



Mixed Methods of Learning in Schools: Reshaping comprehensive education in Synchronous and Asynchronous

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ABSTRAK

Penelitian ini dilakukan untuk mengetahui terdapat atau tidaknya pengaruh metode pendekatan Synchronous dan Asynchronous terhadap hasil belajar peserta didik. Penelitian ini dilaksanakan di SMAN 3 Tangerang. Populasi dalam penelitian ini adalah 310 peserta didik dan Sampel diambil sebanyak 175 peserta didik. Penelitian ini merupakan penelitian kuantitatif dan menggunakan kuesioner dalam pengumpulan data. Hasil data kuesioner diolah menggunakan aplikasi IMB SPSS Statistic versi 25. Hasil penelitian ini menunjukkan bahwa terdapat pengaruh yang positif dalam pembelajaran daring menggunakan metode pendekatan Synchronous dan Asynchronous terhadap hasil belajar peserta didik. Walaupun besarnya pengaruh berdasarkan hasil analisis Koefisien Determinasi (R^2) tergolong rendah yaitu sebesar 0,292 atau 29,2%.

ABSTRACT

This research was conducted to determine whether there is influence of the Synchronous and Asynchronous approach methods on student learning outcomes. This research was conducted at SMAN 3 Tangerang. The population in this study were 310 students and 175 students were taken as a sample. This research is a quantitative research and uses a questionnaire in collecting data. The results of the questionnaire data were processed using the IMB SPSS Statistics application version 25. The results of this study indicate that there is a positive influence in online learning using the Synchronous and Asynchronous approach methods on student learning outcomes. Even though the magnitude of this influence, based on the results of the analysis the Coefficient of Determination (R^2) is relatively low, namely 0.292 or 29.2%.

Keyword:

Synchronous,
Asynchronous, Online
learning, Learning
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Introduction

In 2020 Indonesia and even around the world is facing the Coronavirus Disease 2019 outbreak or commonly known as (Covid-19). The Coronavirus Disease (Covid-19) has several signs and symptoms that arise in a person. In general, it has respiratory problems, high fever, coughing and

shortness of breath. This virus does not spread through air transmission but through direct contact and droplets. Prevention that can be done includes Social Distancing keeping a distance from one another, always wearing a mask, maintaining cleanliness by washing hands properly and correctly for 20 seconds, and using a hand sanitizer (Fuad, 2022).

With the enactment of decree Number 33 of 2020, namely regarding PSBB (Large-Scale Social Restrictions). That the Provincial Government of DKI Jakarta calls for the prevention of Coronavirus Disease 2019 in the form of restrictions on activities outside the home Governor of DKI Jakarta, 2020. During the Coronavirus Disease (Covid-19) outbreak, students are allowed to study online from home. Therefore, online learning is carried out in accordance with the circular letter from the Minister of Education and Culture Number 36962/MPK.A/HK/2020. Learning that is usually done face-to-face is temporarily transferred to online learning (Wahyuningsih, 2021). In online learning, all schools use various media to support learning, such as: Zoom Meeting, Google Meet, Google Class Room, Whatapp Group, Edmodo, Nearpod and so on (Fahmi, 2023; Jojo & Sihotang, 2022; Sari & Noor, 2022).

Therefore, teachers' teaching activities must have high skills for online learning. Teachers are required to be creative in packaging teaching materials so that online learning is as desired (Andiani et al., 2021; Lismawati et al., 2023; Sopiandiah et al., 2022; Susilawati, 2021). In this case, there are online learning approach methods that can be carried out by teachers, including the Synchronous and Asynchronous approach methods (Wahjusaputri et al., 2023; Wibowo dkk, 2023). Teachers can use both approaches. In the Synchronous approach method, teachers and learners conduct face-to-face learning in real time (simultaneously) using video conferencing or chatting. As for the Asynchronous approach method, a teacher prepares learning materials in advance which are then shared with students so that learning is carried out flexibly and not at the same time (Ramadhan & Lismawati, 2022; Zeghal, 2007).

In online learning, some schools generally apply Synchronous and Asynchronous approach methods in the new normal era. With this approach, teachers and learners can carry out learning by using web conference application. Teachers can create a virtual classroom so that learners can discuss or ask questions directly. While Asynchronous learning, students interact through email, or read the material provided by the teacher (Ainscow, 1995; Martens et al., 2019)

However, online learning has pluses (+) and minuses (-), among others: For the minuses, the lack of adequate student facilities to conduct online learning, many students cannot access the internet due to signal disruption in certain cities, students' lack of understanding of the material delivered by the teacher, some students do not have laptops to conduct learning, lack of readiness for teachers in the online learning process. While the pluses are that students can still carry out virtual learning, the time is more flexible, making independent students, and teachers become more creative in developing teaching materials (Marbouti et al., 2018; Smith, 2005).

Method

This research is a type of quantitative research. This quantitative research is used to examine certain populations or samples by collecting data using research instruments, and analyzing data that is statistical or in the form of numbers, which aims to test the hypothesis that has been applied. by taking. The sample determination technique determined by the researcher based on certain characteristics that will be sampled is the Non Probability Sampling Technique with Purposive Sampling... Research on the Effect of Synchronous and Asynchronous Approach Methods in Online Learning at High School on Learner Learning Outcomes was conducted at SMAN 3 Tangerang which is located on Jl. KH. Hasyim Ashari, No. 8, Rt.003/Rw.002, Karang Tengah, Kec. Karang Tengah, Tangerang City, Banten, Postal Code 15151. This research was conducted by means of data collection methods using a questionnaire in the form of questions which were then distributed to the students of SMAN 3 Tangerang. And using analysis to test the hypothesis of the effect of synchronous and

asynchronous approach methods on the data needed for this purpose then taken from the main data sample.

Results

Based on the results of research conducted on Synchronous and Asynchronous Learning on learning outcomes are as follows. This simple linear regression has provisions, namely if the sig value <0.05, then it is said to have an effect. Conversely, if sig > 0.05, then there is no influence between variables X and Y..

Tabel 4.7 Variabel X dan Y

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	Synchronous dan Asynchronous ^b	.	Enter

a. Dependent Variable: Hasil Belajar
b. All requested variables entered.

Sumber: Hasil dari SPSS 25

Tabel 4.8 Anova

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	992.462	1	992.462	71.407	<.001 ^b
	Residual	2404.475	173	13.899		
	Total	3396.937	174			

a. Dependent Variable: Hasil Belajar
b. Predictors: (Constant), Synchronous dan Asynchronous

Sumber: Hasil dari SPSS 25

Based on the table above, the researcher can draw the conclusion that the results of the simple linear regression test have an influence between variables X and Y. By looking at the provisions if the sig value <0.05, it has an effect. 0,001 < 0,05. Then this simple linear regression has an influence between variables X and Y.

Tabel 4.9 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.541 ^a	.292	.288	3.728

a. Predictors: (Constant), Synchronous dan Asynchronous

Sumber: Hasil dari SPSS 25

The table above is the percentage level of influence of variable X on variable Y. By looking at R Square, which is 0.292, it means that there is 29.2%, so the level of influence of variable X on variable Y is 29.2%.

Research Results:

$H_1 : \rho \neq 0$, there is an influence between the Synchronous and Asynchronous approach methods with student learning outcomes.

Based on the research findings about the Synchronous and Asynchronous Approach approach methods to student learning outcomes at SMAN 3 Tangerang, namely:

- 1) The Synchronous and Asynchronous Approach approach method has a significant effect of $0.001 < 0.05$ which means significant. And the results of the linearity test are $0.840 > 0.05$. There is an influence on the Synchronous and Asynchronous Approach to student learning outcomes. However, it was found that the level of influence was small, namely 29.2%.
- 2) Based on the results of the calculation of product moment correlation analysis, it is stated that H_1 is accepted, which means that the Synchronous and Asynchronous approach methods have a positive influence on student learning outcomes.

Discussion

Synchronous method is learning that is carried out by teachers and students by meeting face-to-face using video conferencing at the same time. So that teachers can create a real but virtual discussion classroom (Abdullah et al., 2012). In this method, it uses the utilization of internet media. So that the applications used to carry out learning activities include: Zoom Meeting, Google Meet, Google Class Room, and Whatsapp Group. With this application media, students can participate in learning directly through video conferencing or chatting to conduct discussions at the same time (Pulungan, 2017).

It can be concluded that the Synchronous approach method is a way for a teacher to be creative in carrying out learning during a pandemic like this, by implementing virtual face-to-face learning using video conferencing. So that teachers can create a real classroom. And the media chosen usually include: Zoom Meeting, Google Meet as a support for face-to-face learning or Google Class Room and Whatsapp Group as a place for direct discussion and in real time / together.

The Asynchronous Approach method is learning between teachers and students can do learning independently with material that is already available and the time that has been determined by the teacher (Hadi, 2015). This method usually utilizes internet technology media in the form of Google Class Room, Whatsapp Group, Edmodo, Nearpod, quizizz or khahoot. Where the teacher sends assignments or videos related to the material to be taught. And the time given is free or not simultaneously but still has a time that has been determined by the teacher (Zeghal, 2007).

It can be concluded that this Asynchronous approach method is one of the learning methods that can be done by a teacher in conducting learning without having to do face-to-face. However, by providing material which is then sent through certain supporting application media and within a predetermined time. In this Asynchronous approach method is very flexible.

Types of Synchronous Approaches

The type of approach to Synchronous is divided into 2 (two) including Direct Synchronous (SL) and Synchronous Maya (SM). Below are the definitions of Live Synchronous (SL) and Synchronous Maya (SM). (1) Live Synchronous (SL) is face-to-face learning in the same place and time. By utilizing the internet network. (2) Synchronous Maya (SM) is a learning activity that is carried out at the same time but in different places between teachers and students. Utilizing the internet network through video conferencing using certain media (Lombardi et al., 2021).

Types of Asynchronous Approaches

The type of approach to Asynchronous is divided into 2 (two) including Asynchronous Mandiri (AM) and Asynchronous Collaborative (AK). Below are the definitions of Asynchronous Mandiri (AM) and Asynchronous Collaborative (AK). (1) Asynchronous Independent (AM) is online learning that learners do in the learning process independently, which can be done anywhere and anytime. For

example, reading, listening, watching, practicing and training using the internet network. (2) Collaborative Asynchronous (AK) is learning that is carried out online by discussing among fellow students or with resource persons (Salsabila et al., 2020).

Conclusion

Based on the findings conducted by researchers on the Synchronous and Asynchronous Approach Approach Method to Student Learning Outcomes at SMAN 3 Tangerang, namely: The Synchronous and Asynchronous Approach approach method has an influence on the relationship between variables X and Y which is significant and linear on student learning outcomes. However, it was found that the percentage level of influence was small.

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