**Jurnal Bima: Pusat Publikasi Ilmu Pendidikan bahasa dan Sastra**
**Vol.1, No.3, September 2023**
e-ISSN: 3021-7768; p-ISSN: 3021-7768; Hal 183-191
DOI: https://doi.org/10.61132/bima.v1i3.107

# *The Correlation Between Students' Critical Thinking And Their Speaking Skill*

**Ulviani Ulviani[1], Ari Prasetyaningrum[2], Muhammad Adib Nazri[3], Laila Wati[4]**
[1-4] Universitas Hamzanwadi
Jl. Cut Nyak Dien No.85, Pancor, Kec. Selong, Kabupaten Lombok Timur, Nusa Tenggara Bar. 83611
*Korespondensi penulis: ulviani866@gmail.com*

***Abstract:*** *This research aimed at finding out the correlation between students' critical thinking and their speaking skill. This research used quantitative method and a correlational research design. The sample of this research was 20 students who were taken from XI class of students of PPS ULYA RUMAH QURAN NW LOMBOK in the academic year of 2023 - 2024. The sample was taken by Purposive Sampling Technique. The instruments of this research were questionnaire and public speaking test. The result of this research showed there is negative correlation between their critical thinking and speaking skill. Based on the data analyzed by using SPSS, the researcher found that the coefficient correlation was 0.128. Therefore the significance of students' critical thinking and their speaking skill is at the rate of 0.590, which means the significant value smaller than 0.05 (0.590 > 0.05).*

***Keywords:*** *Correlation, Students' Critical Thinking, Speaking Skill.*

**Abstrak:** Penelitian ini bertujuan untuk mengetahui hubungan antara berpikir kritis siswa dan kemampuan *Public Speaking* mereka. Penelitian ini menggunakan metode kuantitatif dan desain penelitian korelasional. Sampel penelitian ini adalah 20 siswa yang diambil dari kelas XI siswa PPS ULYA RUMAH QURAN NW LOMBOK tahun pelajaran 2023 - 2024. Sampel diambil dengan Teknik Purposive Sampling. Instrumen penelitian ini adalah angket dan tes berbicara. Hasil penelitian ini menunjukkan bahwa terdapat hubungan yang negatif antara berpikir kritis siswa dan kemampuan berbicara (Bahasa Inggris) mereka. Beradasarkan data analisis yang menggunakan SPSS, peneliti menemukan bahwa koefisien korelasi yaitu 0.128. Oleh karena itu, signifikansi dari berpikir kritis siswa dan kemampuan berbicara (Bahasa Inggris) adalah di nilai 0.590, yang berarti nilai signifikansi lebih kecil dari 0.05 (0.590 > 0.05).

**Kata kunci:** Korelasi, Pemikiran Kritis Siswa, Keterampilan Berbicara.

## INTRODUCTION

Critical thinking is a very hotly debated topic these days. All the teachers are now aware of the importance of equipping learners with critical thinking techniques, and teachers are making efforts to teach these techniques in the most appropriate way. Students' critical thinking will also affect their communicating skills. One of the skills itself is speaking skill.

The nature of speaking is so much part of daily life that we take it for granted. However, learning speaking, whether in a first or other language, involves developing subtle and detailed knowledge about why, how, and when to communicate and complex skill for producing and managing interaction, such as asking a question or obtaining a turn. Speaking skills are often considered the most important skill for the students (Idris et al., 2021).

Speaking is a process of interaction between speaker and listener in which they share and receive the information. In classroom situation, the speaker here is the students and the listeners are the other students and the teacher. Unfortunately, the speaking process in the class is not going well for both students and teachers. Because the students tend to be passive and only

*Received Juni 30, 2023; Revised Juli 30, 2023; Accepted Agustus 28, 2023*
* Ulviani Ulviani, ulviani866@gmail.com

receive from what the teacher said. The students are not giving any feedbacks to the knowledge that the teacher shares.

Based on the statement above, this research conducted on one of the Islamic Boarding High School in Aikmel, PPS Ulya Rumah Quran Nahdlatul Wathan Lombok, Aikmel. The researcher conducted the research in this school because the reseracher was of teacher here and look the condition and situation, they are only focus on memorizing Quran and religion knowledge because of it here there is no formal class. That is why for general education they do not get it, and especially for English, they have none knowledge even though the basic. Based on the statement above, it is evident they have less knowledge of English.

This research aimed at find out the correlation of critical thinking on speaking skill of student of the eleventh grade of PPS Ulya Rumah Quran NW Lombok, Aikmel.This research focused on the correlation between students' critical thinking and their speaking skill. To see the problems that occurs on students' critical thinking, this research conducted an observation for getting information of how's the students speaking using English and variety of vocabulary they used when learning process in the class.

## RELEVANT STUDY

Based on the assumption that critical thinking is an essential component of effective communication. Critical thinking involves the ability to analyze information, identify biases, evaluate arguments, and make sound judgments based on evidence. Speaking skill, on the other hand, refers to the ability to convey information and ideas through verbal communication. Effective speaking requires the ability to organize ideas, use appropriate language, and articulate thoughts clearly and coherently.

Conversely, students who lack critical thinking skills may struggle to express themselves effectively in spoken communication. They may struggle to organize their thoughts, use appropriate language, and convey their ideas clearly. Therefore, the theoretical framework suggests that students who develop strong critical thinking skills are likely to have better speaking skills. This is because critical thinking provides the foundation for effective communication, allowing students to organize their thoughts, evaluate arguments, and present compelling arguments in spoken form.

There is a positive correlation between students' critical thinking and their speaking skill, such that students with higher levels of critical thinking are more likely to have stronger speaking skills. This hypothesis suggests that as students develop their critical thinking abilities, they are more likely to be able to organize their thoughts, analyze information, and

articulate their ideas in a clear and compelling manner. This, in turn would lead to stronger speaking skills.

To test this hypothesis, the researcher administered assessments of critical thinking and speaking skill to a sample of students and analyze the data for any patterns or correlations, also conducted longitudinal studies to determine whether improvements in critical thinking over time are associated with improvements in speaking skill. Additionally, the researcher explored whether interventions aimed at improving critical thinking also lad to improvements in speaking skill.

There are many studies related to critical thinking and speaking skill, such us by Pratiwi (2018) about the correlation between students' critical thinking and vocabuary mastery and Gea (2021) about the correlation between students' critical thinking and their writing recount text ability. The similarity of this study with research samples taken by researcher is this research both examines the correlation of critical thinking with other abilities. While the difference between the research chosen by the researcher and the research samples taken is the location of the research taken and also the research methodology use.

## RESEARCH METHODS

This study employs quantitative research with the correlation design design by measuring two variables. The researcher is looking for variables that seem interact with one another. The setting of this research is in PPS Ulya Rumah Quran NW Lombok on June 2023. Technically, this study uses experiment class and the eleventh grade of XI class consisting of 20 numbers of students are selected. Meanwhile, questionnaire and oral test are used as the instrument to collect the data. Finally, descriptive statistics and testing hypothesis are used as data analysis.

## RESULTS AND DISCUSSION

This chapter focused with the data analysis of the research and the discussion. The result of this research covered the students' critical thinking and their speaking skill at PPS Ulya Rumah Quran NW Lombok. The result of the data from personality test about students' critical thinking and speaking skill and correlation between that. This research was done by using the analysis of quantitative method and a correlation research design. The sample of this research was 20 students who were taken from XI class of students' at PPS Ulya Rumah Quran NW Lombok in 2023. The instruments of this research were questionnaire and speaking test.

## Results

### 1. Normality Test

Berikut There are 2 types of normality tests, the first being the Shapiro-Wilk and Kologrov-Smirnov normality tests. The data is said to be normally distributed if the significance value is more than 0.05 (sig> 0.05). The following table shows the results of the data normality test:

**Table 1. Tests of Normality**

| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Critical Thinking | .185 | 20 | .072 | .910 | 20 | .064 |
| Speaking Skill | .174 | 20 | .116 | .853 | 20 | .006 |
| a. Lilliefors Significance Correction | | | | | | |

The significance value (p) in the Kolmogrov - Smirnov Critical Thinking test is 0.072 which means greater than 0.05 (p > 0.05) and Speaking Skill has a significance value of 0.116 which means greater than 0.05 (p> 0.05), so based on the results of the normality test using the Kolmogrov - Smirnov test the data is normally distributed. The significance value (p) on the Shapiro - Wilk Critical Thinking test is 0.064 which means greater than 0.05 (p>0.05) and Speaking Skill has a significance value of 0.006 which means greater than 003 (p>0.05), so that based on the results of the normality test using the Shapiro - Wilk test the data is normally distributed.

### 2. Linearity Test

Linearity test can be done in two ways, namely by looking at the significance value and the F value. The following table shows the results of the data linearity test:

**Table 2. Test of Linearity**

| ANOVA Table | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Sum of Squares | df | Mean Square | F | Sig. |
| Speaking Skill * Critical Thinking | Between Groups | (Combined) | 3200.833 | 16 | 200.052 | .269 | .966 |
| | | Linearity | 89.080 | 1 | 89.080 | .120 | .752 |
| | | Deviation from Linearity | 3111.753 | 15 | 207.450 | .279 | .961 |
| | Within Groups | | 2229.167 | 3 | 743.056 | | |
| | Total | | 5430.000 | 19 | | | |

Based on the Significance Value (Sig): from the output above, the Deviation from Linearity Sig value is obtained is 0.961 greater than 0.05. So, it can be concluded that there is a significant linear correlation between students' critical thinking variable (X) and speaking skill variable (Y). Based on the F value: from the output above, the calculated F value is 0.279 < F table 4.35. Because the calculated F value is smaller than the F table value, it can be

concluded that there is a significant linear correlation between students' critical thinking variable (X) and speaking skill variable (Y).

### 3. Heteroskedakstcity Test

One way to detect the presence or absence of heteroskedakstcity symptoms in a regression model is by do a Glesjer test. The working principle of the test using the Glesjer test is this method regressing the independent variable to the Absolute residual value or Abs RES. The test criteria are: a) if the significance value is > 0.05, it means that there are no symptoms heteroskedasticity and b) if the significance value is <0.05, it means that there are symptoms of heteroscedasticity. The following results of the heteroscedasticity data table:

**Table 3. Test of Heteroskedakstcity**

| Coefficients[a] | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 12.881 | 16.871 | | .764 | .455 |
| | Critical Thinking | -.004 | .159 | -.007 | -.028 | .978 |
| a. Dependent Variable: Abs_RES | | | | | | |

To interpret the results of the heteroscedasticity test with the Glejser test, we only need to look at the "Coefficients" output table with the Abs_RES variable acting as the dependent variable. Based on the output above, it is known that the significance value (Sig.) for the critical thinking variable (X) is 0.978. Because the significance value of the variables above is more than 0.05, according to the basis for decision making in the Glejser test, it can be concluded that there are no symptoms of heteroscedasticity in the regression model.

### 4. Autocorrelation Test

Durbin-Watson test (DW test) with the provisions or basis for decision making as follows: a) if d (durbin watson) is less than dL or greater than (4-dL) then the null hypothesis is rejected, which means there is autocorrelation, b) if d (durbin watson) lies between du and (4-dU), then the null hypothesis is accepted, which means there is no autocorrelation, and c) if d (durbin watson) lies between dL and du or between (4-dU) and (4- dL), then it does not produce a definite conclusion. The following results of the autocorrelation data table:

**Table 4. Test of Autocorrelation**

| Model Summary[b] | | | | | |
|---|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1 | .128[a] | .016 | -.038 | 17.225 | 2.347 |
| a. Predictors: (Constant), Critical Thinking | | | | | |
| b. Dependent Variable: Speaking Skill | | | | | |

Based on the "Model Summary" output table above, it is known that the Durbin-Watson (d) value is 2.347. Furthermore, we will compare this value with the value of the Durbin

Watson table at a significance of 5% with the formula (k; N). The number of independent variables is 1 or "k" = 1, while the number of samples or "N" = 20, then (k; N) = (1; 20). We then look at this figure in the Durbin Watson table value distribution. Then found the dL value of 1.201 and du of 1.411. Because the score of table of Durbin – Watson is more than 0.05, it can be concluded that there are no symptoms of autocorrelation.

**5. Simple Linear Regression Test**

Simple linear regression is used to measure the magnitude of the influence of one independent variable or independent variable or predictor variable or variable X on the dependent variable or dependent variable or dependent variable or variable Y. The eligibility requirements that must be met when we use simple linear regression are: a) the number of samples used must be the same, b) the number of independent variables (X) is 1 (one), c) the residual values must be normally distributed, d) there is a linear relationship between the independent variable (X) and the dependent variable (Y), e) there are no symptoms of heteroscedasticity, and f) there is no symptom of autocorrelation.

In general, the simple linear regression equation formula is Y = a + bX. Meanwhile, to find out the value of the regression coefficient, we can be guided by the output in the following coefficient table:

**Table 5. Simple Linear Regression Test**

| **Coefficients[a]** | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 55.061 | 25.949 | | 2.122 | .048 |
| | Critical Thinking | -.134 | .245 | -.128 | -.548 | .590 |
| a. Dependent Variable: Speaking Skill | | | | | | |

a = constant number of unstandardized coefficients. In this case the value is 55.061. This number is a constant number which means that if there is no Critical Thinking (X) then the consistent value of Speaking Skill (Y) is 55.061. Meanwhile, b = regression coefficient number. Its value is - 0.134. This figure implies that every 1% addition to the level of Critical Thinking (X), then Speaking Skill (Y) will increase by – 0.134. Because the value of the regression coefficient is minus (-), it can be said that Critical Thinking (X) has a negative effect on Speaking Skill (Y). So, the regression equation is Y = 55.061 - 0.134 X.

**6. Hypothesis Testing Compares Calculated T Value with T Table**

Testing this hypothesis is often referred to as the t test, where the basic decision making in the t test is: a) if the calculated t value is greater than t table, then there is the effect of Critical Thingking (X) on Speaking Skill (Y) or b) conversely, if the calculated t value is less than t table, then there is no effect of Critical Thinking (X) on Speaking Skill (Y).

**Table 6. Hypothesis Testing**

| Coefficients[a] | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 12.881 | 16.871 | | .764 | .455 |
| | Critical Thinking | -.004 | .159 | -.007 | -.028 | .978 |
| a. Dependent Variable: Abs_RES | | | | | | |

Based on the output above, it is known that the t value is – 0.028. Because the calculated t value has been found, the next step is to look for the t table value. The formula for finding the t table is:

Value a / 2 = 0.05 / 2 = 0.025

Degree of freedom (df) = n − 2 = 20 – 2 = 18

Value 0.025; 18 then we look at the t table value distribution, then we get a t table value of 2.100. Because the calculated t value of – 0.028 is smaller than > 2.100, it can be concluded that "There is no an Effect of (X) on Speaking Skill (Y)".

**Table 7. Conclusion of the Simple Linear Regression Analysis Test**

| Correlations | | | |
|---|---|---|---|
| | | Critical Thinking | Speaking Skill |
| Critical Thinking | Pearson Correlation | 1 | .128 |
| | Sig. (2-tailed) | | .590 |
| | N | 20 | 20 |
| Speaking Skill | Pearson Correlation | .128 | 1 |
| | Sig. (2-tailed) | .590 | |
| | N | 20 | 20 |

Referring to the discussion above, we can conclude that "Critical Thinking (X) has a negative effect on Speaking Skill (Y) with a total effect of 38% (Model Summary table). This negative effect means that the Critical Thinking of students will not affect on their Speaking Skill.

**Discussion**

In this part, the purpose of the study are to know whether or not there is a positive correlation between students' critical thinking and their speaking skill of the eleventh grade of PPS Ulya Rumah Quran NW Lombok in academic year 2023 – 2024. The reseracher discuss about students' critical thinking and speaking skill, and how the correlation both of them.

Critical thinking is the general term given to a wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze, and evaluateareguments and truth claims, to discover and overcome personalpreconceptions and biases, to formulate and present convincing reasonsin support of conclusions, and to make reasonable, intelligent decisions about what to believe and what to do (Heard et al., 2020). Meanwhile (Shipley & McAfee, 2019), "Speaking is to express the needs–request, information, service, etc. The

speakers say words to the listener not only to express what in her mind but also to express what he needs whether information service".

Based on relevant study of this research, Pratiwi in a research the correlation between students' critical thinking and vocabulary mastery at SMAN 3 Palangka Raya and found that there is positive correlation between students' critical thinking and vocabulary mastery at SMAN 3 Palangka Raya. Whereas Gea in a research the correlation between students' critical thinking and their writing recount text ability at the eleventh grade of SMAN 1 Kabun Rokan Hulu was not found. It was not only proved through the facts found in the reality, but it was also based on the result of the data analyses that showed the scores of t- observed was higher than the score of t-table (3.674 > 0.064 < 2.048).

After obtaining the results of students' critical thinking and speaking skill, it was found that the students' critical thinking and their speaking skill did not have a positive relationshi. The proof, students' who get high scores on the questionnaire do not always get high scores on the speaking test, but got the low scores on the speaking test. It cannot be hidden that there were also some students who got high scores on the questionnaire and also ob the speaking test, but it was only obtained by a few students. The researcher concluded that there is no positive correlation between the two variables, it could be proven by an imbalance between the scores of the students on the questionnaire of critical thinking and the speaking test.

## CONCLUSION

There were obviously some main points related to the finding covered students' critical thinking and their speaking skill at PPS Ulya Rumah Quran NW Lombok. There is no positive correlation between their critical thinking and speaking skill. Based on the data analyzed by using SPSS, the researcher found that the coefficient correlation was 0.128. Therefore the significance of critical thinking and speaking skill is considered at the rate of 0.590, which means the significant value smaller than 0.05 (0.590 > 0.05).

## DAFTAR REFERENSI

Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and how of it. *Indian Journal of Medical Specialties*, *4*(2), 330–333.

Ahmed, S. (2015). Attitudes towards English language learning among EFL learners at UMSKAL. *Journal of Education and Practice*, *6*(18), 6–16.

Akoglu, H. (2018). User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*, *18*(3), 91–93.

As' ari, A. R., Mahmudi, A., & Nuerlaelah, E. (2017). Our Prospective Mathematic Teachers Are Not Critical Thinkers Yet. *Journal on Mathematics Education*, *8*(2), 145–156.

Facione, P. A., & Facione, N. C. (2013). Critical thinking for life: Valuing, measuring, and training critical thinking in all its forms. *Inquiry: Critical Thinking across the Disciplines*, *28*(1), 5–25.

Gianfrancesco, M., Hyrich, K. L., Al-Adely, S., Carmona, L., Danila, M. I., Gossec, L., Izadi, Z., Jacobsohn, L., Katz, P., & Lawson-Tovey, S. (2020). Characteristics associated with hospitalisation for COVID-19 in people with rheumatic disease: data from the COVID-19 Global Rheumatology Alliance physician-reported registry. *Annals of the Rheumatic Diseases*, *79*(7), 859–866.

Grandini, M., Bagli, E., & Visani, G. (2020). Metrics for multi-class classification: an overview. *ArXiv Preprint ArXiv:2008.05756*.

Heard, J., Scoular, C., Duckworth, D., Ramalingam, D., & Teo, I. (2020). *Critical thinking: Skill development framework*.

Idris, W., Ahmad, S., Balango, M., & Gorontalo, U. N. (2021). DEVELOPING STUDENTS ' CRITICAL THINKING IN ENGLISH SPEAKING SKILL BY USING PROBLEM BASED LEARNING METHOD. *Jurnal Normalita*, *9*, 279–280.

Kafai, Y. B., & Peppler, K. A. (2014). 12 Transparency Reconsidered: Creative, Critical, and Connected Making with E-textiles. *DIY Citizenship: Critical Making and Social Media*, 179.

Leong, L. M., & Ahmadi, S. M. (2017). *AN ANALYSIS OF FACTORS INFLUENCING LEARNERS'ENGLISH SPEAKING SKILL*.

Omona, J. (2013). Sampling in qualitative research: Improving the quality of research outcomes in higher education. *Makerere Journal of Higher Education*, *4*(2), 169–185.

Paul, R., & Elder, L. (2019). *The miniature guide to critical thinking concepts and tools*. Rowman & Littlefield.

Shipley, K. G., & McAfee, J. G. (2019). *Assessment in speech-language pathology: A resource manual*. Plural Publishing.

Tavakoli, P., & Hunter, A.-M. (2018). Is fluency being 'neglected'in the classroom? Teacher understanding of fluency and related classroom practices. *Language Teaching Research*, *22*(3), 330–349.