which temporarily restricts face-to-face brick and mortar classroom interaction as a result of the global pandemic. Thus, the faculty members are expected to adhere to the *New Norm* in delivering the teaching-learning process.

### 2.2.4. *Facilitating conditions*

One of the factors triggering technology adoption is users' conviction of supporting facilities (Venkatesh et al., 2003). In a similar vein, Chopdar et al. (2018) and Khan et al. (2018) stated that the availability of institutional supports and technical assistance of technological use determines users' judgment to adopt technology. Institutional supports refer to a wide range of areas such as favorable policies and funding, good infrastructure and facilities, availability of good internet access and digital resources, technical assistance and provision of other support facilities (Long et al., 2016; El-Masri & Tarhini, 2017). When adopting technology is considered irrelevant and difficult by users because of the absence of support, it is very likely that they abandon the idea of incorporating technology into instructional practices (Ajjan & Hartshorne, 2013).

## 2.3. *Virtual teaching*

### 2.3.1. *Virtual*

Virtual classrooms can take asynchronous or synchronous forms, or a combination of both. Asynchronous learning is the learning that does not happen at the same time (Moore & Kearsley, 2011), while synchronous learning refers to teaching and learning that happen at the same time, both of which are conducted through technologies such as the Internet. When online education began in the late 20th century, most online programs and classes were synchronous and used chat rooms, instant messaging, and texting. Both

chat rooms and instant messaging, being synchronous, allow users to decide who participates in the conversation.

The universal use of web sites has provided opportunities for the development of online communities and groups. Emailing, conferencing, chatting, working together via Google drive, Google doc, Google hangout, Dropbox, Facebook, Twitter, etc. have been widely used in online classrooms. Online education can be categorized by its users: 1) University-Based Online Education, whose users are individuals enrolled in universities for the purpose of obtaining degrees and diplomas; 2) Massively Open Online Courses (MOOC) (some termed Massively Open Online Class), whose users are self-motivated individuals and whose programs are based on their learning goals, prior knowledge and skills, and similar interests (McAuley, et al., 2010; Schroeder, 2012). In general, students in the United States enroll in universities where online course formats have been added to already-existing classroom-based courses. At those institutions two modes of online classes are usually offered – fully online courses (not taught in bricks-and-mortar classrooms), and blended/hybrid courses (a combination of face-to-face and web based and technology-oriented format). Students in these two modes of online programs are granted credits, degrees, and certificates when they complete required courses and internships.

### *2.3.2. Principle of online classroom*

Online education is here and is highly likely to stay and grow. The review of its history clearly shows online education has developed rapidly, fueled by Internet connectivity, advanced technology, and a massive market. It has evolved from 19<sup>th</sup> century correspondence programs to the 21<sup>st</sup> century's vibrant and well-designed institutional online offerings. We can well anticipate that online education will continue to increase its presence and influence higher education through a vigorous process of reshaping, refining, and restructuring. It is unlikely, however, to replace traditional higher education but merely to be an alternative. But, owing to its flexibility, accessibility and affordability, online education is gaining in popularity, especially for people who are otherwise unable to obtain education because of physical distance, schedule conflicts, and unaffordable costs.

To establish such a community, several studies we reviewed pointed out the significance of promoting social presence, interaction, and collaboration (Whipp & Loentz, 2009; Yuan & Kim, 2014). Online education is an alternative for students' learning (Wang, 2014), which is intended to focus on critical thinking and creation. However, online courses are commonly dictated by the technology (Cole, et al, 2014) and are designed more for the convenience of the online system and the technology. To promote intellectual rigor and the development of informed and individual perspectives, further investigation should explore how to use technology and software to engage students in multiple and ongoing dialogues in a variety of online formats.

Further research is needed to investigate how group designs can impact social interaction and the sense of a learning community considering group members' different personalities, learning styles and levels of skill. Previous studies mainly examined postings sent by participants. With the advancement of technology, researchers need to study the roles that a variety of technological tools play in promoting more effective social interaction and growth of a learning community, for example, audio and/or video conferencing via Google Hangout and Skype, social network media, and virtual reality environments.

### **3. Method**

The researchers used a qualitative approach in conducting this study. Qualitative approach was selected because of its versatility in the process of investigation, as it enabled the researchers to describe the quality of relationships, activities, situations, or materials in detail. This was in line with the statement put forward by Denzin and Lincoln (2005) arguing that the qualitative research studies about what a phenomenon means to the people. According to Hancock et al, (2007), qualitative research outlines people's idea, sense, and experience. The researchers use a qualitative research design because he wants to explore the reasons that influence the lecturers to adopt SVF, its challenges, and strategies used to overcome these obstacles.

#### *3.1. Participants*

A total of five lecturers (three male and two female lecturers) at the English Language Education Department, Faculty of Education, Ar-Raniry State Islamic University became the respondents of this study. Specific selection criteria were used to recruit the participants. The main criteria were that the respondents have implemented this method into their course given by the department as well as their experiences in using this teaching and learning platform thus having an experience in a synchronous virtual classroom.

#### *3.2. Data collection*

In order to gain the data for this research, the writer used interviews and literature sources. This method involved the collection of data from published text presented in the open domain. Literature sources included textbooks, reports, newspapers, magazines, online-published papers and articles. The researchers also chose interview-style because it allowed the researchers to comprehend faculty member's perception about the difficulties and strategies behind using synchronous virtual classrooms. Furthermore, it helped the researchers explain, better understand, and explore research subjects' opinions, behavior, experiences, and phenomenon. Interview questions were usually open-ended questions so that in-depth information could be collected. Because literature sources act as a secondary data collection, it was inexpensive and not time consuming.



### *3.3. Data analysis*

The researchers used a thematic data analysis method to determine and manage the data collected for this research. A method for analyzing qualitative data that entails searching across a data set to identify, analyze, and report repeated patterns is thematic analysis (Braun & Clarke, 2006). Steps to take when proceeding to the data analysis included data coding, simplifying, and grouping into a certain theme.

## **4. Findings and discussion**

The aim of this study is to find out specifically why faculty adopted the synchronous virtual classroom method at the English language education department of UIN Ar-Raniry Banda Aceh. The result of this research was based on the data obtained from the interview conducted. The participants of this research interview were five English language education department lecturers. The correspondents selected for this study were based on several criteria, mainly lecturers have implemented this method into their courses as well as their experiences in using this teaching and learning platform thus having an experience in a synchronous virtual classroom. The correspondent responded to eight questions specifying on their experiences and difficulties using the synchronous virtual classroom method. The five lecturers were marked as L1, L2, L3, L4, and L5.

In this study the researchers briefed the correspondent on the theme of the research to strengthen and to prepare the correspondent to maximize the result of the answers prior to the interview. Then the researchers asked the five lecturers eight questions to figure out the reason why faculty adopted synchronous virtual classrooms and their experiences.

Based on the responses that were given by the interviewed lecturers, almost all respondents gave similar answers with exception of minor different answers. Based on the responses, there were different themes that came up during the interview related to the research questions.

### *4.1. The deciding factor to why faculty adopt Virtual Classroom (VC) into teaching*

#### *4.1.1. Prior experiences and usage of the synchronous virtual classroom*

The experience of a lecturer tends to influence the selection of a method, in this case it is a synchronous virtual classroom. All the respondents gave similar answers.

Before covid-19, I never used this synchronous virtual classroom method. In terms of using instructional technology, I usually use WhatsApp or email to disseminate course materials. The reason I adopted SVCM was because I was not able to have face to face meetings due to covid-19, and the regulation of the government preventing face to face encounters (L1).

I have not used this method before covid. I used this virtual classroom because face to face classroom was not possible during Covid (L2).

No, we have not used this kind of method before covid, but I was trained once in 2017 or 18 using canvas, but at the time I was the student because I was

training in the University of Arizona. I got like a 7 week course so we used canvas at the time. But I don't use it for my own teaching but I was trained by using canvas. So canvas zoom or any online learning platform was only utilized when Covid came, the face to face meeting was not possible (L3).

It can be concluded from the lecturers' explanation above, that the majority of the lecturers have not used but some have been introduced to the synchronous virtual classroom prior to the pandemic. From the responses above, a developmental course towards this challenge is available.

#### *4.1.2. Future usage of synchronous virtual classroom*

Many possibilities arise in terms of online learning due to the advances made by the digital learning system. Hsu, Marques, Khalid Hamza, and Alhalabi (1999) defined the virtual classroom as a system that provides the same opportunities for the teaching and learning process, beyond the physical limits of the traditional classroom walls. On this issue, the respondents gave a relatively different answer.

After the experience of using SVCM during the restriction implemented by the government, I think I would use SVCM occasionally, not a full online course. This cannot be done, especially in the condition where face-to-face meeting is not possible for some reasons (L1).

Yes, I will. This semester, if I cannot attend the class, I will arrange a virtual classroom. However, it is not often; maybe, just one or two times (L2).

It would be great but I would not call it online learning but rather blended learning, because we sometime we need offline but for my own experience I have been away teaching offline for about 3 semester, for this semester I do not consider using blended because I still miss the feel of face to face because I was away from face to face for about 3 or 4 semester so by the time we have a face to face mode back on I want to use the face to face first but later on maybe in a couple of semester I would consider a blended learning because we have got used to online learning. Maybe we use it for extra work or something but I think online learning will persist although the covid is not there anymore (L3).

From the responses above, we can conclude that the majority of the lecturer chose to continue using the method but not permanently. The responses from the correspondent indicate that the synchronous virtual classroom serves as complement to face to face meeting, especially in the case that the lecturers are unavailable to attend their offline class.

#### *4.1.3. Comparison between virtual and conventional classrooms*

Comparing the outcome and the result of different methods to improve education is a must. To say there is a winning or a better method between the conventional or the synchronous virtual classroom does not really provide a strong base for future research as both the methods have advantages and disadvantages. The responses obtained from the

interview reveal to be rather neutral.

If we compare SVCM (virtual classroom) with FTFC (face to face classroom), it would not be fair, as both methods have their strengths and weaknesses. So it depends on the condition, the nature of the course and the learning goals wanted to be achieved. SVCM is ideal in situations such as pandemic situations where FTC interaction is not permitted. Although there are many issues with SVCM, especially related to the technology infrastructure (network connection, sound quality, delay in response, etc), SVCM has undoubtedly been an instrumental factor in running the educational sector since the covid-19 plague. Another issue with SVCM is the lack of sense of presence. The fact that the lecturer and students only meet online, it is impossible to pick up a comprehensive classroom experience that is present in the FTFC. So, in conclusion, we cannot say that this method is better than FTFM or any other methods (L1).

Other lecturers had similar experiences in relation to this matter:

I will not say it is better, it is efficient but I do not think it is very effective because sometime we cannot guarantee the students learn anything because it comes up as autonomous learning and I do not think most of the student are autonomous at the moment, most of the them have not done the research but I believe some of them or the majority of the would not learn that much if they are not guided or not instructed by their lecturer so the idea of learning by themselves and searching for their own knowledge I think our student need to learn about this more and then when they become more autonomous I think synchronous virtual classroom will be effective (L1 and L3).

This response is in line with the research conducted by (Venkatesh et al., 2003) stating that the perceived ease of use signifies users' belief on the hassle-free usage of technology in their tasks. If users are convinced that integrating the technology does not take up much of their time and efforts, and they believe that the rewards are worth trying (El-Masri & Tarhini, 2017). It can be concluded that both the method has its own advantages according to the situation of the students and the educator themselves.

## *4.2. The challenges faced by the lecturers in the teaching learning process*

### *4.2.1. Challenges on implementing synchronous virtual classrooms*

Synchronous learning has many advantages and disadvantages. Synchronous online conferences can be highly useful and even advantageous for students in carrying out teamwork for courses including community contacts provided they overcome their space constraints, time limits, and scope (Tabak & Rampal, 2014). But like all methods, disadvantages also exist for this method.

The lecturers may have challenges in engaging students to the class, providing effective instruction, and having good quality internet access. Meanwhile, for the students, they may have problems connecting internet access, motivating themselves to be independent in learning, and misunderstanding instructions (L2).

As I mentioned before, the majority of the challenges faced by the lecturers are mainly the internet connections and their lack of experience in using online classroom whether its zoom or Google classroom maybe it's because of the sudden use of technology for learning for the lets say a more elderly lecturer where they are not from the digital era (L3).

For me; I cannot teach using former strategies in my class such as grouping students into groups, controlling and managing the class interactively, checking students' notebooks for TKT at the beginning of the class, etc (L3).

For students; they may not learn enthusiastically and seriously since they are learning separately. Not all parents support the students to sit still for their classes without any extra homework. Some students who live in remote or isolated are can get the connection easily. They sometimes cannot get enough materials or references from lecturers to learn and do tasks or homework (L4).

Students believed that this type of learning was appropriate for the contemporary situation, in which technology plays an increasingly essential part in daily life. They also found the information to be engaging and simple to obtain. Though there is a point where both the lecturer and the students agree on in terms of difficulties. Out of the many challenges, the demands of a high-speed internet connection, being strictly technology-based and careful planning requirements are the most opinionated challenges that need to be looked into to overcome these issues.

#### *4.2.2. Students understand the use of virtual classroom methods*

The option to involve the students' understanding in the research of synchronous virtual classrooms will reflect the outcome on how successful and efficient the method is. In the case of the pandemic, online learning has become the norm for educational institutions. The effect of this method is divided in two different groups, the internet native and the pre-advanced digitals.

My experience teaching with this method (virtual method) showed that students had problems understanding these course materials. It is not that they are not intelligent, but the virtual environment at times does not fully function, or it does not support the virtual learning environment. Problems such as network connection, sound quality, delay in response, lack of sense of presence, lack of support from the faculty, unsuitable course materials (sometimes lecturers did not adjust the materials to suit online needs, etc were common occurrences. So, students' learning experiences were not the best ones, resulting in lack of understanding of course materials on the part of the students (L1).

I do not know how to answer this question as I am not a student, but I think the students in face to face classroom can have a greater understanding based on the explanation, stories, and real world examples from teacher and their peers; and also we can expect that students are more engaged to the teaching learning process as it is less distraction than they were at home. However, in a virtual classroom, the students can access material from anywhere at any time; thus,

they may have more opportunity to expand their insights of the material (L2).

Similar responses were given by other lecturers:

There are differences but I do not know the degree of the differences but I do believe there are differences because I think classroom lesson will give more knowledge to the student rather than the online because we can confirm right away but with online learning sometime due to the internet connections the student say they turned on the video but we cannot see them because their internet is not good. So I think we cannot guarantee that the student knows better from the online learning (L3).

There is no real classroom interaction. Sometimes, students can not join the class because of internet connection. It is difficult to assign students into small groups since there is no feature for it in GC, so that the teaching should be done classically/ lockstep. It costs money for students, especially for poor ones (L4).

From the responses obtained by the lecturers in the interview, the most striking points in term of students understanding in the synchronous virtual classroom can be said to be the lack of preparation and prior knowledge and usage of the synchronous virtual classroom by the students because of the sudden change in the society's norm of education by using virtual classroom.

## **5. Discussion**

The purpose of this study is to find out what drives faculty members to adopt synchronous virtual classrooms, as well as challenges faced in the implementation of this method. As such, there are three main points of discussion in this study: the first one is the triggering factor, the effectiveness and efficiency of the synchronous virtual classroom, and the last one is the challenges faced by the lecturers in using this method.

### *5.1. Why adopt synchronous virtual classroom*

From the interview, it was clear the main reason for the adoption of SVC by the faculty members was because of the forcing condition of the Covid-19. All respondents agreed that they had no choice but to implement this instructional technology, which was relatively new to them, in order to carry out the teaching learning process. Interestingly, this force majeure condition was not clearly defined in the UTAUT theory (Venkatesh et al., 2003). The researchers would like to venture to say that the forcing condition, due to covid-19 pandemic, can be argued as a new component in relation to the reason for the adoption of technology into teaching.

As such, we need to consider force majeure as one of the factors that may play a significant role in the decision of educators in implementing a new instructional technology into teaching. From the interview data, it can be assumed that without the covid-19 pandemic, the faculty members participating in this research would not use SVC in their teachings. If we look at the UTAUT theory, force majeure is not clearly stated as

the reason for technology adoption in the teaching learning process. What can be concluded from this finding is that the global pandemic such as the covid-19 was not imaginable at the time when this theory was put forward. The fact that the covid-19 pandemic creates a crisis on a global level, affecting all aspects of foreseeable life, was unthinkable.

Besides force majeure situations, several other reasons were also mentioned by the respondents, including improving learners' learning, and the accessibility of technology. Alongside with audio chat, the features that most predisposed the implementation of synchronous virtual classrooms, seeing participants through webcams, and using text-based chat interfaces were used most frequently by correspondents to efficiently hold synchronous virtual meetings,

One of the reasons triggering the adoption of SVC was due to its versatility. Answers from the respondents suggested that the method is easy to implement, especially because the students have been exposed to the technological devices that can be utilized in the learning process. Familiarity with online applications used in implementing SVC has helped both the lecturers and students in conducting the teaching learning process. Virtual classrooms can take asynchronous or synchronous forms, or a combination of both. Asynchronous learning is the learning that does not happen at the same time (Moore & Kearsley, 2011). In relation to the data collected from the interview, all of the lecturers agree upon the idea that it is effective and efficient to apply the synchronous virtual classroom method as it provides a number feature. The correspondents used the method to provide courses or tasks to students because it is easier and more time saving thus increasing the effectiveness and efficiency in the learning process.

The findings in this study, particularly the ones related to the driving factors for the adoption of VSC were in line with the UTAUT framework of performance and effort expectancy. What it means is that the respondents considered VSC method would give positive effects on students' academic performance (Venkatesh et al., 2003). However, when it comes to the factor of facilitating conditions, the respondents mentioned that the expected level of support provided by the faculty management was not optimal, especially in the first year of online learning. The respondents suggested that institutional supports such as favorable policies and funding, good infrastructure and facilities, availability of good internet access and digital resources, technical assistance and provision of other support facilities (Long et al., 2016; El-Masri & Tarhini, 2017) were lacking in the first year of the implementation of online learning. The situation was getting better in the second year.

Based on the lecturers' answers to the interview many useful features and advantages are present in the synchronous virtual classroom method. Numbers of experts have also said that the implementation of synchronous virtual classrooms across all educational fields could be a major game changer or even revolutionary. Lecturers have provided their opinion on how the method can be more effective if some aspects are fulfilled, such as the internet connection and the students' understanding on how to use

the method.

Today's rate on students' understanding of online classrooms and learning have increased drastically as the majority if not all students now can be said to be technology and internet native making it far more easier for them to understand the new way of learning. Implementing online technologies may result in increased student self-confidence, especially when application of e-learning tools closely correlates with student success in a particular course. In addition, the use of e-tools largely contributes (directly and indirectly) to enhancing student digital intelligence and IT competencies in general (Zounek, et al. 2013). It can be said that from the adoption and use of the method not only the academic side of a student is polished but some may say that the confidence itself can be improved.

## *5.2. Challenges on synchronous virtual classroom*

Every method has its limitations as there cannot be one perfect method in the educational field. Synchronous virtual classroom has the most benefits amongst all the other methods during the Covid-19 pandemic. From the data collected from the interview, all lecturers faced relatively the same challenges where they found it difficult to maximize the potential due to some missing components needed for the teaching learning process to yield maximum results. Some of the issues hampering the implementation of the teaching learning process, as mentioned by the respondents include poor internet connection, lack of experience, lack of and social presence.

### *5.2.1. Internet connection*

Internet connection is the most important factor in the implementation of synchronous virtual classrooms. From the interview, it was clear that the lecturers constantly faced issues of poor internet connection, affecting the quality of the teaching learning process. In the early phase of online learning, this issue was caused by the lack of support from the management. Available internet connection on campus was not good and stable enough to have VSC, resulting in poor online learning experience. Due to the recent nature of the crisis caused by the COVID-19 pandemic, there are few empirical studies that examine the impact of broadband coverage on access to online education, at any level of education. One notable exception is Bacher-Hicks et al. (2021), which provides stark evidence of the education digital divide in the US during the COVID-19 lockdown period. Using high-frequency Google search intensity data for online learning resources across 210 different regions, the study shows that areas of the country with higher income levels, better internet coverage, and fewer rural schools saw significantly larger increases in search intensity relative to less advantaged areas. It stresses the importance of additional support for students in low socioeconomic status (SES) areas and rural communities if inequalities in access to, and engagement with, online learning resources are to be reduced (Bacher-Hicks et al. 2021; Naceanceno & Akpanudo, 2023).

### 5.2.2. Lack of experience

From the data collected, all lecturers mentioned that lack of experience on both sides, lecturers and students, was one of the challenges faced in implementing this method. It is a major setback. The term internet and technology native can only be referred to as the students as they have been raised and surrounded by technology their entire life whereas some lecturers have adopted and adapted themselves to these growing conditions, lecturer 3 mentioned that it is far more harder and difficult for the aged lecturers to implement all the synchronous virtual classroom needs because all of it is done with technology and internet. Teachers point to external factors that inhibit online classes' smooth flow, such as loss of internet connection and power interruptions. Another is the need to reroute their usual day and time work schedules leading to the usage of their extra time during weekends for preparation of lesson packages, presentations to be exact. And last is, lack of gadgets needed for online classes and lack of mastery in using computer technologies and online platforms were also considered as potential barriers in having successful online teaching experience and could negatively affect the pupils' information processing (Capacio et al., 2021).

## 6. Conclusion

This research examines the obstacles encountered by lecturers in the English Language Education Department when implementing the synchronous virtual classroom. Drawing on the research findings and discussions from the preceding chapter, the researchers have reached several conclusions. Firstly, the majority of lecturers encounter challenges in utilizing the synchronous virtual classroom method. This can be attributed to the lack of preparation and training provided by the lecturer or educator, as well as the sudden shift in teaching methodology. However, minimal difficulties arise for individuals who are proficient in internet usage and technology. Secondly, the faculty's inadequate support for the lecturers leads to a greater investment of time and effort in fully grasping the methodological system. Thirdly, data obtained from the lecturers indicates that students face less difficulty than lecturers in understanding the synchronous virtual classroom, primarily because all students are adept in internet usage and technology. Nevertheless, the challenges faced by students in this regard primarily stem from facility-related issues. From the experiences of lecturers, it can be concluded that the difficulties encountered by students mainly revolve around internet connectivity, as they are situated in various locations with varying strengths of internet connection.

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