

## **The Correlation Between Interpersonal Intelligence and the English-Speaking Ability of Students Pharmacy Department at SMK Yadika Palu**

**Yulianisa**

UIN Datokarama Palu, [yulianisa0718@gmail.com](mailto:yulianisa0718@gmail.com)

**Dzakiah**

UIN Datokarama Palu, [dzakiah@uindatokarama.ac.id](mailto:dzakiah@uindatokarama.ac.id)

**Ana Kuliahana**

UIN Datokarama Palu, [anakuliahana@uindatokarama.ac.id](mailto:anakuliahana@uindatokarama.ac.id)

### **Abstract**

This research aims to determine whether there is a significant correlation between interpersonal intelligence and English language skills of students of the Pharmacy Department of SMK Yadika Palu. The approach used was quantitative with a correlation method, involving a sample of 30 class XI Pharmacy students selected by purposive sampling. The instruments used in this research consisted of a questionnaire to measure students' interpersonal intelligence and a speaking test to assess English speaking ability. The data were analysed through several stages, including the normality test and Pearson Product-Moment correlation test processed using SPSS version 26 for Windows. The results of the normality test showed that the data were normally distributed, and the Pearson correlation test showed a significant and positive correlation between interpersonal intelligence and English-speaking ability, with a correlation coefficient of 0.776 and a significance value of 0.000 ( $p < 0.05$ ). This correlation is categorised as a high correlation. In addition, 60.3% of the variance in English-speaking ability can be explained by the interpersonal intelligence variable. These findings indicate that the higher the level of interpersonal intelligence possessed by students, the better their English speaking ability.

**Keywords:** Interpersonal Intelligence, English Speaking Ability, Correlation, Vocational Students.

### **Abstrak**

Penelitian ini bertujuan untuk mengetahui apakah terdapat hubungan yang signifikan antara kecerdasan interpersonal dengan kemampuan berbahasa Inggris siswa Jurusan Farmasi SMK Yadika Palu. Pendekatan yang digunakan adalah kuantitatif dengan metode korelasi, melibatkan sampel sebanyak 30 siswa kelas XI Farmasi yang dipilih secara purposive sampling. Instrumen yang digunakan dalam penelitian ini terdiri dari kuesioner untuk mengukur kecerdasan interpersonal siswa dan tes berbicara untuk menilai kemampuan berbicara bahasa Inggris. Data dianalisis melalui beberapa tahap, termasuk uji normalitas dan uji korelasi Pearson Product Moment yang diolah menggunakan SPSS versi 26 for Windows. Hasil uji normalitas menunjukkan bahwa data berdistribusi normal, uji korelasi Pearson menunjukkan adanya hubungan yang signifikan dan positif antara kecerdasan interpersonal dengan kemampuan berbicara bahasa Inggris, dengan koefisien korelasi sebesar 0,776 dan nilai signifikansi sebesar 0,000 ( $p < 0,05$ ). Selain itu, 60,3% dari varians kemampuan berbicara bahasa Inggris dapat dijelaskan oleh variabel kecerdasan interpersonal. Temuan ini mengindikasikan bahwa semakin tinggi tingkat kecerdasan interpersonal yang dimiliki oleh siswa, maka semakin baik pula kemampuan berbicara bahasa Inggris mereka.

**Kata kunci:** Kecerdasan Interpersonal, Kemampuan Berbicara Bahasa Inggris, Korelasi, Siswa SMK.

## **INTRODUCTION**

Education plays a crucial role in shaping human intelligence and personal development. Formal education is essentially a continuation of the educational values introduced by families and communities. It serves not only as a means to transfer knowledge but also as a structured system that facilitates students' potential in various domains. The general purpose of education is to provide an environment that supports the optimal development of students' talents and abilities. Through education, students are expected to grow intellectually, emotionally, and socially by engaging in interactive and meaningful learning processes. These

processes involve acquiring knowledge, skills, and values that are essential for problem-solving and adaptability in a rapidly changing world.

Among the essential tools for learning and development is language. Language serves as the primary medium through which individuals communicate, express ideas, share knowledge, and engage with others. In the educational context, language supports not only the cognitive development of students but also their emotional and social growth. One of the most important language skills to be mastered by students, especially in the context of globalisation, is English. As a global lingua franca, English is widely used in international communication, education, business, technology, and social interactions. Mastery of English, particularly speaking skills, is essential for students who wish to thrive in both academic and professional environments. Speaking allows students to communicate their thoughts, opinions, and intentions clearly and confidently. It is also closely tied to the development of critical thinking, self-expression, and interpersonal communication.

One of the psychological factors believed to influence speaking ability is intelligence. According to Gardner's (1987) theory of multiple intelligences, humans possess at least eight types of intelligence: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalistic. Among these, interpersonal intelligence refers to the capacity to understand and interact effectively with others. This includes empathy, sensitivity to others' emotions and motivations, and the ability to communicate and collaborate within social groups. Students who exhibit high interpersonal intelligence are typically more adept at engaging in meaningful conversations, understanding social cues, and maintaining positive relationships—skills that are inherently valuable for effective speaking, particularly in a second language like English.

Several studies have indicated a positive correlation between interpersonal intelligence and English-speaking skills. For instance, research conducted at SMP 01 Mlarak Ponorogo found a significant correlation between students' interpersonal intelligence and their achievement in English speaking. Similarly, research in Batam also showed that students with higher levels of interpersonal intelligence performed better in English language tasks, including reading comprehension and oral communication. However, not all studies show consistent results; some have reported no significant correlation, highlighting the need for further research to clarify how interpersonal intelligence influences language performance.

Preliminary observations at SMK Yadika Palu revealed that students in the Pharmacy department displayed notable English speaking abilities, both in classroom interactions and informal communication with teachers. Interestingly, students who demonstrated high verbal fluency also appeared to possess strong interpersonal traits such as empathy, confidence, and active listening. These findings align with the assumption that interpersonal intelligence can be a determining factor in the development of speaking proficiency.

In light of the observations and the gap in existing research, this research aims to examine the correlation between interpersonal intelligence and English-speaking ability among students in the Pharmacy Department at SMK Yadika Palu. The focus is placed on key components of interpersonal intelligence—motivation, empathy, and both verbal and non-verbal communication skills—that are believed to significantly influence students' capacity to speak English fluently and effectively. According to Brown (2001), speaking is an interactive process where meaning is created through activities involving production (generating words), reception (receiving words from others), and processing (understanding and processing the received information). In other words, speaking is a two-way process that involves not only talking but also listening and understanding information in social interactions. It is expected that the findings of this research will contribute to the development of more effective language learning strategies, especially in vocational high school settings, where communicative competence is essential for future career success.

## **METHOD**

This Research employed a quantitative approach with a correlational research design, aiming to determine whether there is a significant correlation between interpersonal intelligence and English speaking ability among Pharmacy Department students at SMK Yadika Palu. This approach was chosen because it

allows the researcher to measure the strength and direction of the correlation between two variables using numerical data analysed statistically. The population of this study consisted of all students in the Pharmacy Department, totalling 86 students from grades X, XI, and XII. The sample was selected using a purposive sampling technique, involving 30 students from class XI Pharmacy, who were considered the most relevant to the focus of the study. Data were collected through three techniques: observation, questionnaire, and speaking test. The questionnaire was designed to measure students' interpersonal intelligence. This research used an interpersonal intelligence test following the theory explained by (Howard Gardner, 1987) that interpersonal intelligence can be seen consists of 20 items based on five main indicators: sharing, understanding others' feelings, cooperation, learning with others, and building friendships. Responses were assessed using a four-point Likert scale, with both positive and negative statements.

The English speaking test was conducted to assess students' speaking ability, focusing on six aspects: pronunciation, fluency, grammar, vocabulary, comprehension, and coherence. Based on, an observation was carried out to gather contextual information about the classroom environment and students' interaction patterns. The collected data were analysed in two main stages: descriptive analysis to determine the average scores and distribution of each variable, and inferential analysis to test the correlation between variables. A normality test using the Shapiro-Wilk method was performed to ensure that the data met the assumptions for parametric analysis, and the Pearson Product-Moment correlation test was applied to determine the strength and direction of the relationship between interpersonal intelligence and speaking ability. All data processing and analysis procedures were carried out using SPSS version 26 for Windows.

## FINDINGS

The sample in this research was 30 students of class XI Pharmacy at SMK Yadika Palu. The variables of this research consisted of two variables there is students' interpersonal intelligence (X) and English-speaking ability (y). Researchers used questionnaire techniques with students to see if students have interpersonal intelligence, and researchers conducted speaking tests with students to see the speaking ability of students in class XI Pharmacy SMK Yadika Palu.

This test is carried out for small sample sizes, which are less than 50, and is considered one of the most powerful normality tests in detecting deviations from the normal distribution. In this normality test, the Shapiro-Wilk test was carried out on SPSS Statistics 26 for Windows using a level of 0.05. The results of the calculation of the data normality test with Shapiro-Wilk are as follows:

Table 1. Uji Normality Shapiro-Wilk

Test of Normality			
Shapiro-wilk			
	Statistic	Df	Sig
X	.964	30	.017
Y	.945	30	.121

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

*Sumber data: Output Statistic SPSS window 26*

The test criteria are taken based on the value with the SPSS 26 app. If the sig value  $> 0.05$ , then the data is normally distributed; otherwise, if the sig value  $< 0.05$ , then the data is not normally distributed. The significance value shows 0.017 and 0.121, which means  $> 0.05$ , so according to the basis for making decisions in the Shapiro-Wilk normality test, both datasets are declared normally distributed.

The correlation analysis for this study is Pearson's product-moment, and through bivariate analysis with the help of SPSS for Windows 26. The following are the results of the correlation analysis of the data obtained from the output of SPSS 26.

Table 2. Person Product Moment Correlation

		X	Y
X	Person Correlation	1	.776**
	Sig. 2-tailed		.000
	N	30	30
Y	Pearson Correlation	.776**	1
	Sig. (2-tailed)	.000	
	N	30	30

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

Based on the results of the analysis that has been obtained through the correlation test above, it is known that the correlation value for interpersonal intelligence and speaking ability is 0.776 which shows that the x and y variable data have a high correlation level and are positively correlated based on the bivariate correlation analysis guidelines that the correlation value getting closer to 1 has a higher correlation level and vice versa if the correlation value gets away from 1, it means that the correlation level is low.

Table 3. Hypothesis test

		Understandardized coefficients		Standardized Coefficients		
Model		B	Std. error	Beta	t	Sig.
1.	(Constant)	42.047	6.056		6.943	.000
	X	.718	.110	.776	6.516	.000

a. Dependent Variable: Y.

Based on the table above, the significance test value of the correlation coefficient is seen in the sig value of  $0.000 < 0.05$  and the value of  $t^{\text{count}} 6.516 > t_{\text{table}} 2.048$ , so in this case,  $H_0$  is rejected and  $H_1$  is accepted. Thus, there is a significant correlation between interpersonal intelligence and speaking ability in the pharmacy department of SMK Yadika Palu.

Table 4. Summary Data Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.776 <sup>a</sup>	.603	.588	8.033
a. Predictors: (constant), X				

As for the coefficient of determination from the table above, seen from the second row, namely R Square = 0.603. This shows that the variables of interpersonal intelligence and speaking ability are 60.3% while the rest is influenced by other factors outside this research.

## **DISCUSSIONS**

The results of data analysis show that students with the initials MN, FJ, S, FY and AF with highest interpersonal intelligence in line with the indicators that these students are more prominent in the social sensitivity and social insight dimensions and also show excellent speaking skills with a total speaking score of 90-100. They obtained maximum scores in several aspects of speaking: pronunciation, vocabulary, fluency, and comprehension. This reflects Howard Gardner's theory that a person with high interpersonal intelligence will be able to understand, cooperate, and communicate effectively with others. In this context, the student is more confident, actively speaking, and able to respond appropriately to the interlocutor. This is in line with Harmer's theory that speaking requires not only linguistic aspects, but also the ability to convey messages socially, which relies heavily on interpersonal intelligence.

The assessment of students' speaking ability is done by looking at five main aspects. The data showed that most students scored fair to good. The aspects of pronunciation and fluency had the highest average scores, while grammar was the weakest aspect among the students. This shows that many students are able to speak fluently with fairly good pronunciation, but are still lacking in terms of grammar.

In contrast, students with low interpersonal intelligence (total interpersonal score < 14), such as AH, NMDA, and SNM, also showed low speaking ability, showing low confidence and a lack of ability to convey ideas. These students appear passive in the learning process, less active in group work, and have difficulty when asked to speak. In line with Brown's theory, speaking is a productive skill that requires courage, interaction, and mastery of social context. Low interpersonal intelligence means that students do not have enough social capital to express themselves effectively in speaking tests.

Looking at all the student data, it can be said that the higher the students' interpersonal intelligence, the better their performance in speaking. This suggests a positive, mutually supportive correlation between the two skills, particularly in a learning environment that encourages social interaction, group work and open communication.

In accordance with Gardner's theory that interpersonal intelligence is someone who has the ability to understand and cooperate with others effectively. In the context of English learning, this ability is very important to support speaking skills. As stated by Harmer, speaking requires the ability to interact in real time with interlocutors not only about mastery of language structures, but also about the social ability to respond appropriately. Brown also states that in speaking, students must have the courage to express their opinions and respond spontaneously. Without good interpersonal skills, this process is hampered, as students feel hesitant and uncomfortable speaking in front of others.

This finding supports the hypothesis that interpersonal intelligence has a close correlation with students' speaking ability. Learning that develops students' social and communication skills can help improve their speaking ability. Thus, the results of this research reinforce the assumption that developing interpersonal intelligence can be one of the important strategies in improving students' speaking ability, especially in the context of foreign language learning at the vocational high school level.

From the data analysis, it can be concluded that there is a positive correlation between students' interpersonal intelligence and their English speaking ability. In other words, the higher a student's interpersonal intelligence, the better their ability to speak English. Interpersonal intelligence includes aspects such as empathy, communication skills, social awareness, and the ability to interact effectively with others, all of which are essential for developing strong speaking skills, especially in a second language like English.

Furthermore, based on the correlation significance test results, the obtained significance value was  $0.000 < 0.05$ , and the calculated t value count was  $6.516 > t_{table}$  value of 2.048. This indicates that  $H_0$  is rejected and  $H_a$  is accepted, meaning there is a statistically significant relationship between interpersonal intelligence and speaking ability among students in the pharmacy department at SMK Yadika Palu. These findings further confirm that students with higher interpersonal intelligence tend to demonstrate stronger speaking performance.

According to Table 4, the significance value of the correlation coefficient test is  $0.000 < 0.05$ , indicating that there is a significant correlation between interpersonal intelligence and the speaking ability of students in the Pharmacy Department at SMK Yadika Palu. Furthermore, the correlation analysis shows a correlation value of 0.776, which suggests a high and positive correlation between the two variables. This is in line with the guidelines for bivariate correlation analysis, which state that the closer the correlation value is to 1, the higher the correlation between the variables; conversely, the further it is from 1, the weaker the correlation.

The table also indicates that the fluency aspect stands out as the highest-scoring component, suggesting that students are relatively fluent in expressing their ideas orally. On the other hand, the grammar aspect received the lowest average score, highlighting that the correct use of sentence structures remains a challenge that needs to be addressed in order to improve the overall effectiveness of students' spoken communication.

## CONCLUSION

Based on the results of research that has been conducted on class XI students of the Department of Pharmacy at SMK Yadika Palu, it can be concluded that there is a significant and positive correlation between interpersonal intelligence and students' English speaking ability. This is shown through the results of the Pearson Product-Moment correlation test, which produces a correlation coefficient value of 0.776 with a significance of 0.000 ( $p < 0.05$ ), which shows a high correlation. The higher the students' interpersonal intelligence-which includes empathy, communication skills, and social sensitivity higher their ability to speak English.

In addition, 60.3% of the English speaking ability variable can be explained by interpersonal intelligence, while the remaining 39.7% is likely influenced by other factors outside this research, such as learning motivation, family environment, or learning strategies used by teachers. This finding reinforces the view that interpersonal intelligence is one of the important factors that need to be developed in the learning process, especially in improving English speaking ability at the vocational high school level.

## Suggestion

Based on the results of the study, the research objectives, some suggestions relating to related to the research findings are as follows:

For teachers, they should be aware of students' psychological factors, such as multiple intelligence (interpersonal intelligence in English, especially speaking. So, students can be good at speaking English. For students, they should prepare the ideas that will be delivered when speaking. They should also try and strive to improve their English speaking ability. This will make them ready to express their ideas and get good results.

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