

## **The Correlation of Students' Mental Health and English Learning Achievement**

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### **Abstract**

The main objective of this research was to find out whether or not there is a correlation between students' Mental Health and students' Learning English achievement at SMAN 3 Bone. This research used a correlational approach. The population in this research was the tenth-grade students' of SMAN 3 Bone, consisting of 12 class with a total of 439 students and random sampling was used to select sample of the research. The data in this research taken by using questionnaire in application and test. The data from questionnaire aimed to know the mental health of the students, while the data from test was intended to find out the students' English achievement. The findings of the research showed that the correlation between students' Mental Health and students' English Achievement was  $-0.771$ , meaning that there was a significant or enough correlation between students' Mental Health and students' English achievement on the tenth-grade students at SMAN 3 Bone. This implies that the higher the mental health, the lower the English achievement, and vice versa.

**Keywords:** *Correlational Research, English Achievement, Mental Health*

### **Introduction**

Students are expected to be able to adjust to the world of education. Students who can adapt have healthy physical and spiritual conditions. Children's health must be supported by the environment such as the family environment, school environment, and community environment. Educational facilities and infrastructure are available, but if child's physical and mental health is impaired, this will also affect learning success (Dardjat, 2016).

An individual with a healthy mental condition is devoid of all types of mental diseases. Individuals that are mentally fit can get on with their daily lives normally. They can also adjust to deal with challenges because of their ability to deal with stress. It is critical to recognize that it is not just about physical health, but also about mental wellness. A mentally healthy individual can use his or her abilities or potential to the fullest when confronted with life's problems and develop positive relationships with others. People with poor mental health, on the other hand, will have mood swings, poor cognitive ability, and poor emotional control, which will eventually lead to negative behavior (Dardjat, 2016).

Every person has a different state of mental health, many things affect it. There is a person that feels happy every day, no matter what his situation. Also, there is a person that often complains about his life, feels sad, and cannot solve the problem. It also applies to the student. Every student has a different state of mental health too. There are so many factors that influence students' mental health such as traumatic experiences, unhealthy life, social economy, and others. Mental health is one thing that humans need to raise their goals in life. Based on etymological, the word mental comes from Latin word, specifically *mens* or *mentis* which means soul, life, soul, soul, and spirit. Mental health is the human ability to save their lives with positive feeling, ready to solve the problems, and get the true harmony between the functions of the soul (Yusuf, 2018).

A good state of health, not exhausted in a state, not in a state of disability physical, and so on, everything helps to get good results in learning outcomes (Komsiyah, 2012). The same thing occurs in mental health. People who have good mental health are able to cultivate their potential in a positive way, express their ideas freely and confidently (Mohamad Surya, 2015).

Based on the researcher observation at SMAN 3 Bone, the English teacher said that every students have differences condition in learning process. Many students feel interested in learning and some of them are not enthusiastic. This because their mental health state is different each other. It can be known that the personality of students give an impact on their learning English achievement. Students' mental health are important things for students to achieve their learning goals. If someone has a high mental health, he has a chance to get a high achievement too (Zada et al., 2021). Based on the description above, researcher want to research more about "The Correlation between Mental Health, and English Learning Achievement at Tenth-Grade of SMAN 3 Bone".

### **Methodology**

The design of this research used a correlation study. The research wanted to know is there any significant correlation between mental health and learning English achievement. Although analyzing more than two variables is common, in correlation studies analyzing the possible relationship between only two variables.

This research used quantitative research. Quantitative research focuses on collecting numerical data to explain a certain phenomenon (Muijs, 2004). In another definition Creswell states quantitative research is rejecting data on selected instruments that have statistical data results, using survey and experimental investigation techniques (John, 2003).

The variables of this research were X and Y. X variable was students' Mental Health and Y variable was students' English achievement. This research aimed to determine the correlation between students' Mental Health and students' English Learning achievement of the tenth-grade students' at SMAN 3 Bone.

Population is an entire or a set of similar objects (Polit, D. F., & Hungler, 1999). The population in this research was all students of class X period 2021/2022 totaling 439 students. Sample is part of the population to be studied and represents the characteristics of the population. The researcher does not allow researching the entire population if the population is large due to several limitations. Then the sample taken from the population can be used for research (Sugiyono, 2008).

In determining the sample to be used in the research, there are various sampling techniques are used. Sampling technique is basically grouped into two namely: Probability sampling, which is a sampling technique which gives an equal chance for each member of the population to be selected sample members. These techniques include: simple random sampling, proportionate stratified random sampling, disproportionate stratified random sampling, and area sampling; and Non-probability sampling, which is a sampling technique where there is no provide equal opportunity for every member of the population to be selected be a sample. These techniques include: systematic sampling, quota sampling, incidental sampling, purposive sampling, saturated sampling, and snowball sampling.

This research used a random sampling technique. If the subject is under 100, the research involves population research. But if the population is more than 100, 10% -15% or 20% - 25% or more can be used (Arikunto, 2013a). In this research, the population was more than 100, so the researcher took the sample 10 % of population.  $439 \times 10/100 = 44$ . The sample of this research was 44 students.

There were two instruments that the researcher used to collecting the data. They are questionnaire and test. Questionnaire is a data gathering procedure carried out by the responder in response to a series of questions or written remarks (Sugiyono, 2015). A questionnaire containing several questions related to the problems in research and distributed to research subjects about mental health. The instrument used to measure the level of mental health is by application which was Depression Test with PHQ-9 (Patient Health Questionnaire). The Depression Test is a powerful tool to evaluate depression and monitor treatment response. The test questions are based on Patient Healthcare Questionnaire-9 (PHQ-9), the most widely used and trusted questionnaire among mental health professionals. The test can be self-administered. The PHQ-9 instrument that developed by Dr. Robert L. Spitzer consisting of 9 questions and respondents only need to choose one of the answers that have been provided that are adapted to the conditions now. The interpretation of the PHQ-9 score is minimal depression (score 0-4), mild depression (score 5-9), moderate depression (score 10-14), depression moderate-severe (score 15-19), and major depression (score 20-27).

A test is a set of questions that are given to respondents and must be answered or carried out with the aim of obtaining information about the extent to which a person's ability to a material is consistent with the objectives to be achieved (Firdaos, 2017). This test was prepared by the researcher according to the curriculum which would be utilized in schools under investigation. The research used multiple choices as one kind of objective test.

The test consisted of 30 issues covering three components of language: reading, grammar and vocabulary. The questions on reading skill was composed of 10 numbers, questions about grammar consisted of 10 numbers, and vocabulary was 10 numbers. Listening and speaking skills would not be included in the test due to the pandemic conditions and time constraints.

After the data has been collected, the researcher evaluates the data with several steps: Scoring in questionnaire of students' answers by classifying the students' responses by using PHQ-9 as shown in the following table (Manske, R. C., and Magee, 2020):

**Table 1. The Rating Score of PHQ-9**

Total Score	Depression Severity
0-4	None
5-9	Mild
10-14	Moderate
15-19	Moderately Severe
20-27	Severe

The researcher then categorize the students' scores with the rating scoring indicated in the following table after scoring the response of the students (Departemen Pendidikan dan Kebudayaan, 1994):

**Table 2. The Rating Score of Test Classification**

Score	Category
91 – 100	Excellent
75 – 90	Good
61 – 74	Fair
51 – 60	Less
X <51	Poor

In order to analyze the data without any generalization, it use the descriptive statistics. The data processed to quantify frequency, percentages, means and standard deviations in descriptive statistics. After that, analyze the correlation between students' mental health (X) and students' English learning achievement (Y). A multiple regression analysis is used by the researcher in this part. According to Arikunto (2013) to be able to give an interpretation of the correlation coefficient obtained, the interpretation guidelines that used:

**Table 3. An Interpretation of the Correlation Coefficient**

r Amount of Value	Interpretation
Between 0.800 to 1.00	High
Between 0.600 to 0.800	Enough
Between 0.400 to 0.600	Rather Low
Between 0.200 to 0.400	Low

## Result and Discussion

### 1. The Frequency and Percentage of Students' Mental Health

In this research, the researcher showed the result of data that the researcher got from the questionnaire in application. The questionnaire was about mental health. The number of students were 44 and the number of questionnaires that were answered by students were 9. The data description was analyzed by using descriptive statistic method or SPSS 22 version. The data below showed the frequency and percentage of students' mental health.

And the data was classified based on the score that students gained. The data can be seen in the following table:

**Table 4. The Data of Students' Mental Health**

No	Classification	Data Analysis	
		F	%
1.	None (0-4)	1	2.27
2.	Mild (5-9)	20	45.45
3.	Moderate (10-14)	6	13.63
4.	Moderately Severe (15-19)	14	31.81
5.	Severe (20-27)	3	6.81
Total		44	100%

Table 4 showed that, most of the students gained mild score (45.45%) of mental health. There were also 3 students' (6.81%) who gained severe score, 1 student gained none score (2.27%), 6 students gained moderate score (13.63%), and 14 students gained moderately severe score (31.81%).

## 2. The Frequency and Percentage of Students' Learning English Achievement

In this research the researcher showed the result of data that researcher got from the English daily test. The test consist of 30 questions. The data description was analyze by using descriptive statistic method or SPSS 22 version. The data can be seen in the following table:

**Table 5. The Data of Students' Learning English Achievement**

No	Classification	Data Analysis	
		F	%
1.	Excellent (91-100)	2	4.54
2.	Good (75-90)	20	45.45
3.	Fair (61-74)	12	27.27
4.	Less (51-60)	10	22.72
5.	Poor ( $X < 51$ )	-	-
Total		44	100%

Table 5 showed that, most of the students gained good English achievement (45.45%). There were also 2 students (4.54%) who gained excellent score, 12 students (27.27%) gained fair score, and 10 students (22.72%) gained less score. Meanwhile, none student gained the poor categorized of English achievement.

## 3. Significant Test

### a.. Normality Test

Statistical analysis was used in this research to analyze the data. Calculation and analysis data using the SPSS 22 for windows program to find out and prove the hypothesis that the author proposes namely whether there was a relationship between mental health and learning achievement. Prior to the hypothesis testing stage, to meet these requirements must fulfilled several analyzes including: normality test.

This test was to test whether the observations normally distributed or not, this test used Kolmogorov Smirnov. Normality test result can be seen in the table below:

**Table 6. Normality Test  
One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		44
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	6,70145805
Most Extreme Differences	Absolute	,092
	Positive	,092
	Negative	-,090
Test Statistic		,092
Asym: Sig. (2-tailed)		,200 <sup>c,d</sup>

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Based on the calculation of SPSS program, the asymptotic significance normality was 0.200. Then, the normality was consulted with the table of Kolmogorov-Smirnov with the level Significance 5% ( $\alpha = 0.05$ ). Because the asymptotic significance =  $0.200 > \alpha = 0.05$  then it could be concluded that the data has normal distribution.

#### b. Correlation Test

After collecting the data, the next step was to find out whether there was a correlation or not between students' Mental Health and students' English achievement. To obtain data on the correlation between students' mental health and students' English achievement on the tenth-grade students of the academic year 2021/2022 can be obtained from the result of questionnaire and test which have been given to students as respondent who were 44 students. The following table was the result of the data using SPSS 22.

**Table 7. The Correlation between Mental Health and Learning English Achievement Correlations**

		Mental_Health	English_Learning_Achievement
Mental_Health	Pearson Correlation	1	-,771**
	Sig. (2-tailed)		,000
	N	44	44
English_Learning_Achievement	Pearson Correlation	-,771**	1
	Sig. (2-tailed)	,000	
	N	44	44

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



Table 7 showed the result of the correlation between students' mental health and students' English learning achievement used Pearson standard correlation by using SPSS 22 was 0.771. Based on the classification table, the figure 0.771 was in the level between 0.600 to 0.800. It showed that the correlation between variable X and variable Y was in enough correlation level. Furthermore, to investigate the hypothesis whether this value (r) was significant or not the researcher have compared with r-table, this significance of variable X and variable Y with number of sample 44 students with significance level of 5% obtained r-table at 0.304.

The result of the correlation analysis stated that there was a significant correlation between students' mental health and students' English learning achievement because r-value was higher than r-table ( $0.771 > 0.304$ ). The sign (-) in the table of Pearson correlation showed negative correlation between mental health and English learning achievement at the tenth grade of SMAN 3 Bone.

### c. Regression Result

In this research, the researcher used SPSS 22 to find out the effect of mental health towards students' learning English achievement. The result was presented in table 8.

**Table 8. Regression Result**

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,771 <sup>a</sup>	,595	,585	6,781

a. Predictors: (Constant), Mental Health

b. Dependent Variable: Learning English Achievement.

Based on the tables guidelines of Pearson, the table shows that the correlation coefficient (r count) is 0.771 and the determination coefficient (R Square) is 0.595. Which means that there was effect of mental health toward students' learning English achievement. The effect of mental health towards students' learning English achievement is 59.5 %.

### d. Hypothesis Testing

The hypothesis will be tested as the following criteria:

If  $r_{\text{count}} < r_{\text{table}}$  means  $H_0$  is accepted and  $H_a$  is rejected.

If  $r_{\text{count}} > r_{\text{table}}$  means  $H_0$  is rejected and  $H_a$  is accepted.

To see the significance of the correlation, the researcher tests the following hypothesis:

If  $\rho > 0.05$ , thus  $H_0$  is accepted  $H_a$  is rejected.

If  $\rho < 0.05$ , thus  $H_0$  is rejected  $H_a$  is accepted.

This research was purposed to answer the hypothesis that it can be accepted or rejected. So, the result of this hypothesis as follow:

### 1) (Ho) Null Hypothesis

There was no significant correlation between mental health and learning English achievement. In this case, Ho was rejected because  $r_{count} > r_{table}$ . The correlation coefficient was  $r_{count} = 0.771$ , significant value  $0.00 < 0.05$ ,  $N=44$  (gained from  $r_{table} = 0.304$ ). From the calculation it can be seen that  $r_{count} (0.771)$  was higher than  $r_{table} (0.304)$ .

### 2) (Ha) Alternative Hypothesis

There was significant correlation between mental health and learning English achievement. In this case, Ha was accepted because  $r_{count} > r_{table}$ . The correlation coefficient is  $r_{count} = 0.771$ , significant value  $0.00 < 0.05$ ,  $N=44$  (gained from  $r_{table} = 0.304$ ). From the calculation it can be seen that  $r_{count} (0.771)$  was more higher than  $r_{table} (0.304)$ . It showed there was correlation between mental health and learning English achievement. Based on the explanation above, showed that mental health significantly affect the result of study. So this research was in accordance with the theory that declared "Excellent health, no in a state of tiredness and tiredness, not in physical disability, etc. Everyone will help in the process and learning outcomes" (Komsiyah, 2012, p. 90). And also similar with Hasanuddin in his research (2018, p. 15) "Mental Health, Learning Motivation and Student Academic Performance in Medan" it was found that mental health and learning motivation have a contribution to students' performance.

## **Discussion**

This item deals with the interpretation of the findings on the result of statistical analysis and the data gained from questionnaire and test of the tenth-grade students of SMA Negeri 3 Bone. Before analyzing the data, on the first day of this research, during the normal class, the researcher said to the students to install the depression test application to measure their mental health state. Then the researcher explained the procedure how to use the application. After that students are instructed to answer questions that appear in the application. The researcher explained that the students only need to choose one of the answers that suitable with their conditions.

After distributing the questionnaire, the next day the researcher distributed an English test to the students to measure their English learning achievement. Researcher provide information that this test aims to determine student achievement that will be used in a research without affecting academic achievement at school. The researcher also informs that in this test students are expected to answer questions by choosing one answer that is considered the most correct.

In this part, discussion deals with the interpretation of findings derived from the result of findings about correlation between students' Mental Health and students' English Achievement on the tenth-grade students' at SMAN 3 Bone compared  $r_{count}$  with  $r_{table}$ . After analyzing the data, it showed that out of 44 students, there were 1 (2.27%) got none score of mental health, 20 of them (45.45%) got mild score, 6 of them (13.63%) got moderate score, 14 (31.81%) got moderately severe score, and 3 of them (6.81%) got severe score. It was indicated the score percentage of students' Mental Health were mild. So, the result showed that students on the tenth grade at SMAN 3 Bone were mild categorized of students' Mental Health.



After collected and calculated the data, it was known that 44 students, majority got good categorized in English learning achievement, where 20 students (45.45%) got 75-90. There were 2 students (4.54%) got excellent score, there were 12 students (27.27%) got fair, there were 10 students (22.72%) got less score, and none of them got poor score. So the result showed that students at SMAN 3 Bone were in good categorized of English Learning Achievement.

The result of findings about correlation between mental health and students' English achievement at the tenth-grade students at SMAN 3 Bone compare price count with  $r$  value dan  $r$  table. From the testing of the data between students' mental health and students' English achievement, it was found that there was a negative significant correlation between students' mental health and students' English learning achievement, because the result of correlation between students' mental health and students' english achievement was 0.711. It was an enough correlation between students' mental health and students' English Achievement on the tenth grade students at SMAN 3 Bone in academic year 2021/2022, because if  $r_{value} > r_{table}$  then  $H_1$  accepted (significant) and if  $r_{value} < r_{table}$  then  $H_0$  rejected or the correlation between students' mental health and students' achievement was 0.711, it proven that  $r$  was higher because of  $r$  was 0.711 while  $r_{table}$  was 0.304, this mean that the correlation between students' mental health and students' English achievement had a correlation, the correlation between them was enough correlation categorized.

Based on the explanation above, mental health had effect for teaching and learning process specially in English achievement. In line with Zada et.al in their research (2021, p. 403-404) "Effect of Mental Health Problems on Academic Performance among University Students in Pakistan" found that there was a strong relationship between mental health problems and student academic achievement. The result also showed the increase in mental health problems decreases students' academic performance. Students with mental disorders will decrease ability and efficiency in their academic career.

### **Conclusion**

Based on the findings and discussion in the previous chapter, it can be concluded that the level of mental health in the tenth-grade students of SMAN 3 Bone majority was in mild category (45.45%) and the level of English learning achievement was in the good category (45.45%). It showed that the majority of the students' have a high level of mental health and English achievement.

The correlation between students' mental health and students' English Achievement was 0.771, which was higher than  $r_{table}$ . Therefore, alternatif hypothesis was accepted and null hypothesis was rejected. The sign negative in front of the pearson correlation indicates that the correlation between mental health and English learning achievement was negative. Negative correlation was a relationship between two variables in which one variable increases as the other decreases, and vice versa. In this case if the student's mental health score was high, the English learning achievement score was low. On the other hand, if the students' mental health score was low, the English learning achievement was high.

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