THE INFLUENCE BETWEEN SYNCHRONOUS AND ASYNCHRONOUS LEARNING MODEL TOWARD STUDENTS' ENGLISH ACHIEVEMENT AT SMAN 1 SAMBIT

THESIS

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MODEL TOWARD STUDENTS' ENGLISH ACHIEVEMENT AT SMAN 1 SAMBIT

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ABSTRACT

SALIIMAH, FANISA RIFDA. 2021. *The Influence Between Synchronous and Asynchronous Learning Model Toward Students' English Achievement at SMAN 1 Sambit.* Thesis, English Education Department, Tarbiyah and Teacher Training Faculty, State Institute of Islamic Studies Ponorogo. Advisor Dra. Aries Fitriani, M.Pd.

Key words: Synchronous and Asynchronous Learning Model, Students' English Achievement, Pandemic Covid-19.

The utilization of learning technology as a means of education has begun to continue the learning process during the difficult times of the pandemic Covid-19. The new learning model used to complete the learning process. Some model of learning that commonly used during a pandemic are Synchronous and Asynchronous learning model. Gagne states as students can integrate the internal conditions and the external conditions they are exposed to the learning environment. To make quality of the process in the result of their achievement we should understand the factor of student need.

The purpose of the proposed thesis is to create a new contribution to knowledge to determine whether there is any significant influence between Synchronous and Asynchronous Learning Model toward students' English achievement during Pandemic Covid-19 on the tenth grade students at SMAN 1 Sambit in academic year 2020/2021.

The researcher used quantitative research design, and applied ex-post facto research. The population was all of student on the tenth grade at SMAN 1 Sambit in academic year 2020/2021. The total population was 95. Cluster sampling used by the researcher, the total number sample was 25. The procedures of data collection were observation, questionnaire, and documentation. The data calculated with simple linier regression, it founded that the significant influence value was 0.031. The R square was 0.270 Synchronous and Asynchronous Learning Model (X1) gave 27.04% contribution toward dependent variable students' English achievement (Y). Then the Ftest is 4.07 higher that > Ftable 3.42. It can be consulted that Ha is accepted and H0 is rejected.

The result of this research implies that Synchronous and Asynchronous Learning Model have low influence toward students' English achievement of the tenth grade students at SMAN 1 Sambit in academic year 2020/2021.

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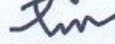Certified by
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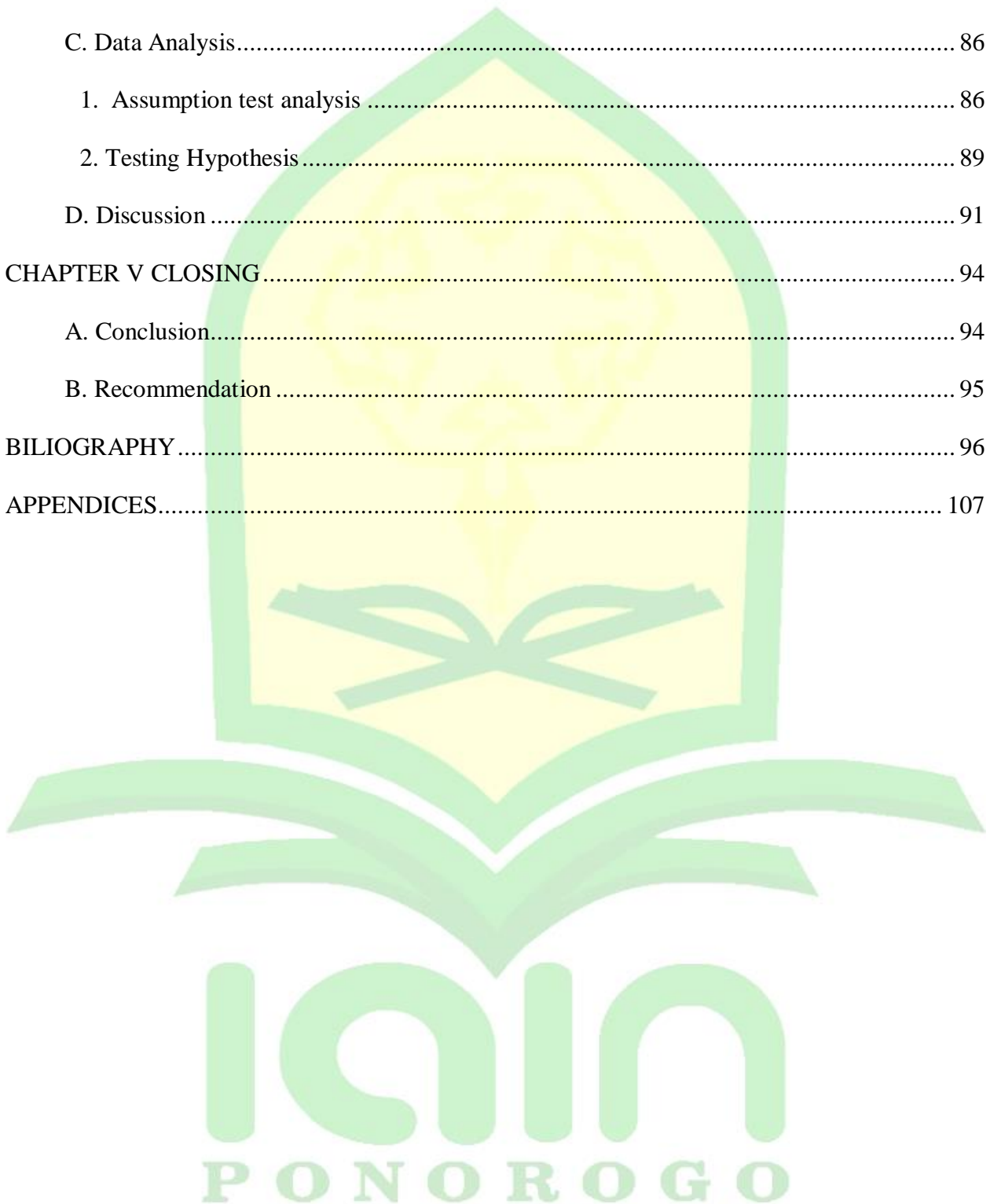Yang membuat Pernyataan

Fanisa Rifda Saliimah

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CHAPTER I

INTRODUCTION

A. Background of The Study

The new journey in Education begins in the last year of 2019 was anxious with mysterious new pneumonia originating from Wuhan, China. The Huanan Seafood Whosale market has been reported in certain human cases for new coronavirus infectious disease (South China Seafood City Food Market).[1] The virus was identified as a novel coronaviruses, and World Health Organization (WHO) officially given the name 2019-nCoV, the new coronaviruses in 2019 (COVID-19) and announced as a global pandemic.[2] The Covid-19 pandemic has hit the World. Indonesia had a significant impact in different areas, including the economy, social affairs, tourism, and education. During the Covid-19 pandemic, the application of Education in Indonesia has undergone several apparent changes.[3] This unplanned and unprepared experiment is possible to mindset happening and used some new tools or system to continue the process although in a complicated situation. Covid-19 is a tragedy that grieves all inhabitants of the earth. All segments of human life are disturbed, without the exception of Education. Many countries have decided to close schools and universities.

Nadiem Anwar Makariem as Ministry of Education and Culture of Indonesia, released an official letter No.36962/MPK.A/HK/2020, The pandemic of Coronavirus disease is now spreading quickly to the World of Education. This is achieved in an attempt to prevent transmission of Covid-19 from the spread. It is hoped that activities will not be carried out as expected by all education institutions: this will decrease the spread of Covid-19.

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[1] World Health Organization, "Laboratory Testing of Human Suspected Cases Of Novel Coronavirus (nCoV) Infection," Laboratory, 1(January, 2020), 1.

[2] Ismail Sahin, Mack Sheley,."Educational Practices during the COVID-19 Viral Outbreak: International Perspectives," ISTES Organization (October, 2020), 4.

[3] Zainal Ilmi, et al, "Independence in Learning, Education Management, and Industry 4.0: Habitat Indonesia during COVID-19," Journal of Anthropology of Sport and Physical Education (October, 2020), 63.

In this letter, he invited all the parties involved to ensure that learning continues for students who live in the green areas allowed to begin personal education following strict health protocols and who live in red, orange, and yellow areas who have to learn from their homes. [4] The Ministry of Education and Culture calls for schools across the country to ensure that children and teenagers will learn from home or school in the best possible conditions.[5] The outbreak of Covid-19 makes the intention to convert some new behavior in education activities. Moreover, the environmental supports and constraints and reinforce skills and knowledge to find the solution in learning process.

Learning is a complex action and behavior that was done by students or learners. Dimyoo and Mudjiono explain, students are determinants of the occurrence of the learning process.[6] Learning is a process that very fundamental element in implementation of education. It means that success or failure the result in achieving educational goals is dependent on learning process that did by students. The study of learning as a process has revealed that the process is known as Gagne, as students can integrate the internal conditions and the external conditions they are exposed to the learning environment.[7] So, learning occurs step-by-step. Learning activities happen in the educational system, but these activities' meaning is not just contained within the schooling institutions. Leaning can be done in different ways and can happen at different times.

Additionally, two different authors, Plomp and Ely, have put together multiple learning models in which the material is presented. This breakdown model can be broken down into four main categories.[8] The first is The Direct Instruction. It is based on Becker's

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[4] Direktorat Jenderal Guru dan Tenaga Pendidikan Kementrian Pendidikan dan Kebudayaan, *Panduan Pembelajaran Jarak Jauh Bagi Guru Selama Sekolah Tutup dan pandemic Covid-19 dengan Semangat Merdeka Belajar* (Jakarta: 2020), 2.

[5] Mike Okmawati, "The Use of Google Classroom during Pandemic," Journal of English Language Teaching, 2 (August 11, 2020), 439.

[6] Syaiful Sagala, Konsep Dan Makna Pembelajaran (Bandung: Alfabetha, 2013), 13.

[7] Dewi Salma Prawiradilaga, *Wawasan Teknologi Pendidikan,*(Jakarta: Kencana Prenada Media Grup, 2012), 69.

[8] Jan van den Akker, et al. *An Introduction to Educational Design Research*, (Netherlands: Netzodruk, 2010), 53.

behavioural research on classroom management and advanced programming strategies.[9] The second is Independent learning. It is Acquisition of knowledge is self-directed, with the ability to carry out an inquiry and critical evaluation.[10] The third is Cooperative learning are well-known pedagogically. It is where students work together to achieve shared goals or group tasks neither able to complete by themselves nor fully accomplished when completed by others' knowledge and skills obtained through information and instruction via various channels.[11] The fourth is Distance learning. It is covers all the various technologies and supports lifelong learning for everyone.[12] In describing previous definitions of distance learning, the first and most important component was that of an instructor and a learner situated at geographic and temporal distances from each other. Also essential to these definitions was media use (electronic, print resources, voice communications, and combinations of them).

Today's new technologies have affected teachers' perspectives on improved learning management. The definition of learning technology is any of various resources that can be used by the learner (including message people, materials, devices, techniques, and setting) to facilitate learning.[13] While these technologies have the potential to open doors and build bridges by expanding access to quality education, facilitating communication between educators, students, and families, and relieving various forms of friction across various educational contexts from early childhood through adulthood, these tools offer the potential to empower and enable those who seek education in more unconventional ways.

The development of Information Technology has encouraging various innovations learning models. Information Technology development has caused profound changes to

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[9] Jennifer Lee Salaway,"Efficiency to Direct Instruction Approach to Promote Early Learning," (Thesis, Duquense University, 2008), 18.

[10] The higher Education Academy Innovation Way, "Independent Learning", 10 (2014), 4.

[11] Robyn M. Gilles, " Coorperative Learning: Review of Research and Practice", Australia Journal of teacher Education, 41 (March, 2016), 39.

[12] Amani Mubarak., Al-Khatir Al-Arimi, " Distance Learning", Procedia-Social and Behavioral Sciences, 152 (2014), 83.

[13] Maya Escueta, et al., "Education Technology: An Evidence-Based Review", Nber Working, 23744 (August, 2017), 3.

nearly every industry and sector in the global economy. Learning with technology is the rapid growth in investment over the last decade.[14] Currently technology gives the opportunity of preparing learning objects and integrating them into the courses to teaching staff. Teaching staff can interact with the content through adaptable search engine.

E-learning development is one of the information technology applications in the field of education. Online learning, e-learning, web-based learning, distributed learning are often heard, or mixed. All these terms are often reduced to e-learning.[15] In the learning process, according to Rosenberg, e-learning is one use of Internet technology in a wide range of ground three criteria: (1) e-learning is a network capable of renewing, storing, distributing, and sharing education or information, (2) delivery to the last user via computers using standard internet technology, (3) focusing on viewing the essential insights behind it.[16] Based on the explanation, Information technology will improve the quality of learning by exploiting the potential of critical e-learning. E-learning is not the end of classroom training. In reality, classroom training will be redefined to concentrate on those aspects of learning that are best achieved when there is a need for person-to-person interactions, identifying opportunities for improvement, team efforts, assessment tasks, and group experts' involvement.

One of the most significant drawbacks is that technology never replaces a teacher in the classroom. Face-to-face learning with the teacher is needed to overcome this. The teacher is superior to fostering students' attitudes and behavior. Face-to-face interaction is used to overcome these online limitations. According to Christian Louis Lange, The technology is a useful servant but a dangerous master.[17] George Couros once stated that technology would not replace great teachers, but technology can transform into prominent teachers' hands.[18] The use of technology in education has removed educational boundaries, both students and teachers

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[14] Katie McMillan Culp, et. al, "A Reptrospective on Twenty Years Of Education Technology Policy,"ESEA, 00107 (October, 2013), 5.

[15] Prawiradilaga, *Wawasan Teknologi Pendidikan*, (Jakarta: Kencana Prenada Media Group, 2012), 272.

[16] Marc J. Rosenberg, *E-Learning Strategies for Delivering Knowledge in The Digital Age*, (USA: McGraw-Hill, 2001), 66.

[18]Abhipriy Roy, "Technology in Teaching and Learning," JETIR, 4(April, 2019), 357.

working together. However, we have to ensure that teachers use technology to facilitate the learning process, not to substitute teachers.

There are various ways to choose the right learning model for the right learning activities. Online learning environments can be split into three parts, synchronous, asynchronous, and hybrid learning environments. Learning technology is defined as a model of presentation of materials such as the synchronous or asynchronous learning. Moreover, the pedagogical model is associated with the form of online learning itself, namely flexible learning, distributed learning, etc.[19] The selection of models is often linked to the availability of existing infrastructure. The three core components, which work as a system, help one another to create a model of learning via cyberspace. Currently, a developing hybrid program is a combination of one or more dimensions.

The utilization of learning technology as a means of education has begun to continue the learning process during the difficult times of the Covid-19 pandemic. Some model of learning that commonly used during a pandemic are Synchronous and Asynchronous learning model. The education environment finds a better way to use the virtual system or asynchronous. It is the educational process of learning over the Internet without having face-to-face contact. Learners use self-directed learning principles to master content at their rate, at times conventional lecture halls and classroom.[20] It helps transition to Internet-based learning to adopt new model and augment current teaching styles.

The application of Asynchronous is similar to online learning, referring to the concept of asynchronous, defined as teaching and learning practices carried out by online learning.[21] Asynchronous is a learning model activity carried out at different times between teacher and student. This activity is more popular in the world of e-learning because it

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[19] Ayesha Perveen, "Synchronous and Asynchronous E-Language Learning: A Case Study of Virtual University of Pakistan," Open Praxis, 1(January–March, 2016), 21.

[20] Deanie French, et. al., *Internet [Based] Learning An Introduction and Framework for Higher Education and Business* (USA: Stylus Publishing, 1999), 2.

[21] Lisa C. Yamagata Lynch, "Blending Online Asynchronous and Synchronous Learning," IRRODL, 2(April, 2014),194.

provides more benefits for trainees that it is able to access training anytime and anywhere.[22] In real-time and delayed by virtual meetings in the form of video shows, text content presentation, graphics, and pictures had defined as teaching and learning practices carried out by the use of online learning. This learning model illustrates efforts to provide access to learning for teachers and students constrained by geographical distance so that in the learning process requires an interactive communication system to connect the two with various resources needed in it. Asynchronous learning model is adopted to increase students' motivation in learning offered by schools, and enable students to achieve unforgettable learning experiences.

There is always a need for classroom techniques to complete the process of learning. The use of synchronous learning model also need to applicated. Synchronous learning model a type of learning in which the student and teacher are directly happens in real time. Asterhan and Schwarz pointed out that there is little discussion regarding effectively supporting learners in synchronous environments. The teacher expected a good moderator to be active and keep the live discussions focused to help the students stay on topic.[23] Synchronous interaction is the most effective, and there is little wonder about what the other person needs, or wants. It is real-time and allows to moving forward towards the goal without waiting for a delayed asynchronous response.[24] Therefore, synchronous learning model is conducted by teacher and the students get the feedback at the time.

The model of learning such as synchronous and asynchronous can use to continue the process of learning on English Lesson during pandemic Covid-19. In Indonesia, English is categorized as a foreign language. The language taught in Senior High School or Secondary School Education. The general secondary school curriculum is determined by the 25 February

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[22]VDK. Ompusunggu, N. Sari, "Effectiveness of Edmodo-Based E-Learning Use on Mathematical Communication Skills," J. Curere, 2 (2019).,58.

[23]Christa Asterhan, Baruch B. Schwarz, "Online Moderation of Synchronous E-argumentation," International Journal of Computer-Supported Collaborative Learning, 5(May, 2010), 261.

[24]Yun Jeong Park, Curtis J. Bonk, "Synchronous Learning Experiences: Distance and Residental Learners' Perspectives in a Blended Graduate Course," Journal if Interactive Online Learning, 3(Winter, 2007), 215.

1993 decree of the Minister of Education and culture No. 061/U/1993, the program covers materials and subject for English language.[25] Nowadays, English has become important. Cahyono states that English has become a tool for international communication in trans portation, commerce, banking, tourism, process of technology, and scientific research.[26] Therefore English language is take an important place for the students in complete the learning to improve their skill in communication.

The 2013 curriculum has changed the procedure in the classroom. It is including Senior High Schools, on this curriculum must use Scientific Approach for classroom teaching and learning processes. Fauziati states that the scientific approach consists of five main learning cycle stages: (1) observing, (2) questioning, (3) collecting or experimenting, (4) associating or processing information, (5) communicating. It is intended to develop students' attitudes, briefly but succinctly express their ideas, and develop their language skills. Teaching English has its ways to make students engaged, especially in Senior High School.[27] It is necessary to conduct an exciting learning model. The implementation of the learning model takes place in a classroom. It is a particular trick, strategy, or contrivance used to accomplish the problem when learning English is running.

After faced all of process in learning, the students can reach an achievement. Learning achievement is essential skills and behaviors in the form of training or experience. In this case, Gegne and Brigg define learning as skills that someone acquires after learning. According to Muhibbin Syah, learning achievement is the learner's success in the learning of the subject at school, which is expressed in the form of the results of the tests on a few subjects.[28] The achievement of English learning is the result of students. Standard Competition of the English lesson followed the learning process in Indonesia, which is

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[25]Fergusson Rebecca, *World Education Encyclopedia*, 2nd Edition (USA: Gale Group, 2002), 610.

[26] Utami Widiati, Bambang Yudi Cahyono, "The Teaching of EFL Speaking in the Indonesian Context: The State of the Art," Bahasa dan Seni, 2(Agustus, 2006), 269.

[27] Ali Sofyan, "The Implementation of Scientific Approach In English Teaching Based on Curriculum 2013 In Smk Negeri 2 Sragen,"(Thesis, UMS, Surakarta, 2016), 9.

[28]Muhibbin Syah, *Psikologi Pendidikan* (Bandung: PT Remaja Rosdakarya, 2013), 88.

symbolized by scoring or numbering. The achievement of English learning includes four language skills, reading, listening, speaking, and writing. In order to know the English achievement of students, the teacher should evaluate it. Evaluation can be defined as systematic information collection for decision-making. We can conclude that English Achievement is the score of the students after completed the learning process.

In the time of pandemic Covid-19, researcher conducted observation at SMAN 1 Sambit. She faced the change of model on learning management, that is use Distance learning or online learning, which famous by Asynchronous learning model, It is occurs when the teacher and student interact in different places and during different times. The student can not enter the class with full member of the class. This is a new challenge in SMAN 1 Sambit.[29] The new learning model used to complete the learning process during pandemic. The students and teacher never prepare this before the Covid-19 came.

After the red zone finished or post of red-zone pandemic Covid-19, SMAN 1 Sambit had a new policy. It is a new model of learning, 50% synchronous and 50% asynchronous. The students divided by two groups in every class consist of group A and group B. The students did different model every week and teach by the same teacher. It means the teachers teach two learning model at the same time. So, they must prepare the material for synchronous and asynchronous group. The material of each group is same, the task also same, but the differences are the synchronous learning face-to-face with a teacher, asynchronous group is learning with media of internet which the English teacher use Google form, the students acces in their home.

Marsudiono as the English teacher at SMAN 1 Sambit said, "In the time of the pandemic Covid-19, the face-to-face learning cannot be done as usual during a pandemic. The health protocols must be implemented as recommended. However, learning still needs to be done. So we split students into two groups: some students enter the class to learn together,

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[29]First observation at SMAN 1 Sambit, 30th Sept- 16th Nov 2020.

some others learn at home as per the teacher's assignment. This is done in turn."[30]He explained that these are the best learning model to choose, the team of SMAN 1 Sambit believe with these learning model can continue learning process although the students never did it before.

These learning are same with the synchronous and asynchronous learning model. But these learning models are new for the students and teacher because of pandemic Covid-19. It can be an external factor that influence student's learning process. To make quality of achievement we should understand the factor of student need, especially before act some model to continue learning process.

Based on the background of the study above, the researcher wants to measure whether there is any significant influence Synchronous and Asynchronous Learning Model on Students' English Achievement. Therefore the researcher conduct the study **"The Influence between Synchronous and Asynchronous Learning Model toward Students' English Achievement at SMAN 1 Sambit".**

B. Scope and Limitation of The Study

According to Wiersma, when the researcher chooses specific methodologies and designs, for example, phenomenology, they have limitations that the researcher can control little.[31] The scope of the research refers to the parameters for the procedure of the study. The problem of research is attempting to resolve complements into individual specifications. Think of the scope and what is not as the domain of research

From the background of the study above, this research is focus on measure of the significant influence between Synchronous and Asynchronous Learning Model on students'

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[30] Interview with Marsudiono, teacher of English Language at SMAN 1 Sambit, Saturday 28th Oktober 2020

[31]Marilyn K. Simon, Jim Goes, *Dissertation and Scholarly Research: Recipes for Succes (Seattle: LLC, 2013), 1.*

English achievement during Pandemic Covid-19 on the tenth grade students at SMAN 1 Sambit in academic year 2020/2021. This study is focus on two variables, there as synchronous and asynchronous learning model as independence variable and students' English achievement as dependence variable.

C. Research Question

In order to achieve this objective of the research, this research question have to be answered:

Is there any significant influence between Synchronous and Asynchronous Learning Model toward students' English achievement at SMAN 1 Sambit?

D. Research Objectives

Research objectives may be grouped to familiarize itself with or gain new insight into a phenomenon, determine the frequency with which something occurs or is linked to another thing, and accurately portray the properties of a specific individual situation or group.[32] The purpose of the proposed thesis is to create a new contribution to knowledge:

"To determine whether there is any significant influence between Synchronous and Asynchronous Learning Model toward Students' English achievement at SMAN 1 Sambit."

E. Significances of The Study

After completing all research activities, hope the result of this study is expected to give advantages presented as follow:

1. Theoretical significance

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[32] Sri. P. K. Varghese, *Researh Methodology* (India: University of Calicut, 2017), 7.

The researcher hopes that this research to add some knowledge, a new discourse taken from Synchronous and Asynchronous Learning Model toward Students' English Achievement during pandemic Covid-19.

2. Empirical significance

The result of this research is expected to be beneficial for:

a. SMAN 1 Sambit

This research are expected can support to realize more progressive, evaluate learning model during pandemic Covid-19, give more quality and meaningful, also can find a good learning model more better, especially about the important of synchronous and asynchronous learning model towards students' achievement to reach a successful in their learning.

b. Teacher

For the teacher, this study is expected to add some knowledge and some reference for them in their duty to lead their students, and motivates student of their achievement and to reach a successful in their learning especially teaching English.

c. Students

Students hope to be able understand their English achievement during pandemic covid-19. These will give a contribution for going forward and try to find out an alternative way to do Synchronous and Asynchronous Learning Model, and the students can make the weakness and strength seem in balance.

d. Writer

The writer hopes that the result of this researh increase the writer's knowledge, experience, and understand well about conduct a research, theories and be a professional teacher in future.

e. Reader

This study is attended to give the contribution to the reader who is interested to studying. It will also give some contribution on the scope Synchronous and Asynchronous Learning Model toward Students' English Achievement, during pandemic covid-19.

f. Other researcher

The writer believes that this research is be far for perfect. There may be some weaknesses that found in this thesis. The writer hopes that this research will be a frame of thought or the starting point for the other writers to find out the perfect of the study.

F. Organization of The Study

The word of "organization" means act of making arrangements or preparations. "Study" means piece of research that examines subject in detail.[33]In the organization of the study, the researcher demonstrates the flow of discussion so that the logic of arrangement and consistency between the parts. The researcher writes this thesis in five chapters, where all parts are both essential and unique. In general, this structure provides a chronological order, which provides the reader an understanding how this thesis was written and easy to follow:

I. The first of organization is **Introduction**. The introduction describe explaining why the topic Synchronous and Asynchronous Learning Model on Students' English achievement is matter of interest in the specific context with systematic and logic. This chapter consist of: **Background of the study**, The background aims to explain from a theoretical and practical point of view the reasons why the problem is to be investigated in research, the importance of the problem, and the approach used for analysis to solve these issues. The second is **Scope of the study**, by conducting scoping research, one will have an opportunity to identify potential obstacles to overcome with proper planning. The third point is **Statement of the research question,** the challenge is to define or clarify a

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[33] Simpson, et al., *Oxford Learner's Pocket Dictionary* (Oxford: Oxford University Press, Fourth Edition, 2008), 308.

problem that needs a solution. The fourth is **Research objectives** to broaden what is currently understood about the phenomena being investigated. The next is **Significance of the study**, it is a reflection of how vital it is for us to make our careers. We have a huge influence on the science world, and we are making a valuable contribution to new understanding. The last point in this chapter is **Organization of the study,** it is important to write it in order to communicate a detailed and coherent interpretation of this thesis to the reader.

II. The second of organization is **Review of related literature**. The review of related literature, a review of related literature materials is a detailed literature review on related topics. The fourth points in this chapter are including: **Previous studies,** it is important to apply the concept of significance to generate a literature review related to the topic under investigation. Previously, this was used to reveal this analysis's quality to show how distinct it is from previous studies. The second is **Literature review**, it will be composed of studies and reports from experts who will discuss the theory in great detail. It is about the variable definition of this research, such as learning model, learning technology, synchronous and asynchronous learning model, students' English achievement, curriculum on special condition, and pandemic Covid-19. The next point is **Conceptual framework**, as the frame of mind will bind the variables to be analyzed through theoretical connections**.** The last part in this chapter is **Hypothesis,** this is a tentative answer to the research problem, which is considered as the most probable and highest level of truth.

III. The third of organization is **Research methodology**. In this way, the researcher will describe the scientific process as a scientific way of collecting data to find, improve, and demonstrating their utility. This chapter consists of fifth points are: first **Research design.** A research design aims to perform an analysis that allows the measurement of the effects of independent and dependent variables on each other. the second one is

Population and Sample. Population defines the generalization field, which consists of objects or subjects with certain characteristics that are determined to be researched and drawn conclusions. Meanwhile, the sample describes a portion of the population's number and characteristics. The third is **Instrument of data collection**, This is an accurate definition of the measuring instrument of science. The next point is **Technique of data collection**. A presentation of data collection based on the methodology will be performed in this phase, include Observation, Questionnaire, and Documentation. The last is **Technique of data analysis**. The approach is oriented to finding an answer to the problem statement or to checking the theory which has been stated, here include three parts such as Assumption test, Linearity test, and Hypothesis test.

IV.   The fourth of organization is **Research finding and discussion**. It is employed to provide a high-level synopsis of the study or a description of the study site's demographics. This chapter consists of three parts. The first is **General Data Description**, it is information related the population, such as History of SMAN 1 Sambit, Vision and Mission, and English Lesson a SMAN 1 Sambit. The second is **Specifict data** include Data Description. A data description is a systematic means of describing a study query or purpose, displaying it in statistical statistics, charts, or graphs. The last is **Data analysis**. The results of hypothesis testing with statistical numbers are represented using data analysis. The third is **Discussion**. The discussion aims to clarify observations in terms of the research issue being investigated and analyze their meaning.

V.   The fifth of organization or final of this thesis is **Closing**, it is the review, highlights, and conclusions of all the previous pages include assessing the research goal and hypothesis. The closing consists of **Conclusion** and **Recommendation**. The conclusions of the thesis were related to the formulation of the issue and the test goals. Recommendations include for future studies. Future research recommendations may either be merged into the research limitations section or be a separate section.

CHAPTER II

REVIEW RELATED LITERATURE

A. Previous Studies

Some research considering the topic discussed in this research, some research relates to the topic. The first journal described previous research by Ahmad Reza Lotfi from Islamic Azad University, Khorasgan Branch from Iran, and Sayed Mir Hossein Hosseini Pozveh from University of Canterbury, Christchurch, New Zealand. Under the title **The Effect of Synchronous and Asynchronous Language Learning: A Study of Iranian EFL Intermediate Students' Vocabulary Learning**, 2019. Based on the data analysis stated in Chapter III, finally, the writer took a conclusion of the research about the effect of synchronous and asynchronous language learning: a study of Iranian EFL intermediate student's vocabulary as indicated below:

The following are the research questions: (1) To what degree does synchronous instruction help learners improve their vocabulary? (2) To what degree does asynchronous instruction assist students in expanding their vocabulary? (3) Is there a noticeable difference between synchronous and asynchronous teaching instruction in helping learners improve their vocabulary?

The synchronous group received instruction in person, while the asynchronous group received education through email. After the teaching process was done, a parallel form of the pretest took from both groups. This research was carried out with quasi-experimental analysis. The language institute consisted of 82 participants split into two classes of 41, each seating 24 male and 17 female students. To ensure all the participants' language proficiency, a QPT consisting of 60 items was taken from all the students. The test results indicated that 22, 13 male, and nine female students did not qualify as intermediate language proficiency levels. Even though they continued to engage in the research, these students were removed from it. There were 19 males and 11 females in class one and 16 males and 14 females in class two,

out of the remaining 35 male and female students in the survey. Each class consisted of 30 participants, of which class one was selected as the synchronous class, and class two was chosen as the asynchronous class.

For analyzing data, independent t-test averages of both groups were calculated, and in case of a significant difference, each procedure's effectiveness was presumed. These differences based on demographic variables (sex, age, group, and pretest) were also calculated and analyzed. To test the normality of the variables of the study, the Kolmogorov-Smirnova and Shapiro-Wilk were used. To statistically analyze the effect and relation of the independent variables as a group, sex, age, and pretest on the posttest, t-tests were used.

As mentioned before, the synchronous group was given a pretest. After a considerable amount of time, they were taught the vocabulary items in the semester, a posttest that was a reordered form of the pretest. According to the t-test statistical analyses obtained with a p-value of $0.003 < 0.05$, the first null hypothesis was accepted. The results of the statistical analyses proved that teaching vocabulary synchronously improves the vocabulary acquisition of EFL students.

The results of the posttest indicated that there was a considerable difference between both groups. In attaining better results, the synchronous group outperformed the asynchronous group in learning vocabulary, thus indicating that interaction and collaboration have a crucial role in the learning process.[34]

The second previous study, a dissertation, was under the title, **The Assessment of Student Performance and Satisfaction Outcomes with Synchronous and Asynchronous Interaction Methods in A Student-centered Distributed Learning Environment** by Shawn F. Clouse, The University of Montana, 2001. Based on the data analysis, which was elaborated in chapter IV. Finally, the writer took a conclusion of the research about The Assessment of

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[34] Ahmad Reza Lotfi, Sayed Mir Hossein Hosseno Pozveh "The Effect of Synchronous and Asynchronous Language Learning: A Study of Iranian EFL Intermediate Students' Vocabulary Learning," Theory and Practice in Language Studies, 12 (Desember, 2019)

Student Performance and Satisfaction Outcomes with Synchronous and Asynchronous Interaction Methods in a Student-Centered Distributed Learning Environment as follow:

These areas lead to the following research questions:

1. What impact does interaction have on the students' satisfaction and learning outcomes in the graduate business courses?.

2. What relationships do the instructional methods for interactions have with student learning styles and student skill level with technology?.

3. What student characteristics facilitate success with synchronous and asynchronous delivery methods for interaction?

This research aimed to investigate which instructional methods for interaction were best to facilitate student satisfaction and learn for both on-campus and off-campus MBA students. This research looked specifically at student satisfaction and outcomes with synchronous and asynchronous interaction methods.

To evaluate student performance and satisfaction with synchronous and asynchronous interaction methods, this study used a mixed methodology approach with quantitative (Phase I) and qualitative (Phase II) procedures. Phase I gathered information from 57 students (37 on-campus and 20 off-campus) and had a total response of 9S.25%. Phase II included post-doc interviews with 12 students.

The quantitative performance and satisfaction data were analyzed using ANCOVA and MANOVA. This study found that:

1. The essay question concert was improved by having a mix between synchronous and asynchronous lectures and discussions.

2. On-campus students performed best on objectives, and off-campus students performed best on essay questions.

3. Students were most satisfied with traditional synchronous methods.

4. Off-campus students preferred asynchronous lectures.

5. Students needed to interact with content and the instructor to gain an understanding of the subject matter.

The qualitative analysis found that:

1. Students resist learning with asynchronous methods because of their traditional paradigm for learning.

2. Threaded discussions should be guided by asking probing questions, providing frequent feedback, and enabling students to ask questions.

3. Students felt "disconnected" from asynchronous discussions.

4. Chats should be guided by providing structure and focus to the debate.

5. Students should learn to use new technologies before the learning activities.

6. Students preferred to participate with people they already knew.

7. Technology discussions provided more opportunities for student participation.

This research project determined that synchronous and asynchronous interaction methods have applications for both face-to-face and distance learning. Future studies should concentrate on developing innovative learning techniques to help students learn regardless of the location of instruction. Learning environments should incorporate a mixed instructional design approach to create a rich student-centered distributed learning environment with the appropriate amount of synchronous and asynchronous interaction methods to stimulate student learning.[35]

The third was A doctoral thesis presented by Sharon Berry from College of Professional Studies Northeastern University Boston, Massachusetts, August 2017. Under the title, **Educational Outcomes of Synchronous and Asynchronous High School Students: A Quantitative Causal-Comparative Study of Online Algebra 1.** Based on data analysis which

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[35]Shawn F. Clouse, "The Assessment of Student Performance and Satisfaction Outcomes with Synchronous and Asynchronous Interaction Methods in A Student-centered Distributed Learning Environment," (Dissertation, University of Montana, 2001).

was elaborate on Chapter IV. Finally, the researcher took the conclusion about Educational Outcomes of Synchronous and Asynchronous High School Students as follow:

The study questions framed this inquiry into whether or not the mode of online learning affects educational outcomes in Algebra 1. (synchronous or asynchronous), these are: (1) To what extent do end-of-course grades differ between synchronous and asynchronous students enrolled in Algebra 1 at a public, a cyber charter school in Pennsylvania? (2) How do synchronous and asynchronous students enrolled in Algebra 1 at a public, a cyber charter school in Pennsylvania perform on the Algebra 1 Keystone Exam?(3) How do synchronous students' perceptions of their educational experiences vary from asynchronous students' perceptions of their educational experiences at a public, a cyber charter school in Pennsylvania? (4) Is there a connection between Algebra 1 end-of-course grades and Keystone Exam scores for synchronous students in Pennsylvania who are enrolled in Algebra 1 at a public or cyber charter school? (5) Is there a correlation between Algebra 1 end-of-course grades and Keystone Exam scores for asynchronous students in Pennsylvania who are enrolled in Algebra 1 at a public or cyber charter school?

A quantitative was used causal-comparative design in this research. It compared educational outcome data from online Algebra 1 courses to see whether there was a substantial difference in end-of-course grades, state assessment scores, and student impressions of their class between synchronous and asynchronous students.

According to the report, asynchronous students had slightly lower end-of-course grades and standardized test scores than synchronous students. Furthermore, there was no disparity in student expectations of the transactional distance between synchronous and asynchronous formats. Nonetheless, the results are useful in determining the outcomes of online Algebra 1 courses. The report provides a discussion of online mathematics instruction and some research-based recommendations for enhancing online mathematics instruction in high school. The results of this study provided the research site with useful knowledge for future planning. While

several students passed the course, it was discovered that only a small percentage of them passed the standardized state test.

As a result, the school's administrators and teachers can use the findings to improve the alignment of the Algebra 1 courses to state standards and increase the course's rigor by including more constructed-response questions in lessons and assignments to create an improvement plan for disengaged students.[36]

The next previous study a journal presented by Latchman Somenarain, Shylaja Akkaraju, Rajendra Gharbaran, under the head **Student Perceptions and Learning Outcomes in Asynchronous and Synchronous Online Learning Environments in a Biology Course**, 2010. Based on statistical analysis, which was elaborate on chapter II, the researcher took the conclusion as follow:

This project's objective was to compare how students in a biology class view their online learning experiences in internet-based environments. The researcher used standard descriptive statistics were used in all analyses. JMP 5 was used to perform calculations and data processing (MAC OSX version). At the 95 percent confidence level, a one-way study of variance (ANOVA) was used to search for discrepancies between the two groups.

The research include several intriguing findings. First, there was no substantial difference in student satisfaction with their online learning experience in both online classes. Although 93% of the students were first-time online users, overall, students showed a very positive feeling about their online groups' experience. Second, when the two online classes were compared to the control group, there was no substantial difference in course grades. Even though the online communities have a marginally higher grade average, most research on distant learning environments has found similar results (Loomis 2000).

These findings, according to the researcher, are convincing and reinforce the evidence that distance education is achieving its mission of offering high-quality learning experiences.

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[36] Sharon Berry, et. al, "Educational Outcomes of Synchronous and Asynchronous High School Students: A Quantitative Causal-Comparative Study of Online Algebra 1," (A doctoral thesis, Northeastern University, 2017).

These findings, taken together, provide additional useful knowledge for all online learning environments. As a result, it could work well in an online format. Other biology courses with a laboratory aspect and more complex theoretical content will be examined in future studies to see how they compare.[37]

The last previous study a journal covered by Baruch Offer, Yossi Lev & Rachel Bezalel. Under the title **Surface and deep learning processes in distance education: Synchronous versus asynchronous systems**, 2007. Based on the structure of the research found about this title as follow:

This research data on the two research groups were also collected using the interview's qualitative research tools and the observation. These included a description of the course, the lessons, the events that took place during the studies, and a description of the student's learning process and how it affects the student achievements. Different teacher–student and student–student experiences and how they affect the learning process and its outcomes were given special attention.

This extensive research was conducted on 160 students who took an online "Introduction to Computers" course. During the research time, about 50 students dropped out, and 90 students took the final exam. Fifty-nine students were selected from this group who met the requirements for preserving Glanz's personality test's validity. New immigrants, students with multiple learning difficulties (dyslexia, attention deficit), and students who failed to complete any exam sections were all disqualified. The observation was performed for the entire duration of the course. After collecting the data, conducted an analysis of variance regarding the personality test results' total score. The research was performed to determine possible between-group differences.

The present investigation results demonstrate that synchronous learning is more effective among students with a high cognitive ability than those with low cognitive ability.

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[37] Latchman Somenarain, "Student Perceptions and Learning Outcomes in Asynchronous and Synchronous Online Learning Environments in a Biology Course," Merlot Journal of Online Learning and Teaching, 2 (June, 2010).

This can be explained by the fact that the rigid nature of teaching and the limited number of high-quality interactions increase transactional distance and contact differences, resulting in a psychological vacuum that can lead to misunderstandings between the teacher and the students, resulting in a drop in learning quality.

These findings conclude that students prefer learning via a synchronous system rather than by an asynchronous method. However, students with high ability can better overcome the transactional distance both in synchronous and asynchronous learning. The achievements of students who participated in interactive courses were equal or better than those of students who participated in classes in which the learning environment was less interactive.[38]

The differences this research with the previous studies:

1. The research question of this research is different from the previous studies

   The research question of this study is really different from the previous study. This research question has to be answered:

   "Is there any significant influence between Synchronous and Asynchronous Learning Model toward students' English achievement at SMAN 1 Sambit?"

2. The purpose of this thesis is distinct from the previous study

   The goal is different from other previous research because it is centered on the English Language. The second is to evaluate the influence of synchronous and asynchronous learning model on students' English achievement. It is important since this study aims to decide if there is any significant influence between Synchronous and Asynchronous Learning Model toward students' English achievement.

3. The design of the research is different.

   This research will apply a quantitative approach with use of type ex-post facto, Since the phenomenon is difficult to populate, the researcher conducts systematic empirical investigations without having direct control over the independent variables.

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[38] Baruch Offir, et .al, "Surface and deep learning processes in distance education: Synchronous versus asynchronous systems," Computer & Education, 51 (June-October, 2007).

4. The object of this research is the tenth-grade student at SMAN 1 Sambit in the academic year 2020/2021

5. This research conducts the time of the pandemic covid-19 era.

B. Literature Review

This literature review will discuss about the theory from some experts that will explain in detail about Lening Model, Learning technology, Synchronous learning model, Asynchronous learning model, Students' English Achievement, and Pandemic Covid-19.

1. Learning Model

a. The definition of Learning Model

Learning is a complex action and behavior tht was done by students or learners. Dimyoo and Mudjiono explain, students are determinants of the occurrence of the learning process.[39] According to Gestalt theory, the act of learning is not instantaneous process but progress activities to essential things, so learning activities will create meaningful. Therefore, there will arise a deep understanding of the subject matter learned in learning process. Learners should arise sense of learning needs that learning is necessary to obtain something by understanding the parts of learning and relations between each part till those processes are going to occur analysis and synthesis.

Ilearis states that learning define as any process that in living organism lead to permanent capacity change which is not solely due to biological maturation or aging.[40] In formal learning process include of interaction between teachers and students that takes place both within and outside the classroom and involves using a variety of sources as study content.[41] Sudjana says the learning model is the teacher's style to develop

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[39] Syaiful Sagala, Konsep Dan Makna Pembelajaran (Bandung: Alfabetha, 2013), 13.
[40] Ane Qvortrup, Merete Wiberg. On the Definition on Learning (Denmark: University Press, 2016), 23.
[41] Anna Poedjiadi, *Sains dan Teknologi Masyarakat* (Bandung: PT. Remaja Rosdakarya, 2005)

relationship with students during the learning.[42] Learning is defined as behavioral changes and coordinated learning models in which the students, peers, and teachers collaborate to facilitate learning. The learning model can be described as the way for putting effective teaching to achieve learning that have been collected in the form of real and realistic activities.

b. Type of Learning Model

To achieve learning goals, teachers must be able to choose suitable models that are specific to the subject matter. Learning models may be appropriate for a specific lesson, but they are not always appropriate for other lessons. Two different authors, Plomp and Ely, have put together multiple learning models in which the material is presented. This breakdown model can be broken down into four main categories:

1) The first is Direct Instruction. It is based on Becker's behavioral research on classroom management and advanced programming strategies.[43]

2) The second is Independent learning. Acquisition of knowledge is self-directed, with the ability to carry out an inquiry and critical evaluation.[44]

3) The third is Cooperative learning is well-known pedagogically. Students work together to achieve shared goals or group tasks neither able to complete by themselves nor fully accomplished when completed by others' knowledge and skills obtained through information and instruction via various channels.[45]

4) The fourth is Distance learning. It covers all the various technologies and supports lifelong learning for everyone.[46]In describing previous definitions of

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[42] Nana Sudjana, *Penelitian Hasil Proses Belajar Mengajar* (Bandung: PT. Remaja Rosdakarya, 2005)

[43] Jennifer Lee Salaway,"Efficiency to Direct Instruction Approach to Promote Early Learning," (Thesis, Duquense University, 2008), 18

[44] The higher Education Academy Innovation Way, "Independent Learning", 10 (2014), 4.

[45] Robyn M. Gilles, "Coorperative Learning: Review of Research and Practice", Australia Journal of teacher Education, 41 (March, 2016), 39.

[46] Amani Mubarak., Al-Khatir Al-Arimi, " Distance Learning," Procedia-Social and Behavioral Sciences, 152 (2014), 83.

distance learning, the first and most important component was that of an instructor and a learner situated at geographic and temporal distances from each other. Also essential to these definitions was media use (electronic, print resources, voice communications, and combinations).

For this reason, the teacher must master a variety of learning model be creative in learning process based on the material presented, student characteristics, and learning objectives to be achieved.

c. A Good Learning Model's Characteristics

In activities, an instructor can choose from a variety of learning model. Learn how to instruct others. As a result, any teacher will instruct. It's better to choose an appropriate form since the selection of a model to be used in the learning process is based on the requirements of the process.

The below are some of the aspects of a successful learning model:[47]

1. It is adaptable, adaptable, and powerful by the students' and material's personalities.

2. It is useful in bringing theory and experience together and guiding students toward practical skills.

3. It does not minimize matter but somewhat improves it.

4. Allow students to express their opinions with freedom.

5. Able to place the instructor in the appropriate role while being polite during the learning process.

When using a learning model, the following factors must take into consideration:[48]

1) The learning model may be used to create motivations, desires, or ideas of student enthusiasm.

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[47] Pupuh Fathurrohman, M. Sobry Sutikno, *Strategi Belajar Mengajar melalui Penanaman Konsep Umum dan Islami* (Bandung: Rafika Aditama, 2007), 56.

[48] Abu Ahmadi, *Joko Prasetya, Strategi Belajar Mengajar*, (Bandung: Pustaka Setia, 1997), 53.

2) The learning used will ensure that activities evolve. The personality of the student, Students can have opportunities as a result of the learning used to complete the task.

3) Students' ability to learn can be sparked by the approach used. Learn more, experiment, and come up with new ideas.

4) Students may be trained in learning methods using the approach used. Itself, as well as how to learn by personal effort.

5) The learning used could invalidate the presentation. Replace the word "verbality" with "experience" or "situation" genuine and purposeful.

6) The techniques used can be learned and improved.

7) The essential principles and behaviors that should be expected in the habit of how to work well in daily situations

A report can be concluded from the above definition that a learning model to be used in the teaching and learning process is good if it will help students grow their potential such as their understanding of materials and their outcomes.

2. Learning Technology

Today's new technologies have affected teachers' perspectives on improved learning management. One of the learning management is learning technology. Here, the researcher will discuss about it.

a. Definition of Learning Technology

The definition of learning technology is any of various resources that can be used by the learner and instructor (including message people, materials, devices, techniques, and setting) to facilitate learning.[49] It is paraphernalia that describes communication, information, and technology. Technological in terms of lexicography, technical should include the term to define learning technology. Since technological is a shorthand term that defines an approach to human activity based on the concept of

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[49] Maya Escueta, et al., "Education Technology: An Evidence-Based Review", Nber Working, 23744 (August, 2017), 3.

technology as "the systematic application of science or other structured information to practical task," in this case, its use is justified.[50] Learning technology, audiovisual media, the learning process, and assessment techniques are all included in learning technology. Technology encompasses both models and technical devices.

The use of techniques in a systematic manner to achieve a goal is just as critical as technological equipment to do so. In reality, techniques are considered technology's software, while equipment is considered its hardware.[51] New designs and devices and new concepts and processes are the results of technological advancements. Each new piece of physical equipment comes with its own collection of procedures and techniques. So, learning technology is said to have the ability to boost individual and organizational efficiency.

b. **The Development of Learning Technology**

E-learning development is one of the information technology applications in the field of education. Online learning, e-learning, web-based learning, distributed learning are often heard, often mixed. All these terms are often reduced to e-learning.[52] In the learning process, according to Rosenberg, e-learning is one use of Internet technology in a wide range of ground three criteria:

1. E-learning is a network capable of renewing, storing, distributing, and sharing education or information,

2. Delivery to the last user via computers using standard internet technology

3. Focusing on viewing the essential insights behind it.[53]

Based on the explanation, Information technology will improve the quality of learning by exploiting the potential of critical e-learning. E-learning is not the end of

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[50]John Kenneth Galbraith, The New Industrial State (Oxford: Princeton University Press, 1967), 12.

[51] K L Kumar, *Educational Technology* (London: New Age International, 2004), 2.

[52] Prawiradilaga, Wawasan Teknologi Pendidikan, (Jakarta: Kencana Prenada Media Group, 2012), 272.

[53] Marc J. Rosenberg, E-Learning Strategies for Delivering Knowledge in The Digital Age, (USA: McGraw-Hill, 2001), 66.

classroom training. In reality, classroom training will be redefined to concentrate on those aspects of learning that are best achieved when there is a need for person-to-person interactions, identifying opportunities for improvement, team efforts, assessment tasks, and group experts' involvement.

c. **Type of Learning Technology**

Many educators, parents, and policymakers consider online learning a subset of distance learning. Content delivery and communication are mainly achieved via computers connected by the Internet (where the students and the teacher are geographically separate). Online learning, however, can be either distance learning or mixed learning.

There are various ways to choose for the right learning activities. Online learning environments can be split into three parts:

1) Synchronous

2) Asynchronous

3) Hybrid learning environments.

Learning technology is defined as a model of presentation of materials such as the synchronous method or asynchronous method. Moreover, the pedagogical model is associated with the form of online learning itself, namely flexible learning, distributed learning, etc.

A new robust technology instructional approach that uses the best elements of both settings with Hybrid/blended learning the advent of learning combining online and face-to-face learning is not just a theory. Throughout the world, schools have been developed and implemented in some cases and have been underway for several years. While individual schools call this learning model "blended," others call it "hybrid," and

others do not bother to call it. They use an approach they think helps their students, which is a combination of e-learning and face-to-face learning.[54]

Hybrid learning chooses the most advanced model for the learning process. This term comes when people know the advantages and limitations of digital online learning.[55] Garrison stated that blended learning is effectively combined by the different delivery modes, and learning model practiced in an interactively meaningful learning environment.[56] So, Blended learning combines online learning activities and uses resources optimally to improve student learning outcomes and address significant institutional challenges.

The selection of models is often linked to the availability of existing infrastructure. The three core components, which work as a system, help one another to create a model of learning via cyberspace. Currently, a developing hybrid program is a combination of one or more dimensions.

d. **Advantages and Disadvantages of Learning Technology**

Because of the widespread use of information and communication technologies, learning technology in teaching is more important than ever. They recognize technology's value through numerous applications for distance education, the Internet, teachers, and students themselves. Learning technology uses digital technology to increase the standard of education in a structured and coordinated manner (efficiency, optimal, true, etc.). It is a model of conceptualizing and evaluating the educational process systematically, namely the learning, as well as assisting in the implementation of new educational learning model. It includes instructional materials, model and structure, and relationships, such as all learning participants' actions.

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[54] John Waston, "Blended Learning: The Convergence of Online and Face-to-Face Education," Nacol, 36 (2008), 6.

[55] Salma Prawiradilaga, Wawasan Teknologi Pendidikan, (Jakarta: Kencana Prenada Media Group, 2012), 276.

[56] Manjor Kaur, "Blended Learning- Its Challenges and Future," Procedia, 93 (2013), 612.

One of the most significant drawbacks is that technology never replaces a teacher in the classroom. Face-to-face learning with the teacher is needed to overcome this. The teacher is superior to fostering students' attitudes and behavior. Face-to-face interaction is used to overcome these online limitations. According to Christian Louis Lange, The technology is a useful servant but a dangerous master. George Couros once stated that technology would not replace great teachers, but technology can transform into prominent teachers' hands.[57]

The use of technology in education has removed learning boundaries, both students and teachers working together with high-tech learning. However, we have to ensure that teachers use technology to facilitate the learning process, not to substitute teachers.

3. **Synchronous Learning Model**

a. **Definition of Synchronous Learning Model**

The word Synchronous is from "synchronize", it means happen at the same time or move at same time.[58] Synchronous also can on the model of e-learning training is mostly used for seminars or conferences which are often called web conferences or webinars and are often used in online university classes or lectures.[59] Synchronous is meeting classroom or face-to-face. It is the learning model process happening at the same time when the teacher is teaching and students are learning. This allows direct interaction between teacher and student, both via the internet and intranet or sitting in the classroom.

Synchronous environments the familiar face-to-face classroom environment is maintained. Place is defined as "the physical location of instruction. As collaboration and interaction within an online learning community is increasingly emphasized, instructors'

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[57]Abhipriy Roy, "Technology in Teaching and Learning," JETIR, 4(April, 2019), 357.

[58] John Simpson, et al., *Oxford Learner's Pocket Dictionary* (Oxford: Oxford University Press, Fourth Edition, 2008), 450.

[59] VDK Ompusunggu , Sari, N, "Effectiveness of Edmodo-Based E-Learning Use on Mathematical Communication Skills," J. Curere, 2 (2019), 58.

roles become more important in terms of facilitating online communication and scaffolding the collective knowledge construction process. Synchronous refers to something occurring, continuing, or appearing simultaneously every time, or repeating or functioning at the exact times every time, or having the same duration and process.[60] In digital communication, it refers to a transmission technique that allows the communicating devices to share a standard clock signal (a timing reference) to coordinate their transmissions. It refers to events coinciding, at the same rate, or in a standard or predictable sequence.

Synchronous instruction, the participants (teacher-students) are connected instantly via an online communication medium and teaching - learning is taking place simultaneously. Perhaps, it is in this regard that defines the synchronous instruction as a model of instructional delivery on real- time (live) basis using an e-learning platform.[61]

One-way (broadcast) technologies such as lectures, radio, broadcast television, Webcasts, and two-way (interactive) technologies such as face-to-face workshops, audio-conferencing, video-conferencing, web conferencing, and virtual worlds, are examples of synchronous technologies. Synchronous technologies are united by the fact that they occur in real-time, requiring both teachers and students to communicate simultaneously (but not necessarily in the same place.). The term "live" or "synchronous" e-learning refers to "e-learning in which interactions between students and between students and the teacher occur at the same time (or in "real-time").

b. **Advantages of Synchronous Learning Model**

Mick & Middlebrook pointed out that synchronous media can create significant time challenges, especially if the teacher wants to talk to the whole class, but even one-to-

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[60] Desmon Keegan, et. al, "Virtual Classroom in Educational Provision: Synchronous ELearning Systems for European Institutions," FernUniversität ZIFF Papiere, 126 (July, 2015), 7.

[61] Simonson M, et al, *Teaching and Learning at Distance: Foundations Of Distance Education 5th ed* (Boston: Pearson, 2012), 20.

one interactions.[62] According to the instructors who taught this course, the synchronous peer critique activity benefited their students by offering prompt feedback, diverse views and experiences, and meaningful interactions among participants. Perceived benefits of the synchronous critique interactions**:**

1) Immediate supports and diverse perspectives

2) Social presence and sense of connectivity

3) Structural supports from the instructors

4) Learning strategies.[63]

According to Eva Schwenke et. al, there are some advantages of the synchronous model learning:

1) Motivation - enhanced student engagement and motivation because a fast response is anticipated.

2) Tele-presence - real-time contact builds a sense of social presence and engagement.

3) Immediate feedback - promoting instant input on proposals and support consensus and decision making

4) Pacing - motivating students to stay up-to-date and have a discipline to learning.Spontaneity - making it easier to bring new ideas to the conversation, brainstorming, or decision-making familiarity - simulating a more traditional atmosphere.[64]

Synchronous learning model can be effectively used for showcasing web or computer applications, explaining difficult concepts, delivering lectures via PowerPoint, structured group brainstorming, hosting guest speakers, new topic introductions,

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[62] Connie Synder Mick, Geoffrey Middlebrook, Asynchronous and Synchronous Modalities (South Carolina: Parlor Press, 2015), 136.

[63] John Hopskin School of Education, Synchronous vs. Asynchronous Distance Learning Activities (Columbia: Center of technology Education, 2010), 2.

[64]Eva Schwenke, et. al, "Virtual Classroom in Educational Provision: Synchronous ELearning Systems for European Institutions," FernUniversität ZIFF Papiere, 126 (July, 2015), 7.

community building, and question and answer sessions with internet or in the classroom. The benefits of this learning model are:[65]

1) The teacher can interact directly with students in real-time allowing you to instantly gauge if students are engaged and comprehend the content.

2) Participants can receive instant feedback or answers/acknowledgement to any questions without delay.

3) Participants may feel more connected with each other almost as if they were in a face-to-face session.

4) If you are using a microphone, participants can hear your tone of voice. If you are using a webcam, they can even see facial expressions. If conducting at the class the student will pay attention with the teacher.

5) Breakout rooms provide an ideal meeting space for teams who otherwise wouldn't be able to interact and meet simultaneously due to different locales.

As Skylar states, The benefits of using a synchronous learning model environment include sharing knowledge and learning in real-time and immediate access to questions and replies to the instructors. However, this type of environment requires a fixed date and time to meet, which runs counter to the promise of "every day or anywhere" that online courses have traditionally promoted.[66] So, Synchronous learning model support learning and teaching and offer students and teachers multiple ways of interacting, sharing, and the ability to collaborate and ask questions in real-time through synchronous learning technologies. This close innovative collaboration offers greater opportunity that enhances student-to-teacher and student-to-student interaction.

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[65] John Hopskin School of Education, Synchronous vs. Asynchronous Distance Learning Activities (Columbia: Center of technology Education, 2010), 2.

[66] Ashley Ann Skylar, "A Comparison of Asynchronous Online Text-Based Lectures and Synchronous Interactive Web Conferencing Lectures," Fall, 2(2009), 71.

c. **Disadvantages of Synchronous Learning Model**

To boost learning in a synchronous class is essential to build and foster a highly collaborative environment. This role belongs to the teacher and focuses on the learning approach adopted before preparing and making the class's schedule. A low-collaborative course does not offer meaningful learning outcomes. The more collaborative the system, the better your results will be. The audience must be part of the class and regularly called upon by the teacher to answer questions, bring up examples or share experiences, conduct some task, etc. A useful virtual course must be different from watching TV or going to the cinema. The participants (students) must feel that they should call them to do something, so paying attention is essential. That's why it is also crucial to work with groups of no more than 15 to 20 students per class. Large groups typically are more challenging to build a high-collaboration environment. Perceived disadvantages of the synchronous critique interactions:

1) Time constraints and lack of refection time

2) Network connection problems

3) Breeze and audio tool related problems

Challenges and Implementing Considerations:[67]

1) Set guidelines on participation and labeling, which are known to all before synchronous sessions. This helps to avoid some common challenges and overwhelming participants.

2) Consider how participants should prepare for the meeting and what activities could follow (i.e., asynchronous activity). Develop your content far in advance for the session.

3) Make sure everybody speaks their thoughts and opinions, and nobody dominates the conversation

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[67] John Hopskin School of Education, Synchronous vs. Asynchronous Distance Learning Activities (Columbia: Center of technology Education, 2010), 2.

4) Synchronous sessions can be more challenging for managing student contributions if it's a large class. Take into account breakout rooms if this is the case and split the class into these rooms.

5) Coordinate the schedules and locations of participants (different time zones might be challenging).

6) Be prepared to have technical support for connection troubleshooting issues. Technical support is essential if participants use microphones to communicate.

4. Asynchronous Learning Model

Asynchronous and synchronous instructions are innovative learning Model of instructional delivery which teachers can adopt when teaching with ICT (Information and Communication Technology) facilities.

a. Definition of Asynchronous Learning Model

Asynchronous means "not occurring or being carried out at the same time".[68] Asynchronous learning model instruction is an e-learning platform which teachers use to interact with their students beyond the limits of the conventional four corners of the classroom.[69] Online learning is often synonymous with asynchronous learning. The increasing use of synchronous formats, however, has resulted in multiple technologies to facilitate students' interactions and expanded the modes of interaction available to students; online cooperative learning is no longer solely asynchronous.

Asynchronous is a learning activity carried out at different times between teacher and student. This activity is more popular in the world of e-learning because it provides more benefits for learning that is able to access training anytime and anywhere.[70] Even if all of the participants are unable to link simultaneously, asynchronous e-learning,

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[68] Cambridge Dictionary, Meaning of asynchronous in english, https://www.google.com/amp/s/dictionary.cambridge.org/amp/english/asynchronous. Accesed: 9 March 2020.

[69]Jeong, H, Hmelo-Silver C. E, "Technology supports in CSCL. In future of learning: Proceedings of the 10th International Conference of the Learning Sciences," Society of the Learning Sciences ,1 (2012) 336.

[70] Simonson M, et. al, *Teaching and Learning at Distance: Foundations Of Distance Education 5th ed* (Boston: Pearson, 2012), 17.

which is widely facilitated by media such as e-mail and discussion boards, supports work relationships among learners and teachers.[71] Since learners are not timed and can answer at their leisure, asynchronous learning is the most popular online education. Since they can think about a problem for an extended period of time and develop divergent thoughts, they can use their higher-order learning skills. As a result, it's an essential part of versatile e-learning. Many people enroll in online courses because of their asynchronous existence, allowing them to balance their education with jobs, family, and other obligations. Learners can log in to an e-learning environment at any time and download documents or send messages to teachers or peers using asynchronous learning.

So, Asynchronous environments provide learners with promptly available materials in the form of posts, audio/video tutorials, presentations, and handouts. Regarding stimulating students' interest, asynchronous learning grant students the freedom to spare and download lecture materials and watch and audit the contents at their paces, either online or offline.

b. Advantages of Asynchronous Learning Model

The asynchronous learning model has several benefits. Because of its flexibility and self-pace characteristic, the asynchronous improves cognitive participation by way of increasing the ability of the learners to reflect and process course information given by the teacher.

An asynchronous learning also provides the students with more time to consider all sides of an issue before offering their own educated input. Other major benefits of asynchronous instruction were summarized, these benefits include: the freedom of students to access course and other instructional materials at any time they choose and

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[71] Stefan Hrastinski, "A study of Asynchronous and Synchronous E-learning Method Discovered that each Support Different Purpose," Educause Quarterly, 4(2008), 51.

from any location with an Internet connection. [72] This allows for accessibility for diverse student populations, ranging from traditional, on-campus students to working professionals, as well as international students in foreign countries.

Asynchronous can be effectively used for in-depth discussions that take place over time, role playing, application activities based on case study scenarios, one-to-one interactions among students and activities that require more independent thinking time. The benefits of asynchronous are follow:[73]

1) Participants can contribute to the discussion as they desire without interrupting the flow of the planned class time. The extended time allows discussions to end at their natural conclusion.

2) Responses in asynchronous discussions tend to include higher order thinking and reflection due to the extended time available to comment on others' postings.

3) Archived discussions and chats relieve participants of relying on memory or notes to recall what others have contributed. Archives also create opportunities for course participants to build upon prior discussions, and enable those who missed a chat to later benefit from the discussion

4) Based on experience, the depth of student engagement tends to be greater, because participants interact more with one another. Ongoing dialogue engages participants in higher order thinking as discussions build over time.

5) In an online learning environment, all participants contribute to discussions, even if they are normally shy in face-to-face courses.

6) The playing field is leveled for all learners by allowing for extended time to reflect and decreased pressure to perform on the spot. In addition, some people communicate better in writing.

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[72]Jeong, H, Hmelo-Silver C. E, "Technology supports in CSCL. In future of learning: Proceedings of the 10th International Conference of the Learning Sciences," Society of the Learning Sciences ,1 (2012), 339.

[73] John Hopskin School of Education, Synchronous vs. Asynchronous Distance Learning Activities (Columbia: Center of technology Education, 2010), 2.

c. Disadvantages of Asynchronous Learning Model

Asynchronous learning can be a challenge because only a carefully formulated series of techniques can involve students' interest in this educational environment to promote encouragement, trust, engagement, problem-solving, analytical, and high-quality skills. Furthermore, it is a self-paced environment where students must be self-disciplined to stay involved and interactive to keep track of e-activities. While discussions on forums and blogs can keep them involved, deviating from the subject can also cause them to become distracted. Another aggravating factor is delayed feedback. In addition, insufficient opportunities exist for socialization and students must seek ways to network themselves.[74] Implementation of asynchnous learning model challenges and considerations:[75]

1) Use strategies to help drive learning and to promote higher-order thinking.

2) Have active participation in the debate.

3) Keep the discussion moving and provide frequent feedback.

4) Return conversation topics to content if conversations get off course.

5) Provide a summary of the discussion of the week and post it for all to see.

6) Promote and contribute to learners who "disappear" or stop communicating. It is tough when the leading cause of a dysfunctional team is (see handling team conflict section).

5. The Activities Synchronous and Asynchronous Learning Model

The implementation of online learning also involves the following e-learning processes as: 1) Person and community learning, 2) Online and offline learning, 3) Synchronous (same time) and asynchronous learning activities (time difference).

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[74] Xiaoxia Huang, E-ling Hsiao, "Synchronous and Asynchronous Communication in An Online Environment: Faculty Experiences and Perceptions," Western Centucy Universit, 13(January, 2012) , 16.

[75] John Hopskin School of Education, Synchronous vs. Asynchronous Distance Learning Activities (Columbia: Center of technology Education, 2010), 2.

Synchronous is similar to a traditional classroom environment, except that the interaction occurs virtually rather than in person. Lecturers, tutorials, quizzes, and discussions are examples of activities that can conduct using this model. It is critical to utilize video conferencing platforms. Zoom video communication, Google Meet, Microsoft Team, and Skype are just a few examples. The educator-learner interaction is not instantaneous in the asynchronous delivery model, and activities occur at different locations and at other times. Teachers' videos, PowerPoint presentations with voice-overs, external resources such as YouTube video education websites, offline tests and assignments, and so forth are all examples. Students can provide feedback via email or messaging apps. In the quadrant of learning environments, the synchronous and asynchronous learning models can be more precisely described as follows:

Figures 2.1 Four Quadrants of Activities in technology-enchanching learning
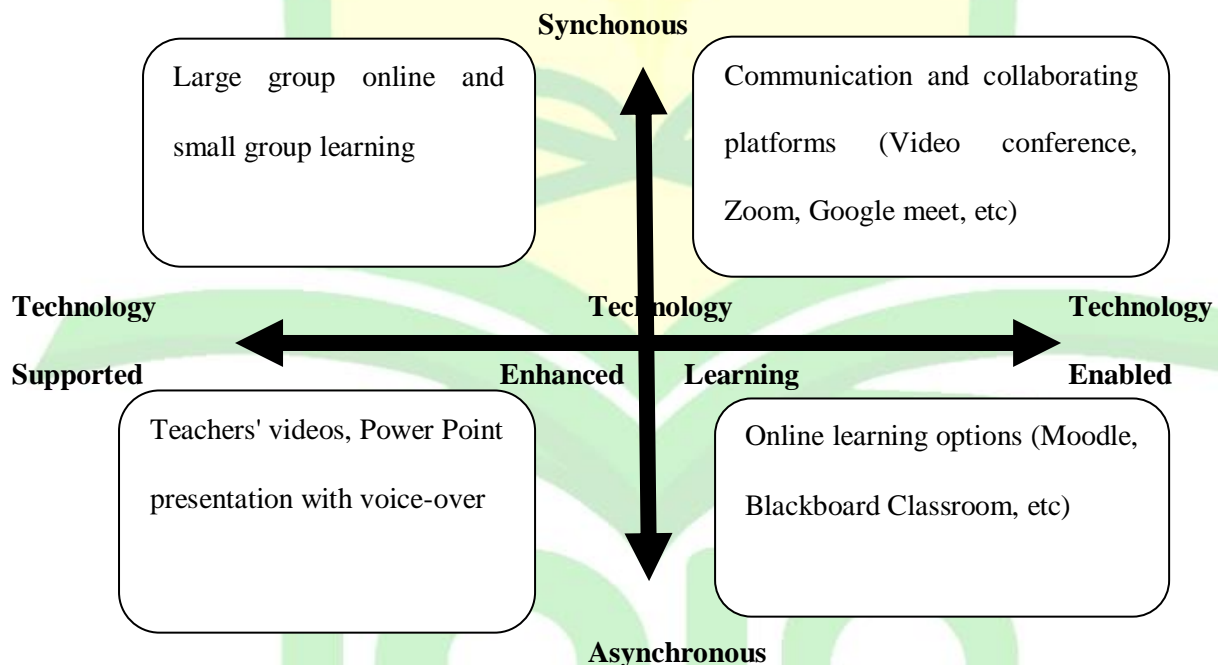
Source: Adapted from Che Ahmad Azlan, et al. (2020)[76]

When these models are synchronous, they can be learned in two ways: live synchronously, where students study at the same time and place, or virtually synchronously,

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[76] Che Ahmad Azlan, et al. "Teching and learning of post-graduate medical physics using Internet-based e-learning during the COVID-19 pandemic-A case study from Malaysia," Physica Medica, 80 (2020), 12.

where students learn at the same time (real-time) in different locations. On the other hand, asynchronous learning can be classified into two categories: collaborative learning, which occurs anytime, anywhere through the collaboration of two or more people, and self-paced learning, which occurs anytime, anywhere, independently of the conditions and rate of understanding of each individual. On the quadrant Figure 2.2 can see the various example formats of media to use synchronous and asynchronous learning model.

Figures 2.2 Quadrant for learning settings for synchronous and asynchronous model
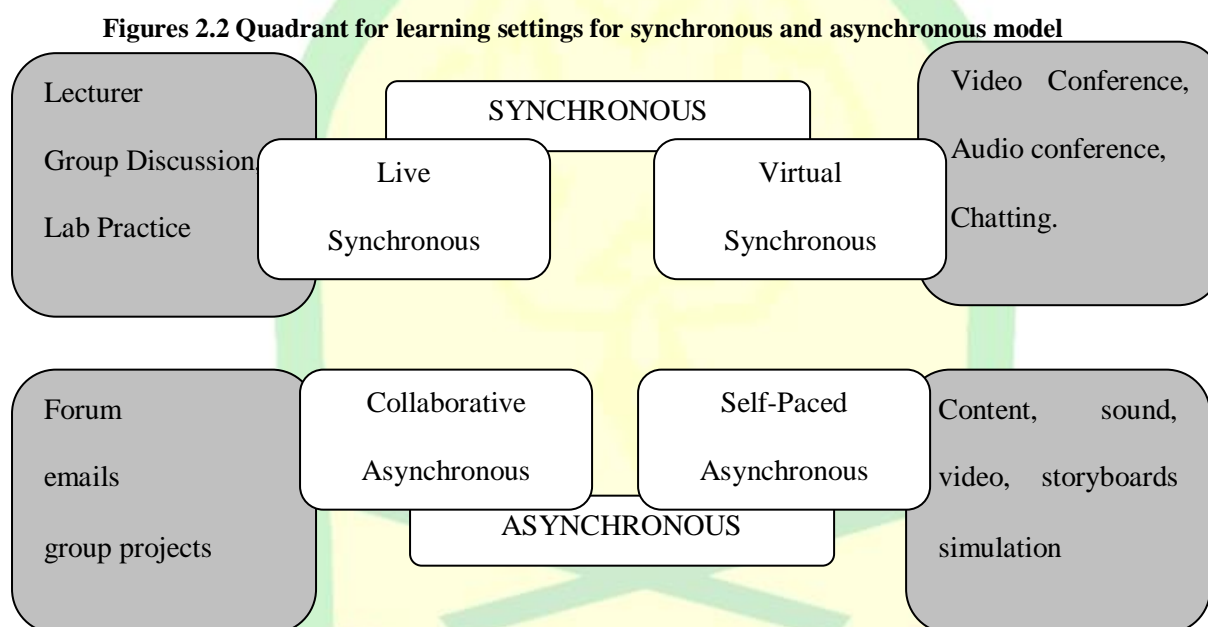
Source: Adapted from Uwes Anis Chaeruman (2013)[77]

There are two primary types of learning activities: asynchronous and synchronous. Knowing each of their characteristics helps the learner and facilitator determine how integrate them into online or mixed course. Synchronous live or "real-time" - All participants are logged in and communicate simultaneously. Asynchronous Not live or "not real-time".At different times, participants log on and share depending on what is most suitable for them.

When deciding if you want to define a model as synchronous or asynchronous, consider the environment in which the model will be used in one task:

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[77] Uwes Anis Chaeruman, "Designing Blended Learning," Jurnal Teknodik, 4 (December, 2013), 404.

Table 2.1 The Different of use Between Synchronous and Asynchronous learning model

	Use
Asynchronous learning model	At least one finishing event **must** define a task that refers to learning model of an asynchronous. When determining a asynchronous, you need to ensure that one of the terminatin events is initiated after the execution. The corresponding work item is only terminated at runtime one of the defined closing events happens.
Synchronous learning model	A task that refers to a synchronous learning model **can** b defined with terminating events. At runtime, the relevant work item is generally terminate when the synchronous learning model has been successfull executed. But the work item is also terminated if one of th defined terminating events occurs.

Table 2.2 Factors Differentiating Between Synchronous vs. Asynchronous

Dimension	Synchronous	Asynchronous
1. Location of tutorial	In a classroom / virtual	At home
2. Time of tutorial	Specific: tutor and students' students at the same time	Flexible: at convenience
3. Accessibility of materials	Not accessible after the end of the lesson	Accessible at any time
4. Interaction with the tutor during the tutorial	Possible	Impossible
5. Interaction with others students during tutorial	Possible	Impossible
6. Cost of technology	High	Low

6. Students' English Achievement

a. English Language

1) Definition of English Language

Barlow argued that learning is a process of progressive behavior adaptation. Then Chaplin argued that knowledge is the acquisition of any relatively permanent change in behavior due to practice and experience. Education also has a meaning as a process of acquiring responses as a result of an individual course. Hintzman also argued that learning is a change in an organism due to experience, affecting its behavior.

English language is commonly understood by people from around the world as vehicular and vernacular. Vehicular language is a language goes beyond the boundaries of it original community and used as a second language for communication. The opposite meaning of vernacular language means a language used as a native language in a single community. Brendol L Carrol defines English is language of essential tool for communication.[78]

Nowadays, English has become important. Cahyono states that English has become a tool for international communication in transportation, commerce, banking, tourism, process of technology, and scientific research.[79] Therefore English language is take an important place for our student in complete the learning to improve their skill in communication.

2) **English Language in Senior High School**

In Indonesia, English is categorized as a foreign language. The language taught in Senior High School or Secondary School Education. The general secondary school curriculum is determined on 25 February 1993 decree of the Minister of Education and Culture No. 061/U/1993, the program covers materials and subject for English language.[80] In Chapter X of the Law of the Republic of Indonesia No. 20, 2003 on the national education system, "The primary and secondary education must include: religious education, the citizenship of education, language, mathematics, natural science, social education in sciences, arts and culture, physical and sports education, skills/professional skills and the local content,"[81] The language here

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[78]Berndon L. Carrol, *Testing Communicatiom Performance an Interview Study* (Oxford: Oxford Perganon Press, 1980), 7.

[79] Utami Widiati, Bambang Yudi Cahyono, "The Teaching of EFL Speaking in the Indonesian Context: The State of the Art," Bahasa dan Seni, 2(Agustus, 2006), 269.

[80]Fergusson Rebecca, *World Education Encyclopedia*, 2nd Edition (USA: Gale Group, 2002), 610.

[81] Undang-undang Republik Indonesia No.20 tahun 2003 tentang Sistem Pendidikan Indonesia. https://www.google.com/url?sa=t&source=web&rct=j&url=https://pusdiklat.perpusnas.go.id/public/media/regulasi/2019/11/12/2019_11_1203_49_06_9ab7e1fa524ba603bc2cdbeb7bff93c3.pdf&ved=2ahUKEwjSr7zgvbTvAhUR7HMBHf55CjsQFjAAegQIARAC&usg=AOvVaw0nhRBY0T6zH84HT95EnYZW&cshid=1615886407705. Accesed: 15th March 2021.

referred to Indonesian languages, regional languages, and English as international languages as mentioned in the Republic of Indonesia law clarification No. 20, 2003, regarding national education.

Nowadays, in Indonesia use 2013 curriculum, including Senior High Schools, must use Scientific Approach for classroom teaching and learning processes. The 2013 curriculum has changed the procedure in the classroom. Fauziati states that the scientific approach consists of five main learning cycle stages: (1) observing, (2) questioning, (3) collecting or experimenting, (4) associating or processing information, (5) communicating.[82] It is intended to develop students' attitudes, briefly but succinctly express their ideas, and develop their language skills. Teaching English has its ways to make students engaged, especially in Senior High School.

The Ministry of National Education 2006 states the spectrum of English language on senior high school including:[83]

a) The ability to discourse, namely the ability to understand and generate spoken and written texts that are realized in four language skills, listening, speaking, read and write in an integrated manner to reach the level informational literacy

b) The ability to understand and construct various texts, short functional and monologues, and essays in the form of procedures, descriptive, narrating, narration, papers, news articles, analytical-exposition, hortatory exposition, parody, description, debate, rework view, publics peaking. Teaching material presentation looks in use of vocabulary, grammar, and rhetorical step.

c) Supporting competencies, including linguistic competence (grammar, vocabulary, pronunciation), sociocultural competence (acceptably using phrases and actions language in various contexts of communication), strategic

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[82] Ali Sofyan, "The Implementation of Scientific Approach In English Teaching Based on Curriculum 2013 In Smk Negeri 2 Sragen,"(Thesis, UMS, Surakarta, 2016), 9.

[83] Salinan Peraturan Menteri Pendidikan Nasinal (Permendiknas), *No.23 tahun 2006 tentang Standar Kompetensi Lulusan Untuk Satuan Dasar dan Menengah* (Jakarta: Dirjen Perturan Perundang-Undangan Kementrian Hukum dan Hak Asasi Manusia RI, 2006), 336.

competence (overcoming challenges that occur in the contact mechanism in different ways such that communication takes place), and discourse-shaping competencies (using discourse-forming tools).

d) The foundation of English Language in senior high schools is one of the foreign languages used to communicate orally or in writing amongst people in the ideal world. Communicate means understanding and revealing knowledge, thoughts, feelings, science, technology, and culture for growth. High school English is intended for four skills: (1) speaking, (2) reading, (3) listening, and (4) writing. These are to access knowledge and be willing to progress to a higher school level, namely university, which is called level information.

b. Students' English Achievement

1) The definition of Students' English Achievement

Oxford learner's pocket dictionary the word achievement derived from the word "achieve" that has a meaning gain or reach something by effort: get something done.[84] According to Muhibbin Syah, learning achievement is the learners' success level in learning the school's subject matter, which is expressed in the form of scores obtained from tests on several specific subject matter. There are three aspects in learning achievement, there are, knowing, doing, and being. Bloom explains that learning outcomes or achievement are classified into three domains: cognitive domain, affective domain, and psychomotor domain.[85]

It means learning is the process of acquiring the knowledge that can change the behavior of an individual. Learning achievement is the fundamental abilities in the form of skills and behaviors from training or experience gained. In this case, Gagne

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[84] Victoria Bull, *Oxford Learner's Pocket Dictionary Fourth Edition* (New York: Oxford University Press, 2011), 98.

[85] Rohmalina Wahab, *Psikologi Belajar* (Jakarta: Rajawali Press, 2016), 244.

and Brigg define learning achievement as abilities acquired by someone after following the learning process. After following a learning process, the learning process is students' abilities that can measure through knowledge, understanding, application, analysis, and synthesis achieved by students after receiving learning experiences.

English learning achievement is the result of the students after followed the learning process in English language lesson, which is symbolized by scoring or numbering. English learning achievement involves four language skills: reading, listening, speaking, and writing in doing the task.[86] To know students' English achievement, An evaluation and evaluation should be carried out by the teacher. The systematic set of information for decision-making is defined as assessment.

We can conclude that English learning achievement is the result of the students after followed the learning process in English lesson, which is symbolized by scoring or numbering. It can be implemented on the assessment of teacher on exam, based on the material test-related to the lesson plan.

7. **Principle of Assessment Students' English Achievement**

Implementation of a comprehensive 2013 curriculum is character and expertise, created in its entirety, is ongoing to expose different decision-making aspects.[87] In a process education setting, assessing students' achievement is critical. The evaluation of learning outcomes plays a role in assisting participants in protecting their fear and strength during a process. A successful learning process is tailored for a single meeting, such as one week, month, semester, and year. When a student discovers a mistake, he or she has a good idea of whether to unite. A student will focus on what to do when faced with a challenge by looking at his strengths. Find out what students' strengths are and how they may be able to pass them.

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[86] Lyle F. Bachman, Fundamental Consideration in Language Teaching (New York: Oxford University Press, 1997), 22.)

[87] Enco Mulyasa, *Pengembangan dan Implementasi Kurikulum 2013* (Bandung: PT. Remaja Rosdakarya, 2013), 135.

Achievement results are a guide for teachers to maintain their professional responsibility, foundation, and direction for the advancement of remedial learning programs or enrichment for students in need, as well as strengthen lesson plans and the learning process at the next meeting.

The assessment covers information activities about student learning results decisions and outcome decisions based on this information.[88] The 2013 curriculum applies authentic evaluation to measure students' progress, which includes attitudes, knowledge, and skills.

Authentic evaluation teaches about students' relevant learning. Authentic tests stimulate students to develop skills and competencies that are important and valuable of education.[89] Assessment authentic is a form of assessment in which students are asked to complete real-world activities that show how their knowledge and skills are applied. The evaluation, on the other hand, is genuine in terms of connecting information to direct practice.[90] Performance evaluation, product appraisal, project appraisal, portfolio appraisal, self-assessment, peer-to-peer reviews, written examinations, and observations are some of the assessment methods that can be used. Of necessity, accurate evaluation is inextricably related to authentic processes and materials.

For example, educators ask students to read the authentic text to assess their ability to understand the meaning in writing, while educators' texts ask students to write for exact reasons on meaningful topics to assess their ability to compose. Besides that, attendees will participate in authentic literacy activities such as asking questions, negotiating, discussing short stories, keeping a journal, writing personal/business letters, creating work applications, and editing text to fit its social structure and purpose. Furthermore, authentic appraisal acknowledges the finished product and the opportunity to think backward and the learning process. Respect not just the finished product but also the opportunity to think backward in

[88] Sunarti, Selly Rahmawati, Penilaian Dalam Kurikulum 2013 (Yogyakarta: Andi Offset, 2014), 7.

[89] Gulikers, "Authentic Assessment ,Student and Teacher Perceptions: The Practical Value of The Five Dimensional Framework," Hurnal of Vocational Education and Training, 58(2006), 335.

[90] Burton, "A Framework for Determining The Authenticity of Assesment Tasks: Applied to An Example in Law," Journal of Learning Design, 4 (2011), 4.

tasks and the learning process.Principles of assessment according to the National Standards Agency Education (2006) on Endang are as follows:[91]

a) Systematically

The evaluation must be conducted in a planned and progressive way. Follow the standard steps of the curriculum and lesson plan which the teacher has compiled.

b) Truly authentic

The evaluation with the required tool represents the assessment of student skills.

c) Integrated and durable

Evaluation involves all areas of expertise, including using a range of evaluation methods, and assessment is conducted continually throughout the learning process.

d) Reference to requirements

The assessment is based on the teacher's success metrics specified in the curriculum and lesson plans.

e) Objective

The evaluation shall be based on the procedures and standards defined by the teacher without subjectivity from the evaluation of the teacher.

f) Fairness

Evaluation is consistent with students' abilities regardless of socio-economic, religious, cultural, language, race, skin color, and gender.

g) Open

The instructor tells students of the processes and performance requirements.

h) Accounting

The test can be scientifically justified, processes and outcomes justified.

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[91] Endang Poerwati, Assesmen Pembelajaran di SD (Jakarta: Depdiknas, 2008), 12.

8. Regulation of the Minister of Education and Culture (Permendikbud) Number 53 of 2015 was used to develop the assessment guidelines.

Assessment is a method of gathering data or knowledge about a student's learning processes and outcomes. Students who are evaluated on how to evaluate and interpret data on competency achievement measurement outcomes regularly and continuously to become knowledge used in decision-making are assessed.

The 2013 curriculum is a curriculum based on competency that emphasizes activity-based learning to help students develop behaviour, awareness and skills.[92] This curriculum has consequences for evaluating positive attitudes, understanding, and skills both during the learning process (formative) and at the end (summative).Here are some things to think about when putting it into practice:

a) The assessment aims to determine Basic Competence (KD) in Core Competencies (KI-1, KI-2, KI-3, and KI-4).

b) The criterion comparison is used in the evaluation.

c) The evaluation is carried out in a scheduled and long-term manner.

The evaluation results are evaluated to evaluate the following steps, which could include a program to improve learning efficiency, remedial programs for students who have demonstrated competence under the KBM / KKM, and enrichment programs for students who have completed the KBM / KKM.

When it comes to traditional evaluation, assessment of learning takes precedence over assessment for learning and assessment as learning. Assessment is expected in the 2013 Curriculum. Contrary to common opinion, prioritizing evaluation as learning and assessment

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[92] Silvia Anggraini Pohan, et. al, "Intertextual-Based Learning Strategy in Salt Hydrolysis Concept to Promote Students' Concept Mastery and Scientific Process Skills," Atlantis Press SARL, (2020), 79.

for learning over the assessment of learning is a good idea. Here the explanations about that:[93]

a) Assessment of learning is a form of evaluation that occurs after the learning process has been completed. After the students have completed the learning process, this assessment will determine whether they have met the learning objectives. Summative assessments, such as (1) end-of-semester tests, (2) school exams, and national exams, are examples of summative assessments.

b) Assessment for learning takes place throughout the learning process and is used to improve the learning process. Teachers will provide input on students' learning processes, track progress, and measure learning progress using a learning assessment. Teachers should use evaluation for learning to help them enhance their success in the classroom. Make it easier for students Assessment for learning includes a variety of formative assessment types, such as (1) class assignments, (2) lectures, and (3) quizzes.

So, Assessment as learning is similar to assessment for learning in that it takes place while the student is learning. Assessment as learningg, on the other hand, includes students actively engaging in assessment activities. Students are given chances to practice assessing self-evaluation or a candid assessment of a friend. Assessment as learning includes self-assessment (self-assessment) and peer assessment (peer assessment). Students may also be interested in developing evaluation processes, standards, and rubrics/assessment guidelines as part of the assessment as learning with confidence what to do to achieve the best possible learning achievement.

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[93] Direktorat Pembinaan SMA, *Panduan Penilaian Satuan Pendidikan Sekolah Menengah Atas* (Jakarta: Ditjen Pendidikan Dasar Menengah, 2017), 5.

9. Emergency Curriculum on Pandemic Covid-19

a. The Policy on Education During Pandemic Covid-19

President Joko Widodo has been vocal about the case since it was first revealed. A time pandemic then hit Indonesia after the first Coronaviruse Disease 2019 (Covid-19) in early March 2020. Except for education, almost every aspect of life has been paralyzed. Particularly at that time, the entire unit of education and higher education institutions are approaching the end of the even semester and will be facing the end of the year output cycle or school exams, which will be followed by new student admissions (PPDB).

In accordance with the Circular of the Minister of Education and Culture Number 4 of 2020 concerning the Implementation of Education Policies in the Emergency of Corona Virus Disease 2019, it is prohibited to carry out the face-to-face learning process in the education unit and continue to learn from home (BDR) in the education unit located in yellow, orange, and zone areas red (Covid-19) Circular of the Secretary General of the Ministry of Education and Culture No. 15 of 2020 on Guidelines for Organizing Learning from Home in the Event of an Emergency Spread of Corona Virus Disease 2019 (Covid-19), Decree of the Director General of Islamic Education No. 2791 Year 2020 on Emergency Curriculum Guide in Madrasah, and A letter Circular of the Director General of Islamic Education No. 657 In the education unit located in the green zone area, face-to-face learning is implemented in two phases:[94]

a) Period of adjustment

b) Approximately two months from the start of face-to-face learning in educational units.

The number of days in a week and the number of hours studied each day are determined by the education unit on a regular basis by dividing study groups (shifts) and paying attention to the health and safety conditions of the education unit's residents.

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[94] Keputusan Bersama 4 Menteri, *Panduan Penyelenggaraan Pembelajaran Pada Tahun Ajaran 2020/2021 dan Tahun Akademik 2020/2021 di Masa Pandemi Coronavirus Disease 2019 (Covid-19)* (Jakarta: Kementerian Pendidikan dan Kebudayaan, 2020), 3.

b. The Period of Developing a New Habit

If the area remains classified as a green zone area after the transition period, the unit education enters a new era of habits. The Ministry of Education and Culture (Kemendikbud) then takes action to resolve these issues by enacting various policies. Starting with the reallocation of the Ministry of Education and Culture's budget to deal with Covid-19's spread in the form of offering Covid-19-related communication, knowledge, and education, raising and increasing the capabilities of teaching hospitals (RSP), implementing rapid tests at five RSP, and procuring consumables.

c. Curriculum Implementation in Special Conditions

Minister of Education and Culture DecreeNumber 719/P/2O2O of The Republic of Indonesia about curriculum implementation Guidelines on education units in special conditions. Curriculum Implementation in Special Conditions' Goal Curriculum implementation in special conditions' goal is to give the Education Unit the ability to create a curriculum that meets students' learning needs. The curriculum is a collection of plans and arrangements that include the intent, content, and learning materials and the method for carrying out learning activities to meet particular educational objectives. The learning follows:[95]

a) Learning in Difficult Situations is still going on. Based on the following principle:

(1) Active, example learning to encourage full participation of students in their learning development, learn how to learn, reflect on his learning experiences, and instill a growth mindset;

(2) Healthy relationships between the parties involved, namely learning, encourage all parties involved to set high learning development expectations for students,

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[95] Keputusan Menteri Pendidikan dan Kebudayaan Republik Indonesa, *Pedoman Pelaksanaan Kurikulum Pada Satuan Pendidikan Dalam Kondisi Khusus* (Jakarta,: Menteri Pendidikan dan Kebudayaan Republik Indonesia, 2020), 5.

create a sense of security, mutual respect, trust, and care, regardless of the diversity of backgrounds learners;

(3) Inclusive, example learning that is free of ethnic discrimination, religion, race, and intergroup, does not exclude any student, including students with special needs/persons with disabilities, and provides spaces for the development of identity, abilities, and interests, students' needs, as well as their talents

(4) Learning reflects and responds to Indonesian cultures' diversity, making it a powerful tool for reflecting on diverse experiences and respect for the nation's values and culture.

(5) Socially oriented, in the sense that it encourages students to see themselves as part of the environment, as well as involving families and communities;

(6) Future-oriented, such as encouraging students to investigate future issues and needs, ecological balance, and global citizenship, responsible and in charge;

(7) Learning is focused on the stages and needs of students, namely learning is focused on mastery of competencies, centered on Participants Educate to build trust and worth himself;

(8) Fun, namely learning to inspire students to enjoy learning and continue to feel challenged for himself, so that he can motivate himself, be involved and imaginative, and be accountable for the agreements reached together

b) A diagnostic assessment is the first step in learning.

(1) Students who, based on the diagnostic assessment results, are the most behind in their progress or learning outcomes are given affirmative learning assistance.

(2) Learning in special circumstances is contextual and meaningful, utilizing various strategies to meet the needs and conditions of learners, units of education, and the region, while also adhering to learning principles.

10. **Assessment in Special Conditions of Pandemic Covid-19**

Assessment in Special Circumstances is also based on the following principles:[96]

a.   Credible, the assessment produces valid information about students' achievement.

b.   Reliable, the assessment produces reliable information about students' achievement.

c.   Trustworthy, in the sense that the evaluation generates reliable results and can be relied upon when it comes to student achievement

d.   Equitable, the evaluation is not unfair to the participants or sure educators

e.   Adaptable, the evaluation that takes into account the circumstances and needs of students and educational units

f.   Actual, evaluation that reflects on learners' learning outcomes in the sense of solving problems in their daily lives

g.   Incorporated, evaluation as an integral part of learning to elicit helpful input for enhancing the Participants Educate's process and learning outcomes.

Educators, teachers, and parents/guardians use the assessment outcomes as guidance to improve learning.

11. **Pandemic Covid-19**

The year ended with the outbreak of COVID-19, a virus that originated in Wuhan, China, and was identified as coming from a Hunan seafood market in Wuhan City, China.[97] Various animals that are less popular for human consumption in general, such as bats, dogs, snakes, raccoons, palm civets, and other animals, are sold in this market. When the virus was first announced by the Republic of China's Government, many countries began to report, and there have been 198 countries infected as of today (March 26, 2020).

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[96] Keputusan Menteri Pendidikan dan Kebudayaan Republik Indonesa, *Pedoman Pelaksanaan Kurikulum Pada Satuan Pendidikan Dalam Kondisi Khusus* (Jakarta,: Menteri Pendidikan dan Kebudayaan Republik Indonesia, 2020), 6.

[97] Adnan Shereen, M., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. Journal of Advanced Research, S2090123220300540.https://doi.org/10.1016/j.jare.2020.03.005. 2020.

The Covid-19 virus is known for its ease of transmission and spread from one person to another. This causes the world to rush to cover all potentials, resulting in the addition of positive patients Covid-19, for example, by ceasing public activities (crowd places), social implementation (physical) distancing, and astringent policy, namely lockdown, as China, Italy, Malaysia, and others have done. Indonesia is classified as a Covid-19 emergency country. In March, the first case was discovered.98

It didn't take long for this virus's outbreak status to be upgraded to a global epidemic. The United Nations' World Health Organization (WHO) finally declared the Covid-19 outbreak a global pandemic. Until March 26, 2020, 468,644 positive cases had been confirmed in 198 countries, 21,191 had died, and 114,218 had been recovered.

Indonesia is classified as a Covid-19 emergency country. The first case, which infected two women from Depok, West Java, was discovered on March 2, 2020. It didn't take long for this case to reach 790 positive cases confirmed, 31 patients were declared cured, and 58 died by March 26, 2020. Indonesia has one of the highest death rates, with nearly 11%, far exceeding China as the virus's primary source of spread.99

Based on official information, the Ministry of Education and Culture (MOEC) is currently prepared for all scenarios, including working together to encourage online learning (in networks) for students.100 The outbreak of the Covid-19 pandemic has a universal impact on Indonesia's education. Teachers, students, and education staff are all laid off. This effort was taken to prevent the spread of the Covid-19 virus, which has become a global pandemic and continues to increase to dozens of positive patients in Indonesia.

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98 Chavez, S., Long, B., Koyfman, A., & Liang, S. Y. Coronavirus Disease (COVID-19): A primer for emergency physicians. The American Journal of Emergency Medicine, 20 (2020), 735.

99Barker, I. correspondent A., & Souisa, H. (2020, March 23). Why is Indonesia's coronavirus death rate the highest in the world? [Text].ABC News. https://www.abc.net.au/news/2020-03-23/why-is-indonesia-coronavirus-death-rate-highest-in-world/12079040

100 Direktoral Jenderal Guru dan tenaga Kependidikan Kementrian pendidikan dan kebudayaan. (2020) Panduan Pembelajaran Jarak Jauh. Diakses melalui https://pusat datinkemedikbud.go.id

Facing the Covid-19 pandemic, the government made learning conducted at home online. The policy aims to cut the chain of the spread of the virus. This policy is undoubtedly excellent to implement, considering that the virus also applies the same thing in some countries affected by the virus. Online learning is not easy, however, as the learning objectives must also be fully realized through online media such as receiving, supplying material, the question and answer process and evaluating activities. This online learning design must be accompanied by a thorough school preparation, teachers, students and parents.

C. Conceptual Framework

Conceptual framework is a concept in the theory can be related with the factors which are identified as the important problem. The thesis is ex-post facto research the theories descriptions are:

X1 : Synchronous and Asynchronous Learning Model

Y : Students' English Achievement

Figure 2.3 Conceptual Framework of Research

English Lesson

English Teacher at SMAN 1 Sambit

Pandemic Covid-19

Learning Model
Synchronous   Asynchronous

Students

Students' English Achievement
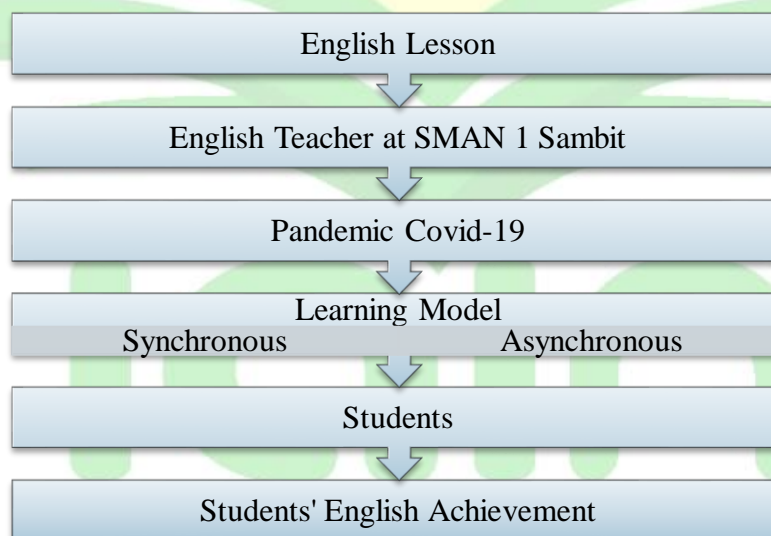
Asynchronous and synchronous learning are innovative models of instructional delivery which teachers can adopt when teaching to continue learning process during pandemic Covid-

19. Synchronous live or "real-time". All participants are logged in and communicate simultaneously. Asynchronous not live or "not real-time" at different times, participants log on and share depending on what is most suitable for them. Achievement is the result of an activity that has been done, created by individually or students in process of learning. Thus, learning achievement is the result of a learning activity that has been done by student and simbolized by scoring or numbering. Based on the theory above, the researcher has assumption that the cause of choosing some model of learning has impact on the students' English achievement. So, the researcher measure for the significant influence between synchronous and asynchronous learning model toward students' English achievement during pandemic Covid-19.

D. Hypothesis

The term originally comes from Greek with two words, "hupo" (provisional) and "thesis" (statement or theory). Since the hypothesis is a temporary statement that is still weak, it must be tested.[101] The quantitative researcher is ready to state a hypothesis based on the question after the research question and the literature has been examined. This should be done before the research project starts. The hypothesis presents the expectations of the researcher about the relationship between variables in the question. Therefore it is proposed as a response to the question, understanding that the subsequent research may lead either to support or lack of support for the hypothesis.[102]

The hypothesis is simply a learned and testable guess of the answer to your inquiry. A hypothesis is often described by the researcher as an attempt to explain the phenomenon of interest. Depending on the question and the type of study being conducted, hypotheses may take different forms. A vital feature of all hypotheses is that each must make a *prediction*. Remember that hypotheses are the researcher's attempt to explain the phenomenon being studied, and that

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[101] Syofian Siregar, *Metode Penelitian Kuantitatif* (Jakarta: Kencana, 2013), 38
[102] Donald Ary, et al, *Introduction to Research in Education Eighth Edition*. (Canada: Wadsworth, 2010), 81.

explanation should involve a projection about the variables being studied.[103] It can be interpreted based on the definitions that a hypothesis is a reply or a temporary assumption, which must be verified. Based on the problem and objective of the research, there is a form of hypothesis in the study

Ha : there is significant influence between Synchronous and Asynchronous Learning Model toward students' English achievement at SMAN 1 Sambit

H0 : there is no significant influence between Synchronous and Asynchronous Learning Model toward students' English achievement at SMAN 1 Sambit.

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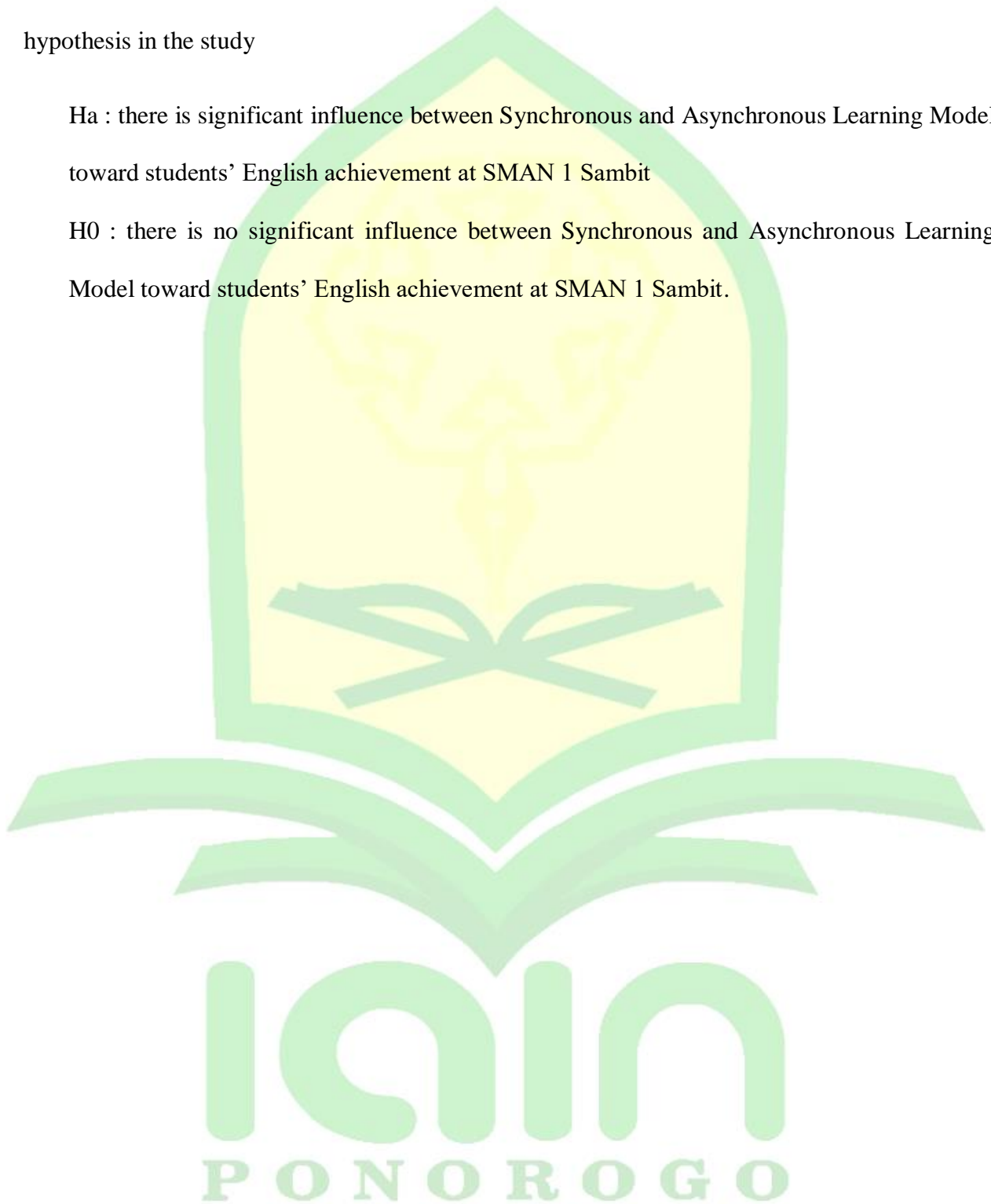
[103]Geoffrey Marczyk, David DeMatteo and David Festinger, *Essentials of Research Design and Methodology*, (Canada: John Willey & Sons, Inc., 2005), 8.

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

To measure the data in this study, the researcher employs a quantitative research approach. Sugiyono said that the quantitative method is referred to as the positive method because it is based on the positivism philosophy. The type analysis design used ex-post facto research. It is carried out after a variation in the variable of interest has already been discovered in the natural course of events. It begins by identifying the current state of affairs before moving on to determining the source of the requirements.

Furthermore, this study explains the influence between synchronous and asynchronous learning model toward students' English achievement. It was analyzed using the statistical with simple linier regression. Variables are constructs numbered (quantitative) or may also be viewed as definitions with different values. One variable is available in this analysis, including: an independent that changes/implies on other variable (dependent variable). In addition, the dependent variable is the variable affected or induced by the presence of other variables. Besides, this study is aimed to measure the influence between synchronous and asynchronous learning model. Here the independent variable is a synchronous and asynchronous learning model, while the dependent variable is students' English achievement.

As claimed by the explanation above, one of the external factor on the process of learning which the environment tools called model of learning is use synchronous and asynchronous. As a consequence, this study aims to finding out whether any significant influence between synchronous and asynchronous learning model toward students' English achievement.

B. Population and Sample

1. **Population**

Population is all numbers of well-defined class of people event or object. A population is defined as all members of any well-defined class of people, events, or objects. Population is all the numbers of an event or object class. All members of any well-defined class of people, events or objects are defined as a population.

Table 3.1   Population Table of The Tenth Grade Students of SMAN 1 SambitAcademic Year 2020/2021

Class	Amount
X MIPA 1	25
X MIPA 2	26
X IPS 1	22
X IPS 2	22
Total of student	**95**

In this research, the population is all of student on the tenth grade at SMAN 1 Sambit in academic year 2020/2021. There are four classes, the total population is 95.

2. **Sample**

The next step is to define the sample after the target population has been defined. The selection is a little group observed. A selection is a subset of the target population that the researcher plans to study to generalize the target population.

This sample gives the researcher the same chance to select each member of the population as a sample.[104] In quantitative analysis, Sugiyono states this probability sampling is the most accurate sampling approach since the researcher may presume that the population can be generalized since the sample represents the population. In probability sampling, there are many forms, and the researcher in this study used cluster sampling. When it comes to primary random sampling, rather than constructing

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[104] Shofiyan Siregar, *Metode Penelitian Kuantitatif* (Jakarta: Kencana, 2013), 30.

artificial communities, the researcher chooses naturally occurring ones compared to individuals as a sampling device. A cluster sample is the probability sample in which a collection or group of elements is presented for each sample unit. Cluster sampling is used sometimes to reduce research costs for a specific sample as an alternative to a simple random sampling. It focuses on people.

From the explanation above, the researcher took the tenth grade of MIPA 1 at SMAN 1 Sambit and the total number sample is 25.

C. Instrument of Data Collection

Researchers will collect data using instruments in their research. According to Sugiyono, it is use to measure the variable value under investigation.[105] As a result, the number of instruments needed for research determined by the number of variables under study. The researcher employs an instrument in this study, she used questionnaires to measure synchronous and asynchronous learning model and documentation score from teacher to measure students' English achievement. The format of research instruments in quantitative research is as follows.

Table 3.2 Instrument of Data Collection

Title	Variable	Indicator	Reference	Subject	Technique	No. item
The Influence between Synchronous and Asynchronous method toward Students' English Achievement at SMAN 1 Sambit	X1 Synchronous and Asynchronous Learning Model	Real Time Disscusion	Desmon Keegan, et. Al	The tenth grade students at SMAN 1 Sambit in academic year 2020/2021	Questionnaire	1,2,3,4,5
		Immediate Feedback & Meaningful interactions among participants	Mick & Middlebrook			6,7,8,9,10,11,12
		Motivation to complete assignment course	John Hopskin			13,14,15,16
		Bring new ideas to the	Eva Schwenke			17,18,19,20

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[105] Sugiyono, *Metode Penelitian Kombinasi (Mixed Methods)* (Bandung: Alfabeta, 2013), 135.

		conversation			
		Anytime-anywhere learning ("not occurring or being carried out at the same time)	Jeong, H, Hmelo-Silver C. E		21,22, 23,24, 25,26
		Convenient to Acess Materials	Simonson M, et. al,		27,28, 29,30
		Cognitive Participation	Jeong, H, Hmelo-Silver C. E,		31,32, 33,34
		Challenge on self-motivation to complete the task	Xiaoxia Huang, E-ling Hsiao		35,36, 37,38, 39,40
	Y: Students' English Achieveme nt	English Language Score	Assessment of teacher English Language Formative (1) end-of-semester tests, (2) school exams Summative (1) class assignments, (2) lectures, and (3) quizzes.	Documentatio n	

The standard of research tools in quantitative research is concerned with the validity

and reliability of the collection's instruments and qualities in terms of technical precision or

data collection.[106]

a. Validity

Validity is the most critical consideration in developing and evaluating measuring

instruments. Validity was defined as the extent to which an instrument measured what it

claimed to measure. The focus of recent views of validity is not on the instrument itself

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[106] C.R Kotari, *Research Methodology: Method and Technology Second Revised Edition* (New Delhi: New Age International Publishers, 1990), 220.

but the interpretation and meaning of the instrument's scores.[107] There are two ways to calculate the validity. First, we can estimate by the formula as follow:[108]

$$r_{xy} = \frac{n\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{(n\Sigma X^2 - (\Sigma X)^2)(n\Sigma Y^2 - (\Sigma Y)^2)}}$$

Where:

r_{xy} :Coefficient correlation between variable x and y

N   :Total respondent

ΣXY :Total product score with score total

ΣX :scores item total

ΣY :scores total

(ΣX^2) :quadrate score item total

(ΣY^2) : quadrate score total

Second, validity also can calculate by using SPSS 25.00 version program. The steps to calculate the validity in SPSS are :

a. Apply the data to the formula of product moment correlation.

b. Make the table of item analysis of all questions

c. Make an interpretation of the correlation result (r_{xy}) of each question

In this research, the researcher uses SPSS 25.00 version to measure the validity. After finding r_{xy}, it was consulted to r_{table} with 5% significance level of significance. According to the rtable value for N (respondent) = 25 on the 5% significance level. The r_{table} is 0.396, if the value of r_{xy} is equal or greater than the value of r_{table}, it means that the item is valid.

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[107] Donald Ary, et. al, *Introduction to Research In Education Eighth Edition.*(Canada: Wadsworth, 2010), 225.

[108] Retno Widyaningrum*, Statistika*, (Yogyakarta: Pustaka Felicha, 2017), 107.

The result of the calculation item validity instrument by using SPSS programs 25.00 version for windows, can be conclude as follows. (For more detail result, see appendix 3.3 and 3.4

Table 3.3   The Result Validity Test of Synchronous Learning Model

No. Item	*Rtable*	*Rxy*	Criteria
1	0.396	0.654	Valid
2	0.396	0.665	Valid
3	0.396	0.728	Valid
4	0.396	0.431	Valid
5	0.396	0.625	Valid
6	0.396	0.451	Valid
7	0.396	0.636	Valid
8	0.396	0.563	Valid
9	0.396	0.434	Valid
10	0.396	0.431	Valid
11	0.396	0.457	Valid
12	0.396	0.626	Valid
13	0.396	0.82	Valid
14	0.396	0.417	Valid
15	0.396	0.483	Valid
16	0.396	0.652	Valid
17	0.396	0.473	Valid
18	0.396	0.033	Invalid
19	0.396	0.621	Valid
20	0.396	0.61	Valid

The above list demonstrates the consistency test results for 25 respondents. The test uses 20 questionnaires of synchronous learning model. On the basis of this estimate, there are 19 valid products. These are the 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,19,20 numbers. The invalid test item is number 18.

Then the result validity test of asynchronous learning model is follow:

Table 3.4   The Result Validity Test of Asynchronous Learning Model

No. Item	*Rtable*	*Rxy*	Criteria
21	0.396	0.505	Valid
22	0.396	0.474	Valid
23	0.396	0.576	Valid
24	0.396	0.448	Valid
25	0.396	0.53	Valid
26	0.396	0.611	Valid
27	0.396	0.441	Valid
28	0.396	0.465	Valid
29	0.396	0.506	Valid
30	0.396	0.525	Valid
31	0.396	0.493	Valid
32	0.396	0.541	Valid
33	0.396	0.512	Valid
34	0.396	0.719	Valid
35	0.396	0.637	Valid
36	0.396	0.453	Valid
37	0.396	0.606	Valid
38	0.396	0.54	Valid
39	0.396	0.602	Valid
40	0.396	0.467	Valid

The content validity shows the result of the validity synchronous learning model test to 25 respondents. The test uses 20 items of Asynchronous learning model questionnaires. On the basis of this calculation all items which total 20 items are correct. They are 21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40 numbers

b. Reliability

Reliability test is consistent and dependable.[109] If you give the same test to the same student or matched students on two separate occasions, a successful test is consistent and dependable, then the test should show similar results. The reliability of a test can best be approached by taking into consideration a variety of variables that can help the unreliability of a test.[110] So, Reliability of a measuring instrument is the degree of consistency with which it measures whatever it is measuring.

To measure reliability used Alpha Cronbach formula. In this research, researcher employed SPSS program to measure reliability or use the formula as follows:

$$r11 = \left(\frac{n}{n-1}\right)\left(\frac{s^2 \Sigma pq}{s^2}\right)$$

Formula of variant

$$S^2 = \frac{\Sigma \text{x}^{2\left(\frac{\Sigma \text{x}^2}{\text{N}}\right)}}{N}$$

Where:

r11   = the reliability coefficient of item

n   = the number of items in the test

p   = the proportion of student who give the right answer

q   = the proportion of students who give the wrong answer

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[109] Donald Ary, *Introduction to Research in Education, Eight Edition* (Wadsworth: Cengage Learning, 2010), 22.
[110] Kultar Singh, *Quantitative Social Research Methods* (New Delhi: Sage Publications Inc, 2007), 102.

Σpq= the total number of multiply between p and q

S^2 = the standard deviation of the test

The result of reliability calculation by using SPSS 25.00 version is presented in the following table:

Table 3.5   Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
0.894	40

The reliability is 0.894, based on the above calculation. The reliability attribute is referred to as "r" table on the importance of 5 percent. The value of "r" is 0.396 since the reliability of the index "r" is 0.894>"r" (0.396), which makes the test accurate. The following may be obtained from other interpretations of the reliability instrument, r value:

Table 3.6   Reliability Interpretation

Reliability Interpretation	
The value of *rg*	Interpretation
0.80-1.00	High
0.60-0.80	Enough
0.20-0.40	Low
0.00-0.20	Very Low

From this questionnaire instrument, we can resume that 0.894 is in the high value range.

D. Technique of Data Collection

Data is one of the main components of science. Data is all facts or information about something which can be used as information compilation content. Precise data is the key point for analysis. In addition, this study encourages data collection of observation, questionnaires, and documentation.

1. Observation

Larry Christensen on Sugiyono notes that observation in research is described as monitoring human behavioral patterns to obtain information on the phenomenon of interest in some situations. Creswell states that observation is the process of observing people and places at the research site of gathering information directly.[111] So, Observation is also vital for gathering people's knowledge because people do not always do as they say.

In this observation, the researcher collected information about the environment on process learning during pandemic Covid-19 at SMAN 1 Sambit. This information is used as the acuteness of the research problem before the research is conducted. Participant observation or researchers engaged in activities at SMAN 1 Sambit conduct observations, especially in English Lesson.

This observation included the SMAN 1 Sambit English teacher, students and the learning model. In the time of pandemic Covid-19, researcher faced the change of mix model on learning management, that is use the type of distance learning or online learning, which famous by asynchronous and synchronous learning model. The teacher found the best learning model to create the lesson meaningful although in a difficult situation that the student and teacher never did before. The learning model is the external factor on the achievement of students.

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[111] Sugiyono, *Metode Penelitian Kombinasi (Mixed Methods)* (Alfabeta: Bandung, 2013), 196.

2. Questionnaire

A questionnaire is a series of questions usually evaluated by a paper and pencil or computer format variables. Questionnaires provide closed items that enable people to select between choices.[112] The measurement scale is the reference in the measurement instrument for determining the short period interval. When used in the calculation, the instruments can be used to achieve quantitative data. The measurement scale numerically represents the instrument's variables, making the instrument more accurate, reliable, and communicative.

In this analysis, the likert scale will be used as the measuring scale. The Likert scale use to assess people's perspectives, beliefs, and attitudes of social phenomena or groups. The Likert scale translates the measured variable into the indicator variables. The instrument's pieces, which can be either a question or a conclusion, are then organized using these indicators.

A questionnaire used to find out score of Synchronous and Asynchronous learning model related with the student's behavior, experience, and perception during learning process of tenth grade at SMAN 1 Sambit in academic year 2020/2021. The researcher provides a questionnaire which the respondent may provide through a checklist of available options. This questionnaire contains closed-ended items that require the respondent to make a choice. The researcher may then assign a score using the score scale.

Positive assertions:

5 points for strongly agreeing

4 points for agreement

3 points for neutrality

2 points for disagreement

1 point for strongly disagreeing

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[112] M. D. Gall, et. al, *Applying Educational Research Seventh Edition*, (America: Pearson, 2015), 117.

Negative assertions

1 point for strongly concurring

2 points for agreement

3 points for neutrality

4 points for disagreement

5 points for strongly disagree

The score questionnaire response is a numerical value that is represented in order to make questions more understandable. The questionnaires contain 40 numbers and each question contains five response options. The researcher replaced the paper with a media of Google form application to make the questionnaire more efficient for the respondent.

3. Documentation

The documentation serves a purpose relevant to the study object, such as a list of students' names and a schedule of English Lesson. The documentary technique is used in this study to collected the data on students' English achievement or variable Y. the other data to complete on students' names, teachers' and staff's conditions, vision and mission, goal, services, infrastructure, and organizational structure of SMAN 1 Sambit.

E. Technique of Data Analysis

The data analysis methodology used in this research is linier regression with simple variable. This technique is used to determine the effect of independent variable on a single dependent variable. The aim of this data is to determine whether there is any significant influence between synchronous and asynchronous learning model toward students' English achievement of tenth-grade students at SMAN 1 Sambit in the academic year 2020/2021. This research is conducted during a pandemic Covid 19.

Before analyzing data and identify the hypothesis, the data have to fulfill the requirement or assumption test that are normality and linearity and hypothesis test.

1. Assumption Test

    The final element that must be taken into account is the collection of test assumptions.

    a. Normality test

        A normality test is used to determine the normality of a distribution's (pattern) data. This normality test presupposes that the data in each variable are normally distributed. Numerous statistical measures may be used to determine the data's normality. The researcher conducted this study using SPSS 25.00 version by the Kolmogorov-Smirnov formula.

2. Linearity test

    The linearity test is a regression linearity test. The linearity test is used in both fundamental linear regression analysis and multiple linear regression analysis. The linearity test is performed by determining the least square model connecting the independent variables X1 and Y. Linearity line regression can be evaluated using the regression line model.

Figure 3.1 The Regression Line Model Can Be Tested Linearity Line Regression

X1 Synchronous and Asynchronous Learning Model	**R** →	**Y** Students' English Achievement
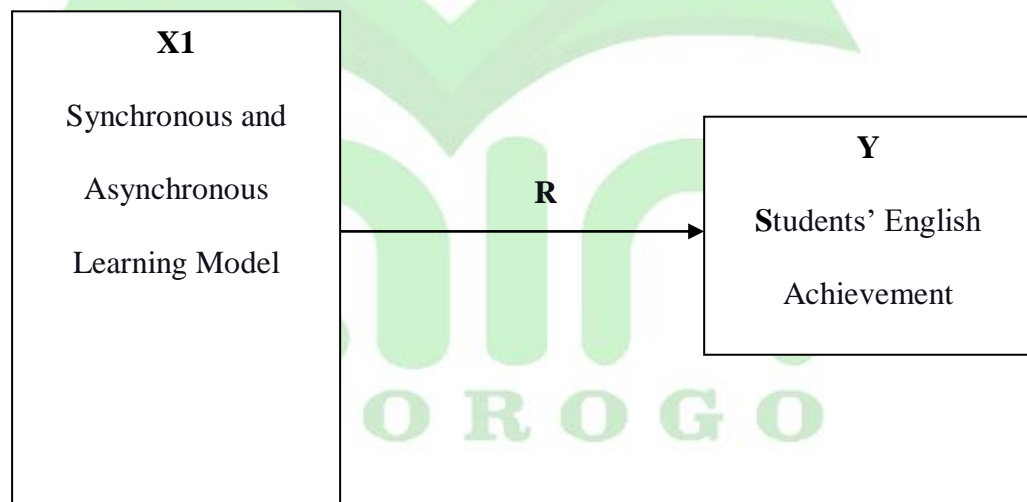
Regression Equations for one predictor with simple regression

a) Make the data on table

b) Using the form of division score

c) Defining a constant value

d) Formulate a variable regression equation

e) Calculate the correlation coefficient.

f) SPSS was used to measure the test statistic.

3. Hypothesis test

The analysis data is used a simple regression analysis. The researcher applies SPSS program version 25.00 for windows to calculate the hypothesis test with simple linear regression analysis. The step of analyzing data simple linear regression formulated as follows.

a. Make hypothesis in a form of sentence

Ha = *F-test > F-table*

There is any significant influence of variable X1 to variable Y

H0 = *F-test < F-table*

There is no significant influence of variable X1 to variable Y

b. Calculating F_{count} and F_{table} with SPSS

c. Determine the level of significance α

d. Testing Rules

If, $F_{count} \leq F_{table}$, then accept Ho

If, $F_{count} > F_{table}$, then Ho is rejected

e. Comparing F_{count} and F_{table}

f. Make decisions

Accept or reject Ho

The researcher addresses data definition, data analysis, and data discussion and interpretation in this chapter.

A. General Data Description

1. History of SMAN 1 Sambit

   The initial school building for SMA Sambit has three classrooms, one principal's room, one teacher's room, one guidance room, a warehouse, no light, a toilet, and no electricity. The fences have been removed, the land appears to be dry, and Galen's former appearance has returned. For his logo, Mr. Pedjion began growing pines in his garden to mark the beginning of Sambit Forest 1.

   SMAN Sambit is the child of SMA 1 Ponorogo, which became independent of SMA 1 Ponorogo. The teaching and learning process was carried to SMA Negeri Sambit Ponorogo during 1985/1986. Teaching and learning occurred at SMA Negeri Sambit 1 Ponorogo and proceeded into the afternoon, following the new SMA 1 Sambit building.

2. Vision and Mission of SMAN 1 Sambit

   A formal administration function is defined as the vision, mission, and various objective-based goals and objectives. Everything in the organization's documentation must be recorded in the documentation system.

   a. Vision

      The objectives are to educate people for a deeper understanding of faith and higher levels and science while fostering people's healthier conduct and awareness of environmental issues.

   b. Mission

   1) Developing religious attitudes and behavior in the school

2) Cultivating an attitude of inquisitiveness, cordiality, conscientiousness, cooperativeness, integrity, productiveness, frankness, creativeness, and artistry

3) Develop/empower students into their respective attributes. These students can learn actively, creatively, and cooperatively, as well as contribute to class discussions. Also, help them actualize their identities as superior learners.

4) Permit independent learners to get the most out of their studying time by utilizing physical and human resources.

5) A school environment that is comfortable, non-toxic, clean, and healthy for students with a lack of dependence.

6) Developing social and environmental awareness, as well as political and nationalistic values

7) Development of an environmental management and preservation program that is a part of the curriculum

8) Constituatizing, participatory, transparent, and accountable management to allow the community to become the school's option

c. Goals

1) The identification of graduates who are devout to God Almighty, religious, and morally upright.

2) Students who have a culture of curiosity, love of reading, tolerance, cooperation, discipline, mutual respect, honesty, hard work, creativity, and independence.

3) The implementation of active, creative, fun, communicative, and democratic learning results in excellent academic and non-academic students.

4) The development of a time-respecting attitude and the ability to optimally utilize resources for the best results from student development.

5) Creating a welcoming, safe, tidy, clean, and healthy school environment that promotes academic success.

6) To foster social and environmental awareness and a love for peace, the homeland, nationalism, and democratic life.

7) The implementation of an environmental protection and management program that is integrated into the school curriculum development.

8) Strengthening and cultivating character education and literacy movements

9) The establishment of a preferred school for the people of Ponorogo and its environs.

3. English Lesson at SMAN 1 Sambit

The tenth grade curriculum for SMAN 1 Sambit Ponorogo consists of sixteen subjects and one local content, such as English lesson, which is included as a compulsory subject. According to the curriculum, the total time allocation for tenth grade is two lesson hours every week.

The domains of knowledge, understanding, analysis, and some evaluation are included in the level of competence developed at SMAN 1 Sambit. The depth of the material taught to students begins with basic local or regional knowledge in the tenth grade, progressing to Indonesia in class the eleventh grade and international knowledge in the last or the twelfth grade. The hope is that by increasing the volume of learning, participants will be able to comprehend and realize the increasingly difficult interests of learning.

The syllabus competency developed in accordance with Permen 37 of 2018 is adapted to the school environment's conditions, provided that it does not reduce the content of the existing syllabus.[113]Thus, the relationship between the syllabus's content and the conditions in the students' environment can be established, as the 2013 Curriculum's message emphasizes the importance of learning in conjunction with environmental conditions and even developed with indigenous wisdom.

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[113] Pemerintah Povinsi Jawa Timur Cabang Dinas Pendidikan Kabupaten Ponorogo SMAN 1 Sambit, Kurikulum SMAN 1 Sambit tahun pelajaran 2020/2021. (Ponorogo: Tim Penyusun Kurikulum, 2020), 57.

B. Specific Data

1 Data Description

Throughout this analysis, 25 students from SMAN 1 Sambit's tenth grade were used as a sample. Two variables were used in this study: the synchronous and asynchronous learning model (X1), and the students' English achievement (Y). The following is a summary of the data obtained for each variable that has been scored as a representation of these variables:

a. Synchronous and asynchronous learning model at the tenth grade students of SMAN 1 Sambit in academic year 2020/2021 on the time of pandemic Covid-19

1. Synchronous learning model

This data is used to evaluate the degree of Synchronous learning model proficiency among SMAN 1 Sambit tenth grade students. The researcher collects data using a questionnaire instrument for tenth grade students in class X MIPA 1 in academic year 2020/2021. According to data collected through the distribution of a questionnaire to 25 respondents, the questionnaire was linked to students' actions, experience, and interpretation throughout the learning phase using the Synchronous learning model during the pandemic Covid-19. The highest score on the questionnaire is 89, while the lowest score is 58. The following table shows the results of the questionnaire in detail.

Table 4.1   The Score of Synchronous learning model of The Tenth Grade Students MIPA 1 at SMAN 1 Sambit in Academic Year 2020/2021

No.	Score
1	81
2	82
3	58
4	80
5	74
6	71

No.	Score
7	69
8	85
9	76
10	68
11	75
12	86
13	83
14	88
15	83
16	85
17	89
18	75
19	79
20	84
21	78
22	72
23	76
24	87
25	89

From the list above, the highest possible score is 89, while the lowest possible score is 58. Although the average is 78.92, the statistics summary of the synchronous learning model score questionnaire is as follows:

Table 4.2 Statistics Descriptions of Students' Questionnaire Score on Synchronous Learning Model

(Synchronous Learning Model)	Statistics
Mean	78.92
Standard Error	1.520877
Median	80
Mode	85
Standard Deviation	7.604385
Sample Variance	57.82667
Kurtosis	0.76512
Skewness	-0.83599
Range	31
Minimum	58
Maximum	89
Sum	1973

(Synchronous Learning Model)	Statistics
Count	25

As shown in the table above, the mean is 78.92 with a standard error of 1.521, the median is 80, the mode is 85, the standard deviation is 7.604385, the sample variance is 57.82667, and the range is 31, minimum 58, and maximum 89. Additional information can be found in the following frequency distribution table.

Table 4.3 Frequency Distribution of Students' Questionnaire Score on Synchronous Leaning Model

Synchronous_learning_model					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	58-62	1	4.0	4.0	4.0
	68-72	2	8.0	8.0	12.0
	73-78	8	32.0	32.0	44.0
	79-84	7	28.0	28.0	72.0
	85-89	7	28.0	28.0	100.0
	Total	25	100.0	100.0	

According to table above, could be seen clearly the result of questionnaire score of Synchronous learning model was varieties. There were 4% or 1 student got score between 58-62, score 68-72 there were 8% or 2 students, score 73-78 there were 32% or 8 students, score 79-84 there were 28% or 7 students, and 7 students or 28% got score between 85-89.

Figure 4.1 Histogram of Synchronous method
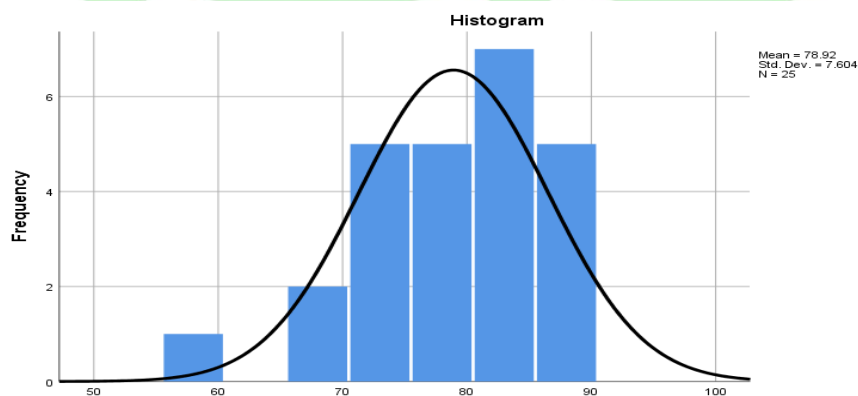
The histogram above indicated that the Mean (M) was 78.92 and the Standard Deviation (SD) was 7.60. To categorize the Synchronous process, the score is either good, medium, or weak. The following table summarizes the scores according to the standard:

a.   More than M + 1.SD (78.92+7.60) is categorized into good

b.   Between M - 1.SD + 1.SD is categorized into medium

c.   Less than M – 1.SD (78.92-7.60) is categorized into low

Thus, it can be seen that the scores which more than 86.52 is considered into good, while the scores which less than 71.32 is considered into low and score between 71.32-86.52 is considered into medium. The categorization can be seen in the following table:

Table 4.4   The Categorization of Synchronous Learning Model

No	Score	Frequency	Percentage	Category
1	More than 86.52	4	12%	Good
2	71.32-86.52	18	72%	Medium
3	Less than 71.32	3	16%	Low
Total		25	100	

As can be seen from the categorization in the table above, the Synchronous learning model questionnaire score placed 16% or 3 of students in the low category, 72% or 18 students in the medium category, and 12% or 4 students in the good category. As a result, it can be assumed that a large number of students receive a medium score on the Synchronous form. As can be seen from the total number of students who have a synchronous learning score of 71.32-86.52, 72% or 18 students out of 25 students have this score.

2. Asynchronous learning model

This data establishes the degree of proficiency with the asynchronous method among tenth-grade students at SMAN 1 Sambit. The researcher collected

data by administering a questionnaire to students in the tenth grade of class X MIPA 1 during the academic year 2020/2021. According to data gathered from a questionnaire distributed to 25 respondents, the questionnaire addressed students' attitudes, experience, and perceptions during the asynchronous learning model during the pandemic Covid-19. According to the questionnaire, the highest possible score is 80, while the minimum available score is 49. The following table illustrates the results of the questionnaire.

Table 4.5   The Score of Asynchronous Learning Model of The Tenth Grade Students MIPA 1 at SMAN 1 Sambit in Academic Year 2020/2021

No.	Score
1	59
2	69
3	49
4	65
5	70
6	57
7	68
8	58
9	57
10	62
11	64
12	71
13	54
14	71
15	76
16	71
17	72
18	67
19	72
20	67
21	74
22	59
23	57
24	80
25	49

From the table above, the highest score is 80, and the lowest score is 49. Although the mean is 64.72, the following statistics describe the synchronous system score questionnaire in greater detail:

Table 4.6 Statistics Descriptions of Students' Questionnaire Score on Asynchronous Learrning Model

X1(Asynchronous Learning Model)	Statistics
Mean	64.72
Standard Error	1.655818
Median	67
Mode	57
Standard Deviation	8.27909
Sample Variance	68.54333
Kurtosis	-0.68175
Skewness	-0.27763
Range	31
Minimum	49
Maximum	80
Sum	1618
Count	25

As shown in the tables provided, the mean is 64.72 with a standard error of 1.655818, the median is 67, the mode is 57, the standard deviation is 8.27909, the sample variance is 68.54333, and the range is 31 minimum 49, maximum 80 Additional information can be found in the following frequency distribution table

**Table 4.7 Frequency Distribution of Students' Questionnaire Score on Asynchronous Learning Model**

Asynchronous_learning_model					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	49-53	2	8.0	8.0	8.0
	54-58	5	20.0	20.0	28.0
	59-63	3	12.0	12.0	40.0
	64-	5	20.0	20.0	60.0

Asynchronous_learning_model					
		Frequency	Percent	Valid Percent	Cumulative Percent	
68						
69-74		8	32.0	32.0	92.0	
75-80		2	8.0	8.0	100.0	
Total		25	100.0	100.0		

According to table above, could be seen clearly the result of questionnaire score of Asynchronous learning model was varieties. There were 8% or 2 student got score between 48-53, score 54-58 there were 20% or 5 students, score 59-63 there were 12% or 3 students, score 64-68 there were 20% or 5 students, 69-74 there were 32% or 8 students, and 2 students or 8% got score between 75-80.

Figure 4.2   Histogram of Asynchronous learning model
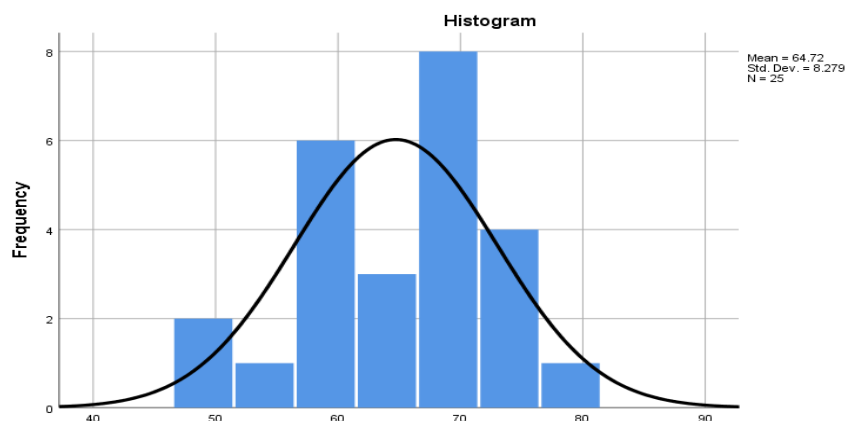
According to the histogram, the Mean (M) value is 64.72 and the Standard Deviation (SD) value is 8.28. Asynchronous method score is classified as good, medium, or low. The following table illustrates how the scores were classified according to the specification:

a.   More than M + 1.SD (64.72+8.28) is categorized into good

b.   Between M - 1.SD + 1.SD is categorized into medium

c.   Less than M – 1.SD (64.72-8.28) is categorized into low

Thus, it can be seen that scores greater than 73 are considered to be excellent, while scores less than 56.44 are considered to be poor, and scores

between 56.44 to 73 are considered to be medium. The following table illustrates the categorization:

Table 4.8   The Categorization of Asynchronous Learning Model

No	Score	Frequency	Percentage	Category
1	More than 73	3	12%	Good
2	56.44-73	19	76%	Medium
3	Less than 56.44	3	12%	Low
Total		25	100	

From the categorization on the table above can be seen that the Asynchronous learning model questionnaire score showed 3 students or 12% in a good category, 19 students or 76% in a medium category and 3 students or 12% in a low category. So, it can be concluded that many students have many medium score on Asynchronous learning model. It can be seen from the total number of students who have medium score Asynchronous learning are 76% or 19 students from 25 students.

b. Students' English Achievement at the tenth grade students of SMAN 1 Sambit in academic year 2020/2021 on the time of pandemic Covid-19

The aim of this data is to ascertain the level of English achievement of tenth-grade students at SMAN 1 Sambit. The researcher collects data by administering a documentation instrument to tenth-grade students in class MIPA 1 at SMAN 1 Sambit. According to data collected from documentation of mean test class assignment and final examination ranking, students' English achievement ranges between 90 and 60. It is obvious from the documentation result in the following table.

Table 4.9   The Score of Students' English Achievement of The Tenth Grade of MIPA 1 Students at SMAN 1 Sambit in Academic Year 2020/2021

No.	Score
1	85
2	83

No.	Score
3	70
4	75
5	80
6	75
7	70
8	86
9	72
10	71
11	60
12	90
13	70
14	74
15	75
16	80
17	90
18	72
19	74
20	72
21	72
22	60
23	74
24	80
25	68

As can be seen from the list above, the highest score is 90, the lowest is 60, and the mean is 75.21. For additional information, the statistics describing students' English achievement score are as follows.

Table 4.10 Statistics Descriptions of Students' Questionnaire Score on Students' English Achievement

Y (Students' English Achievement)	Score
Mean	75.12
Standard Error	1.548462
Median	74
Mode	72
Standard Deviation	7.742308
Sample Variance	59.94333
Kurtosis	0.115025

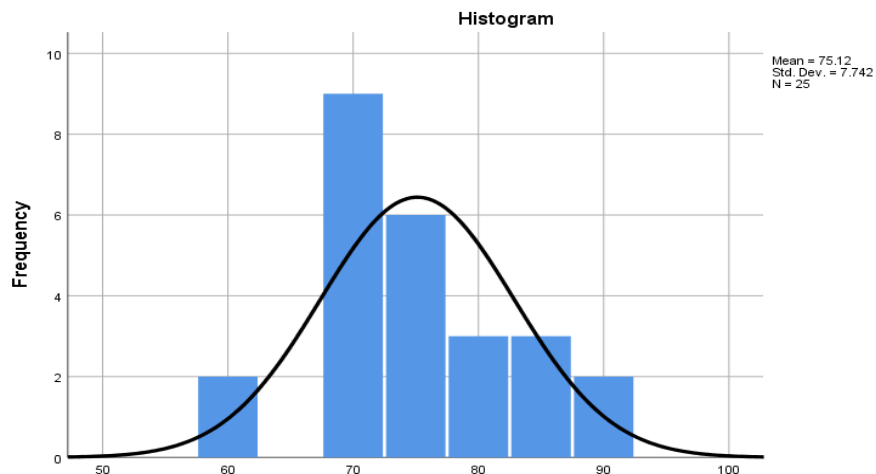| Y (Students' English Achievement)	Score
Skewness	0.176343
Range	30
Minimum	60
Maximum	90
Sum	1878
Count	25

As can be seen from the table above, the mean is 75.12 with standard error 1.548462, median 74, mode 72, standard deviation 7.742308, variance 59.94333, range 30, minimum score 60, and maximum score 90. For more details, could be seen in the following frequency distribution table.

Table 4.11   Frequency Distribution of Students' English Achievement

Students'_English_Achievement					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60-64	2	8.0	8.0	8.0
	65-69	1	4.0	4.0	12.0
	70-74	11	44.0	44.0	56.0
	75-79	3	12.0	12.0	68.0
	80-85	5	20.0	20.0	88.0
	86-90	3	12.0	12.0	100.0
	Total	25	100.0	100.0	

According to table above, could be seen clearly the result of Students' English achievement was varieties. There were 8% or 2 student got score between 60-64, score 65-69 there were 4% or 1 students, score 70-74 there were 44% or 11 students, score 75-79there were 12% or 3 students, 80-85 there were 20% or 5 students, and 3 students or 12% got score between 86-90.

Figure 4.3 Histogram of Students' English Achievement

The frequency distribution above indicated that the Mean (M) was 75.12 and the Standard Deviation (SD) was 7.74. To classify students' English achievement as high, medium, or low. The following table summarizes the scores according to the guidelines:

a. More than M + 1.SD (75.12+7.74) is categorized into good

b. Between M - 1.SD + 1.SD is categorized into medium

c. Less than M – 1.SD (75.12-7.74) is categorized into low

Consequently, scores greater than 82.86 are considered to be good, while scores less than 67.38 are considered to be bad, and scores between 67.38 to 82.86 are considered to be medium. The following table illustrates the categorization:

Table 4.12 The Categorization of Students' English Achievement

No	Score	Frequency	Percentage	Category
1	More than 82.86	4	16%	Good
2	67.38-82.86	19	76%	Medium
3	Less than 67.38	2	8%	Low
Total		25	100	

From the categorization on the table above can be seen that the Students' English achievement score showed 4 students or 16% in a good category, 19 students

or 76% in a medium category and 2 students or 8% in a low category. So, it can be concluded that many students have medium score on Students' English achievement. It can be seen from the total number of students who have medium score students' English achievement are 76% or 19 students from 25 students.

C. Data Analysis

Before analyzing the data and identifying hypothesis, the data have to fulfill the requirement or assumption test, that test are normality, linearity, and hypothesis test.

1. Assumption test analysis

   The final factor to consider is the test's set of assumptions.

   a. Normality test

      In this research, the researcher used SPSS 25.00 version with the Kolmogorov-Smirnov formula.

Table 4.13   Table of Normality Test

NPar Tests		
One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		25
Normal Parameters[a,b]	Mean	0.0000000
	Std. Deviation	########
Most Extreme Differences	Absolute	0.090
	Positive	0.088
	Negative	-0.090
Test Statistic		0.090
Asymp. Sig. (2-tailed)		.200[c,d]
a. The distribution of the tests is normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

The table above indicates that the data is normally distributed. If the significant value is greater than > 0.05, the data is presumed to be normally distributed. The table above indicates that the significant value is 0.200. The significance level exceeds 0.05. It denotes that the variables follow a normal distribution. Once the first assumption of normality is accepted, we can measure on multiple variables using linier regression.

b. Linearity test

The linearity test is performed by determining the regression line model connecting the independent variables X1, and Y. Linearity line regression can be evaluated based on the regression line model. The entire calculation for the linearity test in SPSS 25.00 is as follows:

Table 4.14   Table of Variables Entered

Variables Entered/Removed[a]			
Model	Variable Entered	Variables Removed	Method
1	Asynchronous Synchronous (X1)[b]		Enter
a. Dependent Variable: Students' English Achievement (Y)			
b. All requested variables entered.			

The output table "Variables Entered / Removed" above contains information about the research variables used in this simple linear regression analysis. In this study, the Synchronous and Asynchronous Learning Model (X1) were used as independent variables, while students' English achievement (Y) was used as the dependent variable.

Table 4.15 Determination Coefficient

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.520^a	0.270	0.204	6.90798
a. Predictors: (Constant), Asynchronous and Synchronous (X1)				

In accordance with the calculation, the model calculation equation, the R square represents the coefficient of determination. A good way to obtain the R value is to express it is 0.520x0.520 , which is 0.270. R squared percentage is equivalent to the coefficient of determination (R-squared) of 0.270 (which is approximately 27.04% of the total variation in the result of the correlation).

By extrapolation, this indicates that the variable of Students' English achievement respectively, will influence each other. This figure implies that the Synchronous and the Asynchronous learning model variable simultaneously (jointly) affect the Student English Achievement variable (Y) by 27.04%. while the rest (100% - 27.04% = 72.96%), while other variables outside this regression equation or variables not studied.

The effect of the influence of other variables is also known as error (e). To calculate the error value, we can use the formula e = 1 - R2. The value of the coefficient of determination or R ranges from 0-1. However, if in a study it is found that R squere is minus or negative (-), then it can be said that there is no influence of the variables X1 on Y. Furthermore, the smaller the value of the coefficient of determination (R squere), it means that the influence of the independent variables (X) to the dependent variable (Y) is weaker. In fact, if the R value stops at 1, the effect will be even stronger. In this study, the calculation of the R squere number 0.2270 is categorized as a weak influence.

Therefore, the analysis focuses on the linierity of each variables namely Synchronous and Asynchronous learning model as independent variable (X1) and

Students' English achievement ad dependent variable (Y). the result of this analysis could be seen on the table ANOVA below:

Table 4.16   ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
					ANOVA^a	
1	Regression	388.8	2	194.4	4.074	.031^b
	Residual	1049.8	22	47.72		
	Total	1438.6	24			
a. Dependent Variable: Students'_English_Achievement (Y)						
b. Predictors: (Constant), Asynchronous and Synchronous (X1)						

From the table above, could be seen the result of linearity test for students' English achievement on Asynchronous and Synchronous learning model. It shows the value significant 0.031. Referring to the Anova table above, it also shows the *F-test* is 4.074 higher that *F-table* 3.42 (F=2:25-2, F=2:23) with 5% significance found 3.42. or 4.074>3.42. It means that the regression model equation is significant because it has already fulfilled the criteria of linearity. The criteria is if the significant value < 0.05 linier regression can be applied.

Based on the result above, can be concluded that Ha is accepted and H0 is rejected. It implied that Synchronous and Asynchronous learning model simultaneously are significant influence toward the students' English achievement.

2. Testing Hypothesis

Following analysis, the statistician used simple linear regression. The researcher calculates the hypothesis test using simple linear regression analysis using the SPSS program version 25.00 for Windows. After obtaining data and descriptive statistics, the researcher conducts hypothesis testing.

a. Make hypothesis in a form of sentence

Ha = *F-test > F-table*

There is significant influence between Synchronous and Asynchronous learning model toward students' English achievement at SMAN 1 Sambit

H0 = *F-test < F-table*

There is no significant influence between Synchronous and Asynchronous learning model toward students' English achievement at SMAN 1 Sambit

8) Calculating Ftest and Ftable with from the data linearity regression above

Ftest = 4.07

Ftable = (F=2:25-2, F=2:23) with 5% significance found 3.42

9) Determine the level of significance a

a = 0.031

10) Testing Rules

If, Ftest ≤ Ftable, then accept Ho

If, Ftest> Ftable, then Ho is rejected

11) ComparingFtest and Ftable

F= 4.07>3.42

12) Make decisions

Accept or reject Ho

Then, it can be conclude that Ho is rejected and Ha is accepted.

D. Discussion

The aim of this study was to decide whether or not the synchronous and asynchronous learning model has an influence on students' English achievement during Pandemic Covid-19 on tenth grade students at SMAN 1 Sambit in the academic year 2020/2021. This study focused on two variables, there as synchronous and asynchronous learning model independence variable and students' English achievement as dependence variable.

In this study, the researcher conducted observation to collected information about the management on process learning during pandemic Covid-19 at SMAN 1 Sambit. Then questionnaire used to found the data about the score of Synchronous and Asynchronous learning model related with the student's behavior, experience, and perception during learning process of tenth grade at SMAN 1 Sambit in academic year 2020/2021. Data description showed the result that many students have medium score on Synchronous, students who have medium score synchronous learning model are 76% or 19 students from 25 students. Then, on Asynchronous learning model, the students got the medium score of synchronous learning model are 72% or 18 students from 25 students. The third is documentation. It is used in this study to collect data on students' English achievement to calculate variable Y. From the total number of students who have medium score synchronous learning are 76% or 19 students from 25 students.

After collecting data, then make a data description. Data description consisted of the result of questionnaire score of Synchronous and Asynchronous learning model and documentation score of students' English achievement. Next, make the assumption normality test used SPSS 25.00 version, and found the significant value is 0.200. The significant value is greater than 0.05. It indicates the variables are normal distribution. The assumption of normality test is accepted, after that calculated on simple linier regression.

Data analysis about significant influence between Synchronous and Asynchronous learning model toward students' English achievement at SMAN 1 Sambit during pandemic

Covid-19 in academic year 2020/2021, it founded that the significant influence value is 0.031. It means the simple regression equation model is significant because it has already fulfilled the criteria of linearity. The criteria of linearity is if the significant value < 0.05 linear regression can be applied. It can be conclude that Ha is accepted and H0 is rejected.

The value of R square or Coefficient determination informs about how well the independent variables. The R square is 0.270 Synchronous and Asynchronous learning model (X1) gives 27.04% contribution toward dependent variable students' English achievement (Y). Then the Ftest is 4.07 higher that >Ftable 3.42.
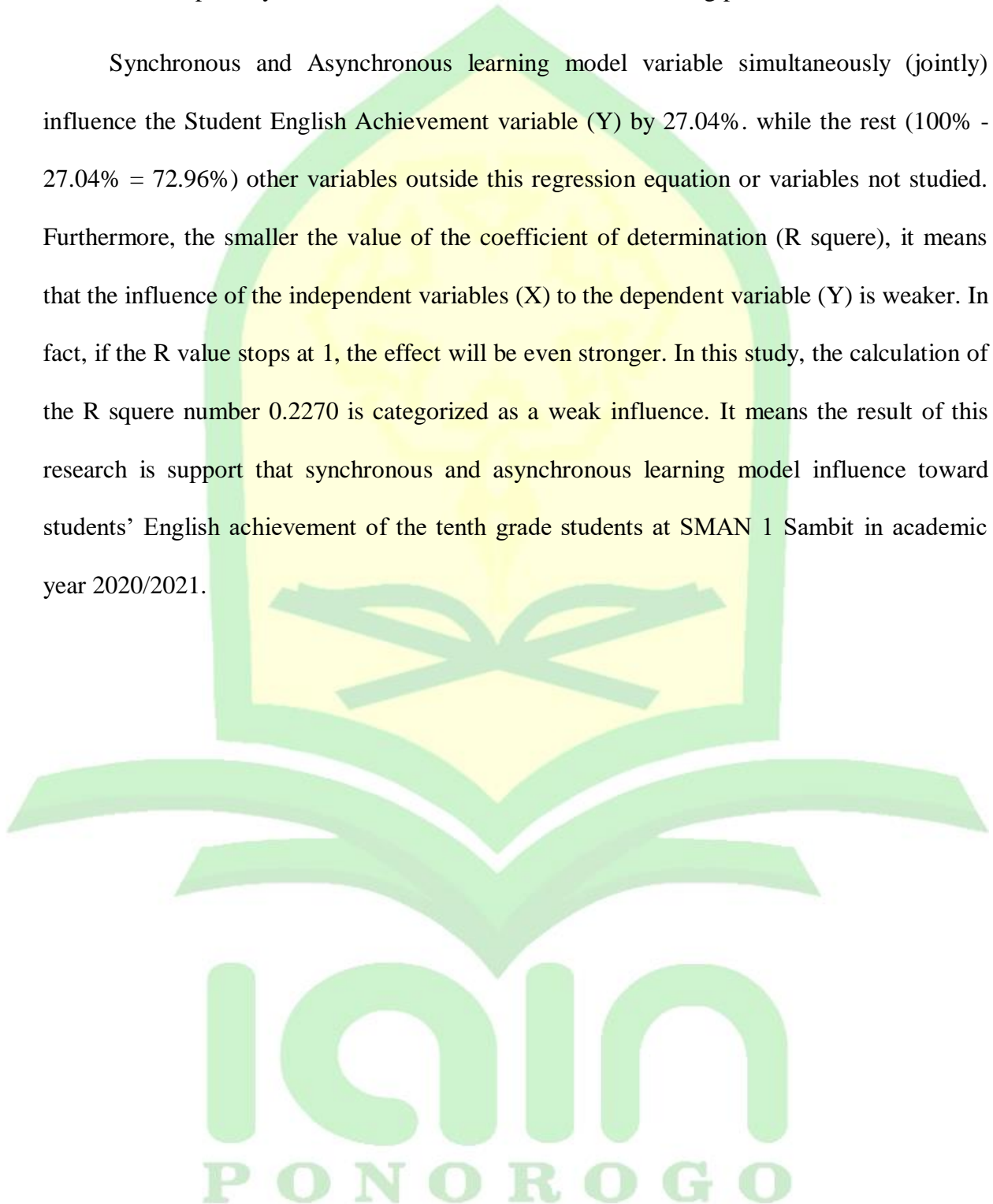
The data above shows that the significant influence between Synchronous and Asynchronous learning model toward students' English achievement at SMAN 1 Sambit in academic year 2020/2021 is 27.04%. It can be consulted that Ha is accepted and H0 is rejected. It means that the increasing of Synchronous and Asynchronous learning model followed by the increasing students' English achievement.

The strategy to find the best learning model especially Synchronous and Asynchronous to teach during pandemic Covid-19 give the impact on the students' English achievement. The study of teaching as a process has revealed that the process is known as Gagne, as students can integrate the internal conditions and the external conditions they are exposed to the learning environment.[114] In the time of pandemic, the teacher use synchronous and asynchronous learning model to deliver the learning process, there are various ways to choose the right learning model for the right learning activities. Online learning environments can be split into three parts, synchronous, asynchronous, and hybrid learning environments. The utilization of Information technology as a means of education has begun to continue the learning process during the difficult times of the Covid-19 pandemic. The model of learning as an externaal condition has impact on the learning outcomes or students' English

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[114] Dewi Salma Prawiradilaga, *Wawasan Teknologi Pendidikan,*(Jakarta: Kencana Prenada Media Grup, 2012), 69.

achievement. So that with the right learning model will be impact on the students'
achievement because to make quality of achievement we should understand the factor of
student need, especially before act some model to continue learning process.

Synchronous and Asynchronous learning model variable simultaneously (jointly)
influence the Student English Achievement variable (Y) by 27.04%. while the rest (100% -
27.04% = 72.96%) other variables outside this regression equation or variables not studied.
Furthermore, the smaller the value of the coefficient of determination (R squere), it means
that the influence of the independent variables (X) to the dependent variable (Y) is weaker. In
fact, if the R value stops at 1, the effect will be even stronger. In this study, the calculation of
the R squere number 0.2270 is categorized as a weak influence. It means the result of this
research is support that synchronous and asynchronous learning model influence toward
students' English achievement of the tenth grade students at SMAN 1 Sambit in academic
year 2020/2021.

CHAPTER V

CLOSING

This chapter discusses the conclusion and recommendations of the research conducted:

A. Conclusion

Referring to the previous chapter's finding discussion that the researcher found, there is significant influence between the Synchronous and Asynchronous learning model toward students' English achievement at SMAN 1 Sambit. It founded that the significant influence value is 0.031. It means the regression equation model is significant because it has already fulfilled the criteria of linearity. Therefore, we can say that Ha is realized to be accurate and H0 is rejected. The value of R square or Coefficient determination informs about how well the independent variables. The R square is 0.270 Synchronous and Asynchronous learning model (X1) gives 27.04% contribution toward dependent variable students' English achievement (Y). Then, the Ftest is 4.07 higher than > Ftable 3.42. The data shows that the significant influence between Synchronous and Asynchronous learning model toward students' English achievement at SMAN 1 Sambit in academic year 2020/2021. It means that the increasing of Synchronous and Asynchronous learning model followed by the increasing students' English achievement. It can be prove, there are 76% or 19 students from 25 students in a medium category on Synchronous. Then, on Asynchronous learning model, the students got the medium score of synchronous method are 72% or 18 students from 25 students, also students' English Achievement on medium score. It can be proved there are 76% or 19 students from 25 students in medium category.

B. Recommendation

The researcher concluded that the research was highly expected and stated in the data they are hoping to do.

1. For English teacher

    Teaching is seen as an integral of the classroom because it influenced both the model and the experience; additionally, the teacher is expected to facilitate the student's interest and enjoyment of the learning experience. The teacher should face adversity. Even though it disrupts her routine, there is still the opportunity to move forward in their education by finding comfort and inspiration.

    When employing Synchronous and Asynchronous learning model, the teacher must be ready to communicate effectively with the student. Even is not equal to only acquiring knowledge in a classroom or through virtual rooms. A class should be interesting for students' sake so that they do not become tired of it.

2. For all of the students

    Teachers are responsible for encouraging the students to manage their own time to facilitate their study. The teacher can not control all students due to a pandemic covid-19. If the teacher cannot be present, students will not be mindful of their commitments (feel they have none) and will fail to implement the task. If no one is present in school because students are likely to have pandemic Covid-19 students are at risk, they will have trouble maintaining control. The students should Make study space larger to expand knowledge and access the resources to help students learn more efficiently.

3. For the school

    The school is expected to have everything from an improved student, teachers, facilities, and items in the area. Make the factors external and internal to be clear so that they work well together. When it comes to selecting and implementing the best learning model for controlling students during the advent of new epidemics, much effort and innovation are required. The external factor such as a process of learning used to teach on pandemic covid-19. The last hope to the school will take some benefit from this research because it might lead to a better teaching and learning way.

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