

Comparative Study of Synchronous and Asynchronous Online Teaching  
Methods for Fundamental English III Course of Eastern Asia University  
การศึกษาเปรียบเทียบวิธีการสอนออนไลน์แบบซิงโครนัสและอะซิงโครนัสในการเรียนรายวิชา  
ภาษาอังกฤษพื้นฐาน (ภาษาอังกฤษ III) ของนักศึกษามหาวิทยาลัยอีสเทิร์นเอชีย

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## Abstract

This research study investigated and compared the students' learning outcomes of Fundamental English III that was taught through synchronous and asynchronous online teaching methods. It also aimed to explore the students' satisfactions toward the two teaching methods. 109 second-year and third-year students who enrolled Fundamental English III course in the first semester of academic year 2021 were divided into 2 groups: a synchronous and an asynchronous group. In addition, data drawn from examination scores were analyzed by the Mean (M) and Standard Deviation (SD). Independent Samples T-Test was also used to compare the difference in terms of students' learning outcomes. the results showed that the Mean score of synchronous students for both examinations is higher than asynchronous students. furthermore, there was significant difference in Mean score of the mid-term examination between two groups; however, there was no significant difference in Mean score of the final examination. besides, participants strongly agree that the course content was useful at the highest level of agreement, but they least agree that they receive timely feedback from the instructor. overall, the participants were satisfied with this online learning experience. It is recommended for further research to be studied with a larger sample size and participants with similar background. a blend of synchronous and asynchronous methods should also be investigated.

**Keywords:** Synchronous Learning, Asynchronous Learning, Online English Language Learning, Online English Language Teaching

## บทคัดย่อ

การศึกษานี้มีวัตถุประสงค์เพื่อศึกษาเปรียบเทียบผลสัมฤทธิ์ทางเรียนในรายวิชาภาษาอังกฤษพื้นฐาน 3 โดยจัดการเรียนการสอนออนไลน์รูปแบบชิงโครนัสและอะซิงโครนัส อีกทั้งยังสำรวจความพึงใจของนักศึกษาที่มีต่อการเรียนออนไลน์ทั้ง 2 รูปแบบ โดยผู้เข้าร่วมในการศึกษานี้เป็นนักศึกษาชั้นปีที่ 2 และชั้นปีที่ 3 ที่ลงทะเบียนเรียนรายวิชาภาษาอังกฤษพื้นฐาน 3 ในภาคการศึกษาที่ 1 ปีการศึกษา 2564 จำนวนทั้งสิ้น 109 คน โดยผู้วิจัยได้แบ่งผู้เข้าร่วมออกเป็น 2 กลุ่ม กลุ่มที่ 1 เรียนผ่านการเรียนการสอนออนไลน์รูปแบบชิงโครนัส และกลุ่มที่ 2 เรียนผ่านรูปแบบอะซิงโครนัส ผู้วิจัยใช้คะแนนสอบกลางภาคและปลายภาคเป็นเครื่องมือในการตอบคำถามการวิจัยที่น่าไปสู่การเปรียบเทียบผลสัมฤทธิ์ทางการเรียนของนักศึกษา จากนั้นจึงวิเคราะห์ผลการวิจัยโดยการหาค่าเฉลี่ย และค่าส่วนเบี่ยงเบนมาตรฐาน นอกจากนี้ผู้วิจัยได้ใช้การทดสอบที่ (T-Test) ในการเปรียบเทียบผลสัมฤทธิ์ทางการเรียนอีกด้วย จากการศึกษาพบว่า กลุ่มที่เรียนผ่านการเรียนการสอนออนไลน์รูปแบบชิงโครนัส (กลุ่ม 1) มีค่าเฉลี่ยของคะแนนสอบกลางภาคและปลายภาคสูงกว่ากลุ่มที่เรียนผ่านการเรียนการสอนออนไลน์รูปแบบอะซิงโครนัส (กลุ่ม 2) อีกทั้งยังพบว่าค่าเฉลี่ยคะแนนสอบกลางภาคของทั้ง 2 กลุ่มแตกต่างกันอย่างมีนัยสำคัญ อย่างไรก็ได้การศึกษาไม่พบร่วมกันของค่าเฉลี่ยคะแนนสอบกลางภาค นอกจากนี้ผลสำรวจพบว่าผู้เข้าร่วมเห็นด้วยอย่างยิ่งว่าเนื้อหาในรายวิชานี้มีประโยชน์ในทางกลับกันผู้เข้าร่วมเห็นด้วยน้อยที่สุดในด้านการตอบกลับจากผู้สอนภาษาในระยะเวลาที่เหมาะสม อย่างไรก็ได้ ผู้เข้าร่วมพึงพอใจต่อการเรียนการสอนออนไลน์ในรายวิชานี้โดยภาพรวม ทั้งนี้การวิจัยในอนาคตควรจะศึกษาเก็บกลุ่มตัวอย่างที่มีขนาดใหญ่ขึ้นและมาจากการศึกษาที่คัดเลือกตัวอย่างที่มีความหลากหลาย รวมถึงการศึกษาในรูปแบบผสมผสานระหว่างชิงโครนัสและอะซิงโครนัสอีกด้วย

**คำสำคัญ:** การเรียนการสอนรูปแบบชิงโครนัส, การเรียนการสอนรูปแบบอะซิงโครนัส, การเรียนภาษาอังกฤษรูปแบบออนไลน์, การสอนภาษาอังกฤษรูปแบบออนไลน์



## Introduction

Living under the circumstances of the COVID-19 outbreak requires not only prevention, but also adjustment and adaptation. Furthermore, social distancing measures have been applied to prevent the spread of COVID-19 in the workplace, schools, and other public places. Therefore, people need technologies to support their communication and other daily-living activities during the time of social isolation. One of the sectors seriously affected by the COVID-19 pandemic is education.

In Thailand, all schools in the worst-hit provinces have been ordered by the Ministry of Education to close and switch to online learning during the period of high number of Covid-19 cases. The closure of the schools has affected

the structure of learning and schooling as it transformed the teaching and assessment methodologies (Tarkar, 2020). In order to ensure continuity of education, schools and universities adopted online learning to replace traditional onsite schooling during the lockdown. Although online learning offers an opportunity to resume education during the crisis, there are some limitations that teachers and educators need to consider, e.g., high chances of students' distraction, malfunction of technological devices including the stability of internet connectivity. Moreover, learners may feel they lack support and reassurance due to a lack of the social physical interaction that comes with attending a traditional classroom (Sadeghi, 2019; Pappas, 2015). Another limitation of distance

learning is the difficulty staying in contact with instructors (Sadeghi, 2019).

In addition, many instructors have had to improvise quick online learning solutions (Hodges et al. 2020). Teachers are also challenged to make lessons interesting and engaging (Arrieta, Dancel & Agbisit, 2020). Some instructors recorded their lectures and ask students to watch the video lectures asynchronously and answer follow-up questions or do an assignment. Other instructors teach via a synchronous meeting platform, while students watch it from their homes. The synchronous learning makes communication happen at the real time and it requires simultaneous student-teacher presence (Perveen, 2016). On the contrary, asynchronous online communication does not require the real-time participation of instructor and students. Students can access the class material via a learning management system. However, both types of learning have their own strengths and weaknesses; we should discuss and investigate to find out the best way for our classrooms not only now, but also a post-pandemic learning.

### Research Objectives

This study aimed 1) to investigate the students' learning outcomes of Fundamental English III course taught through synchronous and asynchronous online teaching methods, 2) to compare the learning outcome of Fundamental English III course between synchronous and asynchronous teaching methods, and 3) to explore the students' satisfactions toward synchronous and asynchronous teaching methods.

### Literature Review

#### Online English Language Teaching and Learning

Online language learning is defined as

methods for learning languages that are conducted through online platforms (Hockly, 2015). According to Kasteen (2014), online teaching and learning has become played significant roles in second language learning; it also refers to computer-based language learning. However, online language instruction can provide both advantages and limitations in teaching and learning process. The instructors need to adapt traditional methodology and teaching structures to online language classroom to remove the significant risk and take optimal advantages of using technological devices in language instruction. Also, an appropriate implementation of technology in online language classroom should reflect positive results from students as shown in Mareco's study (2017) that technology integrated methods used in language classroom showed more effectiveness than the traditional language classroom.

#### Synchronous Learning

Synchronous learning is almost similar to learning in traditional classrooms because it requires students and instructors to be in virtual classrooms at scheduled time in order to provide instruction (Jackson, 2012). Simultaneous interaction between instructors and students occurs by using virtual conferencing programs, web camera, microphone, and speaker (Jackson, 2012). Instructors select online instructional tools and methods that can support real-time learning and discussion.

In terms of synchronous learning, it allows instructors and students collaborate and interact in real time, so it can foster sense of community between students and their peers through collaborative activities (Perveen, 2016). Also, in synchronous online discussion, there should be a moderator to lead the discussion that encourage

participants to focus on topics being discussed. This can also be supported by the study carried out by Asterhan and Schwarz (2010). The study has been conducted with ninth-grade students in online synchronous group discussion and found that an effective moderator in online discussion should be able to keep the live discussion focused in order to lead participants to abide on topics. However, the participants of Asterhan and Schwarz's study (2010) also mentioned that they did not expect mediators to add any comments into their discussion. In addition, different studies related to synchronous learning have found that the engagement in synchronous learning as compared to asynchronous learning, students seem to be more focused, experience better rates of course completion, and involve in greater contribution (Chen & You, 2007; Hrastinski, 2010).

### Asynchronous Learning

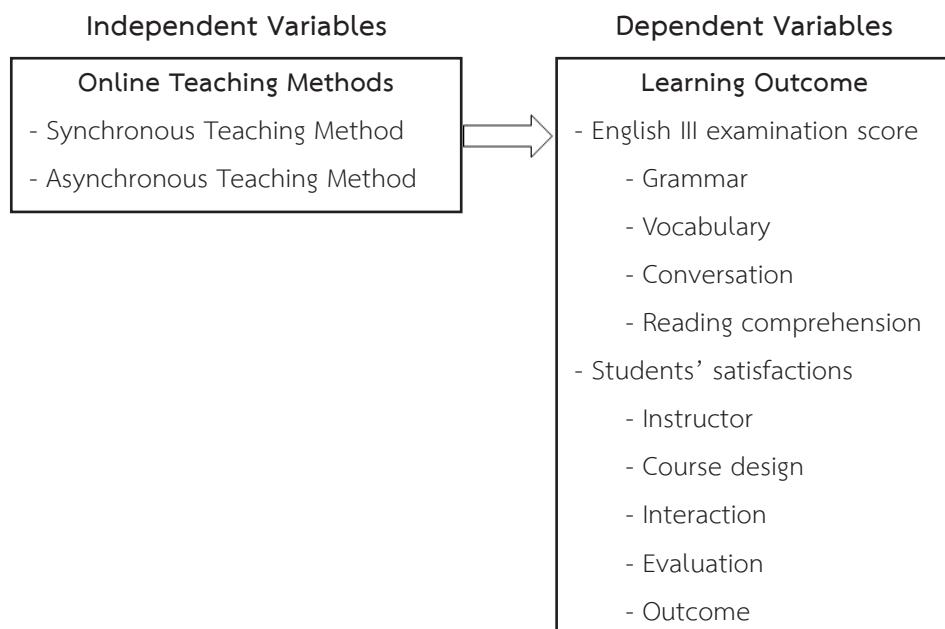
According to Wintemute (2021), asynchronous learning allows learners with flexibility to study in a self-paced manner. Students can connect with lessons, class materials, instructors, and peers on their own schedule. However, most

asynchronous classes require submission deadlines for all assignments. In addition, asynchronous classes use the message boards to keep a running dialogue between participants. Hence, many students find asynchronous learning the most comfortable for them as for a certain learning type.

In asynchronous instruction, instructors can pre-record lectures. This method allows students to review lectures over and over at any time based on their convenience. Therefore, asynchronous methods are helpful for students who cannot attend live virtual classroom, are hesitate to attend live group projects or discussion, or want to study at their own pace.

However, asynchronous learning can be challenging as it is a self-paced learning in which the students must be disciplined to keep themselves active and interact to keep track with all online activities (Perveen, 2016). Furthermore, delayed feedback from the instructors can be another drawback that makes students distracted. (Huang & Hsiao, 2012). Also, asynchronous learning can lead to insufficient opportunities for students to be socialized, and they have to look for ways to connecting and networking themselves.

### Conceptual Framework



## Hypotheses of The Study

Two hypotheses of the present study can be formulated as follows:

1. The students' learning outcomes of Fundamental English III class taught by synchronous teaching method has significantly higher Mean scores than the class taught by asynchronous teaching method.

2. There is significant difference in learning outcomes Fundamental English III course between synchronous and asynchronous teaching methods.

## Methodology

### 1. Research Design

A combination of a quantitative casual-comparative design and a descriptive survey was employed for this study. A quantitative casual-comparative design was carried out to investigate and compare students' learning outcomes; this was because there was no manipulation of the online teaching methods (synchronous and asynchronous methods) as the independent variables. In addition, a descriptive survey was chosen to explore students' satisfactions toward two teaching methods used in the course.

### 2. Population and Sample

The population of this study was second-year and third-year students, studying at Eastern Asia University. However, 109 second-year and third-year students who enrolled Fundamental English III course in the first semester of academic year 2021 (June – October 2021) were selected as a sample for this study. This sampled group was chosen because the researcher found that there was rather proximate average score for the examinations on the pre-requisite units, English I and English II. Hence, the researcher assumed that their English language competence was likely at similar levels.

The sample were divided into 2 sub-groups: Group I consisted of 48 students from Faculty of Nursing, and the lessons were provided using a synchronous approach. Meanwhile, other 61 students from Faculty of Liberal Arts and Business Administration were in Group II for a classroom conducted by an asynchronous approach. Even though the sample was purposively chosen from the whole population; however, the convenience sampling was used to assign the participants into sub-groups. Some of the participants in Group II struggled with financial difficulties during the Covid-19 pandemic and had to do part-time jobs, so they were assigned to an asynchronous group based on their own preferences and educational needs.

### 3. Research Instruments

The research instruments used in this study were the following:

1. Google Meet was used to conduct online classrooms for a synchronous group (Group I) throughout the course. The students were asked to attend the classroom on the scheduled time. Besides, Zoom was used to pre-record the classroom for an asynchronous group (Group II). The videos recorded via Zoom were posted on weekly basis. The students were allowed to study from the recorded video at any time based on their convenience. However, they were required to submit all assignments within deadlines.

2. To investigate the students' learning outcomes, two different tests which were parts of the course assessment were used in this study. The tests consisted of (a) mid-term examination and (b) final examination. All examinations were designed by the instructor and were in line with the course contents using World Link Level 3 book.

3. A Likert-scale survey, adapted from Le Shea (2013), was used to explore the students' satisfactions toward the synchronous and asynchronous teaching methods. The reliability of the survey was established through the pilot study (N=34), which statistically revealed the Cronbach's alpha coefficient at 0.97 indicating a high level of internal consistency.

#### 4. Data Collection

The lessons were delivered within a total of 19 weeks from June to October 2021, and the weekly assignments were assigned to both groups. The students were asked to submit the assignments within the same length of deadlines. Also, the students were asked to complete mid-term and final exams at the same dates which were scheduled on the 9<sup>th</sup> week and 19<sup>th</sup> week of the course. Both mid-term and final exams were done online. At the end of the course, the students were asked to complete the online questionnaires

in order to explore the students' satisfactions toward synchronous and asynchronous online teaching method.

#### 5. Statistical Analysis

The data collected from the exams and the survey was analyzed by Mean (M) and Standard Deviation (SD). In addition, the Independent Samples T-Test was also used to compare the learning outcome between both groups.

### Results

This study aimed to investigate and compare students' learning outcomes of Fundamental English III course taught through synchronous and asynchronous online teaching methods. Therefore, the results obtained from the exam scores were analyzed.

The results shown in Table 1 were students' mid-term and final examination scores analyzed by Mean (M) and Standard Deviation (SD).

**Table 1**

*The mid-term and final exam scores of the students from both groups*

Variables	N	M	SD
<b>Students' mid-term examination scores (full score = 60)</b>			
Group I (synchronous group)	48	39.86	3.35
Group II (asynchronous group)	61	36.36	7.56
<b>Students' final examination scores (full score = 80)</b>			
Group I (synchronous group)	48	54.47	6.89
Group II (asynchronous group)	61	53.09	11.64

As presented in Table 1, Group I (synchronous group) received the Mean scores of 39.86 on mid-term examination and 54.47 on final examination. In the meantime, Group II (asynchronous group) received 36.36 on mid-term examination and 53.09 on final examination. It can be seen that Group I performed higher average score

than Group II in both examinations. Moreover, the standard deviation indicated that the variance of Group 1 was less than Group II for both examinations, meaning that the scores of each participant in Group 1 were rather approximate.

Besides, the Independent Samples T-Test was properly employed in this study to find out

whether there is any significant difference in term of the learning outcomes of Fundamental English III course which was through synchronous and asynchronous teaching methods. The Independent Samples T-Test was selected since the learning

outcome was assessed by scores between two distinct groups: synchronous and asynchronous groups of students. The results were presented in Table 2:

**Table 2**

*The statistical analysis of the difference in the learning outcome of Fundamental English III course between synchronous and asynchronous teaching methods*

Levene's Test for Equality of Variances						
		F	Sig.	t	df	Sig. (2-tailed)
Mid-term examination	Equal variances assumed	18.725	0.000	2.987	107	0.003
	Equal variances not assumed			3.239	86.792	0.002
Final examination	Equal variances assumed	3.628	0.060	0.682	107	0.497
	Equal variances not assumed			0.722	100.138	0.472

As shown in mid-term examination, the p-value (.003) is less than the significance level (.05). It indicated that  $H_0$  was rejected, and this led to the acceptance of  $H_1$ . Therefore, it could be concluded that there is a significant difference in mid-term examination's Mean scores between synchronous students (Group I) and asynchronous students (Group II).

For the final examination, the p-value (.497) is greater than the significance level (.05), indicating that  $H_0$  was not rejected. Consequently, there was no significant difference in the Mean scores of the final examination between synchronous students (Group I) and asynchronous students (Group II).

In addition, using the t-test of independent samples, a statistically significant difference between both groups was not found in final examination. However, based on the Mean score, it was obvious that there was a difference in terms of learning outcomes of students enrolled in Fundamental English III course conducted by synchronous and asynchronous teaching methods.

Furthermore, this study also explored the students' satisfactions toward synchronous and asynchronous teaching methods. Therefore, the questionnaire was designed to examine toward different aspects; instructor, course design, interaction, and outcome. The overall statements included 30 items. At the end of the courses, the questionnaires were distributed to all 109 participants through Google Form; however, only 102 questionnaires were returned.

A five-point Likert scale was used in the questionnaire to score the participants' level of agreement in terms of satisfactions toward synchronous and asynchronous teaching methods. The range of the five-point Likert scale items were interpreted based on the criteria of Rensis Likert (1932) which are 1.00-1.80 as Strongly Disagree, 1.81-2.60 as Disagree, 2.61-3.40 as Moderately Agree, 3.41-4.20 as Agree, and 4.21-5.00 as Strongly Agree. Mean (M) and Standard Deviation (SD) were also used to analyzed the average level of students' satisfactions. The detailed analysis was illustrated in the table below:

**Table 3**

*Students' satisfactions toward synchronous and asynchronous teaching methods for Fundamental English III course (N=102)*

Statement	M	SD	Interpretation
<b>Instructor:</b>			
1. The lesson content was explained clearly.	4.11	0.67	Agree
2. The class assignment was explained clearly.	3.82	0.74	Agree
3. The lesson content was well prepared by the instructor.	4.36	0.78	Strongly Agree
4. The materials were well prepared by the instructor.	4.31	0.81	Strongly Agree
5. I received timely feedback (within 24 hours) from my instructor.	3.51	0.72	Agree
6. I was able to get individualized attention from my instructor when needed.	3.71	0.80	Agree
<b>Total</b>	<b>4.31</b>	<b>0.75</b>	<b>Strongly Agree</b>
<b>Course design:</b>			
7. The lesson materials, e.g. text book, audio, and video, used in this course facilitated my learning	4.16	0.92	Agree
8. The exercises and assignments could help reinforce my learning.	4.26	0.79	Strongly Agree
9. The online teaching method including either live online classroom through Google Meets or pre-recorded video of the course facilitated your learning.	4.30	0.82	Strongly Agree
10. The course content was interesting.	4.18	0.81	Agree
11. The course content was useful.	4.41	0.67	Strongly Agree
<b>Total</b>	<b>4.26</b>	<b>0.81</b>	<b>Strongly Agree</b>
<b>Interaction:</b>			
12. I am satisfied with the quality of interaction between me and the instructor.	4.20	0.85	Agree
13. I am satisfied with the quality of interaction between me and peers.	3.79	0.76	Agree
14. I am satisfied with collaborative activities during online learning.	4.19	0.89	Agree
15. I think this course created a sense of community among students.	3.64	0.88	Agree
<b>Total</b>	<b>4.20</b>	<b>0.84</b>	<b>Agree</b>
<b>Evaluation:</b>			

16. The examinations used in this course were relevant with the course content.	4.39	0.78	Strongly Agree
17. Scores given on the examinations were appropriate.	4.34	0.87	Strongly Agree
18. The evaluation criteria used in this course were appropriate.	4.27	0.80	Strongly Agree
19. I am satisfied with the course evaluation.	4.38	0.71	Strongly Agree
<b>Total</b>		<b>4.37</b>	<b>0.79</b>
<b>Strongly Agree</b>			

**Outcome:**

20. I feel this online class experience has helped to improve listening skills.	4.21	0.86	Strongly Agree
21. I feel this online class experience has helped to improve speaking skills.	4.08	0.78	Agree
22. I feel this online class experience has helped to improve reading skills.	4.11	0.78	Agree
23. I feel this online class experience has helped to improve writing skills.	4.05	0.83	Agree
24. I feel this online class experience has helped to improve my self-study skills.	4.18	0.83	Agree
25. I feel this online class experience has helped to strengthen my self-discipline.	3.92	0.85	Agree
<b>Total</b>		<b>4.10</b>	<b>0.82</b>
<b>Agree</b>			

**Overall satisfaction:**

26. I learned as much in this online course as compared to a face-to-face course.	3.90	1.04	Agree
27. I feel online courses are as effective as face-to-face courses.	3.74	1.14	Agree
28. I feel comfortable taking other online courses in next semester.	3.84	1.16	Agree
29. Overall, I am satisfied with this course and this online learning experience.	4.13	0.92	Agree
30. Overall, I will recommend this online learning experience to others.	4.10	0.87	Agree
<b>Total</b>		<b>3.94</b>	<b>1.04</b>
<b>Agree</b>			

Among 30 questionnaire items, the highest Mean score appeared in the course design, followed by the evaluation, as could be seen in Table 3. The participants strongly agree that the course content was useful ( $M = 4.41$ ,  $SD = 0.67$ ). In addition, they also strongly agree that the examinations used in this course were relevant with the course content ( $M = 4.39$ ,  $SD = 0.78$ ), and they were satisfied with the course evaluation ( $M = 4.38$ ,  $SD = 0.71$ ). On the contrary, the lowest Mean score found in statement 5 in the instructor section ( $M = 3.51$ ,  $SD = 0.72$ ) as the participants least agree was that they received timely feedback (within 24 hours) from the instructor.

Also, when considering each aspect, the results revealed that the highest Mean score at strongly level of agreement was shown in the evaluation ( $M = 4.37$ ,  $SD = 0.79$ ), followed by instructor ( $M = 4.31$ ,  $SD = 0.75$ ), course design ( $M = 4.26$ ,  $SD = 0.81$ ), interaction ( $M = 4.20$ ,  $SD = 0.84$ ) and outcome ( $M = 4.10$ ,  $SD = 0.82$ ), respectively. Overall, the participants agree that they are satisfied with the course and the online learning experience; however, they feel that the online courses are as effective as face-to-face courses at the least level of agreement.

## Discussions

The results for each research objective were discussed below.

### 1. Research Question 1 & 2

The overall analyses showed some light on how well synchronous and asynchronous participants performed in each test, and their learning outcomes could reflect teaching effectiveness (Webster and Hackley, 1997). Although the success in online learning could be assessed by many factors such as course quality, relevant content, and students' motivation (Xaymoun

gkhoun; Bhusari; Rho; Zo; Kim, 2012), teaching methods could be one of the most important factors led to the success in online learning. The different teaching methods may affect the students' learning outcomes.

In this study, the results illustrated that synchronous participants received higher Mean score of the mid-term and final exams than asynchronous students. Moreover, the results of this study were similar to the study of Duncan (2012) which was suggested that the synchronous approach used in online learning would give a better academic performance for the students. It was also consistent with the findings of the research conducted by Libasin et al. (2021). The study compared students' academic performance in mathematics course with synchronous and asynchronous online learning environments during the COVID-19 crisis. The findings revealed that the Mean score of both approaches was slightly different, where the Mean score for synchronous approach is 79.31 and the asynchronous approach's Mean is 74.86. In addition, the study also stated that there was the significant different between the Mean score of the two approaches, and the researchers concluded that the synchronous approach gave better results in students' academic performance (Libasin et al., 2021). Likewise, the present study found that there was significant difference in the Mean score for the mid-term exam between two groups of participants. Even there was no significant difference in final exam, it may likely occurs due to other external factors.

On the other hand, the findings of the present study were contrast with the study of Berry (2017) which investigated the educational outcomes of high school's students for synchronous and asynchronous online algebra courses. The study found that there was no difference

existed between both groups of students. In addition, the study of Olson and McCracken (2015) also reported the final course grades of undergraduate online course with no significant difference between synchronous and asynchronous students. Moreover, the two studies revealed that synchronous students had lower test scores than their asynchronous counterparts. However, the contrary in the results found in the studies of Berry (2017), Olson and McCracken (2015) and the present study were probably because of the courses. Different online courses may need different methods of teaching. For a context of language learning, it is best to be created through collaboration as communicative approaches for teaching languages. This way can help encourage students' interaction in online activities and shift the focus of the learning from teacher-centered pedagogy to learner autonomy (Borg & Al-Busaidi, 2012). Therefore, prompt conversation, questions and answers, and direct feedback from teacher could be better facilitated in language classrooms through synchronous teaching format.

## 2. Research Question 3

Many studies have been investigated level of achievement and educational outcomes for online learning. However, these should not be the only consideration to find the answers of whether or not synchronous and asynchronous teaching methods positively or negatively affect students' learning. The students' satisfactions toward synchronous and asynchronous online classrooms should also be considered. In this present study, the participants agreed that the course content was useful at the highest agree level of agreement. This could imply that the participants found that online learning is suitable for language learning, and they were satisfied with the course evaluation as it was relevant to the

lessons taught. Nevertheless, to avoid frustration, the design and implementation of lessons and activities in online language learning pedagogy should maximally facilitate students to achieve their goals and outcomes (McCloskey, Thrush, Wilson-Patton & Kleskova, 2013).

On the other hand, the results of the present study found that the participants agree that they received timely feedback (within 24 hours) from the instructors at the lowest level. This possibly affected the overall satisfactions toward the course. According to LeShea (2013), students respect active involvement and feedback from teachers. The study carried out by Dennen, Darabi, and Smith (2017) also suggested that students find timeliness more significant than the extent of feedback given by the instructors. It is crucial to give useful feedback; however, it is possible that the students would respond to the feedback differently if the feedback was given in a timely manner (Dennen, Darabi, and Smith, 2017).

When it comes to online learning, synchronous, asynchronous or even blended approaches are useful. It is important that teachers should try to implement lessons and activities to reduce distance in distance learning. However, it is also important to understand how students perceive their learning behavior through the online approaches; synchronous, asynchronous and blended (Somenarain, Akkaraju & Gharbaran, 2010).

## Recommendations

With respect to this study, it shows that the online language classroom is better to be conducted with synchronous approach. However, it is recommended for further research that a larger sample size should be studied to generalize and increase the degree of creditability. Also, the sampled group should be selected from

participants with the similar background such as students from the same major, same year, etc. Future studies will also need to investigate the extent to which the present study is applicable to other online learning approaches including a blend of synchronous and asynchronous methods. Moreover, for further studies, cautious attention should be paid on external factors that probably

affect students' learning outcome and satisfaction, e.g. previous online learning experience, level of expertise in using technological devices or readiness for online learning. It is also important to study whether the difference in students' learning outcomes are due to different types of teaching methods (synchronous or asynchronous) or possibly due to any external factors.



### References

Arrieta, G. S., Dancel, J. C., & Agbosit, M. J. P. (2020). Jurnal pendidikan MIPA. *Jurnal pendidikan*, 21(1), 95-108.

Asterhan, C. S. C., & Schwarz, B. B. (2010). Online moderation of synchronous e-argumentation. *International journal of computer-supported collaborative learning*, 5, 259–282.

Berry, S. (2017). *Educational outcomes of synchronous and asynchronous high School Students: A quantitative causal-comparative Study of online algebra 1*. ProQuest LLC, Ed.D. Dissertation, Northeastern University. Retrieved from <https://repository.library.northeastern.edu/files/neu:cj82qm059/fulltext.pdf>

Borg, S., & Al-Busaidi, S. (2012). Teachers' beliefs and practices regarding learner autonomy. *ELT journal*, 66(3), 283–292.

Chen, W., & You, M. (2007). The differences between the influences of synchronous and asynchronous modes on collaborative learning project of industrial design. In D. Schuler (Ed.). *Online communities and social computing*, 275–283.

Dennen, D., & Smith. (2007). Instructor–learner interaction in online courses: The relative perceived importance of particular instructor actions on performance and satisfaction. *Distance education*, 28(1), 65-79.

Duncan, K., Kenworthy, A. L. & McNamara, R. (2012). The effect of synchronous and asynchronous participation on students' performance in online accounting courses. *Accounting education: An international journal*, 21(4), 431-449.

Hockly, N. (2015). Developments in online language learning. *ELT journal*, 69(3), 308-313.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). *The difference between emergency remote teaching and online learning*. Educause Review. Retrieved from <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>

Hrastinski, S. (2010). How do e-learners participate in synchronous online discussions? evolutionary and social psychological perspectives. In N. Kock (Ed.). *Evolutionary psychology and information systems research*, 119–147.

Huang, X., & Hsiao, E. L. (2012). Synchronous and asynchronous communication in an online environment: Faculty experiences and perceptions. *Quarterly review of distance education*, 13(1), 15–30.

Jackson, D. (2012). Synchronous versus asynchronous online courses: An introduction for perioperative nurses returning to School. *Perioperative nursing clinics*, 7(2), 161-169.

Kasteen, J. (2014). *Global trends in foreign language demand and proficiency*. In *ICEF Monitor*. Retrieved from <http://studenttravelplanningguide.com/global-trends-in-foreignlanguagedemand-and-proiciency>

Le Shea, A. (2013). *The effects of synchronous class sessions on students' academic achievement and levels of satisfaction in an online introduction to computers course*. Ed.D. Dissertation, Liberty University. Retrieved from <https://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1808&context=doctoral>

Libasin, Z., Azudin, A. R., Idris, N. A., Rahman, M. S. A., & Umar, N. (2021). Comparison of students' academic performance in mathematics course with synchronous and asynchronous online learning environments during COVID-19 Crisis. *International journal of academic research in progressive education and development*, 10(2), 492–501.

Likert, R. (1932). *A technique for the measurement of attitudes: Archives of psychology*. Paris: The University of Western Ontario.

Mareco, D. (2017). *10 reasons today's students need technology in the classroom*. Retrieved from <https://www.securedgenetworks.com/blog/10-reasons-today-s-students-needtechnology-in-the-classroom>

McCloskey, M. L., Thrush, E. A., Wilson-Patton, M. E., & Kleckova, G. (2013). Developing English language curriculum for online delivery. *Calico journal*, 26(1), 182–203. Doi: <http://dx.doi.org/10.1558/cj.v26i1.182-203>

Olson, J. S., & McCracken, F. E. (2015). Is it worth the effort? the impact of incorporating synchronous lectures into an online course. *Online learning journal*, 19(2), 73-84.

Pappas, C. (2015). *Advantages and possible limitations of online learning*. Retrieved from <https://elearningindustry.com/advantages-and-possible-limitations-of-online-learning>

Perveen, A. (2016). *Synchronous and asynchronous E-Language learning: A case study of virtual University of Pakistan*. Retrieve from <https://files.eric.ed.gov/fulltext/EJ1093436.pdf>

Sadeghi, M. (2019). *A shift from classroom to distance learning: Advantages and limitations*. *International journal of research in English education*. Retrieved from <http://ijreeonline.com/article-1-132-en.pdf>

Somenarain, L., Akkaraju, S., & Gharbaran, R. (2010). Student perceptions and learning outcomes in asynchronous and synchronous online learning environments in a biology course. *MERLOT journal of online learning and teaching*, 6(2), 353–356.

Tarkar, P. (2020). Impact of Covid-19 pandemic on education system. *International journal of advanced science and technology*, 29(9s), 3812-3814.

Webster, J., & Hackley, P. (1997). Teaching effectiveness in technology-mediated distance learning. *Academy of management journal*, 40(6), 282-309

Wintemute, D. (2021). *Synchronous vs. Asynchronous classes: What's the difference?*. Retrieved from <https://thebestschools.org/resources/synchronous-vs-asynchronous-programs-courses/>

Xaymoungkhoun, O., Bhuasiri, W., Rho, J. J., Zo, H., & Kim, M. (2012). The critical success factors of e-Learning in developing Countries. *Kasetsart journal of social sciences*, 33, 321 – 332.

