



## **Metacognitive Strategies to Pronunciation in English Education Study Program of Pattimura University**

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### **Abstract**

One of the learning activities impacted by the transmission of the COVID-19 virus was a listening exercise in a university classroom. Regarding that assertion, listening comprehension requires help from learners' English language components and lecturers' aid. The study's objectives were: 1) to describe the influence of synchronous and asynchronous audio in online learning (Synchronous and Asynchronous in English Education Study Program); 2) to describe students' listening comprehension; and 3) to determine the positive and significant influence of synchronous and asynchronous audio in online learning on student listening comprehension. This study used a quantitative technique using Ex-post Facto research as the design. Purposive sampling was used to choose 32 students from the English Education Study Program in 2018 and 2019. A questionnaire was used to collect data, and the students' listening final grades were evaluated using IBM SPSS 20.0. The findings of this study revealed that: 1) Synchronous and Asynchronous at English Education Study Program was in the medium category, as the highest score was 76; 2) Students' Listening Comprehension was in the "A" category, as the mean score was 82; 3) Synchronous and Asynchronous have a favorable and substantial impact on students' listening comprehension, as evidenced by the coefficient determinant value of 0.267 (26.7%). The findings of this study are intended to be valuable to lecturers, students, and other researchers.

**Keywords:** *Influence, Synchronous, and Asynchronous, Students' Listening Comprehension*

**DOI:**

### **INTRODUCTION**

Listening is a talent that may be learned spontaneously without formal training, much as toddlers learn their native languages by listening to conversations. Listening is also essential to learning since it allows a person to receive and process information. However, before students attempt to listen in order to receive, they must first learn to listen. As a result, to become excellent listeners, students must study more. Listening technologies describe the potential qualities of networks for mediating listening, which can assist understanding and facilitate language development. This section examines a variety of important technologies, explaining them and examining what they listen to in general (Triyanti, 2018). The use of learning media in the learning

process has advantages in terms of making learning more appealing and clarifying the subject. Using media in the classroom can increase students' motivation to study English (Oktaviani & Mandasari, 2020).

Learning media should be used now since it is an option that must be used in an era of technology and communication that is rapidly increasing. Furthermore, during the COVID-19 epidemic, the government encouraged the use of online models and apps to meet learning objectives. As a result, learning innovation must continue to grow in the realm of education (Samsul S, 2020). The interaction patterns that occur in class activities have a significant impact on the success of a teaching and learning experience. Online learning environments are classified into three types: synchronous, asynchronous, and hybrid. Synchronous learning allows for real-time interaction, which may be used to mix device learning activities with traditional classroom learning; however, synchronous learning is conducted online with a question-and-answer session option. Because synchronous learning necessitates the concurrent presence of a student-teacher (Ayesha, 2016).

Haiyan Xie et al. (2018) published "Analysis of Synchronous and Asynchronous E-Learning Environments". Based on a sample of 38 students, the results reveal that students are more comfortable utilizing asynchronous communication tools than synchronized ones since they can readily access them offline. Additionally, the asynchronous communication is excellent for skeptical and shy students. Furthermore, Jody Oomen (2008), in his paper "Using Asynchronous Audio Communication (AAC) in the Online Classroom: A Comparative Study," found that asynchronous audio communication is one of the most effective learning media for increasing teacher attendance, student involvement, content knowledge, and course satisfaction. Asemota (2015) noted in his work 'Nature, Importance, and Practice of Listening Skill' that audio may be utilized to construct active listening exercises for learners to build listening comprehension skills (in Choo Siang Shian Melor & Md. Yunus, 2016).

Based on the relevance of prior research, the researcher performed a preliminary study in the English Education Study Program at Pattimura University by questioning lecturers in the listening course linked to their preferred audio via online learning. During the Covid-19 epidemic, listening lecturers offered both synchronous and asynchronous online learning. Where is synchronous learning, namely direct audio learning utilizing the Zoom application? In terms of asynchronous learning, audio is distributed via Google Class for each meeting, and students can access it on their own.

Furthermore, based on an informal interview with students who enrolled in listening class during the pandemic, the results showed that students primarily have a positive influence of the lecturer's selected (synchronous and asynchronous) audio on their listening comprehension, in that the use of audio through synchronous and asynchronous differs from the offline class, in which the lecturer plays the audio-only 2-3 times for students to learn.

According to John Field (2009: 37-38). The listening class is centered on the teacher. In terms of procedures under the teacher's supervision. The teacher controls a CD or cassette player, asks pertinent questions, plays back selected portions, and determines how much time is spent on comprehension questions. Students may be hesitant to contribute because they are unsure whether they fully grasp the audio recording.

In truth, not all aspects of the learning process must be accompanied by instructor directions; there are times when learners require time to think and a peaceful environment to do certain tasks autonomously, such as interpreting audio and performing a task. Teachers might establish this environment by not constantly giving directions or delivering content. This calm may

also be achieved with asynchronous e-learning, which does not need professor instructions. In this scenario, media selection is critical since it involves considering instructional material or content and the intended teaching technique, as well as making a basic design decision, namely whether media should be communicated synchronously or asynchronously.

The researchers attempted to learn more about "The Influence of Lecturers' Selected Audio in Online Learning towards Students' Listening Comprehension at Pattimura University Ambon's English Education Study Program." To examine the impact of lecturer-selected audio in online learning on students' listening comprehension, this study focuses on students who have enrolled in listening classes. Specifically, this research addresses the following three research questions: 1) How is the influence of synchronous and asynchronous audio in online learning? 2) How is students' listening comprehension? 3) c. Is there any positive influence of synchronous and asynchronous audio in online learning towards students' listening comprehension? The hypothesis of this study is that there is 'there is a significant and positive influence of lecturers' selected audio in online learning towards students' listening comprehension'.

## **LITERATURE REVIEW**

Listening comprehension is universally recognized as a fundamental component of language acquisition and an essential prerequisite for effective communication. Vandergrift and Goh (2012) underscore that listening forms the basis for the development of other language skills, including speaking, writing, and reading. Successful comprehension of spoken language enables learners to expand their vocabulary, consolidate grammatical knowledge, and achieve greater fluency in both speech and writing (Rivers, 1981). Furthermore, listening comprehension is strongly linked to overall language proficiency and academic achievement, as it enhances learners' ability to engage meaningfully with the language and communicate effectively with native speakers (Goh, 2008). Mastering listening skills is, therefore, integral to fostering interactive and meaningful communication in diverse linguistic contexts.

### ***Role of Technology in Enhancing Listening Skills***

The advent of technology has revolutionized language learning by providing innovative tools to enhance listening skills. Multimedia resources such as podcasts, audiobooks, and e-learning platforms offer learners exposure to authentic language in various contexts (Stockwell, 2010). Audio-based tools, specifically, are effective in improving listening comprehension and overall language acquisition (Godwin-Jones, 2012). Asynchronous tools like podcasts and recorded lectures cater to self-paced learning, allowing students to revisit material for reinforcement and better accommodate diverse learning needs (Chen & Hsu, 2009). Conversely, synchronous tools such as live discussions and real-time lectures promote immediate feedback and interactive engagement, which are key to maintaining learner motivation (Zhao, 2003).

### ***Synchronous and Asynchronous Learning Models***

Synchronous learning emphasizes real-time interaction between students and instructors, fostering dynamic engagement and immediate clarification of concepts. Studies indicate that this model enhances student participation and improves teacher-learner relationships (Garrison & Vaughan, 2008). However, challenges such as rigid scheduling and limited flexibility may hinder its accessibility. Asynchronous learning, by contrast, offers unparalleled flexibility, enabling students to access and review content at their convenience. This model is particularly advantageous for language learning, as it allows for repeated exposure to audio materials, aiding retention and

comprehension (Tharp & Gallimore, 1988). While it lacks the real-time benefits of synchronous methods, asynchronous learning encourages deeper reflection and fosters independent study. Research highlights the value of blending these approaches to balance autonomy with interaction, thereby creating an optimal learning environment (McManus, 2008).

### ***Lecturer-Selected Audio Materials in Language Learning***

The quality and relevance of lecturer-selected audio resources play a pivotal role in engaging students and enhancing their comprehension. Well-curated materials, such as podcasts and recorded lectures, align with instructional objectives and provide authentic language exposure, thereby motivating learners and enriching their understanding (Brown & Smith, 2006). Chinnery (2006) emphasizes that diverse audio resources introduce students to various accents, dialects, and speech patterns, equipping them with a more comprehensive grasp of the language. In online environments, listening comprehension is influenced by factors such as audio quality, learners' proficiency levels, and interactivity. Self-paced learning is a notable advantage of online platforms, allowing students to review materials at their own speed and enhance retention (Kormos & Smith, 2012). However, the absence of face-to-face interaction may pose challenges for learners who struggle with self-regulation or have difficulty interpreting speech in isolated settings (Chapelle, 2003). Vandergrift (2007) suggests that effective online listening activities strike a balance between guided instruction and learner autonomy, combining structured feedback with opportunities for independent practice.

### ***Previous Research on Audio-Based Learning Tools***

Empirical studies have consistently demonstrated the efficacy of audio-based tools in improving listening skills. Field (2009) found that both synchronous and asynchronous audio formats significantly enhance listening comprehension, with synchronous methods offering real-time clarification and asynchronous methods enabling repeated exposure for better understanding (Tess, 2013). Research in higher education highlights the positive impact of resources such as podcasts, recorded lectures, and language apps on students' listening proficiency (Lai & Hwang, 2014). Notably, the effectiveness of audio-based learning often depends on context. Thorne (2003) reports that learners achieve better outcomes when using authentic audio materials curated by instructors. Moreover, integrating audio with multimedia tools, such as videos and interactive exercises, fosters deeper comprehension and creates a richer learning experience (Chun & Plass, 1996).

## **RESEARCH METHODOLOGY**

### **Research Design**

The data was collected via quantitative research. Sugiyono (2018:15) defines quantitative research methods as follows: "Quantitative methods can be defined as research methods that are based on the philosophy of positivism, used to research a specific population or sample, data collection using research instruments, and quantitative or statistical data analysis, with the aim of describing and testing established hypotheses. This research will be conducted in English Education Study Program at Pattimura University. It is located in Campus B FKIP, Pattimura University in Nusaniwe Regency, Ambon City.

## Population and Sample

According to Sugiyono (2018: 130), a population is a generalization of items or people that have specific numbers and qualities that the researcher chooses to analyze and make conclusions from. The population of this study involves students in the English Education Study Program who participated in an online listening class, which had 95 students in 2018 and 130 in 2019. According to Sugiyono (2018:131), the research sample is representative of the population in terms of size and features. When a population is huge, researchers may not be able to collect all of the data, thus samples from that population can be used. Thus, Keywords might indicate that the sample is a subset and/or representative of the quantity and attributes being studied. Arikunto (2010) states that if the study population is smaller than 100, the population becomes the sample. Nonetheless, if the population exceeds 100, the researcher can collect a sample of 10 to 15%, 20 to 25%, or more. The sample for this study is 25% of the overall population, which is 32 pupils.

Sugiyono (2018:133) defines the sampling technique as follows: "Sampling technique is a sampling technique." Various sampling strategies are used to determine the sample that will be utilized in the research. The sample approach utilized in this study is non-probability sampling. Sugiyono (2018:136) defines non-probability sampling as "a sampling technique that does not provide equal opportunities/opportunities for each element or member of the population to be selected as a sample." Purposive sampling was utilized in this investigation instead of probability sampling. Purposive sampling is a sample approach with certain requirements (Sugiyono, 2018:138).

## Variables of the Study

According to Sugiyono (2018: 57), research variables are traits, properties, or values of persons, things, organizations, or activities that have specific variations that the researcher determines to be researched and subsequently draws a conclusion. According to the relationship between one variable and another, the variables in this study are (X) as independent variables and (Y) as dependent variables. Independent variable Sugiyono (2018: 57) defines the independent variable as a variable that influences or causes the change or appearance of the dependent variable (variable selection). In this study, variables (X) included lecturer-selected (synchronous and asynchronous) audio in online learning. According to Sugiyono (2018: 57), the dependent variable, also known as a variable, is a variable that is impacted by or becomes the consequence of the independent variable. In this study, the dependent variable (Y) is students' listening comprehension.

## Technique of Data Collection

In this study, the researchers will be used two instruments which are questionnaire and final score. According to Sugiyono (2013: 187-196), a questionnaire is a data-gathering tool in which respondents are given a series of questions and written statements to answer. The questionnaire in this study will ask how lecturers' selected (synchronous and asynchronous) audio in online learning affects students' listening comprehension. The questionnaire will utilize a Likert scale. The ultimate score in this study will be the students' final listening comprehension grade in the listening class. The final score for listening comprehension is computed using Arikunto's (2009:245) assessment standards. They are as follows.

*Table 1. Classification of the Students' Listening comprehension*

| <b>Value</b> | <b>Grade</b> | <b>Category</b> |
|--------------|--------------|-----------------|
|--------------|--------------|-----------------|

|        |   |                   |
|--------|---|-------------------|
| 80-100 | A | Excellent         |
| 66-79  | B | Good              |
| 56-65  | C | Sufficient        |
| 40-55  | D | Fairly Sufficient |
| <39    | E | Poor              |

## Validity and Reliability of the Questionnaire

### a. Validity Analysis

The validity of these instruments is crucial since it determines if they can assist the researcher in collecting data to answer research questions. A trial will be done to ensure the validity of these tools. The goal of this study requires evidence to ensure that the questionnaire employed in this research is appropriate, intelligible, and capable of producing the intended outcome. Hale in Aritonang (2020) argued that the Correlation approach may be used to demonstrate validity when the scores of two independent categories measuring the same content or ability are connected. Thus, the correlation between the total score of each category in the questionnaire was determined using SPSS (20.0 version). Pearson's product moment formula will be utilized.

The SPSS program was utilized in this section to assess the validity of the questionnaire in this analysis. There are two criterion for determining the validity of test items: if the rvalue is more than rtable with a significance level of 0.05, the instrument employed is valid; if the rvalue is less than rtable, the instrument is invalid. There were 32 respondents in this study, and the research employed a significance threshold of 0.05, thus the rtable result is 0.349 (see appendix 1). The validity test revealed that all of the items were legitimate.

*Table 2. Validity Analysis*

| No. | Item    | Significance | r Hitung | r Tabel | Valid |
|-----|---------|--------------|----------|---------|-------|
| 1   | Item 1  | 0.000        | 0.752    | 0.349   | Valid |
| 2   | Item 2  | 0.000        | 0.784    | 0.349   | Valid |
| 3   | Item 3  | 0.000        | 0.784    | 0.349   | Valid |
| 4   | Item 4  | 0.000        | 0.752    | 0.349   | Valid |
| 5   | Item 5  | 0,000        | 0.760    | 0.349   | Valid |
| 6   | Item 6  | 0.000        | 0.682    | 0.349   | Valid |
| 7   | Item 7  | 0.000        | 0.667    | 0.349   | Valid |
| 8   | Item 8  | 0.000        | 0.667    | 0.349   | Valid |
| 9   | Item 9  | 0.000        | 0.608    | 0.349   | Valid |
| 10  | Item 10 | 0.000        | 0.747    | 0.349   | Valid |
| 11  | Item 11 | 0.000        | 0.728    | 0.349   | Valid |
| 12  | Item 12 | 0.000        | 0.752    | 0.349   | Valid |
| 13  | Item 13 | 0.000        | 0.784    | 0.349   | Valid |
| 14  | Item 14 | 0.000        | 0.728    | 0.349   | Valid |
| 15  | Item 15 | 0.000        | 0.624    | 0.349   | Valid |
| 16  | Item 16 | 0.000        | 0.747    | 0.349   | Valid |
| 17  | Item 17 | 0.000        | 0.760    | 0.349   | Valid |
| 18  | Item 18 | 0.000        | 0.621    | 0.349   | Valid |
| 19  | Item 19 | 0.000        | 0.682    | 0.349   | Valid |

|    |         |       |       |       |       |
|----|---------|-------|-------|-------|-------|
| 20 | Item 20 | 0.000 | 0.747 | 0.349 | Valid |
|----|---------|-------|-------|-------|-------|

a. Reliability Analysis

The final phase in the field test for a standardized instrument was to assess dependability. According to Field (2017), dependability is the instrument's consistent performance. The Alpha Cronbach formula was used to assess the questionnaire's consistency. According to Gliem in Aritonang (2020), the Alpha Cronbach formula provides a simple and brief indication of the instrument's reliability after only one trial administration.

The reliability test evaluates the item's consistency when used repeatedly during another cycle. The reliability of test items is determined by two parameters: if alpha cronbach is greater than rtable at a level of significance of 0.05, the instrument is reliable. If it is less, it indicates that the instrument is not dependable for usage. The result calculation of questionnaire reliability using IMB SPSS version 25 is presented below:

*Table 3. Reliability Statistics*

| Cronbach's Alpha | N of Items |
|------------------|------------|
| 0.787            | 21         |

In this study, the rtable was 0.349 and the alpha cronbach was 0.929. In conclusion, alpha cronbach is more than rtable with the significance is 0.05 ( $0.929 > 0.349$ ) means that the questionnaire was reliable.

**Technique of Data Analysis**

According to Sugiyono (2018:226), data analysis refers to "activities after data from all respondents or other data is collected." Data analysis activities include grouping data based on variables and types of respondents, tabulating data based on variables from respondents, presenting all data for each variable studied, conducting calculations to answer the problem formulation, and performing calculations for the hypotheses proposed. There were two types of data that will be analyzed: questionnaire data and student final grades. There are two statistical analyses in this study: (1) synchronous and asynchronous audio online learning, and (2) listening comprehension grade.

A. Analysis of Questionnaire

To determine the category of synchronous and asynchronous audio online learning, the mean score were computed through descriptive statistic. Researcher used fourth scale which is : 4 = Strongly agree, 3 = Agree, 2 = Disagree, 1 = Strongly disagree.

b. Analysis of Listening Comprehension

32 respondents' listening comprehension grades were evaluated based on their listening comprehension scores. The lowest score would be 0 and the greatest would be 100, depending on their grades in Listening Class as assigned by the lecturer. More exactly, the student's grades were transformed into criteria from Pattimura University, as shown in the table below:

Table 4. Category of Students Listening Comprehension

| Interval Class | Category      |
|----------------|---------------|
| 85 – 100       | A / Excellent |
| 70 – 84        | B / Good      |

|         |               |
|---------|---------------|
| 55 – 69 | C / Fair      |
| 40 – 54 | D / Poor      |
| <39     | E / Very Poor |

c. Normality Test

In this study, the normality test was performed to assess if the gathered data from Creswell (2012) shows that the distribution of data (normal or not) determines which statistical test would be employed in examining the connection hypothesis. In the SPSS program, the researcher employed the I-sample Kolmogorof-Smirnov method. If the p-value was more than 0.05, it was considered normal, and vice versa.

d. Linearity Test

The linearity test determines whether or not the data from a test is linear. When the p-value is greater than 0.05, the data is categorized as linear, indicating that two variables are linear. SPSS was used to perform a linearity test.

e. Correlation Analysis

In this study, the data was analyzed by using Pearson Product Moment Correlation (SPSS) as follows:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}}$$

Where:

r = Coefficient correlation between x and y

n = Number of Respondent

x = Synchronous and asynchronous

y = Students' listening comprehension

f. Regression Analysis

After determining the association between synchronous and asynchronous effects on student listening comprehension, the researcher performed regression analysis to determine if synchronous and asynchronous affects student listening comprehension in the English Education Study Program. Furthermore, descriptive analysis was done to determine why there is a connection and effect between two variables.

## FINDINGS

As previously stated, the sample was drawn from second-semester English Education Study Program students in 2018 and 2019 who had passed Professional Listening and Academic Listening classes, totaling 131 individuals. The sample for this study was 25% of the overall population, or 32 students, whose final scores were assessed to see if Synchronous and Asynchronous had a positive and substantial effect on their students' listening comprehension in the English Education Study Program.

This chapter reviewed and explained the results of synchronous and asynchronous audio in an online learning questionnaire analysis, as well as the results of students' Listening Comprehension grades. To determine if Synchronous and Asynchronous have a good and significant impact on their students' listening comprehension. The whole data is as follows:



### The Result of Questionnaire Analysis

The data is collected using a Synchronous and Asynchronous audio Questionnaire. The surveys have 32 items, each with four alternatives on a range of 4 to 1: 4 (strongly agree), 3 (agree), 2 (disagree), and 1 (strongly disagree). Furthermore, the results were interpreted in terms of frequency using the criteria provided by Molyneux and Macintyre (2001), using an average calculation. The following list was used to determine synchronous and asynchronous.

*Table 5. The table of Synchronous and Asynchronous*

| No. | Item    | Frequency          |            |              |                       |
|-----|---------|--------------------|------------|--------------|-----------------------|
|     |         | Strongly agree (4) | Agree (3)  | Disagree (2) | Strongly disagree (1) |
| 1   | Item 1  | 16 (50.0%)         | 14 (43.8%) | 2 (6.3%)     | -                     |
| 2   | Item 2  | 16 (50.0%)         | 16 (50.0%) | -            | -                     |
| 3   | Item 3  | 16 (50.0%)         | 16 (50.0%) | -            | -                     |
| 4   | Item 4  | 16 (50.0%)         | 14 (43.8%) | 2 (6.3%)     | -                     |
| 5   | Item 5  | 14 (43.8%)         | 15 (46.9%) | 3 (9.4%)     | -                     |
| 6   | Item 6  | 15 (46.9%)         | 14 (43.8%) | 3 (9.4%)     | -                     |
| 7   | Item 7  | -                  | 28 (87.5%) | 4 (12.5%)    | -                     |
| 8   | Item 8  | -                  | 28 (87.5%) | 4 (12.5%)    | -                     |
| 9   | Item 9  | 16 (50.0%)         | 16 (50.0%) | -            | -                     |
| 10  | Item 10 | 15 (46.9%)         | 17 (53.1%) | -            | -                     |
| 11  | Item 11 | 17 (53.1%)         | 12 (37.5%) | 3 (9.4%)     | -                     |
| 12  | Item 12 | 16 (50.0%)         | 14 (43.8%) | 2 (6.3%)     | -                     |
| 13  | Item 13 | 16 (50.0%)         | 16 (50.0%) | -            | -                     |
| 14  | Item 14 | 17 (53.1%)         | 12 (37.5%) | 3 (9.4%)     | -                     |
| 15  | Item 15 | 2 (6.3%)           | 26 (81.3%) | 4 (12.5%)    | -                     |
| 16  | Item 16 | 15 (46.9%)         | 17 (53.1%) | -            | -                     |
| 17  | Item 17 | 14 (43.8%)         | 15 (46.9%) | 3 (9.4%)     | -                     |
| 18  | Item 18 | 2 (6.3%)           | 27 (84.4%) | 3 (9.4%)     | -                     |
| 19  | Item 19 | 15 (46.9%)         | 16 (50.0%) | 1 (3.1%)     | -                     |
| 20  | Item 20 | 15 (46.9%)         | 17 (53.1%) | -            | -                     |

According to the tables above, the majority of students pick Agree, with the maximum score for Agree being 28 (87.5%) and disagree being 4 (12.5%).

*Table 6.*

| Minimum | Maximum | Mean  | Std. Deviation |
|---------|---------|-------|----------------|
| 51      | 76      | 66.41 | 7.753          |

According to the statistics above, students' listening comprehension average is 66.41, lowest grade is 51, highest grade is 76, and standard deviation is 7.753.

## B. The Result of Students' Listening Comprehension Analysis

Based on the Students' Listening Comprehension score, 40 respondents were surveyed about their Students' Listening Comprehension. The lowest score would be 0 and the greatest would be 100, depending on their individual grades in Listening Class as assigned by the lecturer. More exactly, the students' grades were transformed into criteria from Pattimura University, as shown in the table below:

*Table 6. The table of Students' Students' Listening Comprehension score*

| Score Interval | Frequency | Percentage | Category      |
|----------------|-----------|------------|---------------|
| 85 – 100       | 23        | 71.9%      | A / Excellent |
| 70 – 84        | 7         | 21.9%      | B / Good      |
| 55 – 69        | 2         | 6.3%       | C / Fair      |
| 40 – 54        | 0         | 0.0%       | D / Poor      |
| <39            | 0         | 0.0%       | E / Very Poor |

Based on the descriptive data on students' Students' Listening Comprehension variable, 23 students (71.5%) were classified as having A Students' Listening Comprehension. Meanwhile, 7 students, or 21.5%, were in the B category of kids' listening comprehension, while 2 students, or 6.3%, were in the C category. Thus, students in the English Education Study Program, Listening Class, scored significantly higher in the A category of listening comprehension in the final grade (see Appendix 5).

## The Influence of Synchronous and Asynchronous toward Students' Listening Comprehension

Prior to computing the data, the researcher developed the following hypothesis for this study:

1. Formulate an alternative hypothesis (Ha): Synchronous and Asynchronous (X) have a positive and substantial impact on students' listening comprehension (Y).
2. Formulate the null hypothesis (Ho): Synchronous and Asynchronous (X) have no positive or substantial impact on students' listening comprehension (Y). The following table displays the results of Pearson Product Moment correlation analysis with the variables X (synchronous and asynchronous) and Y (students' listening comprehension):

Based on the output above, the following conclusion may be reached (see appendix 8): A significance level of 0.000 (<) less than 0.05 indicates a significant link between synchronous and asynchronous listening comprehension among students. Second, a Pearson Product Moment association value of 0.657 indicates a substantial association between synchronous and asynchronous learning and students' listening comprehension. Furthermore, Pearson Correlation demonstrates that the association between variables X and Y is positive and has a high level of correlation. The coefficient determination, also known as R<sup>2</sup>, is an essential output of the regression. It is used to determine how much connection fluctuation X (synchronous and asynchronous) may directly explain the variation of variable Y (students' listening comprehension). In other words, the determination coefficient assesses the extent to which

synchronous and asynchronous audio learning impact the rise and fall of students' listening comprehension. The results of the determination coefficient analysis may be seen in the table below:

*Table 10 The Output of Regression Analysis ANOVA*

|    | <u>Model</u> | <u>Sum of Squares</u> | <u>Df</u> | <u>Mean Square</u> | <u>F</u> | <u>Sig.</u> |
|----|--------------|-----------------------|-----------|--------------------|----------|-------------|
| 1  |              | 1.434                 |           |                    | 10.923   |             |
| 28 |              | .140                  |           |                    |          |             |
| 29 |              |                       |           |                    |          |             |

1 Regression 1.434 .003<sup>b</sup> Residual 3.933  
Total 5.367

- a. Dependent Variable: Students' Listening Comprehension
- b. Predictors: (Constant), Synchronous and Asynchronous

The value of F count = 10.923 with a significance level of  $0.003 < 0.05$  indicates that the Synchronous and Asynchronous (X) variables have an influence on Students' Listening Comprehension (Y). Explain the correlation/connection (R) value of 0.517, as seen in Table 4.8 above. The coefficient of determination (R Square) for this output is 0.267, indicating that the synchronous and asynchronous (X) variables have a 26.7% effect on students' listening comprehension (Y). So, based on the value, Synchronous and Asynchronous have a 26.7% effect on Students' Listening Comprehension, while the remaining 73.3% is influenced by other factors not investigated in this study.

## DISCUSSION

Based on the analytical results, the data was evaluated and discussed in depth in line with the study's research question and objectives. The data was obtained using questionnaires and listening grades, and it was processed with IBM SPSS version 20. The findings revealed that Synchronous and Asynchronous had a favorable and substantial link with students' listening comprehension. Furthermore, the findings demonstrated that both synchronous and asynchronous methods had a good and substantial impact on students' listening comprehension.

To assess Synchronous and Asynchronous, the researcher delivered online questionnaires to 32 respondents, who were 2018 and 2019 English Education Study Program students who had completed Professional and Academic Listening classes. To assess students' listening comprehension, the researcher assessed their final grades from Professional and Academic Listening class courses using descriptive statistics. The findings indicated that 23 students, or 71.5%, were in the "A" category of students Listening Comprehension. Meanwhile, 7 or 21.5% of the students were in the B group, while 2 or 6.3% were in the C category. There were no students in the "D" and "E" categories since the frequency was zero (0%). According to this result, the average listening comprehension score of students in the English Education Study program in 2018 and 2019 was 85 - 100, placing them in the "A" category.

The impact of synchronous and asynchronous on students' listening comprehension is calculated using correlation and the coefficient of determination. The computation revealed a high association between Synchronous and Asynchronous and Students' Listening Comprehension. Furthermore, the data indicated  $r=0.657$ , a positive result with a significance level of 0.000, indicating that there is a "Strong" association between synchronous and asynchronous and

students' listening comprehension. Finally, the coefficient of determination is 0.267, indicating that the synchronous and asynchronous audio (X) variables have a 26.7% effect on students' listening comprehension (Y). So, based on the value, Synchronous and Asynchronous have a 26.7% effect on students' listening comprehension, whereas 73.3% is influenced by other variables.

## **CONCLUSION AND SUGGESTION**

### **Conclusion**

Based on the findings of data analysis and discussion, this study has various points. First, the results of Synchronous and Asynchronous show that the average of synchronous and asynchronous were 66.41. Second, according to the results of descriptive data on Students' Listening Comprehension, students were classified as A. Thus, 23 students (71.5% of those enrolled in the English Education Study Program) are classified as having A Students' Listening Comprehension. Third, Synchronous and Asynchronous have a favorable and substantial impact on students' listening comprehension. The correlation coefficient (R) is 0.657. The coefficient of determination (R Square) is 0.267, indicating that the Synchronous and Asynchronous (X) variables impact Students' Listening Comprehension (Y) variables by 43.2%. So, based on the value, the effect of Synchronous and Asynchronous on Students' Listening Comprehension is 26.7%, whereas 73.3% is influenced by other factors not investigated in this study.

### **Suggestion**

Based on the foregoing conclusion, the writer suggests the following:

1. The researcher suggests that students continue to improve their listening skills through online learning. As a result, it will contribute positively to their final mark for listening.
2. Not only for students, but also for lecturers, to stimulate and provide a creative model in online learning classes. The instructor should make some attempts to enhance students' enthusiasm for online learning. The instructor could also use some listening skills that are appropriate for pupils in this epidemic period.
3. The researcher would want to encourage other researchers to undertake similar studies on other linguistic skills in language learning (speaking, listening, and writing). Its goal is to assist researchers and readers in developing a comprehensive picture of synchronous and asynchronous approaches to students' listening comprehension.

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