
The Correlation Between Students' Reading Comprehension and Speaking Skill

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Abstract: Reading and speaking are essential language skills that support students in understanding and communicating information effectively. Information gained through reading can enrich students' knowledge and provide content to be expressed orally. This study aimed to investigate the correlation between students' reading comprehension and their speaking skill in producing explanation texts at Senior High School 2 Bukittinggi. A correlational research design was employed to examine the relationship between the two variables. The population consisted of 142 eleventh-grade science students distributed across four classes. The sample comprised 36 students selected through cluster random sampling. Data were collected using two instruments: a reading comprehension test and an oral presentation test designed to assess students' speaking performance in explanation texts. The collected data were analyzed using the Pearson product moment correlation formula, both manually and with statistical software. The findings revealed that the obtained correlation coefficient was lower than the critical value at the 0.05 level of significance, indicating no significant correlation between students' reading comprehension and speaking skill. In conclusion, higher reading comprehension does not necessarily correspond to better speaking performance, suggesting that these skills may develop independently and require different instructional approaches.

Keywords: Correlation; explanation text; reading comprehension; speaking skill; students.

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INTRODUCTION

Reading and speaking are two of the four crucial skills. These two language skills are needed especially in the teaching and learning process, as well as in teaching and learning English (Al-Jiboury, 2024; Le & Nguyen, 2024; Paige et al., 2024). Reading is a receptive skill, because it gives readers information, while speaking is productive skill because speakers produce information in the form of words, phrases and sentences (Abdushukurova, 2024; Kritsotakis & Morfidi, 2024; Sukma et al., 2025). Therefore, these two skills are very important to master, especially when learning English. In teaching and learning languages, reading is said to be a skill that is really important. Li et al., (2024); Shafiee Rad (2025) state that reading has the biggest impact in English classes because it is the activity that starts and develops all other learning activities. When writing, readers must read extensively in order to choose the subject for our writings.

In order to prepare remarks, readers should read before speaking. When listening, it will be difficult for us to understand what the speaker is saying if we are unfamiliar with the vocabulary or the meaning of the topic. Our vocabulary will be increased by reading (Goulden et al., 2026; Kogan, 2024). Given how crucial reading is, it is not surprising that reading is emphasized to be taught to children from the age of five or six, even at a

younger age. Reading itself can be defined as understanding written material. It is a complex task that calls for both perception and thought (Fälth & Selenius, 2024; Hakim & Wahyuni, 2024). However, reading well not just involving more than just memorizing every word; it also involves being able to comprehend what is being said. Bakkaloglu & Piltén (2023); Imbaquingo & Cárdenas (2023); Yapp et al., (2023) states that the primary goal of reading is to comprehend a reading text.

Thus, it is about reading comprehension. Mason et al. (2024); Pahrizal et al. (2025) states that reading comprehension is the capacity to comprehend a text and derive meaning from a printed text. Therefore, reading comprehension is really needed in reading activities. Without the ability to comprehend text, we got nothing out of our reading. In addition, to gauge students' reading comprehension abilities, there are some aspects that are to be considered. They include the main idea (topic), inference (implied detail), grammatical Features, detail (scanning for a specially indicated detail), and vocabulary in Context (Chue & Koh, 2025; Kurniati et al., 2023; Rahmah & Mistar, 2023; Situmorang et al., 2025). If the students can find all of the above aspects in a text correctly, then it is a sign that they understand what they read. Naturally, after we have learned something through reading, we will share it verbally and in writing.

However, most of people communicate orally by speaking. Speaking is a person's capacity to use their knowledge and information to communicate effectively and directly (Dharini, 2025; Ghafar & Raheem, 2023). Fischhoff et al. (2024); Kurniati et al. (2023); Nardo & Anderson (2024) adds that speakers can convey whatever thought we have including wants, intents, and wishes. Hence, effective communication is essential for successful human interaction. As with reading comprehension, speaking also has some aspects that can be used to gauge students' speaking skill. According to Hongwilai et al. (2022); Mustafa & Manahutu (2022), the speaking aspects are divided into five, namely accent, grammar, vocabulary, fluency, and comprehension. From some explanations regarding reading comprehension and speaking skill above, it can be seen that there is a correlation between reading comprehension and speaking skill.

Reading plays a crucial role before expressing ideas through speaking. This view aligns with Kaplan-Rakowski & Gruber (2024), who argue that limited reading results in limited language learning. Students who read frequently tend to develop better public speaking skills because reading enriches their vocabulary, strengthens grammar mastery, and broadens their background knowledge. Several aspects of reading comprehension, such as grammar and vocabulary, are also essential components of speaking ability (Bilge & Kalenderoğlu, 2022; Maizarah & Purwanti, 2020; Widodo, 2024). Therefore, a relationship between reading comprehension and speaking skill is evident. Previous studies by Aprilia and Aprilia & Lukita (2019), Habók et al. (2024), and Pratama & Raputri (2025) consistently found a significant correlation between students' reading comprehension and their speaking performance.

However, a clear research gap still exists in the literature. Most previous studies were conducted within specific institutional contexts and generally measured speaking ability as a single overall score, or focused narrowly on only one component, such as pronunciation. As a result, limited attention has been given to identifying which specific dimensions of speaking such as fluency, grammatical accuracy, vocabulary use, coherence, and interactive communication are most strongly related to reading comprehension. In addition, earlier research rarely controlled for other influential variables, including vocabulary size, students' learning motivation, and the amount of exposure to English

inside and outside the classroom. Therefore, further research is needed to re-examine this correlation in different contexts using more detailed speaking indicators to better understand how and to what extent reading comprehension contributes to learners' speaking performance.

In this study, the researcher examined the same variables, namely reading comprehension and speaking skill, but with different techniques from previous studies. To assess reading comprehension, the researcher used an explanation text test. An explanation text is a text that is written to explain how something runs or happens (Jaya et al., 2024; Müller-Stach, 2024; Zhang et al., 2024). Meanwhile, the oral presentation related to Explanation text topic was used to measure students' speaking skill. Lan et al. (2024); Tsang (2025) defines oral presentation as basically having a formal talk that is presented in front of the group. This activity can improve Students' speaking skill. Based on the arguments and evidence outlined above, the researcher was strongly motivated to conduct this study to address the following research question: "Is there a significant correlation between students' reading comprehension and their speaking skill in producing Explanation Texts at Senior High School 2 Bukittinggi?"

This inquiry is considered crucial because reading comprehension does not merely reflect students' ability to grasp the content of a text, but also their understanding of how ideas are organized, developed, and logically supported. Such understanding may significantly influence the quality of their oral production, particularly in terms of grammatical accuracy, coherence, clarity of explanation, and the appropriate use of vocabulary and other language features while speaking. When students are familiar with the structure and linguistic characteristics of a text, they are more likely to produce well-organized and meaningful spoken responses. Therefore, examining the relationship between these two skills is expected to provide valuable empirical evidence for teachers and curriculum designers in selecting more integrated instructional strategies, strengthening classroom practices, and improving students' overall performance in learning Explanation Text at Senior High School 2 Bukittinggi.

METHOD

This study applied a correlational research design to examine the relationship between reading comprehension and speaking skill without manipulating any variables (Coe et al., 2025; Putri et al., 2025; Umstead & Delgado, 2024). The researcher first determined the independent variable, reading comprehension, and the dependent variable, speaking skill. The research was conducted at Senior High School 2 Bukittinggi. The population included all eleventh-grade students in the science stream, totaling 142 learners distributed across four classes. To select the sample, cluster random sampling was implemented through several steps. The researcher listed the four classes, prepared equal slips representing each class, and randomly drew one slip to determine the participating group. Class Eleven Science Three was selected, resulting in 36 students serving as the research sample and representing the overall population characteristics adequately.

The data collection procedure was conducted systematically in two separate sessions to ensure clarity and focus. First, the researcher administered a reading comprehension test consisting of 20 multiple-choice questions based on explanation texts that had already been introduced in classroom instruction. Students were given a fixed time allocation and were instructed to complete the test individually under

supervision to maintain test validity. After scoring and recording the reading results, the researcher organized a speaking assessment session. In this stage, each student delivered an individual oral presentation explaining a specific natural or social phenomenon related to explanation text topics. Their performances were evaluated using structured criteria, including pronunciation, grammatical accuracy, vocabulary use, fluency, and overall comprehension to ensure consistent assessment.

After obtaining both sets of scores, the researcher organized the data systematically in a tabulation sheet by listing each participant's reading comprehension score alongside their speaking performance score. Each score was carefully checked to avoid recording errors before proceeding to statistical analysis. The next step involved calculating the correlation coefficient using the Pearson product moment formula to identify the strength and direction of the relationship between the two variables (Mardia et al., 2024; Okoye & Hosseini, 2024; Sampaio et al., 2024). The researcher first computed the calculation manually, including determining the sum of each variable, the sum of squared scores, and the sum of cross products. After completing the manual computation, the results were verified using statistical software to ensure precision. The degree of freedom was then calculated based on the number of participants, and the obtained coefficient was compared with the critical value at the 0.05 significance level to draw the final conclusion.

RESULT AND DISCUSSION

This section presents the findings of the study based on the data collected from the reading comprehension test and the speaking performance assessment. The results are organized systematically, beginning with descriptive statistics to provide an overview of students' achievement in both variables, followed by score distribution analysis and finally the Pearson Product Moment correlation analysis to test the research hypothesis. The presentation of these findings aims to provide clear empirical evidence regarding the relationship between students' reading comprehension and their speaking skill in producing explanation texts. To provide a comprehensive understanding of the data before testing the research hypothesis, a descriptive statistical analysis was conducted on students' reading comprehension and speaking skill scores. The analysis involved 36 eleventh-grade students of Senior High School 2 Bukittinggi.

Table 1. Descriptive Statistics of Reading Comprehension and Speaking Skill

Variable	N	Min	Max	Mean	Std. Deviation
Reading Comprehension	36	55	85	70.28	7.84
Speaking Skill	36	58	88	72.11	8.26

Table 1 presents the descriptive statistics of students' reading comprehension and speaking skill scores. The results show that the mean score of reading comprehension was 70.28, with scores ranging from 55 to 85 and a standard deviation of 7.84. This indicates that students' reading comprehension ability was generally at a moderate level with relatively normal score dispersion. Meanwhile, the mean score of speaking skill was slightly higher at 72.11, with scores ranging from 58 to 88 and a standard deviation of 8.26. The relatively similar mean values suggest that students performed at comparable levels in both skills. However, the standard deviation of speaking skill was slightly higher,

indicating greater variability in students' oral performance compared to their reading comprehension.

In addition to presenting the mean and standard deviation, the researcher further categorized students' reading comprehension scores into three performance levels—high, moderate, and low—in order to obtain a clearer and more comprehensive picture of their achievement distribution. This categorization was intended to move beyond numerical averages and provide a more interpretable description of students' actual proficiency levels in understanding explanation texts. By grouping the scores into specific ranges, the researcher was able to identify how many students demonstrated strong comprehension, how many showed adequate understanding, and how many still experienced difficulties in grasping the main ideas, details, and vocabulary in context. Such classification helps reveal overall learning patterns within the sample. The detailed distribution of these categories is presented in Table 2.

Table 2. Distribution of Students' Reading Comprehension Scores

Score Range	Category	Frequency	Percentage
80–100	High	7	19.4%
65–79	Moderate	21	58.3%
0–64	Low	8	22.3%
Total		36	100%

Table 2 indicates that the majority of students (58.3%) were classified in the moderate category of reading comprehension achievement. This proportion shows that more than half of the participants possessed an adequate level of understanding when reading explanation texts, particularly in identifying general information and supporting details. Meanwhile, only 19.4% of students reached the high category, demonstrating strong comprehension skills, including the ability to infer meaning and interpret vocabulary in context accurately. On the other hand, 22.3% of students were categorized as low achievers, indicating that a considerable number of learners still experienced difficulties in fully understanding the texts. Overall, these findings suggest that while most students demonstrated sufficient comprehension ability, advanced mastery of reading skills remained limited and unevenly distributed across the sample.

Similarly, students' speaking skill scores were classified into three performance categories high, moderate, and low to provide a clearer overview of the distribution of their oral presentation ability. This classification was conducted to complement the descriptive statistics and to better illustrate the variation in students' speaking performance. By grouping the scores into specific ranges, the researcher was able to identify the proportion of students who demonstrated strong fluency, accurate pronunciation, and appropriate grammatical usage, as well as those who still faced difficulties in delivering explanation texts orally. Such categorization offers a more concrete representation of students' communicative competence beyond the mean score alone. The detailed distribution of students' speaking performance is presented in Table 3.

Table 3. Distribution of Speaking Skill Scores

Score Range	Category	Frequency	Percentage
80–100	High	9	25%
65–79	Moderate	18	50%

Score Range	Category	Frequency	Percentage
0-64	Low	9	25%
Total		36	100%

As presented in Table 3, half of the students (50%) were categorized as moderate in speaking performance, indicating that most participants demonstrated an adequate ability to deliver explanation texts orally, although their fluency, pronunciation, and grammatical accuracy were not yet optimal. A slightly higher proportion of students achieved high performance (25%) compared to reading comprehension results, suggesting that some learners were relatively confident and capable in oral presentation tasks. However, the equal percentage in the low category (25%) indicates that speaking skill remains a considerable challenge for a significant number of students. Difficulties such as hesitation, limited vocabulary retrieval, and lack of confidence may have influenced their performance. Notably, students who performed highly in reading were not consistently the same individuals who achieved high scores in speaking, implying possible differences in the development of receptive and productive language skills.

After describing the overall performance and score distribution of both variables, the next step was to examine whether a statistically significant relationship existed between students' reading comprehension and their speaking skill. This analysis was conducted to determine whether students who achieved higher scores in reading comprehension also tended to obtain higher scores in speaking performance. To investigate this relationship, the Pearson Product Moment correlation formula was employed, as it is appropriate for identifying the strength and direction of a linear relationship between two continuous variables. The hypothesis was tested at the 0.05 significance level. By comparing the obtained correlation coefficient with the critical value in the *r*-table, the researcher could determine whether the relationship between the two variables was statistically significant. The detailed findings of this correlation analysis are presented in Table 4.

Table 4. Correlation Between Reading Comprehension and Speaking Skill

Correlations		Reading Comprehension	Speaking
Reading Comprehension	Pearson Correlation	1	.136
	Sig. (2-tailed)		.430
	N	36	36
Speaking	Pearson Correlation	.136	1
	Sig. (2-tailed)	.430	
	N	36	36

Based on these calculations, we obtained a coefficient correlation (r_{xy}) = 0.136. Then, this correlation was compared with the value of the *r*-table. If the significant value of the correlation is greater than the *r*-table, it can be concluded that there is a correlation between the two variables, namely reading comprehension and speaking. Conversely, if the correlation is smaller than the *r*-table, then there is no correlation between the *x* variable and the *y* variable. To find the *r*-table, we must first find out the degree of freedom (*df*). The degree of freedom (*df*) was 34. The value of *r* in the table was 0.3291. When it was compared, the value of r_{xy} was smaller than *r*-table ($0.1360 < 0.3291$). It can be concluded that there was no correlation between variable *X* and variable *Y*. Therefore, there was no correlation between students' reading comprehension and their speaking.

From the formulas above, it can be understood that to test the hypothesis, the value of r_{xy} has to compare with r -table. The value of r_{xy} was 0.136, while the value of r -table was 0.3291 ($0.136 < 0.3291$). Then, what applied to this result was the second formula, namely, that the hypothesis was rejected. So, it can be concluded that "There was no correlation between students' reading comprehension and their speaking skill in the explanation text at Senior High School 2 Bukittinggi". Based on the result above, it obtained that the value of r_{xy} was 0.136, while the value of r -table was 0.3291. The $r_{xy} < r$ -table. In addition, the hypothesis was rejected. The value of r_{xy} was 0.136, while the value of r -table was 0.3291. The $r_{xy} < r$ -table. The r_{xy} was smaller than r -table. It means that the hypothesis was rejected. It indicates there was no correlation between students' reading comprehension and their speaking skill.

Therefore, the results of this study are different from the results of previous studies which stated that there was a relationship between students' reading comprehension and speaking skill. To find out the cause, the researcher conducted an analysis of why this study produced different results from the theory that was believed. According to Iftanti (2024; Soomro et al., (2026), exposure to meaningful input through reading enriches learners' linguistic repertoire, which may later be utilized in oral communication. First, students in Class Eleven Science Three were not explained the explanation text material in the proper time. Learning explanation text that should last for 4 (2 hours of lessons (4 meetings). However, in reality, material on this subject can only be covered in two meetings. This shortening of hours occurred because the time for the final semester exams was getting closer, while there were still other materials that had not been taught.

Because of this, the students' explanation of the material was explained at the first meeting for only 45 minutes (1 lesson hour). Thus, their level of understanding would be different if they were given even longer time to understand the material. Second, the reading comprehension test only lasted a short time, it was 45 minutes. After the material was explained, students were immediately given a reading comprehension test until the lesson was over. Because of this little time, certainly the answers from student tests are also not as good as the answers if done with sufficient time. At that time, the text was given right after the material was explained. Third, psychological factors such as lack of confidence and embarrassment caused the appearance of oral presentations by students to not be optimal. In this speaking test, students were asked to come forward one by one to present an explanation text.

In fact, many students were suddenly nervous and felt insecure about coming forward alone. Many of them stuttered in presenting the material, some repeated sentences, some even forgot and were silent for a long time. After being asked by the researcher, the students confessed that they had actually mastered the material well. However, due to those psychological factors, it made them unable to focus and often made them repeat sentences. As a result, the speaking test scores obtained by the researcher could not significantly indicate students' speaking abilities because they did not perform perfectly. Based on the analysis that the researcher conducted, there were several factors that explain why this study did not show any correlation between students' reading comprehension and their speaking ability. Therefore, if students' reading comprehension scores are high, it does not mean that their speaking scores are high, and vice versa.

CONCLUSION

Based on the data analysis presented in the previous chapter, it can be concluded that there was no significant correlation between students' reading comprehension (variable X) and their speaking ability (variable Y) in producing explanation texts at Senior High School 2 Bukittinggi. The calculated correlation coefficient (r_{xy}) was 0.136, which falls within the interval of 0.00–0.299, indicating a very low level of correlation. When compared with the critical value in the correlation table at the 0.05 significance level ($r_{table} = 0.3291$), the obtained coefficient was smaller ($0.136 < 0.3291$). Since the correlation coefficient did not exceed the critical value, the research hypothesis was rejected. Therefore, it can be affirmed that students' reading comprehension does not significantly relate to their speaking ability, meaning that high reading scores do not necessarily correspond to high speaking performance, and vice versa.

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