

The Correlation Between Students' Prior Knowledge And Students' Listening Comprehension Of The Second Grade Students Of MAN 2 Padang Panjang

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Abstrak

Penelitian ini dilakukan karena ada banyak masalah dalam pemahaman mendengarkan yang berkorelasi dengan pengetahuan awal siswa. Ada beberapa masalah yang berkaitan dengan pengetahuan awal siswa dalam memahami teks lisan. Sebagian besar siswa sulit memahami teks lisan. Beberapa siswa tidak dapat memahami apa yang dikatakan pembicara, meskipun mereka memiliki pengetahuan sebelumnya tentang topik teks lisan. Penelitian ini bertujuan untuk mengetahui hubungan antara pengetahuan awal siswa dengan pemahaman mendengarkan. Penelitian ini merupakan penelitian korelasional. Jumlah populasi 310 siswa, sampel 31 siswa yang terdiri dari 3 atau 2 siswa per kelas dan peneliti menggunakan simple random sampling dalam menentukan sampel. Data diperoleh dari tes tentang pengetahuan awal siswa dan pemahaman mendengarkan yang peneliti bagikan kepada siswa. Untuk menganalisis data digunakan Koefisien Korelasi Product Moment (ρ) untuk menguji Hipotesis, penelitian ini menggunakan rumus r -hitung dan mengkonsultasikan hasilnya ke dalam r -tabel dengan $\alpha=0,05$. Dari hasil analisis data diketahui bahwa koefisien korelasi yang diperoleh sebesar 0,771 berada pada kisaran 0,70-0,90 atau berada pada korelasi tinggi. Ini berarti ada hubungan positif antara pengetahuan awal siswa dengan pemahaman mendengarkan mereka. Dengan kata lain, H_a yang menyatakan bahwa ada hubungan yang signifikan antara pengetahuan awal siswa dan pemahaman mendengarkan mereka diterima. Kesimpulannya, ada korelasi yang tinggi antara pengetahuan awal siswa dan pemahaman mendengarkan mereka, jika siswa memiliki pengetahuan awal yang baik akan meningkatkan pemahaman mendengarkan mereka.

Kata Kunci: Pengetahuan Awal Siswa, Pemahaman Mendengarkan

Abstract

This research was conducted since there were many problems in listening comprehension which were correlated with students' prior knowledge. There were some problems related to the students' prior knowledge in comprehending the spoken text. Most of students were difficult to comprehend the spoken

*text. Some of students are not able to comprehend what the speaker said, although they have prior knowledge about the topic of spoken text. This research aimed to discover the correlation between students' prior knowledge and listening comprehension. This research was a correlational research. The total of population was 310 students, the sample was 31 students which consisted of 3 or 2 students per class and the researcher used simple random sampling in determining the sample. The data were gotten from test about students' prior knowledge and listening comprehension that the researcher distributed to students. To analyze the data, product moment Coefficient Correlation (ρ) was used to test the Hypothesis, this research used *r*-hitung formula and consult the result into *r*-table with $\alpha = 0,05$. From the analysis of the data, it was found that the coefficient of correlation gotten was 0.771 in the range 0.70-0.90 or was in high correlation. It means there was a positive correlation between students' prior knowledge and their listening comprehension. In other words, the H_a which stated that there is significant correlation between students' prior knowledge and their listening comprehension was accepted. In conclusion, there was high correlation between students' prior knowledge and their listening comprehension, if the students had good prior knowledge it will increase their listening comprehension.*

Keyword: *Students' Prior Knowledge, Listening Comprehension*

Introduction

English has become one of the most important foreign languages taught in Indonesia because it plays a significant role in global communication, education, technology, business, and science. Mastering English enables students to access international sources of information, communicate across cultures, and compete in the global era. Consequently, the Indonesian educational curriculum emphasizes the development of students' English proficiency through four fundamental language skills, namely listening, speaking, reading, and writing. These four skills are interconnected and should be developed in a balanced manner to achieve communicative competence. However, among these skills, listening is often considered the most challenging for English as a Foreign Language (EFL) learners because it requires learners to process spoken language in real time while simultaneously interpreting meaning (Richards, 2020; Brown, 2015).

Listening is a receptive language skill that forms the foundation for acquiring other language skills. Before learners are able to speak, read, or write effectively, they must first understand spoken language. Unfortunately, many students experience difficulties during listening activities because spoken English contains unfamiliar vocabulary, different accents, reduced forms, connected speech, and rapid delivery. These factors make it difficult for learners to recognize words and construct meaning from the spoken message. As a result, many students fail to understand the information conveyed even after listening several times (Field, 2008; Rost, 2016).

According to Nunan (2003), listening is an active and purposeful process of making meaning from what people hear rather than merely receiving sounds. Similarly, Brown (2015) explains that listening comprehension involves receiving spoken language, processing linguistic information, and connecting it with previous knowledge stored in memory. Therefore, listening requires not only auditory perception but also cognitive processing that enables learners to interpret and understand spoken discourse. In other words, successful listening depends on the interaction between language knowledge and cognitive abilities (Nunan, 2003; Brown, 2015).

Furthermore, Vandergrift and Goh (2018) describe listening comprehension as a complex problem-solving process in which listeners integrate linguistic input with their existing knowledge about the world. During listening activities, learners constantly predict meaning, confirm information, and revise their understanding based on incoming speech. This interactive process demonstrates that listening comprehension is influenced not only by language proficiency but also by learners' background knowledge, experiences, and cognitive strategies. Consequently, students with adequate prior knowledge tend to comprehend spoken texts more effectively than those with limited background knowledge (Vandergrift & Goh, 2018).

One important factor influencing listening comprehension is prior knowledge, often referred to as background knowledge or schema. Prior knowledge consists of learners' previous experiences, concepts, and information that have been acquired through education, social interaction, and everyday life. Schema Theory explains that comprehension occurs when learners activate relevant knowledge stored in long-term memory and relate it to new information being received. Therefore, students who possess relevant prior knowledge are more capable of predicting content, interpreting unfamiliar expressions, and understanding the overall meaning of spoken texts (Anderson, 2015; Rumelhart, 1980).

The relationship between prior knowledge and listening comprehension has been widely discussed in second language acquisition research. Brown (2015) argues that background knowledge helps listeners compensate for limited linguistic knowledge by enabling them to infer meaning from context. Likewise, Rost (2016) emphasizes that activating learners' existing knowledge before listening activities significantly improves comprehension because learners become more prepared to anticipate the topic and organize incoming information. Therefore, prior knowledge serves as an essential facilitator in helping students construct meaning from spoken language, especially when they encounter unfamiliar vocabulary or complex sentence structures (Brown, 2015; Rost, 2016).

Based on a preliminary interview conducted with the English teacher and several second-grade students of MAN 2 Padang Panjang, several problems related to listening comprehension were identified. The teacher reported that many students had difficulty understanding spoken English because they lacked exposure to authentic English listening materials. Most students were unfamiliar with native speakers' pronunciation, intonation, and speaking speed. In addition, students possessed only moderate levels of prior knowledge due to limited access to English learning resources outside the classroom. Consequently, they often failed to identify the main ideas and supporting information contained in listening texts, resulting in poor performance on listening comprehension tasks.

The researcher also interviewed several students to investigate the influence of prior knowledge on listening performance. When students were asked about the topic "How Earthquakes Happen," most of them demonstrated adequate background knowledge because they had previously learned the topic in geography classes. They were able to answer factual questions about earthquakes before listening to the audio. Nevertheless, many students still experienced difficulties understanding the spoken text because the speaker talked too quickly, used unfamiliar pronunciation, and included several new vocabulary items. As a result, students frequently relied on guessing when answering listening comprehension questions. These findings indicate that although prior knowledge contributes to listening comprehension, other linguistic factors also affect students' listening performance. Therefore, the researcher is interested in investigating whether there is a significant correlation between students' prior knowledge and their listening comprehension among the second-grade students of MAN 2 Padang Panjang.

Methods

This research employed a quantitative correlational research design to investigate the relationship between students' prior knowledge and their listening comprehension. Quantitative research focuses on collecting and analyzing numerical data to explain, predict, or determine relationships among variables (Gay et al., 2012). Specifically, this study adopted a correlational approach because its primary objective was to examine whether a statistically significant relationship existed between the independent variable (students' prior knowledge) and the dependent variable (students' listening comprehension). The population of this research consisted of all second-grade students of MAN 2 Padang Panjang in the 2020/2021 academic year,

totaling 310 students distributed across eleven classes. Since the population exceeded one hundred students, the researcher selected 10% of the population, resulting in 31 students as the research sample. The sampling technique employed was simple random sampling, which provides every member of the population with an equal opportunity to be selected as the sample (Gay et al., 2012). The variables examined in this research included students' prior knowledge as the independent variable (X) and students' listening comprehension as the dependent variable (Y). This design enabled the researcher to determine the strength and direction of the correlation between the two variables without manipulating any research conditions.

The data were collected using achievement tests as the research instrument. Two multiple-choice tests were administered, consisting of 25 items measuring students' prior knowledge and 25 items assessing students' listening comprehension. Each correct answer was scored one point, whereas incorrect answers received zero points, following the scoring procedure suggested by Crocker and Algina (1986). Before being administered, both instruments underwent content validity evaluation through expert judgment to ensure that the test items appropriately represented the research objectives and learning materials (Harris, 1969). Furthermore, the reliability of the instruments was considered to ensure consistency in measuring students' abilities, as reliable tests should produce stable and dependable results when administered under similar conditions (Brown, 2004). Data collection was conducted online, where the prior knowledge test was distributed through Google Forms, while the listening comprehension test was administered via WhatsApp Group. After students completed the tests individually, the researcher collected and scored their responses for further analysis. To analyze the data, the researcher employed the Pearson Product-Moment Correlation formula because both variables were measured quantitatively. Prior to calculating the correlation coefficient, the researcher performed data selection, coding, and tabulation to organize the collected data systematically. The obtained correlation coefficient (r) was then interpreted using Sudijono's (2008) correlation classification, where coefficients ranging from 0.00–0.20 indicate a very low correlation, 0.20–0.40 a low correlation, 0.40–0.70 a moderate correlation, 0.70–0.90 a high correlation, and 0.90–1.00 a very high correlation. A positive or negative coefficient different from zero indicates the existence of a relationship between students' prior knowledge and listening comprehension, whereas a coefficient of zero indicates that no correlation exists between the two variables.

Result and Discussions

Result

The Analysis of the Data

After doing the research by using test about students prior knowledge and students listening comprehension, the researcher used statistic calculation of the coefficient correlation to analyze the data gotten were ordinal data. The formula used as follow:

To identify whether there is correlation or not between two variables, In order to answer this research first question, which is "is there any significant correlation between students' prior knowledge and students listening comprehension?". The researcher correlates both of variables by using Pearson's Product Moment Correlation formula:

$$R_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

$$R_{xy} = \frac{31 (162960) - (2336) (2048)}{\sqrt{[31.188064 - (2336)^2][31.145728 - (2048)^2]}}$$

$$R_{xy} = \frac{5051760 - 4784128}{\sqrt{[5829984 - 5456896][4517568 - 4194304]}}$$

$$R_{xy} = \frac{267632}{\sqrt{[373088][323264]}}$$

$$R_{xy} = \frac{267632}{\sqrt{120605919232}}$$

$$R_{xy} = \frac{267632}{34728362937518}$$

$$R_{xy} = 0,771$$

Based on the calculation Pearson's Product Moment Correlation above, the researcher got the result from $R_{xy} = 0.771$

The researcher also used Pearson's Product Moment Correlation in SPSS

Program. The figure of correlation between between students' prior knowledge and students listening comprehension, it can be seen below:

Table 1 Correlation between X (Students' Prior Knowledge) and Y (Students Listening Comprehension)

Correlations		Students' Prior Knowledge	Students Listening Comprehe nsion
Students' Prior Knowledge	Pearson Correlation	1	.771**
	Sig. (2-tailed)		.000
	N	31	31
Students Listening Comprehension	Pearson Correlation	.771**	1
	Sig. (2-tailed)	.000	
	N	31	31

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

The researcher used the interpretation based on: if the significant value < 0.05 it means that two variable was correlated. Furthermore, if the significant value > 0.05 it means that two variable was not correlated. Based on Table 4.5, it can be concluded that the value of significant was 0.771. It means that there was a significant correlation between students prior knowledge and listening comprehension, because the value of significant $0,00 < 0,05$. So, the variable X and Y have a significant correlation.

Thus to answer the second question, that is "what is correlation direction between students' prior knowledge and listening comprehension?". The coefficient of correlation is + 0.771. It can be interpret that there is a positif correlation between students' prior knowledge and listening comprehension. Positif correlation means if the students have good prior knowledge it will give a some increasing for their listening comprehension.

To answer the third question, what is the magnitude of students' prior knowledge and students listening comprehension, the researcher consult with interpretation below

Table 2 The Magnitude of Correlation

Percentage of Coefficient	Interpretation
$\geq 0.90 - \leq 1.00$	Very High Correlation
$\geq 0.70 - < 0.90$	High Correlation
$\geq 0.40 - < 0.70$	Enough Correlation
$\geq 0.20 - < 0.40$	Low Correlation
$\geq 0.00 - < 0.20$	Very Low Correlation

The table above shows that there was high correlation between students' prior knowledge and students listening comprehension. Because the coefficient correlation between students reading strategy used and reading comprehension was 0.771. It shows from the table that is on the category 0.70 - <0.90. It can be concluded that the magnitude both of variables was in high correlation.

Hypothesis Testing

In testing research hypothesis H_a : There is a magnitude between students' prior knowledge and students listening comprehension H_0 : There is no magnitude correlation between students' prior knowledge and students listening comprehension the researcher consulted the index (ρ) to the r-table. To consult with the r-table, the researcher decided the Degree of Freedom (df) and also the significant level (α). The degree of freedom in this research was $N-2=31-2=29$. Then the researcher used $\alpha= 0.05$, to know the critical value of this df. To measure whether the researcher will accept or reject the hypothesis, the researcher used this formulation:

Rhitung $\geq R_{tab}$, it means H_a is accepted and H_0 is rejected

Rhitung $< R_{tab}$, it means H_a is rejected and H_0 is accepted

Since the r- table value on df =29 and on $\alpha = 0.05$ was 0,355 and R hitung score obtained was 0.771, it means the r-hitung score was bigger rather than r- tabel value in the table r. In other words, the H_0 was rejected and the table H_a which stated that there is any significant correlation between students' prior knowledge and students listening comprehension.

Discussions

Based on the finding that there is correlation between students' prior knowledge and students listening comprehension. There are discuss about the correlation between students' prior knowledge and students listening comprehension. In learning English, it was important students have good prior knowledge, it will influence students listening comprehension when students used prior knowledge more, they are trying to used many prior knowledge on the spoken text that they had heard to help them understand in listening. Prior knowledge is organized in schemata, generalized mental representations of our experience that are available to help us understand new experience. Prior knowledge is one of the factors that supports learners' comprehension in listening and reading. It means that prior knowledge is the basic knowledge that the students have and students bring before listening activity.

The researcher found that the correlation between students' prior knowledge and listening comprehension was 0,771. It means that there is high correlation between both variables. Moreover, the correlation direction between students' prior knowledge and listening comprehension is positive correlation direction. Positive correlation direction means that if the students had prior knowledge, their listening comprehension will increase. It can be concluded that that is important for the students to have prior knowledge to increase their listening comprehension. In addition, in this research has similar result from the previous study. The first was done by Abdullah Hasan, Rizky Gushendra, Ferry Yonantha the title "The Influence of Prior Knowledge On Students' Listening and Reading Comprehension". The research aims to investigate the influence of prior knowledge on students' listening and reading comprehension at the tenth year of MAN 1 Pekanbaru. The design was correlational research. They found that the mean of prior knowledge was 73.41, and the mean of listening comprehension was 68.13, and the mean of reading comprehension was 70.67. The result of this research H_0 was rejected and H_a was accepted. It means, there is a significant influence of prior knowledge on both students' listening and reading comprehension.

Next was done by Deacy Riyanti Putri the title The Correlation between Prior Knowledge and Listening Comprehension of the Second Year Students at SMAN 5 Pekanbaru. The aim to find out the correlation between prior knowledge and listening comprehension. The research was correlational research. The score of correlation coefficient is $0.650 > 0.3044$ in significant level of 5% and 0.3932 in significant level of 1% (see the table of product moment) it meant that H_a was accepted which indicated that there is a significant correlation between students prior knowledge and listening comprehension. 2) The probability of score sig. (2-tailed) is $0.000 < 0.05$. It means that H_a was accepted. In other words, there is a significant correlation between prior knowledge

and listening comprehension

The steps of this research had done been appropriate with steps which were on the methodology of research. The steps were done to get the result of the research objectively and systematically, but to get it the excellence results from this research were more difficult because there weakness of this research. On doing research gave test, there were the weakness of time because the students had activities, when the answered the test , they less concentrate of many task.

Furthermore, by using product moment formula, the data found there is high correlation between prior knowledge and listening comprehension. Meanwhile by using hypothesis testing, the H_a is accepted that meaning there is correlation students prior knowledge and their listening comprehension at second grade students of MAN 2 Padang Panjang. Finally, the finding has supported the theories and findings suggested by some experts. It was implied in the finding that students' prior knowledge correlated with listening comprehension.

Conclusion

The H_a or alternative hypothesis of this research is accepted. Thus, it can be said that, "magnitude correlations between students' prior knowledge and listening comprehension at second grade of MAN 2 Padang Panjang" The result is obtained after the researcher consulted t-score to r-table. r-score gotten by the researcher was 0,771 whereas t-table on $\alpha = 0.05$ was 0,355. It means, the t-score is bigger than r-table and H_a is accepted. This research's result has positive direction between student's prior knowledge and listening comprehension. So, highest student's prior knowledge also have highest listening comprehension. The magnitude of the correlation between student's prior knowledge and listening comprehension is very high. It proves by the coefficient of correlation is on category $\geq 0.70 - \leq 0.90$. It means, high or there is a positive correlation between student's prior knowledge and listening comprehension at second grade of MAN 2 Padang Panjang.

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