EFL STUDENTS' PERCEPTION OF SYNCHRONOUS AND ASYNCHRONOUS E-LEARNING DURING COVID-19 PANDEMIC

THESIS

Submitted in fulfilling the Requirements
for Gaining the Bachelor Degree
In English Language Education

By:

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Semarang, April 21st, 2021

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RATIFICATION

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To

The Dean of Education and Teacher Training Faculty

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Assalamu'alaikum, wr, wb.

I have given guidance, briefing, and correction to whatever extent necessary of the following thesis:

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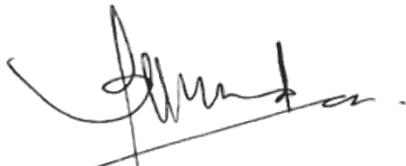
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I state that this thesis is ready to be submitted to the Education and Teacher Training Faculty of Universitas Islam Negeri Walisongo Semarang to be examined at the Munaqasyah session.

Wassalamu'alaikum, wr. wb.

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MOTTO

"Indeed, after every hardship comes ease"

(Qur'an Surah Al-Inshirah: [94]: 06)

"A journey of a thousand miles begins with a single step"

ABSTRACT

Nisa, Rizqi Choirotun. 2021. *EFL Students' Perception of Synchronous and Asynchronous E-learning during COVID-19 Pandemic.* Thesis, English Education Department, Universitas Islam Negeri Walisongo Semarang.

The student's perception is a crucial thing in the teaching and learning process. This study aimed to explain the EFL students' perception of the use of synchronous and asynchronous e-learning activities during the covid-19 pandemic at UIN Walisongo Semarang. The researcher applied descriptive research with a quantitative approach to analyze the students' perceptions. The data collection technique used was a questionnaire. The data analysis technique used was descriptive statistical analysis using SPSS 16. The findings showed that EFL students' perception of synchronous and asynchronous e-learning as seen from 70 respondents, 13% had very positive perceptions, 73% had positive perceptions, and only 14% had less positive perceptions. Thus, EFL students' perception of synchronous and asynchronous e-learning during the covid-19 pandemic at UIN Walisongo Semarang is in a positive category. The results also showed that EFL students' perceptions were more dominant towards synchronous e-learning, which happens in real-time. Nevertheless, some EFL students still had a positive perception of asynchronous e-learning as well, so that asynchronous e-learning can still be conducted alternately with synchronous e-learning.

Keywords: *Asynchronous, Covid-19, E-learning, Perception, Synchronous*

DEDICATION

Praise Allah SWT who has been blessing the writer's continual mercies, so that the writer could finish this thesis.

This thesis is dedicated to my beloved parents Bapak Sumarno and Ibu Siti Khoiriyah for their never-ending support and prayers for me, my beloved siblings, all of my relatives, and all of my friends.

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8. Last but not least, those who cannot be mentioned one by one, who have supported the writer to finish this thesis.

Finally, the researcher realizes that this thesis is far from being perfect. Therefore, the writer will happily accept constructive criticism to make it better. The researcher hopes that this thesis would be beneficial to everyone.

Semarang, April 21st, 2021

Rizqi Choirotun Nisa
NIM. 1603046005

TABLE OF CONTENT

CHAPTER I

INTRODUCTION

This chapter discusses the background of the research, the researcher's reason for choosing the topic, the question of the research, the objective of the research, the limitation of the study, and the significance of the research.

A. Background of the Research

The Corona Virus Disease (Covid-19) outbreak struck more than 200 countries in the world.[1] World Health Organization (WHO) declared it as a pandemic on 11th March 2020 because of its rapid spread throughout the world. The most important pandemic precaution called "social distancing" or "physical distancing" has attempted to reduce interpersonal contact and thereby minimize the kind of community transmission that could develop quickly in dense social networks like the university campus.[2] Educational institutions have been affected by the pandemic, which in the end changed the manner of gaining knowledge.

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[1] Rimba Hamid, Izlan Sentryo, and Sakka Hasan. (2020). Online Learning and its problems in the Covid-19 Emergency Period. *Jurnal Prima Edukasia,* 8(1), p.1.

[2] Kim A. Weeden and Benjamin Cornwell. (2020). The Small-World Network of Collage Classes: Implications for Epidemic Spread on a University Campus. *Sociological Science*, 7, p.222.

The covid-19 pandemic outbreak forced many schools and colleges to remain closed temporarily. Nadia Fairuza Azzahra in Policy Brief stated that the fast spread of Covid-19 has forced governments to shut faculties and put into effect at-domestic distance learning. Especially, in higher education, students and lecturers unable to meet in the classroom, and they must react to changing conditions and formulate alternative strategies such as accomplishing online learning.[3] It becomes one of the challenges for teachers to adapt to this era because they must adapt to the technology where traditional approaches to learning and teaching are no longer appropriate.[4] Online learning uses the internet and some other important technologies to develop materials for educational purposes, instructional delivery, and management of the programs.[5] It is often referred to as e-learning among other terms.

However, most studies found that online learning decreased students' performance. Students in online charter schools perform significantly worse than students with

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[3] Nadia Fairuza Azzahra. (2020, May 08). [Policy brief] Addressing distance learning barriers in Indonesia amid the COVID-19 pandemic. CIPS Indonesia.

[4] Ummy Khoirunisya' Masyhudianti, Hanita Masithoh, & Khoirunnisa. (2018). A Teacher's Beliefs and Practices of Using Video to Teach Speaking: A Case Study at SMA As-Salam Surakarta. *Vision: Journal for Language and Foreign Language Learning*, 7(1), p.11-21.

[5] Kate Fry. (2001). E-learning Markets and Providers: Some issues and prospects. *Education+ Training*, 43(4), p.233-239.

similar demographics and prior achievement in traditional public schools, often ranging from –.10 SD to –.30 SD.[6] A study from Gill B (2015) found that the impact of attending a virtual charter school was negative, with students in the virtual school performing 0.1 to 0.4 SDs below students in traditional public schools.[7] Students' performance in e-schools is considerably lower than peers in traditional charter schools and traditional public schools.[8] Recent studies of online course taking and online learning in higher education also suggest that students in online settings learn less than students in traditional settings.[9] A study from Dendir (2008) said that the lower performance of online students on homework assignments (HWs) could indicate that they may be learning less.[10] Furthermore, students in home-based and online charter schools in California in the early 2000s

[6]James L Woodworth. (2015). Center for Research on Education Outcomes. *Online charter school study*, p.42.

[7] Brian Gill, Lucas Walsh, Claire Smither Wulsin, Holly Matulewicz, Eric Grau, Amanda Lee, & Tess Kerwin. (2015). *Inside online charter schools*. Mathematic Policy Research.

[8] June Ahn & Andrew McEachin. (2017). Student Enrollment Patterns and Achievement in Ohio's Online Charter Schools. *Educational Researcer*, 46(1), p.44-57.

[9] Jennifer Heissel. (2016). The relative benefits of live versus online delivery: Evidence from virtual algebra I in North Carolina. *Economics of Education Review*, 53, p.99-115.

[10] Seife Dendir. (2018). Performance differences between face-to-face and online students in economics. *Journal of Education for Business*, p.8.

performed worse than their peers in traditional public schools.[11]

Online learning can be as effective as traditional classroom learning if the quality of the online instruction is well designed, well implemented, and following student interests. According to a study done by Learning House, Inc (2018) showed that 85% of students who follow face-to-face and online learning felt that they have the same and some better experiences in learning for both face-to-face and online programs. 37% felt it as a superior experience.[12] A recent study using data from Florida found that different groups of students might respond to virtual learning differently and the results depend on the alternative options students have.[13]

One of the basic characteristics of online learning is its goal, whether the activity is a replacement for face-to-face instruction or as an enhancement of the face-to-face learning experience.[14] This difference is important because the two

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[11] Richard Buddin & Ron Zimmer. (2005). Student achievement in charter schools: A complex picture. *Journal of Policy Analysis and Management*, 24(2), p.351-371.

[12] Andrew J. Magda & Carol B. Aslanian. (2018). *Online college students 2018: Comprehensive data on demands and preferences*. Louisville, KY: The Learning House, Inc.

[13] Casandra M. D. Hart, Dan Berger, Brian Jacob, Susanna Loeb, Michael Hill. (2019). Online Learning, Offline Outcomes: Online Course Taking and High School Student Performance. *Aera Open*, 5(1).

[14] Henny Yulia. (2020). Online Learning to Prevent the Spread of Pandemic Corona Virus in Indonesia. *ETERNAL (English Teaching Journal)*, 11(1).

types of applications have different objectives. A replacement application that is equivalent to conventional instruction is considered a success if it provides learning online without sacrificing student achievement. If the student outcomes are the same whether a class is taken online or face-to-face, then online instruction can be used effectively. However, they do not give information on the most effective method that may be utilized to connect the students in online learning.

Hrastinski (2008) stated that online learning has two types to make it effective, namely asynchronous and synchronous online learning.[15] Bonk and Zhang (2006) gave pedagogical knowledge of both synchronous and asynchronous learning, in which they discuss online methods of instruction and how students can adjust their thoughts for online instruction. The use of learning methods has also been mentioned in The Holy Qur'an, Surah An-Nahl: 125

ٱدْعُ إِلَىٰ سَبِيلِ رَبِّكَ بِٱلْحِكْمَةِ وَٱلْمَوْعِظَةِ ٱلْحَسَنَةِ ۖ وَجُٰدِلْهُم بِٱلَّتِى هِىَ أَحْسَنُ ۚ إِنَّ رَبَّكَ هُوَ أَعْلَمُ بِمَن ضَلَّ عَن سَبِيلِهِۦ ۖ وَهُوَ أَعْلَمُ بِٱلْمُهْتَدِينَ

"Invited (all) the Way of your Lord with wisdom and kind advice, and only debate with them in the best manner. Surely your Lord (alone) knows best who has strayed from His Way and who is (rightly) guided". (QS. An-Nahl: 125).

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[15] Stefan Hrastinski. (2008). Asynchronous and Synchronous E-Learning. *Educause Quartely*, 31(4), p.51-55.

In synchronous online learning, communication between students and teacher happens instantaneously and the member can get to the information at that moment. The students can interact with the teacher, fellow students, and the content in real-time during the live synchronous session.[16] It can offer instant feedback on the students' performance. This type of online learning can also gather many students at the same time. However, it does not manage self-learning and planning. Also, it costs more for students who do not have Wi-Fi access at their house. Examples of these types are video/sound conferencing and virtual classrooms.

In asynchronous online learning, communication between the teacher and student does not happen instantaneously. It is a self-manage course as like presenting messages at different discussion gatherings and trading emails. This type offers accommodation, availability, and self-guided learning. The weakness of this type is that the students may feel isolated or less persuaded because there is no open door to cooperate with others.

Hrastinski (2010) has found that while engaged with synchronous learning as compared to asynchronous learning, members can find limited means of communication, tend to

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[16] J. Lynn McBrien, Rui Cheng, Phyllis Jones. (2009). Virtual Spaces: Employing a Synchronous Online Classroom to facilitate Student Engagement in Online Learning, *The International Review of Research in Open and Distance Learning*, 10(3), p.1-17.

be focused, feel a greater sense of contribution, and experience better assignment completion rates.[17] Han (2013) found that regarding utilization of video conferencing at higher education level in synchronous teaching use of videos impacts the students' feeling of association with their teacher. In courses that included teacher videos, as compared to the courses that did not utilize videos, students could overcome the feeling of being at a distance from the teacher.[18] Students may feel a different level of transactional distance in an online course mostly depending upon the level of shared discussion, the content that the teacher sets up for them, and the level of autonomy in a course.[19]

Through a multi-case evaluation of asynchronous courses, Garrison and Cleveland-Innes (2005) found that participants of asynchronous online study seek the content uploaded by their teacher or they try to engage themselves in meaningful learning tasks.[20] E-learning resources experts are

[17] Stefan Hrastinski. (2010). How do e-learners participate in synchronous online discussions? Evolutionary and social psychological perspectives. *Evolutionary psychology and information systems research*, 24, p.119-147.

[18] Heeyoung Han. (2013). Do nonverbal emotional cues matter? Effects of video casting in synchronous virtual classrooms. *American Journal of Distance Education*, 27(4).

[19] Rita Moore. (2003). Reexamining the field experiences of preservice teachers. Journal of Teacher Education, 54(1), p.31-42.

[20] Randy Garrison, D. & Martha Cleveland-Innes. (2005). Facilitating cognitive presence in online learning: Interaction Is not enough. *American Journal of Distance Education*, 19(3), p.133-148.

ready to put the inactive idea of social interaction into the synchronous and asynchronous learning situation. It happens by understanding the various factors i.e., physical, social, emotional, psychological, and its relation to students.[21]

E-learning resources experts are ready to put the inactive idea of social interaction into synchronous and asynchronous learning situation by understanding the various factors i.e., physical, social, emotional, psychological, and their relation to students' involvement in e-learning

Motteram and Forrester (2005) determine online learning as a specific individualized process but to become an active and effective online learner, students need to know the use of technology being used for the course, the ability to search the course material, and understanding how to communicate with other participants.[22] The students also need a good environment to have conducive learning. Dewi and Widyaningrum (2018) stated that the environment where language learning is conducive makes the learning process conducive as well.[23] Eventually, to be successful in online

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[21] Rosemary. M Lehman & Simone. C. O Conceição. (2010). *Creating a sense of presence in online teaching: How to "be there" for distance learners*. San Francisco: JosseyBass.

[22] Gary Motteram & Gillian Forrester. (2005). Becoming an online distance learner: What can be learned from students' experiences of induction to distance programmes?. *Distance Education*, 26(3), p.281-298.

[23] Nuna Mustikawati Dewi & Lulut Widyaningrum. (2018). Pendampingan Penguatan Literasi Bahasa Inggris Anak melalui "Multiple

learning, students need time to learn how to formulate online activities related to their course that may adjust into their routine while performing all other family and work responsibilities.[24]

Considering e-learning in Indonesia as a new common thing since the pandemic, students certainly have perceptions of both synchronous and asynchronous resources. Thus, teachers need to know the implementation of e-learning that is suitable for EFL students. A teacher also needs to master the English language skills as an essential requirement, regardless of the subjects he teaches.[25] The characteristics of the materials which are well-implemented, well-planned, and according to the students' interest will be able to increase students' productivity in online learning so that the learning aims can be achieved. Dealing with those theories, the researcher decides to conduct a study about EFL students' perception of synchronous and asynchronous e-learning during the COVID-19 pandemic.

Stories-Reading". *Dimas: Jurnal Pemikiran Agama untuk Pemberdayaan*. 18(1), p. 143-158.

[24] Lin Y. Muilenburg & Zane L. Berge. (2005). Student barriers to online learning: A factor analytic study. *Distance Education*, 26(1), p.29-48.

[25] Ikhrom, Ruswan, & Sayyidatul Fadlilah. (2018). The Improvement of English Skills for Islamic Junior High School Teachers Using ESA (Engage Study Activate) Approach. *Research and Community Development Center*. 1(1).

B. Reason for Choosing the Topic

This research discussed the EFL students' perception of synchronous and asynchronous e-learning. The reasons for the researcher to choose this topic are as follow:

1. Considering teaching and learning activities have been conducted online (distance learning) since the COVID-19 pandemic.

2. Teachers and students use synchronous and asynchronous types of learning to conduct online learning.

3. This study explains the students' perception of synchronous and asynchronous e-learning so that it can provide inspirations and ideas to the teachers in teaching online synchronously or asynchronously.

4. By knowing the students' perception of online learning resources, it is hoped that teachers can better understand what students need and can communicate it with students so that the online learning process can be more enjoyable and students can more easily understand the lessons.

C. Questions of the Research

1. How is the EFL students' perception of the use of synchronous e-learning activities at UIN Walisongo Semarang?

2. How is the EFL students' perception of the use of asynchronous e-learning activities at UIN Walisongo Semarang?

D. Objectives of the Research

1. To explain the EFL students' perception of the use of synchronous e-learning activities at UIN Walisongo Semarang.
2. To explain the EFL students' perception of the use of asynchronous e-learning activities at UIN Walisongo Semarang.

E. Limitation of the Study

This research focuses on explaining the EFL students' perception of the use of synchronous and asynchronous e-learning during the COVID-19 pandemic. The participants in this research are the first semester EFL students in UIN Walisongo Semarang, who have been conducting synchronous and asynchronous classes.

F. Significance of the Research

1. Theoretical Benefit

It is expected that the findings of this study can support and complement previous theories related to the use of synchronous and asynchronous e-learning for EFL students at the higher education level.

2. Practical Benefit
   a. For the EFL lecturers

   The findings of this research can assist teachers to know the students' interest in online learning resources to better understand presenting materials that can increase students' productivity in online learning.

   b. For the Institutions

   The findings of this research are expected to provide input, evaluation, and an overview for institutions regarding online learning for EFL students in this covid-19 pandemic and learning from home at UIN Walisongo Semarang.

   c. For the next researchers

   The findings of this research give some information to other researchers about students' perception of e-learning resources; explain students' perception and the effectiveness of e-learning using synchronous and asynchronous resources at the higher education level.

CHAPTER II
REVIEW OF RELATED LITERATURE

This chapter discusses previous research, theoretical review, and conceptual framework which are relevant to the researcher's research.

A. Previous Research

Research has been done by Misbah Malik, Ghulam Fatima, Abid Hussain Ch, and Ayesha Sarwar, from the University of Punjab, Lahore-Pakistan (2017), entitled "E-Learning: Students' Perspective about Asynchronous and Synchronous Resources at Higher Education Level", aimed to identify the students' preferences to use asynchronous and synchronous e-learning resources. This research employs a quantitative approach. The subject of this research comprised purposively selected 128 male and 158 female students of one private and one public university in the city of Lahore Pakistan. The result of this research revealed a statistically significant difference regarding the effectiveness of synchronous and asynchronous e-learning activities. Male students preferred synchronous as well as asynchronous e-learning activities more than female students at the higher education level. Students were found to have a greater interest in synchronous activities when they had credit in

terms of marks. This research provided a clear explanation of students' perceptions. It also discovers the difference in perception and the students' views about the placement of e-learning resources in the educational setting. The similarity between this research and the researcher's research is both types of research try to find students' perception of two e-learning methods. Nevertheless, both types of research also have a difference, which this research differentiates between male and female students in Pakistan, while the researcher's research focuses on the EFL students. [26]

Research by Farnaz Sharifrazi and Suki Stone, from National University, San Diego, CA USA (2019), entitled "Students Perception of Learning Online: Professor's Presence in Synchronous Versus Asynchronous Modality", aimed to investigate the students' perception of online synchronous versus asynchronous teaching modality in the Business School. The participants in this research are 124 students in the synchronous section and 71 students in the asynchronous section. It uses mixed-method both quantitative and qualitative, while the researcher's research only uses the quantitative method. Each participant is given a survey at the end of the course to evaluate their experience with course

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[26] Misbah Malik, et al. (2017). E-Learning: Students' Perspectives about Asynchronous and Synchronous Resources at Higher Education Level. *Bulletin of Education and Research*. 39(2), p. 183-195.

content and modality. This research showed a positive perception of learning in the synchronous modality, resulting in a greater impact on students' learning and satisfaction. Students express their positive experiences with the live chats and the ability to individually relate to the professors, especially to dialogue and receive personal feedback to their questions.[27]

Research has been done by Hui-Fang Shang, from I-Shou University, Kaohsiung, Taiwan (2017), entitled "An exploration of asynchronous and synchronous modes in EFL writing", aimed to compare students' experience of synchronous and asynchronous methods, and whether these two methods affected EFL students' writing on the aspect of syntactic complexity. The participants of this research are 44 freshmen, comprised of 12 males and 32 females. Students' responses and their writing performance on syntactic complexity were measured with a computerized text analysis program to analyze the data. This research represents a preliminary attempt to explore the potential of asynchronous and synchronous feedback in EFL writing. The result of this research finds that even though students increased their writing scores after using Asynchronous Peer Feedback, there

[27] Farnaz Sharifrazi & Suki Stone. (2019). Students Perception of Learning Online: Professor's Presence in Synchronous versus Asynchronous Modality. *International Conference on Computer and Technology Applications – ICCTAA*.

is no significant difference between the Asynchronous Peer Feedback (APF) and Synchronous Corrective Feedback (SCF) writing scores, as well as students' mixed feelings about the preference of these two modes. The study has a similar discussion with the writer's research. Both studies discuss EFL students' experience on synchronous and asynchronous learning. The difference between this research and the writer's research is the writer's research discusses the EFL students' perception of synchronous and asynchronous e-learning, while the study discusses the potential of asynchronous and synchronous feedback in EFL writing[28]

Research by Xi lin and Li Gao (2020), entitled "Students' Sense of Community and Perspectives of Taking Synchronous and Asynchronous Online Courses", aimed to examine Chinese college students' sense of community and their perspectives of taking online courses in synchronous and asynchronous teaching formats. This research employs a quantitative study by using an online survey as the data collection technique. The subjects of this study are 1189 undergraduate students in one northeastern university in China. The results of the study indicate that students have a stronger sense of community towards interacting, discussing,

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[28] Hui-Fang Shang. (2017). An Exploration of Asynchronous and Synchronous Feedback Modes in EFL Writing. *Journal of Computing in Higher Education*. 29(3), p. 496-513.

and sharing ideas in asynchronous online courses. Findings additionally highlight the benefits of taking courses in these two distance learning formats. For instance, active interaction is often stimulated through synchronous distance learning, while students can learn at their own pace in asynchronous online learning environments. Challenges are also perceived in both formats, such as being distracted by classmates in synchronous online classes or feeling socially isolated in asynchronous online classes. It is expected that this study would enlighten Chinese higher education professionals to develop a tight online community and establish a supportive distance learning environment. The similarity of this research with the researcher's research is both of them discuss the students' perception of synchronous and asynchronous e-learning. But the researcher only focuses on EFL students' perception without trying to examine the students' sense of community.[29]

Research by Flora Amiti (2020), entitled "Synchronous and Asynchronous E-learning", aimed to analyze previous studies on the advantages and disadvantages met while having synchronous and asynchronous methods of learning and teaching. Furthermore, provide an answer to

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[29] Xi Lin & Li Gao. (2020). Students' Sense of Community and Perspectives of Taking Synchronous and Asynchronous Online Courses. *Asian Journal of Distance Education*. 15(1).

which of these methods is better for learners. In this research, 20 research papers related to the topic were generally reviewed to compare synchronous and asynchronous e-learning and which one is more beneficial for the students at home. From all the research methods, the ones taken into consideration from the studies were questionnaires, pre-test, post-test, and surveys. The conclusion mentioned that the researcher is still divided on which learning method to use because there will always be cons and pros in using each of them. In this case, the teacher itself can decide based on the environment and the conditions met how to blend both synchronous and asynchronous and make an effective impact on the learner's education process. The similarity between this research and the researcher's research is both trying to find a better method between synchronous and asynchronous resources. The difference between this research and the researcher's study is that the researcher's research uses a questionnaire to investigate the students' perception of synchronous and asynchronous e-learning, while the research reviews 20 research papers that are related to the topic.[30]

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[30] Flora Amiti. (2020). Synchronous and Asynchronous E-learning. *European Journal of Open Education and E-learning Studies*. 5(2).

B. Theoretical Review

1. E-learning during Covid-19 Pandemic

E-learning is the use of the internet and some other important technologies to develop materials for educational purposes, instructional delivery, and management of the programs.[31] Means (2010) stated that E-learning has become more popular because of its potential for providing more flexible access to content and instruction at any time, from any place.[32] The flexibility of online learning enables learners to conduct the learning in their convenient way.[33] As long as access to the internet is available, online learning can be conducted by anyone at any time and any place. Online learning is carried out through several applications such as Google form, Whatsapp group, video conferences, Google classroom, telephone, and so on. With online learning, educators are required to be more creative and more innovative in assigning assignments to students.

The world of education has been conducting online learning due to a new virus called covid-19 or

[31] Kate Fry. (2001). E-learning Markets and Providers: Some issues and prospects. *Education+ Training*, 43(4).

[32] B Means and J Roschelle. (2010). *An Overview of Technology and Learning*. International Encyclopedia of Education, p. 1-10. doi:10.1016/b978-0-08-044894-7.00762-4

[33] Hooman Estelami. (2016). An Exploratory Study of The effects of Online Course efficiency Perceptions on Students Evaluation of Teaching (SET) Measures. *American of Business Education*. 9, p. 67.

coronavirus. It is a large family of viruses that causes diseases ranging from mild to severe symptoms. Common related symptoms are fever, colds, dry cough, and following by shortness of breath.[34] The average incubation period of this virus is 5-6 days with the longest incubation period of 14 days. This virus causes people to be anxious and the impact caused by the Covid-19 virus is such as in the fields of education, economy, and tourism. Several fields in Indonesia have been temporarily closed to cut the spread of the Covid-19 virus.

One of the impacts of the covid-19 virus is education where students learn online starting from Elementary School (SD), Junior High School (SMP), Senior High / Vocational School (SMA / SMK), to Higher Education. According to Nuryana (2020), online learning during the Covid-19 pandemic is part of an effort to increase awareness of the spread of the Covid-19 virus.[35] Meanwhile, the Minister of Education and Culture of Republic Indonesia (2020) stated that online learning at all

[34] S. A. Azer. (2020). COVID-19: Pathophysiology, Diagnosis, Complications and Investigational Therapeutics. *New Microbes and New Infections*. 37, p. 1-8.

[35] Agus Nana Nuryana. (2020). *Dampak Pandemi Covid-19 Terhadap Dunia Pendidikan*. https://kabar-priangan.com. (Retrivied on Desember, 2 2020 at 8.15 pm).

levels of formal education is also a real effort made by the government to break the chain of spreading covid-19.[36]

Online learning is not a problem for urban communities that have good internet networks, but it is different from rural communities with limited internet capacity. According to Aji (2020) there are four obstacles faced by the world of education during the Covid-19 pandemic, namely: a) limited mastery of the internet for teachers; b) insufficient facilities and infrastructure; c) limited internet access; d) not ready for funds in an emergency.[37] In delivering material, a teacher must be able to provide effective and interesting learning, so that the students do not feel much different in studying since the teaching and learning process changed online. With online learning, students will have different perceptions of online learning during the Covid-19 period.

Based on some of the descriptions above, it can be concluded that E-learning during the Covid-19 pandemic is carried out because it attempts to break the chain of the spread of Covid-19 virus by doing online learning from the students' home. The existence of online

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[36] Kementrian Pendidikan dan Kebudayaan Republik Indonesia. (2020). Surat Edaran Menteri Pendidikan Dan Kebudayaan Republik Indonesia Nomor 35952/MPK.A/HK/2020.

[37] Rizqon Halal Syah Aji. (2020). Dampak Covid-19 pada Pendidikan di Indonesia: Sekolah, Keterampilan, dan Proses Pembelajaran. *Jurnal Sosial dan Budaya*. 7(5).

learning will certainly cause many EFL students to have perceptions about E-learning. This happens because the teaching and learning process is usually carried out in the classroom and now it is only carried out online synchronously or asynchronously through several web and applications.

2. Synchronous and Asynchronous E-learning

E-learning enables the students to apply advanced and sensitive tools that are adapted to their individual preferences. Graf (2007) mentioned that this is a necessity and stated that adaptability includes all facilities to customizing the system for the needs of the educational institutions.[38] Methods of providing e-learning material in an online classroom are classified into two types, including synchronous and asynchronous e-learning.[39] Synchronous and asynchronous e-learning tools play an important role in humanizing online classes by replicating the classroom experience of information exchange and social construct, not just between students and lecturers, but among the students as well.

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[38] Sabine Graf. (2007). *Adaptivity in Learning Management Systems Focussing on Learning Styles*. Vienna University of Technology, Vienna.
[39] Stefan Hrastinski. (2008). Asynchronous and Synchronous E-Learning. *Educause Quartely*, 31(4), p.51-55.

Synchronous e-learning is live, real-time, scheduled, facilitated instruction, and learning-oriented interaction.[40] McBrien added that the students can interact with the teacher, fellow students, and the content in real-time during the live synchronous session.[41] This type of online learning can also gather many students at the same time. Synchronous e-learning, commonly supported by media such as video conferencing and chat, has the potential to support students in the development of learning communities. Students and teachers experience synchronous e-learning as more social and avoid frustration by asking and answering questions in real-time.[42] Synchronous sessions help students feel like participants rather than isolates.

It is important to state that no matter how geographical distance is, synchronous learning gathers students together. As known, synchronous class means first starting a video conference with a camera, the teacher

[40] Mehdi Mehri Shahabadi & Megha Uplane. (2015). Synchronous and Asynchronous E-learning Styles and Academic Performance of E-learners. *Elsevier Ltd*. p. 129-138.

[41] J. Lynn McBrien, Rui Cheng, Phyllis Jones. (2009). Virtual Spaces: Employing a Synchronous Online Classroom to facilitate Student Engagement in Online Learning, *The International Review of Research in Open and Distance Learning*, 10(3), p.1-17.

[42] Stefan Hrastinski. (2007). *"The Potential of Synchronous Communication to Enhance Participation in Online Discussion"*. Paper presented at the 28th International Conference on Information Systems. Montreal, Canada, December 9-12.

and the students are all gathered. It should be a learner-centered class, where the teacher gives instructions in the beginning, and afterward, the students have all the attention. By having a synchronous class, it should grow into a student-centered environment and the students give their replies, depending on the activities.[43] As stated by Mick & Middlebrook (2015), during the synchronous types of e-learning, participants have real-time engagement, which tends to be associated with student satisfaction, student learning, and lower rates of attrition.[44] Furthermore, Tabatabaei and Sharifi (2011) stated that discussion forums and online chat rooms have a greater potential of enhancing language teaching and learning because they provide synchronous, real-time interaction among participants. Participants have to process what they read on the screen quickly and give their response instantaneously.[45]

On the other hand, asynchronous e-learning offers flexibility as students do not have to be online at the same

[43] Flora Amiti. (2020). Synchronous and Asynchronous E-learning. *European Journal of Open Education and E-learning Studies*. 5(2).
[44] Connie Snyder Mick & Geoffrey Middlebrook. (2015). Asynchronous and Synchronous Modalities, p. 131.
[45] Omid Tabatabaei & Razieh Sharifi. (2011). Online Discussion: Self-repair Enhancement of EFL Learners. *Theory and Practice in Language Studies*. 1(7), p. 837-846.

time and they can self-pace their studies.[46] Additionally, students often experience meaningful learning and self-directed learning is usually developed in this learning environment.[47] The communication between the teacher and student does not happen instantaneously. It is a self-manage course as like presenting messages at different discussion gatherings and trading emails. This type offers accommodation, availability, and self-guided learning. Communicating asynchronously via online discussion boards offers students the opportunity to fully express their thoughts and discuss topics in greater detail.[48]

According to Garrison and Cleveland-Innes (2005), participants of asynchronous online study seek the content uploaded by their teacher or they try to engage themselves in meaningful learning tasks.[49] Furthermore, students feel more comfortable and flexible to discuss their viewpoints in an asynchronous online discussion

[46] Stefan Hrastinski. (2008). Asynchronous and Synchronous E-Learning. *Educause Quartely*, 31(4), p.51-55.

[47] Moon-Heum Cho, Yanghee Kim, & Dongho Choi. (2017). The Effect of Self-regulated Learning on College Students' Perceptions of Community of Inquiry and Affective Outcomes in Online Learning. *The Internet and Higher Education*. (34), p. 10-17

[48] Sara Brierton, et al. (2016). A Comparison of Higher Order Thinking Skills Demonstrated in Synchronous and Asynchronous Online College Discussion Posts. *Nacta Journal*. 60(1).

[49] Randy Garrison, D. & Martha Cleveland-Innes. (2005). Facilitating cognitive presence in online learning: Interaction Is not enough. *American Journal of Distance Education*, 19(3), p.133-148.

board. They do not feel pressured to respond as soon as questions or comments are made, and they have more time to think about how they would respond.[50] Therefore, asynchronous e-learning provides more opportunities for students to develop deeper learning.[51]

According to Perveen (2016), Asynchronous e-learning provide students with readability available material in audio/video lectures, handouts, articles, and PowerPoint presentations. This material is accessible anytime anywhere.[52] Raymond, et al (2016) give some examples of online teaching tools, which the teacher may decide to deliver his lesson through Videotape, Youtube, Digital Video Disc (DVD), or Podcast while the students can later respond through the use of communication mode like email.[53] When the response is delayed, the students use critical thinking more, and the more they think about a

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[50] Sara Brierton, et al. (2016). A Comparison of Higher Order Thinking Skills Demonstrated in Synchronous and Asynchronous Online College Discussion Posts. *Nacta Journal*. 60(1).

[51] Patrick R. Lowenthal, Chareen Snelson, & Joanna C. Dunlap. (2017). Live Synchronous Web Meetings in Asynchronous Online Courses: Reconceptualizing Virtual Office Hours. *Online Learning*. 21(4), p. 177-194.

[52] Ayesha Perveen. (2016). Synchronous and Asynchronous E-learning: A case Study of Virtual University of Pakistan. *Open Praxis*. 8(1), p. 22.

[53] Emmanuel Raymond, et al. (2016). Comparative effects of the Synchronous and Asynchronous Instructional Approaches Concerning the Students' Achievements and Interests in Electrical Engineering at the Niger State College of Education. *International Journal of Engineering Pedagogy*. 6(3), p.4.

problem, they construct the response instead of giving a spontaneous answer.

Although both synchronous and asynchronous e-learning benefit students' learning, several challenges are observed. For example, students with inflexible schedules are not able to navigate the time to schedule a synchronous session, students with no wifi access, and students who reply on public access technology may find it difficult to participate in synchronous e-learning classes.[54] Students may not have enough time when working in a synchronous environment to reflect deeply on the content or their peers' comments before they were required to make responses.[55] While in asynchronous e-learning, social interaction in such an online learning environment is not as immediate, and some students use this delay in responses to reflect before they write, while some students feel impatient while waiting for others to respond.[56] Students also lack the opportunity to receive immediate feedback and interact

[54] Joann S. Olson & Fawn E. McCracken. (2015). Is It Worth the Effort? The Impact of Incorporating Synchronous Lectures into an Online Course. *Online Learning Journal*. 19(2), p. 73-84

[55] Garry Fallon. (2011). Exploring the Virtual Classroom: What Students Need to Know (and Teachers Should Consider). *Journal of Online Learning and Teaching*. 7(4), p. 439-451.

[56] Joshua Rosenberg, et al. (2017). A tale of two Twitters: Synchronous and Asynchronous Use of the Same Hashtag. *Association for the Advancement of Computing in Education*. p. 283-286.

with their peers and instructors in real-time.[57] Additionally, Pallof (1999) said that if students seldom meet face-to-face and teachers mainly rely on asynchronous e-learning, students might feel isolated and not part of learning communities, which is essential for collaboration and learning.[58]

The collaboration between the two has shown us that synchronous and asynchronous e-learning can have its advantages and disadvantages. It will certainly cause many EFL students to have perceptions about types of e-learning. This happens because some students may feel comfortable in doing e-learning synchronously, while some others are opposite. They will choose the type of e-learning which are adapted to their individual preferences.

3. Students' Perception

a. The Nature of Perception

Since humans were born, they are directly in touch with the world and receive stimuli from both inside and outside using their five senses. Through the stimulus they are received, individuals will experience

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[57] Anthony Francescucci & Laila Rohani. (2018). Exclusively Synchronous Online (VIRI) Learning: The Impact on Student Performance and Enggagement Outcomes. *Journal of Marketing Education*.

[58] Rena M. Pallof & Keith Pratt. (1999). *Building Learning Communities in Cyberspace: Effecttive Strategies for the Online Classroom.* San Fransisco: Jossey-Bass.

perception. It is a process that is preceded by sensing, which is a process of receiving stimuli through their receptors.[59]

Perception is one of the basic symptoms of the human psyche, which appears in the field of education besides memory, thinking, intelligence, emotion, and motivation. Sugihartono, et al (2007) stated that human behavior begins with sense. It is the process of entering a stimulus into the human five senses. After the stimulus enters the human senses, the brain will translate the stimulus. The brain's ability to interpret stimuli is called perception.[60]

According to Slameto (2003), perception is a process that involves the entry of messages or information in the human brain through the senses.[61] Thus, it can be stated that a person's perception is the treatment of the information about an object receives through observation using the person's senses. The treatment process is related to giving meaning, description, or interpretation of the object.

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[59] Bimo Walgito. (2010). *Pengantar Psikologi Umum*. Yogyakarta: Andi Offset, p. 99.

[60] Sugihartono, et.al. (2007). *Psikologi Pendidikan*. Jakarta: UNY Press, p. 7-8.

[61] Slameto. (2003). *Belajar dan Faktor-faktor yang Mempengaruhinya*. Jakarta: Rineka Cipta, p.104.

Further explained that every perception is always preceded by sensing, the process of acceptance of the stimulus by the individual through sensory organs, which subsequently forwarded by nerves to the brain as the central nervous system. Here is where the physiological processes occur, which cause individuals to be aware of what is received by the sensory organs or tools receptors.[62]

Based on some theories above, it can be concluded that perception is a person's response to an object with the help of sensory organs, according to the situation and condition experienced by each individual. The perception will cause a certain attitude and actions following the situation experienced and cause a different response in each individual.

b. **Process of Perception**

The occurrence of perception in the individual does not just happen but through a process. The process of perception is an event in two directions, resulting from action and reaction. According to Bimo Walgito,

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[62] Miftah Thoha. (2011). *Perilaku Organisasi, Konsep Dasar, dan Aplikasi*. Jakarta: PT Raja Grafindo Persada, p. 141.

there are a few requirements that need to be met to realize and organize perception, those are:[63]

1) The existence of a perceived object

Object causes a stimulus that hits the sensory function. The stimulus may come from the outside and directly hits the receptors, as well as coming from inside and directly hits the sensors which work like receptors.

2) Senses

It is a tool for receiving the stimulus. Besides, there should be a sensory nerve as a tool to continue the stimulus that is received by the receptors to the central nervous system, which the brain is the center of consciousness.

3) Attention

Attention is the first step in preparation for the perception. Without attention, there will be no perception in a person.

The situation shows that the individual is exposed to one stimulus and various kinds of stimuli caused by the surrounding conditions. However, not all stimuli will be responded the individual. The response will be given by individuals when the stimulus is compatible

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[63] Bimo Walgito. (2010). *Pengantar Psikologi Umum*. Yogyakarta: Andi Offset, p. 101.

and attracts their attention. Thus, what is perceived by the individual, besides depending on the stimulus also depends on the individual's conditions. The stimulus which received a response from the individual depends on various factors. One of them is the attention factor, which is a psychological aspect of making a perception.

c. Indicators of Perception

As stated earlier a person is subjected to one stimulus and a lot of stimuli that appear in the surrounding environment. Yet, not all stimuli get the attention of the person which is then perceived.

According to Bimo Walgito, a perception has the following indicators:[64]

1) Absorption of stimuli or object from outside the individual

   These stimuli or objects are received and absorbed by the five senses individually or collectively. The result of the absorption by these five senses will provide a vision, response, or impression in the brain.

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[64] Bimo Walgito. (2010). *Pengantar Psikologi Umum*. Yogyakarta: Andi Offset, p. 102-104.

2) Understanding the object

After a vision occurs in the brain, then it is organized, classified, and interpreted until it forms an understanding of an object.

3) Individual evaluation of the object

The individual evaluation is formed after understanding the object. He compares the understanding obtained with his criteria subjectively. The evaluation of each individual varies even though the object is the same. Therefore, perception is always individual.

From this explanation, it can be concluded that perception has 3 indicators: absorption of stimuli or object from outside the individual, understanding the object, and individual evaluation of the object. In the first indicator, the objects are received by the five senses producing visions in the brain. In the second indicator, the vision in the brain is interpreted to form an understanding of an object. In the third indicator, an individual evaluation of the object appears after understanding the object formed in the brain.

d. **The factors affecting perception**

The process of perceptions that occurs in an individual is affected by the response to the stimuli that

are received by the five senses or the individual's point of view to an object. According to Thoha (2011), the factors that affect a person' perception vary from one another, those are:[65]

1) External Factors

It consists of intensity, size, opposition, movement repetition, new and familiar things, family background, information obtained, knowledge, and the surrounding culture.

2) Internal Factors

It consists of the learning process, feelings, attitudes, personality, individual, prejudice, expectations, attention, physical conditions, mental disorders, values and needs, as well as individual interests, and motivation.

The factors that affect perceptions according to Fatah Syukur (2006) include:[66]

1) The internal factor is the perceptual behavior which includes biological factors and psychological factors.

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[65] Miftah Thoha. (2011). *Perilaku Organisasi, Konsep Dasar, dan Aplikasi.* Jakarta: PT Raja Grafindo Persada.

[66] Fatah Syukur. (2006). *Persepsi Mahasiswa Tadris Terhadap Pembelajaran Dosen dan Pengaruhnya terhadap Prestasi Belajar Mahasiswa di Jurusan Tadris Fakultas Tarbiyah IAIN Walisongo Semarang*. https://citraedukasi.wordpress.com/2008/01/25/penelitian-3/ (retrivied on November 25, 2020 at 20:38 pm).

Psychological factor includes attention, attitude, interest, experience, and education.

2) External factor comes from outside the individual which includes the target object and the environment which the perception takes place.

3) Apart from that, what is also important for the formation of individual perception is information.

Meanwhile, according to Pakde Sofa (2008), the factors that affect perceptions can be grouped into two, namely external and personal factors. External factors are clues that can be observed. Personal factors are characteristics that respond to perceptual stimuli. External factors include verbal and nonverbal cues, while personal factors include experience, motivation, and personality.[67]

Based on the theories above, it is stated that the factors which affect perception are internal factors include interests, attentions, and feelings. Meanwhile, external factors include perceived objects and the environment. From these factors, a person can perceive the same object, but the results of perceiving will be different.

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[67] Pakde Sofa. (2008). *Komunikasi Interpersonal*. https://massofa.wordpress.com/2008/04/16/komunikasi-interpersonal. (Retrivied on November, 25 2020 at 20:46 pm).

To support the interest in the instrument, Djaali (2007) stated that interest is a concern and preference in something or activity, without being asked. Interest is the acceptance of a relationship between oneself and something outside oneself. [68] The stronger or closer the relationship, the greater the interest is. Attention according to Bimo Walgito (2010), the concentration of all individual activities aimed at something or a set of objects. [69] Meanwhile, feeling according to Chaplin (1989) is a state in an individual as a result of what the individual experiences or perceives. Feelings are reactions to the stimulus perceived and are subjective. [70] Even the levels of feeling experienced by individuals as feeling happy or unhappy may vary.

Based on the theories above, what is related to external perception are object and environment. According to Bimo Walgito (2010), many objects can be perceived, which everything that is around humans. It is based on their experiences and learning, their past,

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[68] Djaali. (2007). *Psikologi Pendidikan*, Jakarta: Bumi Aksara, p. 121.

[69] Bimo Walgito. (2010). *Pengantar Psikologi Umum*. Yogyakarta: Andi Offset, p. 108.

[70] J.P. Chaplin. (1989). *Kamus Lengkap Psikologi. Terj. Dr. Kartono dan Kartini.* Jakarta: PT. Raja Grafindo Persada.

relating to people, objects, or similar events.[71]
Meanwhile, according to Sumadi Suryabrata (1984),
the environment is all objects and conditions, including
human and their activities, where humans are and affect
the survival and well-being.[72]

C. Conceptual Framework
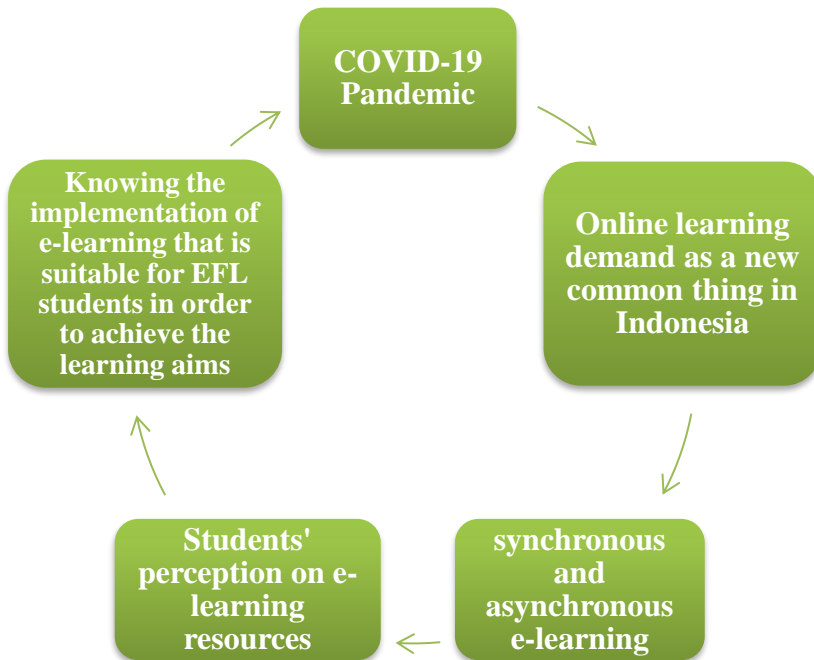
[71] Bimo Walgito. (2010). *Pengantar Psikologi Umum*. Yogyakarta: Andi Offset, p. 110.
[72] Sumadi Suryabrata. (1984). *Psikologi Pendidikan*. Jakarta: CV Rajawali, p. 68.

CHAPTER III
RESEARCH METHOD

This chapter discusses research design, research participant, research setting, data collection technique, and data analysis technique.

A. Research Design

Research design is all the processes required in planning and in conducting research. This research is descriptive research with a quantitative approach. According to Fraenkel and Wallen, descriptive research is used to explain, analyze, and classify something through various techniques, survey, interview, questionnaire, observation, and text.[73] Descriptive research determines and reports the way things are. Descriptive research aims to describe systematically and accurately the facts and characteristics of the population or certain fields.[74] Descriptive research has the following characteristics: (1) relates to the current situation, (2) describes only one variable or several variables but is

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[73] Jack R. Fraenkel & Norman E. Wallen. (2006). *How to design and evaluate research in education* (6th ed.). New York, NY: McGraw-Hill.
[74] Saifuddin Azwar. (2012). *Tes Prestasi Fungsi dan Pengembangan Pengukuran Prestasi Belajar Edisi II*. Yogyakarta: Pustaka Pelajar, p. 7.

described one by one, and (3) the variables researched are not manipulated.[75]

This research seeks to analyze and explain the EFL students' perception of synchronous and asynchronous E-learning during the Covid-19 pandemic descriptively and supported by percentage figures.

B. Research Participant

This research involved 70 first-semester students of the English Language Education Department at UIN Walisongo Semarang. The first semester students were chosen considering that they were new university students and never conducted online learning before; therefore, their experience in implementing online learning in university was a new common thing in their environment since the covid-19 pandemic.

Table 1. Data of 1st semester EFL students
at UIN Walisongo Semarang

No	Class	Amount
1	PBI 1 - A1	20
2	PBI 1 – A2	16
3	PBI 1 – B1	20

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[75] Ronny Kountur. (2005). *Metode Penelitian untuk Penulisan Skripsi dan Tesis*. Jakarta: PPM, p. 105.

No	Class	Amount
4	PBI 1 – B2	14
Total		**70**

C. Research Setting

1. Place

   This research was conducted online because the Covid-19 pandemic does not allow the researcher to go to the field directly. The subjects of this study were the first-semester EFL students at UIN Walisongo Semarang.

2. Time

   In collecting data, the researcher made a questionnaire in the form of Google Forms and distributed it through Students' Whatsapp groups on December 11-13, 2020.

D. Data Collection Technique

According to Hasan, data collection techniques are ways of recording events, things, information, or characteristics of the population elements to support research.[76] The data collection technique used in this research was a questionnaire. Questionnaires are techniques for data collection by submitting or sending a list of questions to be

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[76] M. Iqbal Hasan. (2002). *Pokok-Pokok Materi Metodologi Penelitian dan Aplikasinya*. Jakarta: Ghalia Indonesia, p. 83.

filled in by respondents. A questionnaire is divided into three types, namely closed questionnaires, open questionnaires, and semi-open questionnaires. However, in this research, the researcher only uses a closed questionnaire. Closed questionnaires are questionnaires that the questions do not give respondents the freedom to provide answers and opinions according to what they want.[77]

The data collection technique used in this research was a questionnaire with a Likert scale model. Likert scale is a psychometric response scale primarily used in questionnaires to obtain participant's preferences or degree of agreement with a statement or set of statements.[78] With the Likert scale, the measured variables are translated into variable indicators. Then these indicators are used as benchmarks for compiling instrument items in the form of questions or statements with alternative answers: strongly agree (SS), agree (S), disagree (TS), and strongly disagree (STS). For scoring alternative answers, both positive and negative statements are as follows:

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[77] M. Iqbal Hasan. (2002). *Pokok-Pokok Materi Metodologi Penelitian dan Aplikasinya*. Jakarta: Ghalia Indonesia, p. 84.

[78] Ankur Joshi, et.al. (2015). Likert Scale: Explored and Explained, *Applied Science and Technology*. 7(4), p. 396-403.

Table 3. Scoring Alternative Options

Questions	Alternative Options			
	SS	S	TS	STS
Positive	4	3	2	1
Negative	1	2	3	4

E. Instrument

The instrument of this research was a questionnaire. The questionnaire is a widely used and useful instrument for collecting survey information, providing structured, often numerical data, being able to be administrated without the presence of the researcher, and often being comparatively straightforward to analyze.[79] In terms of how to answer, the instrument used was a closed questionnaire because the respondents only need to choose the provided answers.

The research instrument used in this research was adapted from Bimo Walgito's theory of perception which has two factors; internal factors include students' interest, students' attention, and students' feeling. External factors include object and environment.[80] It can be used to determine the EFL students' perception of synchronous and asynchronous e-learning.

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[79] Louis Cohen, et.al. (2017). *Research Methods in Education.* United Kingdom: Routledge. Taylor & Francis Group, p. 317.

[80] Bimo Walgito. (1990). *Pengantar Psikologi Umum*. Yogyakarta: Andi Offset, p. 50.

The details from the grid data collection instrument are as follows:

Table 4. Research Instrument Grid

Variable	Indicators	Question Number
EFL Students' Perception of Synchronous and Asynchronous E-learning during COVID-19 Pandemic	Students' interest in E-learning	1,2,11,12
	Students' attention in understanding the subject matter on E-learning	3,4,13,14
	students' feeling on E-learning	5,6*,15*,16
	Objects on E-learning	7,8*,17,18*
	Students' environment	9*,10*,19*,20*
Total		**20**

Information: * (negative question)

F. Validity and Reliability of Instrument

1. Validity of the Questionnaire

Validity refers to how accurately a method measures what it is intended to measure. If research has high validity, that means it produces results that correspond to real properties, characteristics, and

variations in the physical social world.[81] It means that the instrument can be used to measure what should be measured. On the other hand, the instrument is said to be less valid and valid if it has low validity. The process of the instrument validity testing on the students' questionnaire was carried out online on 70 EFL students in the first semester. The validity test used in this research was item analysis. It correlated the total score with the score of each item to test the validity. The validity calculation was done using the Product Moment formula from Karl Pearson. The process was carried out using the help of Microsoft excel 2016 and then verified using SPSS 16. The number of questionnaire items that were tested was 20 items. After the data was processed using Ms. Excel or SPSS 16, the results of the validity coefficient or r count (rxy) for each instrument item are obtained, then the r count will be compared with the r table. If the correlation coefficient (r) > from the coefficients in the table (t) in a significant level of 5% or 1% then the instrument tested can be declared as valid. In this research, the participants (N) is 70, the t table 5% is

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[81] Jhon W. Creswell. (2002). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (2nd Edition). *SAGE Publications inc.*93

0.235.[82] Table 5 is the results of the overall analysis of instrument items. Meanwhile, the complete data processing can be seen in the appendix.

Table 5. The Results of Instrument Items Analysis

No	Instrument Items	(rxy)	Criteria
1	Item 1	0.395	Valid
2	Item 2	0.518	Valid
3	Item 3	0.314	Valid
4	Item 4	0.586	Valid
5	Item 5	0.425	Valid
6	Item 6	0.382	Valid
7	Item 7	0.539	Valid
8	Item 8	0.589	Valid
9	Item 9	0.361	Valid
10	Item 10	0.517	Valid
11	Item 11	0.354	Valid
12	Item 12	0.394	Valid
13	Item 13	0.471	Valid
14	Item 14	0.322	Valid
15	Item 15	0.526	Valid

[82] Burhan Nurgiyantoro. (2015). *Statistik Terapan*. Yogyakarta: Gadjah Mada University Press, p. 414.

No	Instrument Items	(rxy)	Criteria
16	Item 16	0.366	Valid
17	Item 17	0.461	Valid
18	Item 18	0.564	Valid
19	Item 19	0.364	Valid
20	Item 20	0.357	Valid

2. Reliability of the Questionnaire

Reliability refers to understanding whether an instrument can measure something that is measured consistently over time. Thus, reliability was the consistency of certain measurements to achieve the result. The reliability of the questionnaire in the form was based on the Likert Scale with 4-degree options, those were; strongly agree, agree, disagree, and strongly disagree. High and low reliability, empirically is shown by a number called the value of the reliability coefficient.

The researcher used Cronbach Alpha. The alpha ranged between 0 and 1. High reliability is indicated by the value of rxy approaching number 1. The general agreement of reliability is considered to be satisfactory if $\geq$ 0.700.

According to Arikunto, the standards of reliability of the instrument are described as follows:[83]

a. Value the reliability between 0.80 – 1.0 refers to very high reliability

b. Value the reliability between 0.60 – 0.79 refers to high reliability

c. Value the reliability between 0.40 – 0.59 refers to moderate reliability

d. Value the reliability between 0.20 – 0.39 refers to low reliability

e. Value the reliability between 0.00 – 0.19 refers to very low reliability

Table 6 shows the result of the Alpha coefficient calculated using SPSS 16, while the complete data processing can be seen in the appendix.

Table 6. Coefficient reliability table
Reliability statistics

Cronbach's Alpha	N of Items
0.768	20

From the calculation of reliability analysis of the questionnaire, the alpha was 0.768. It could be said that

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[83] Suharsimi Arikunto. (2013). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta, p.319.

the questionnaire had high reliability. It could be interpreted that the questionnaire was proper to be used for research.

G. Data Analysis Technique

The analyzing data is consisting of quantitative data. A questionnaire is related to quantitative research which is used to find some data about the EFL students' perception and preference in online learning resources which are synchronous and asynchronous e-learning. The descriptive statistical analysis technique is the data analysis technique used in this research. It serves to describe or provide an overview of the object under study through sample or population data as it is without analyzing and making generally accepted conclusions. The descriptive statistical analysis technique used in this study is through the calculation of the mean (M), median (Me), modus (Mo), and standard deviation (SD). For determination of position by calculating Ideal Mean and Standard Deviation, it can be calculated regarding norms as follows:[84]

$$Mi = \tfrac{1}{2}\,(ST + SR)$$
$$Sdi = 1/6\,(ST - SR)$$

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[84] Saifuddin Azwar. (2012). *Tes Prestasi Fungsi dan Pengembangan Pengukuran Prestasi Belajar Edisi II*. Yogyakarta: Pustaka Pelajar, p. 162.

Information:

Mi   : Mean (Mean Ideal)
SDi   : Standard Deviation Ideal
ST   : Highest Score
SR   : Lowest Score

With the results of the Mi and SDi calculations, the tendency of the EFL Students' perception variables of synchronous and asynchronous E-learning during the Covid-19 pandemic is categorized as follows:[85]

Table 7. Converting score into variable tendency category

No.	Perception Category	Score (X)
1	Very Positive	$X > Mi + SDi$
2	Positive	$Mi < X \leq Mi + SDi$
3	Less Positive	$Mi - SDi < X \leq Mi$
4	Negative	$X \leq Mi - SDi$

[85] Djemari Mardapi. (2008). *Teknik Penyusunan Instrumen Tes dan Nontes*. Yogyakarta: Mitra Cendekia Press, p. 123.

CHAPTER IV
FINDING AND DISCUSSION

This chapter reports the results of a study conducted among the first EFL students in UIN Walisongo, Semarang. This chapter contains the finding and the discussion of the research.

A. Finding

The findings of the research questions are obtained from the collected data by distributing the questionnaires to the first semester students of PBI A and B at UIN Walisongo Semarang. The students have conducted the online class during the distance learning, due to the covid-19 pandemic. The questionnaires for the EFL students in this research consist of 5 indicators, each of them contains 2 types of e-learning resources statement, thus are synchronous and asynchronous. The total numbers of questionnaire statement are 20, and for each indicator, there are 2 statements of synchronous e-learning and 2 statements of asynchronous e-learning consisting of positive and negative statements.

Grouping the observed indication of valuation of each respondent toward the indicators in EFL students' perception of synchronous and asynchronous e-learning, divided into 4 categories, those are; strongly agree, agree, disagree, strongly disagree. The grouping is based on the ideal mean and the

ideal standard deviation. Description of the data presented includes mean, minimum score, maximum score, and standard deviation. Besides, the frequency distribution table and the histogram graphic of each e-learning resource are also presented. The following shows the descriptive statistics of respondents' answer result:

a. EFL students' perception of the use of synchronous e-learning during the covid-19 pandemic can be seen in table 8.

Table 8. The results of EFL Students' Perception of Synchronous e-learning

No	Questionnaire Statement	Information			
		SS	S	TS	STS
Synchronous E-learning					
1	I am excited to do assignments given in synchronous E-learning	13	53	4	0
2	I try to follow synchronous E-learning on time.	19	51	0	0
3	I practice actively answering questions from the lecturer during synchronous E-learning.	18	43	9	0
4	I pay attention to the lecturer's explanation during synchronous E-learning	23	41	6	0
5	I understand the material well when it is explained directly by the lecturer.	22	44	4	0
6	It feels difficult to think and answer questions on synchronous E-learning because a quick response is expected.	16	40	12	2

No	Questionnaire Statement	Information			
		SS	S	TS	STS
Synchronous E-learning					
7	I work in groups, exchanging ideas, and planning tasks by using video conferences.	21	40	8	1
8	I sometimes do not get a chance to ask and answer questions during synchronous E-learning.	7	45	15	3
9	Home condition is not conducive and does not support synchronous E-learning, such as zoom meetings.	27	32	6	5
10	High internet cost makes it difficult for me to attend synchronous E-learning, such as zoom meetings.	25	38	7	0

Data from the use of synchronous e-learning consists of 10 statements. Based on the analysis results, obtained the lowest score = 21, the highest score = 36, mean (M) = 27.51, and standard deviation (SD) = 2.948. The data is classified into four categories, those are; strongly agree, agree, disagree, and strongly disagree. According to these classified data, the frequency distribution of synchronous e-learning in detail can be seen in Table 9 below:

Table 9. Frequency distribution of synchronous e-learning

No	Category	Interval Score	Frequency	Percentage
1	Very positive	$X > 30$	8	12%
2	Positive	$25 < X \leq 30$	47	67%
3	Less positive	$20 < X \leq 25$	15	21%
4	Negative	$X \leq 20$	0	0%
Total			70	100%

Based on the results of table 9 above, shows that EFL students' perception of synchronous e-learning, 8 respondents (12%) had a very positive perception, 47 respondents (67%) had a positive perception, 15 respondents (21%) had a less positive perception, and 0 respondent (0%) had a negative perception. The form of bar charts can be seen as follows:

Picture 1. Frequency bar chart of EFL students' perception of synchronous e-learning
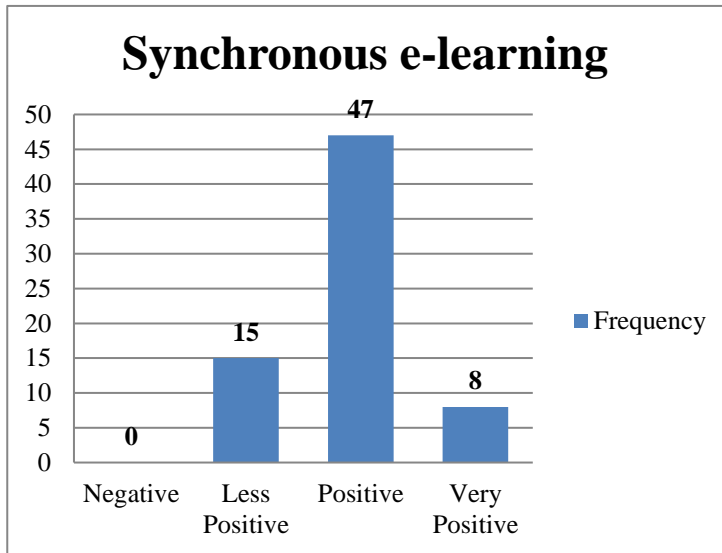
Thus, it can be concluded that the EFL students' perception of e-learning, analyzed from students' perception of synchronous e-learning with the average perception score of 27.51, obtained a positive category.

b. EFL students' perception of the use of asynchronous e-learning during the covid-19 pandemic can be seen in Table 9 below.

Table 9. The results of EFL Students' Perception of Asynchronous e-learning

No	Questionnaire Statement	Information			
		SS	S	TS	STS
Asynchronous E-learning					
11	I like self-paced online learning that can be done at any time.	16	48	6	0
12	I submit the assignments given in asynchronous E-learning on time.	41	23	5	1
13	I try to find out the information I need in asynchronous E-learning.	39	26	5	0
14	I read and understand the material given by the lecturer during asynchronous E-learning.	37	29	4	0
15	It feels difficult for me to understand the material without interaction and constant guidance from the lecturer.	24	23	22	1
16	I feel the material, which has been provided and can be studied at any time is easier to understand.	13	36	21	0

No	Questionnaire Statement	Information			
		SS	S	TS	STS
Asynchronous E-learning					
17	The conversations during asynchronous E-learning are very effective, free, efficient, and not bound by place.	12	31	24	3
18	I do not do a difficult assignment when I have limited access to ask and get the answer in real-time from my lecturer.	5	32	26	7
19	Lots of activities at home cause me to forget to do and submit assignments on time in asynchronous E-learning.	23	20	23	4
20	The online learning environment, which is not interactive at home, makes me feel isolated and bored.	41	21	8	0

Data from EFL students' perception of asynchronous e-learning contains 10 statements. Based on the analysis results, obtained the lowest score = 22, the highest score = 34, mean (M) = 27.03, and standard deviation (SD) = 3.097. The data are classified into four categories, thus are strongly agree, agree, disagree, and strongly disagree. Based on these data, the frequency distribution of asynchronous e-learning in detail can be seen in Table 10 below:

Table 10. Frequency distribution of asynchronous E-learning

No	Category	Interval Score	Frequency	Percentage
1	Very positive	$X > 30$	13	19%
2	Positive	$25 < X \leq 30$	32	46%
3	Less positive	$20 < X \leq 25$	25	35%
4	Negative	$X \leq 20$	0	0
Total			70	100%

Based on the result of the table above, it shows that EFL students' perception of e-learning during the covid-19 pandemic, analyzed from asynchronous e-learning, 13 respondents (19%) had a very positive perception, 32 respondents (46%) had a positive perception, 25 respondents (35%) had a less positive perception, and no respondent had a negative perception. The form of bar charts can be seen as follows:

Picture 2. Frequency bar chart of EFL students' perception of asynchronous e-learning
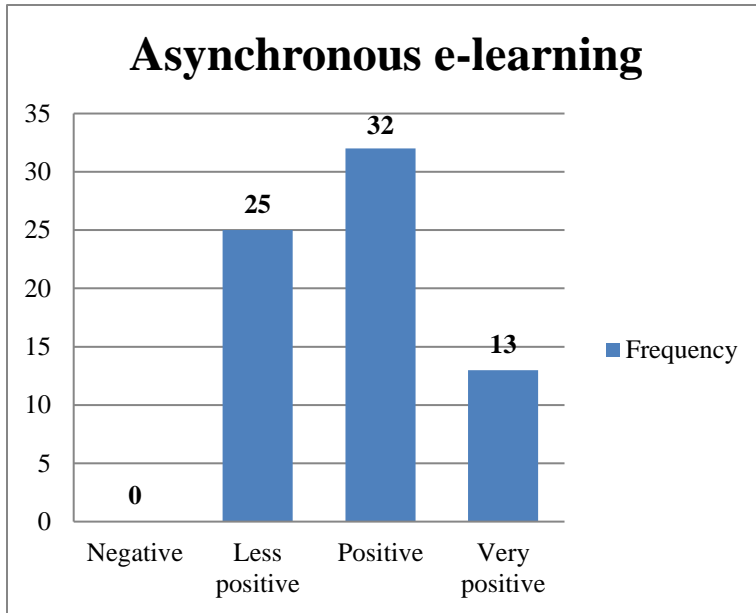
Thus, it can be said that EFL students' perception of e-learning, analyzed from the students' perception of asynchronous e-learning during the covid-19 pandemic with the perception average score = 27.02, obtained a positive category.

c. EFL students' perception of synchronous and asynchronous e-learning during COVID-19 pandemic

This research is measured by a questionnaire that consists of 20 statements. Based on the analysis results, obtained the lowest score = 45, the highest score = 69, mean (M) = 54.54, standard deviation (SD) = 5.183. The data is classified into four categories, thus are strongly agree, agree, disagree, and strongly disagree. Based on these data, the frequency distribution of EFL students' perception of synchronous and asynchronous e-learning during the covid-19 pandemic in detail can be seen in the table below:

Table 8. Frequency distribution of synchronous and asynchronous e-learning

No	Category	Interval Score	Frequency	Percentage
1	Very positive	$X > 60$	9	13%
2	Positive	$50 < X \leq 60$	51	73%
3	Less positive	$40 < X \leq 50$	10	14%
4	Negative	$X \leq 40$	0	0
	Total		70	100%

Based on the result of the table above, it shows that EFL students' perception of synchronous and asynchronous e-learning during the covid-19 pandemic, there were 9 respondents (13%) who had a very positive perception, 51 respondents (73%) had a positive perception, 10 respondents (14%) had a less positive perception, and there was no respondent who had a negative perception. The form of bar charts can be seen as follows:

Picture 3. Frequency bar chart of EFL students' perception of synchronous and asynchronous e-learning
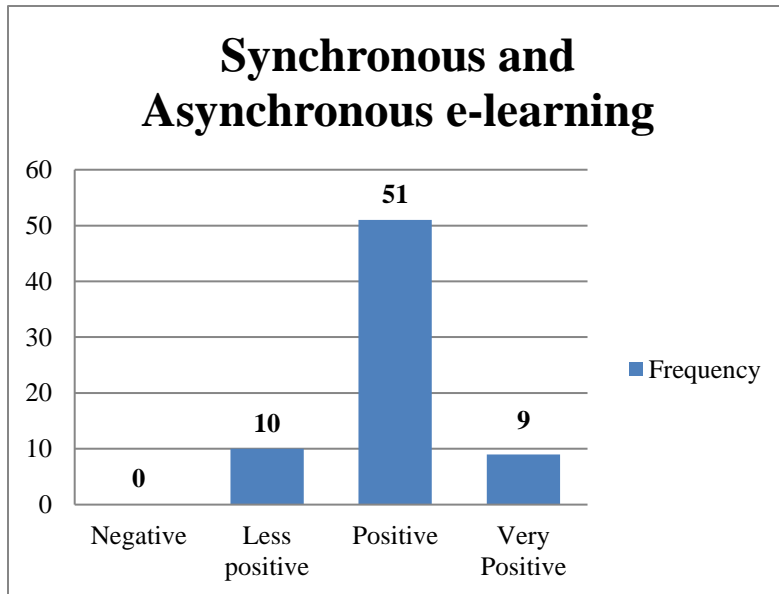
Thus, it can be concluded that the majority of EFL students' perception of synchronous and asynchronous e-learning during the covid-19 pandemic was positive, at 51 students or 73% of students.

B. Discussion

This research discusses EFL students' perception of synchronous and asynchronous e-learning during the covid-19 pandemic. In this research, the perception referred to the level of students' preference of the synchronous and asynchronous e-learning process, based on students' interest, attention, feeling, activity, and environment. The results obtained from 70 students, there were 9 respondents (13%) who had very positive perceptions, 51 respondents (73%) had positive perceptions, 10 respondents (14%) had less positive perceptions, and no respondents had negative perceptions. Based on the results of this data processing, it can be said that the majority of students certainly have a positive perception of online learning, despite e-learning in Indonesia considers as a new common thing for students since the pandemic. The "positive" category in this research indicates that synchronous and asynchronous e-learning is running well, or it can be interpreted that synchronous and asynchronous e-learning are sufficiently in line with the expectations of the

related parties, both from the lecturers and the university concerned.

From the results of the research, EFL students' perception of synchronous e-learning had a positive category which reached 47 students (67%), while EFL students' perception of asynchronous e-learning which had a positive category consisted of 32 students (46%). It shows that EFL students' perceptions are more dominant towards synchronous e-learning, which happens in real-time. It involves online studies through chat and video conferencing. The high cost of the internet does not affect students to follow e-learning synchronously. The high interest and attention from students, and also supported by good social relations, make the activities and the online learning process becomes positive so that the objectives of the online learning process can be achieved properly. However, The different platforms used by the lecturer in teaching synchronously and asynchronously do not make the students feel different.

The lecturers act as agents and stimulants for students to be able to understand the material presented during the online teaching and learning process. The synchronous e-learning method can be maximized by the lecturers, while asynchronous e-learning can also be conducted alternately with synchronous e-learning. The synchronous and asynchronous e-learning method can be maximized by the

lecturers so that it can match the learning expectations and the learning aims. Sufficient learning time is also an important thing for students to study and understand the material presented by the lecturers. Furthermore, the free internet quota was given by the government and the campus helps the students in taking online learning. Besides, the students also need an environment that is conducive to conduct online learning at home.

CHAPTER V
CONCLUSION AND SUGGESTION

In this chapter, the researcher presents a conclusion and gives suggestions related to the research problem.

A. Conclusion

After analyzing the results of the research, the researcher concludes that mostly the first semester EFL students at UIN Walisongo Semarang have positive perceptions towards synchronous and asynchronous e-learning. It can be seen from EFL students' perception of synchronous e-learning, 12% of respondents had very positive perceptions, 67% had positive perceptions, 21% had less positive perceptions, and none had negative perceptions. In EFL students' perception of asynchronous e-learning, 19% of respondents had very positive perceptions, 46% had positive perceptions, 35% had less positive perceptions, and there was no respondent with negative perceptions. Meanwhile, EFL students' perception of synchronous and asynchronous e-learning as seen from 70 respondents, there were 9 respondents (13%) who had very positive perceptions, and 51 respondents (73%) had positive perceptions. Thus, EFL students' perception of synchronous and asynchronous e-learning during the covid-19 pandemic at UIN Walisongo Semarang is in a positive category.

The results also show that EFL students' perceptions are more dominant towards synchronous e-learning, which happens in real-time. It involves online studies through chat and video conferencing. The high cost of the internet does not affect students to follow e-learning synchronously. The high interest and attention from students and good social relations make the activities and the online learning process become positive so that the objectives of the online learning process can be achieved properly.

Nevertheless, some EFL students still had a positive perception of asynchronous e-learning as well, despite not as positive as synchronous e-learning. Thus, asynchronous e-learning can still be conducted alternately with synchronous e-learning. The synchronous and asynchronous e-learning method can be maximized by the lecturers so that it can match the learning expectations and the learning aims.

B. Suggestion

1. For the lecturer

The findings of this research can be used as a reflection that EFL students have perceptions of e-learning. The lecturer may consider the students' preference on e-learning, either synchronous or asynchronous, then negotiate with them before the teaching and learning process begins, so that productivity increases, gives more beneficial for students, and ease in achieving the learning

aims. From the findings of this research, it is known that the EFL students have a more dominant perception of the synchronous e-learning method than the asynchronous method. In this case, the lecturer or teaching staff can further motivate students to be even better in their interest, attention, and feelings towards synchronous e-learning.

2. For the next researchers

   The next researchers may learn this study and get the motivation to look for a similar topic and conduct a study related to distance learning to improve learning outcomes, especially after the Covid-19 outbreak.

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QUESTIONNAIRES

EFL STUDENTS' PERCEPTION OF SYNCHRONOUS AND ASYNCHRONOUS E-LEARNING DURING QUARANTINE PERIOD OF COVID-19

Respondent Identity

Name   :

Class   :

<u>INTRODUCTION</u>

This questionnaire is not a test and does not affect your learning outcomes. There is no right or wrong answer. You are expected to answer honestly and thoroughly according to your actual situation at this time. Your answers are private and confidential. Therefore, do this questionnaire honestly and seriously with the instructions below.

INSTRUCTIONS

1. Fill in your identity in the provided place.
2. Read the statements in the questionnaire below carefully, then choose 1 (one) of 4 (four) available options that suit your actual situation. The choices are;

   SS : Sangat Setuju (Strongly agree)

   S   : Setuju (Agree)

   TS : Tidak Setuju (Disagree)

   STS : Sangat Tidak Setuju (Strongly disagree)
3. After finished answering, collect your result by tapping the submit button in the Google form.

Information:

There are two types of E-learning:

1. Synchronous E-learning happens in real-time. It involves online studies through chat and video-conferencing, e.g. Zoom meetings, Google meet, Skype, and Whatsapp chat.
2. Asynchronous E-learning can be carried out at any time. It involves coursework delivered via the web, email, and message boards that are then posted on online forums, e.g. Google Classroom, Microsoft Team, Gmail, and Quipper.

QUESTION ITEMS

No	Statement	Information			
		SS	S	TS	STS
Synchronous E-learning					
1	I am excited to do assignments given in synchronous E-learning				
2	I try to follow synchronous E-learning on time.				
3	I practice actively answering questions from the lecturer during synchronous E-learning.				
4	I pay attention to the lecturer's explanation during synchronous E-learning				
5	I understand the material well when it is explained directly by the lecturer.				
6	It feels difficult to think and answer questions on synchronous E-learning because a quick response is expected.				
7	I work in groups, exchanging ideas, and planning tasks by using video conferences.				
8	I sometimes do not get a chance to ask and answer questions during synchronous E-learning.				
9	Home condition is not conducive and does not support synchronous E-learning, such as zoom meetings.				
10	High internet cost makes it difficult for me to attend synchronous E-learning, such as zoom meetings.				
Asynchronous E-learning					
11	I like self-paced online learning that can be done at any time.				
12	I submit the assignments given in asynchronous E-learning on time.				

13	I try to find out the information I need in asynchronous E-learning.				
14	I read and understand the material given by the lecturer during asynchronous E-learning.				
15	It feels difficult for me to understand the material without interaction and constant guidance from the lecturer.				
16	I feel the material, which has been provided and can be studied at any time is easier to understand.				
17	The conversations during asynchronous E-learning are very effective, free, efficient, and not bound by place.				
18	I do not do a difficult assignment when I have limited access to ask and get the answer in real-time from my lecturer.				
19	Lots of activities at home cause me forget to do and submit assignments on time in asynchronous E-learning.				
20	The online learning environment, which is not interactive at home, makes me feel isolated and bored.				

APPENDIX II

Validity Test Result

Correlations (Uji Validitas)

X01		X02	X03	X04	X05	X06	X07	X08	X09	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20	Total	
X01	Pearson Correlation	1	.320**	.352**	0.201	.270*	0.229	0.222	0.086	-0.011	0.090	-0.025	0.052	.487**	-0.029	0.225	-0.042	-0.003	0.150	-0.031	0.137	.395**
	Sig. (2-tailed)		0.007	0.003	0.096	0.024	0.057	0.065	0.478	0.929	0.459	0.834	0.670	0.000	0.812	0.061	0.731	0.981	0.216	0.799	0.257	0.001
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X02	Pearson Correlation	.320**	1	0.143	.672**	.272*	.425**	.368**	.319**	.248*	0.196	0.138	0.097	.320**	-0.197	0.191	-0.167	0.145	.253*	-0.079	.244*	.518**
	Sig. (2-tailed)	0.007		0.237	0.000	0.023	0.000	0.002	0.007	0.038	0.104	0.253	0.423	0.007	0.102	0.113	0.167	0.230	0.035	0.517	0.042	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X03	Pearson Correlation	.352**	0.143	1	0.219	0.171	0.099	.268*	0.110	0.144	-0.023	-.270*	.268*	0.115	0.044	.458**	-0.074	-0.094	-0.039	-0.047	-0.045	.314**
	Sig. (2-tailed)	0.003	0.237		0.069	0.156	0.417	0.025	0.364	0.235	0.852	0.024	0.025	0.344	0.718	0.000	0.542	0.438	0.750	0.697	0.709	0.008

	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X04	Pearson Correlation	0.201	.672**	0.219	1	0.160	.383**	.346**	.410**	.437**	0.144	.244*	0.177	0.169	0.007	0.203	-0.054	0.200	0.136	-0.003	.298*	.586**
	Sig. (2-tailed)	0.096	0.000	0.069		0.185	0.001	0.003	0.000	0.000	0.234	0.041	0.143	0.162	0.954	0.092	0.659	0.097	0.261	0.983	0.012	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X05	Pearson Correlation	.270*	.272*	0.171	0.160	1	0.230	.282*	0.113	-0.068	0.061	-0.078	0.142	0.187	.255*	0.029	0.199	0.183	.265*	.292*	-0.123	.425**
	Sig. (2-tailed)	0.024	0.023	0.156	0.185		0.056	0.018	0.351	0.576	0.615	0.522	0.241	0.121	0.033	0.814	0.098	0.129	0.027	0.014	0.310	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X06	Pearson Correlation	0.229	.425**	0.099	.383**	0.230	1	.331**	0.194	0.154	-0.027	-0.159	.347**	0.074	-0.068	0.132	-0.137	0.116	0.172	-0.115	.253*	.382**
	Sig. (2-tailed)	0.057	0.000	0.417	0.001	0.056		0.005	0.107	0.202	0.826	0.188	0.003	0.541	0.576	0.277	0.257	0.339	0.153	0.342	0.035	0.001
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X07	Pearson Correlation	0.222	.368**	.268*	.346**	.282*	.331**	1	.491**	.431**	0.064	0.189	.261*	0.129	0.008	0.195	0.030	0.104	0.209	0.070	-0.034	.539**

	Sig. (2-tailed)	0.065	0.002	0.025	0.0003	0.018	0.005		0.000	0.000	0.601	0.117	0.029	0.286	0.950	0.105	0.808	0.392	0.083	0.562	0.780	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X08	Pearson Correlation	0.086	.319**	0.110	.410**	0.113	0.194	.491**	1	.453**	.297*	.449**	0.130	0.047	-0.040	0.225	0.108	0.131	.343**	0.222	.255*	.589**
	Sig. (2-tailed)	0.478	0.007	0.364	0.0000	0.351	0.107	0.000		0.000	0.012	0.000	0.283	0.700	0.743	0.061	0.375	0.279	0.004	0.064	0.033	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X09	Pearson Correlation	-0.011	.248*	0.144	.437**	-0.068	0.154	.431**	.453**	1	0.068	.479**	-0.059	-0.031	-0.185	0.110	-0.095	-0.040	0.065	-0.009	0.091	.361**
	Sig. (2-tailed)	0.929	0.038	0.235	0.0000	0.576	0.202	0.000	0.000		0.578	0.000	0.627	0.796	0.124	0.366	0.436	0.740	0.592	0.942	0.456	0.002
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X10	Pearson Correlation	0.090	0.196	-0.023	0.144	0.061	-0.027	0.064	.297*	0.068	1	.354**	0.145	.274*	0.212	.329**	.259*	.448**	.358**	0.000	0.231	.517**
	Sig. (2-tailed)	0.459	0.104	0.852	0.234	0.615	0.826	0.601	0.012	0.578		0.003	0.231	0.022	0.079	0.005	0.031	0.000	0.002	1.000	0.055	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70

X11	Pearson Correlation	-0.025	0.138	-.270*	.244*	-0.078	-0.159	0.189	.449**	.479**	.354**	1	-0.025	0.042	0.140	0.000	0.132	-0.017	0.195	0.090	0.196	.354**
	Sig. (2-tailed)	0.834	0.253	0.024	0.041	0.522	0.188	0.117	0.000	0.000	0.003		0.840	0.729	0.249	1.000	0.277	0.887	0.106	0.456	0.105	0.003
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X12	Pearson Correlation	0.052	0.097	.268*	0.177	0.142	.347**	.261*	0.130	-0.059	0.145	-0.025	1	0.139	.301*	.342**	0.162	-0.029	0.004	-0.043	0.204	.394**
	Sig. (2-tailed)	0.670	0.423	0.025	0.143	0.241	0.003	0.029	0.283	0.627	0.231	0.840		0.252	0.011	0.004	0.181	0.815	0.975	0.726	0.091	0.001
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X13	Pearson Correlation	.487**	.320**	0.115	0.169	0.187	0.074	0.129	0.047	-0.031	.274*	0.042	0.139	1	0.108	.380**	0.058	.349**	.288*	0.026	-0.062	.471**
	Sig. (2-tailed)	0.000	0.007	0.344	0.162	0.121	0.541	0.286	0.700	0.796	0.022	0.729	0.252		0.372	0.001	0.634	0.003	0.016	0.833	0.608	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X14	Pearson Correlation	-0.029	-0.197	0.044	0.007	.255*	-0.068	0.008	-0.040	-0.185	0.212	0.140	.301*	0.108	1	0.110	.460**	0.187	0.090	0.204	-0.010	.322**
	Sig. (2-tailed)	0.812	0.102	0.718	0.954	0.033	0.576	0.950	0.743	0.124	0.079	0.249	0.011	0.372		0.364	0.000	0.121	0.461	0.091	0.932	0.007

	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X15	Pearson Correlation	0.225	0.191	.458**	0.203	0.029	0.132	0.195	0.225	0.110	.329**	0.000	.342**	.380**	0.110	1	0.189	0.134	0.153	0.057	0.118	.526**
	Sig. (2-tailed)	0.061	0.113	0.000	0.092	0.814	0.277	0.105	0.061	0.366	0.005	1.000	0.004	0.001	0.364		0.118	0.268	0.206	0.638	0.332	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X16	Pearson Correlation	-0.042	-0.167	-0.074	-0.054	0.199	-0.137	0.030	0.108	-0.095	.259*	0.132	0.162	0.058	.460**	0.189	1	.237*	0.214	.477**	0.013	.366**
	Sig. (2-tailed)	0.731	0.167	0.542	0.659	0.098	0.257	0.808	0.375	0.436	0.031	0.277	0.181	0.634	0.000	0.118		0.048	0.075	0.000	0.912	0.002
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X17	Pearson Correlation	-0.003	0.145	-0.094	0.200	0.183	0.116	0.104	0.131	-0.040	.448**	-0.017	-0.029	.349**	0.187	0.134	.237*	1	.477**	0.214	0.030	.461**
	Sig. (2-tailed)	0.981	0.230	0.438	0.097	0.129	0.339	0.392	0.279	0.740	0.000	0.887	0.815	0.003	0.121	0.268	0.048		0.000	0.076	0.806	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X18	Pearson Correlation	0.150	.253*	-0.039	0.136	.265*	0.172	0.209	.343**	0.065	.358**	0.195	0.004	.288*	0.090	0.153	0.214	.477**	1	.336**	0.193	.564**

	Sig. (2-tailed)	0.216	0.035	0.750	0.261	0.027	0.153	0.083	0.004	0.592	0.002	0.106	0.975	0.016	0.461	0.206	0.075	0.000		0.004	0.109	0.000
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X19	Pearson Correlation	-0.031	-0.079	-0.047	0.003	.292*	-0.115	0.070	0.222	-0.009	0.000	0.090	-0.043	0.026	0.204	0.057	.477**	0.214	.336**	1	.260*	.364**
	Sig. (2-tailed)	0.799	0.517	0.697	0.983	0.014	0.342	0.562	0.064	0.942	1.000	0.456	0.726	0.833	0.091	0.638	0.000	0.076	0.004		0.029	0.002
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
X20	Pearson Correlation	0.137	.244*	-0.045	.298*	-0.123	.253*	-0.034	.255*	0.091	0.231	0.196	0.204	-0.062	-0.010	0.118	0.013	0.030	0.193	.260*	1	.357**
	Sig. (2-tailed)	0.257	0.042	0.709	0.012	0.310	0.035	0.780	0.033	0.456	0.055	0.105	0.091	0.608	0.932	0.332	0.912	0.806	0.109	0.029		0.002
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total	Pearson Correlation	.395**	.518**	.314**	.586**	.425**	.382**	.539**	.589**	.361**	.517**	.354**	.394**	.471**	.322**	.526**	.366**	.461**	.564**	.364**	.357**	1
	Sig. (2-tailed)	0.001	0.000	0.008	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.003	0.001	0.000	0.007	0.000	0.002	0.000	0.000	0.002	0.002	
	N	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

APPENDIX III

Reliability Test Result

Reliability
Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	70	100.0
	Excluded[a]	0	.0
	Total	70	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.768	20

APPENDIX IV

Raw Data

DATA RESULTS OF QUESTIONNAIRE

No. Res	Item Number																			Total
	1	2	3	4	5	6	7	8	9	10	12	13	14	15	16	17	18	19	20	
1	3	4	4	3	4	3	4	2	4	4	4	4	4	3	2	2	2	4	3	63
2	4	4	3	4	3	1	4	1	1	3	4	4	3	2	3	3	1	2	3	53
3	4	4	3	4	3	1	4	1	1	3	4	4	3	2	3	3	1	2	3	53
4	4	4	4	4	2	3	3	2	4	3	4	3	3	2	3	2	2	2	4	58
5	3	3	3	2	4	3	3	3	2	2	4	3	4	4	3	3	3	4	4	60
6	3	4	3	3	4	3	4	2	3	3	4	4	3	2	3	4	3	2	2	59
7	3	3	3	3	3	3	3	4	3	4	3	3	3	3	3	3	3	3	4	60
8	3	3	2	4	2	3	3	3	3	2	3	2	3	2	2	2	2	2	3	49
9	2	4	2	3	4	3	2	3	2	3	4	4	4	4	4	3	2	2	4	59
10	3	3	3	4	4	4	4	2	4	4	3	4	4	4	4	4	2	4	4	68
11	3	4	3	4	3	3	3	3	3	4	4	3	3	2	2	2	2	2	4	57
12	4	4	4	4	4	2	2	1	1	4	4	4	4	4	2	1	1	4	4	58
13	3	3	3	4	3	3	3	2	2	3	3	4	4	3	3	3	3	3	3	58
14	2	4	3	4	4	3	3	1	2	3	4	2	3	3	3	2	2	1	4	53
15	3	4	2	3	4	4	4	1	4	4	4	4	4	4	2	3	2	4	4	64
16	3	3	3	4	3	3	4	2	4	4	3	3	4	2	3	4	3	4	4	63
17	3	3	4	3	2	3	4	3	4	4	3	4	4	3	3	3	3	3	2	61
18	3	2	3	3	3	3	3	2	3	3	3	3	2	3	2	3	3	3	3	53
19	3	3	3	4	3	3	2	2	2	2	4	4	4	2	4	3	1	2	4	55
20	4	3	2	4	4	4	4	3	4	4	4	4	4	4	4	4	3	1	4	68
21	3	3	3	4	3	3	2	2	3	2	4	3	3	3	3	3	4	3	4	58
22	3	3	2	2	3	3	4	2	2	2	3	3	3	4	2	2	2	2	4	51
23	4	4	3	4	3	4	2	3	2	4	4	4	4	4	3	3	1	1	3	60
24	2	3	3	3	4	3	2	3	4	3	4	4	4	4	3	2	3	3	4	60
25	3	3	3	3	3	2	3	2	4	4	3	3	3	2	3	2	2	3	4	55
26	3	3	3	4	4	2	3	2	1	2	2	4	3	3	2	4	2	3	4	54
27	3	4	4	4	1	3	4	4	4	3	4	4	3	2	4	3	4	4	4	66
28	1	4	3	4	4	4	3	1	4	4	4	3	4	4	3	2	2	2	4	60
29	3	3	3	3	3	3	3	3	2	4	4	4	4	3	4	4	3	3	4	63
30	4	4	3	4	3	4	4	4	4	4	3	4	3	3	3	3	3	3	3	66
31	3	3	4	3	3	3	3	3	2	3	4	3	3	4	3	3	3	3	3	59
32	3	4	4	4	4	3	3	2	3	3	4	4	3	4	3	2	2	2	3	60

33	3	3	2	4	4	4	3	2	4	4	4	4	4	4	3	3	3	2	4	64
34	4	4	3	3	4	4	3	1	3	3	4	4	4	4	2	2	2	2	3	59
35	3	3	3	4	2	3	3	2	3	4	3	3	3	3	3	3	2	3	4	57
36	3	4	3	4	4	4	3	2	2	3	4	4	4	4	4	3	4	3	3	65
37	2	4	3	4	3	4	2	3	4	3	4	4	4	3	2	3	1	1	3	57
38	2	3	3	3	4	2	2	2	4	3	4	4	4	3	2	2	3	4	3	57
39	2	3	3	3	3	3	2	2	3	4	3	3	4	3	3	3	3	4	4	58
40	3	3	3	3	1	3	3	3	2	3	2	3	3	2	4	1	3	4	4	53
41	3	4	3	3	3	4	4	3	4	4	4	3	4	4	2	3	3	4	4	66
42	4	4	3	2	2	4	3	1	3	4	3	3	4	3	2	4	3	3	4	59
43	3	4	4	4	4	2	3	1	2	2	3	4	4	2	4	3	2	2	3	56
44	3	3	4	3	3	3	3	4	4	3	3	3	3	4	3	3	3	3	3	61
45	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	38
46	3	3	4	4	4	3	1	3	1	4	3	4	4	3	2	2	4	4	4	60
47	2	2	3	2	2	3	2	2	2	2	1	4	3	3	3	1	3	2	2	44
48	2	3	3	2	2	4	3	2	4	4	3	3	2	3	3	3	2	4	4	56
49	3	3	2	4	3	2	2	2	3	3	3	3	3	2	3	2	2	4	4	53
50	3	4	4	4	3	4	4	4	3	4	4	3	4	4	4	4	3	4	3	70
51	4	4	2	4	4	3	4	2	4	4	4	4	4	4	3	2	3	3	4	66
52	3	4	3	4	4	4	3	1	4	2	4	4	3	1	3	4	2	3	4	60
53	3	4	3	4	4	2	2	2	3	3	4	4	3	4	3	3	3	4	4	62
54	3	3	3	2	4	3	3	3	2	2	4	3	4	4	3	3	3	4	4	60
55	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	38
56	3	3	3	4	3	3	4	2	4	4	3	3	4	2	3	4	3	4	4	63
57	3	4	4	4	1	3	4	4	4	3	4	4	3	2	4	3	4	4	4	66
58	2	3	3	3	4	2	2	2	4	3	4	4	4	3	2	2	3	4	3	57
59	3	3	3	4	3	3	2	2	2	2	4	4	4	2	4	3	1	2	4	55
60	3	4	4	3	4	3	4	2	4	4	4	4	4	3	2	2	2	4	3	63
61	4	4	4	4	2	3	3	2	4	3	4	3	3	2	3	2	2	2	4	58
62	3	3	2	2	3	3	4	2	2	2	3	3	3	4	2	2	2	2	4	51
63	4	4	3	2	2	4	3	1	3	4	3	3	4	3	2	4	3	3	4	59
64	3	3	3	2	4	3	3	3	2	2	4	3	4	4	3	3	3	4	4	60
65	2	4	2	3	4	3	2	3	2	3	4	4	4	4	4	3	2	2	4	59
66	3	3	4	3	2	3	4	3	4	4	3	4	4	3	3	3	3	3	2	61
67	2	3	3	3	4	2	2	2	4	3	4	4	4	3	2	2	3	4	3	57
68	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	38
69	4	3	4	3	4	4	4	4	4	4	3	4	3	3	3	3	3	3	3	66
70	3	4	3	3	4	3	4	2	3	3	4	4	3	2	3	4	3	2	2	59

APPENDIX V

List of students' perception score

Synchronous E-learning

Respondent	Score	Respondent	Score	Respondent	Score
X1	29	X31	28	X61	29
X2	36	X32	31	X62	28
X3	36	X33	25	X63	26
X4	29	X34	30	X64	28
X5	28	X35	26	X65	26
X6	30	X36	30	X66	25
X7	25	X37	24	X67	26
X8	26	X38	26	X68	24
X9	26	X39	24	X69	26
X10	27	X40	25	X70	30
X 11	27	X41	25		
X12	34	X42	26		
X13	29	X43	35		
X14	31	X44	25		
X15	27	X45	24		
X16	27	X46	28		
X17	25	X47	24		
X18	26	X48	21		
X19	29	X49	27		
X20	26	X50	27		
X21	28	X51	29		
X22	28	X52	30		
X23	33	X53	28		
X24	24	X54	24		
X25	26	X55	21		
X26	33	X56	27		
X27	26	X57	26		
X28	26	X58	26		
X29	26	X59	29		
X30	26	X60	29		

Asynchronous E-learning

Respondent	Score	Respondent	Score	Respondent	Score
X1	26	X31	26	X61	29
X2	33	X32	28	X62	23
X3	33	X33	28	X63	26
X4	29	X34	28	X64	25
X5	25	X35	25	X65	31
X6	33	X36	28	X66	29
X7	26	X37	31	X67	26
X8	25	X38	26	X68	24
X9	31	X39	25	X69	28
X10	27	X40	22	X70	33
X 11	26	X41	24		
X12	26	X42	26		
X13	28	X43	33		
X14	25	X44	24		
X15	25	X45	24		
X16	27	X46	23		
X17	29	X47	23		
X18	26	X48	24		
X19	34	X49	25		
X20	31	X50	29		
X21	24	X51	25		
X22	23	X52	32		
X23	31	X53	23		
X24	23	X54	25		
X25	26	X55	24		
X26	27	X56	27		
X27	26	X57	26		
X28	25	X58	26		
X29	30	X59	34		
X30	28	X60	26		

APPENDIX VI

Recapitulation of Research Data

Statistics

Synchronous and Asynchronous E-learning

N	Valid	70
	Missing	0
Mean		61.00
Std. Error of Mean		.794
Median		62.00
Mode		63
Std. Deviation		6.642
Variance		44.116
Range		34
Minimum		40
Maximum		74
Sum		4270

Statistics

Synchronous E-learning

N	Valid	70
	Missing	0
Mean		30.29
Std. Error of Mean		.456
Median		30.00
Mode		28
Std. Deviation		3.811
Variance		14.526
Range		18
Minimum		20
Maximum		38
Sum		2120

Statistics

Asynchronous E-learning

N	Valid	70
	Missing	0
Mean		30.71
Std. Error of Mean		.440
Median		31.50
Mode		32
Std. Deviation		3.684
Variance		13.569
Range		17
Minimum		20
Maximum		37
Sum		2150

CURRICULUM VITAE

Personal Data

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Gender	: Female
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Education Background

1. TK Islam Nurul Haq Batam
2. SDI Nurul Haq Batam
3. SMP Negeri 9 Batam
4. MAN Batam

Semarang, April 21st, 2021

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