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THE EFFECT OF STUDENT'S INTERPERSONAL COMMUNICATION SKILLS ON STUDENT'S LEARNING OUTCOMES IN MECHANICAL ENGINEERING SUBJECT

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***Abstract* -- The differences in student's background, cognitive, language learning, motor skills, talents and readiness cause the difference of their communication skills. By knowing the different abilities that exist in students, teachers will likely be able to provide learning in the right way. This study was conducted to determine how much the effect of student's interpersonal communication skills on student's learning outcomes in Mechanical Engineering subjec. There are 96 samples in this study which also the students of X DPIB 1,2,3 SMK Negeri 2 Garut. The test of student's interpersonal communication skills is a research instrument that author developed, while student's learning outcomes are seen from the final score of Mechanical Engineering subject on the even semester of 2020/2021 school year. The data analysis technique that used in this study is an aproach of correlation, determination, and simple linear regression analysis. Based on regression analysis, the results showed that there was a positive and significant effect on student's interpersonal communication skills on student learning outcomes in Mechanical Engineering subject. It means that the better the student's interpersonal communication skills, also the better their learning outcomes in Mechanical Engineering subjects.**

Keywords -- *Student's interpersonal communication skills, student's learning outcomes*

Introduction

The relationship and communication between teacher and students during the COVID-19 pandemic plays an important role in student growth and psychosocial conditions which are also a consideration in fulfilling educational services during the COVID-19 pandemic. Interpersonal communication is a means of establishing good relations between students and students, and students and teachers. De Vito, interpersonal communication is the process of sending information or messages from individuals and received by others with effects and feedback. Likewise with education which in the process requires good communication, so that the subject matter conveyed by the communicator (teacher) to the communicant (student) can be digested optimally, so that educational goals can be realized.

Learning from home has been going on since March 2020 in SMKN 2 Garut. Activities that are usually carried out directly have been temporarily suspended for an undetermined time. The main problem felt by students during distance learning took place at SMK Negeri 2 Garut related to differences in the communication skills of each student. Researchers conducted preliminary research by distributing questionnaires to class X DPIB SMKN 2 Garut students and filled out by 51 of 96 students. found several student's internal problems :

a. Most students are more open to friends than teachers when they face difficulties following learning,
b. Most students find it difficult to open up and directly ask the teacher when experiencing problems in learning,
c. Most students find it difficult to meet the demands of learning outcomes when learning from home.

Good communication in exact mathematical subjects is no less important than communication in other subjects. So far, exact learning such as mathematics, physics, and so on is focused on the computational aspect that is approachable. It is not surprising that various studies show that some students who can perform various mathematical calculations, still do not show results related to their application in everyday life. In addition to mastering the concept, it would be better if students could also understand its application in real life.

Among all the subjects on the basis of the Modeling and Building Information Design expertise program, the Mechanical engineering subject subjects belongs to the exact sciences scope in which there is mathematical communication. Mathematical communication consists of written and oral communication (LACOE, 2004). Written communication can be in the form of illustrations, pictures, tables, while oral communication is in the form of verbal disclosure and explanation of an idea related to learning that can occur through student interpersonal relationships during learning. Meanwhile, the internal problems experienced by students of X DPIB 1, 2, 3 SMK Negeri 2 Garut, one of which is the attitude to be open and ask questions to the teacher so that most find it difficult to meet the demands of learning outcomes during distance learning.

In offline learning, communication between teacher and students in solving a mathematical problem in mechanical engineering subject can take place intensively so that students are more open to ask questions when experiencing difficulties. Education observer Itje Chodidjah said that distance learning could be a problem when the school, or in this case the teacher, only gave assignments to students (Novia, 2021). Students are required to be able to have the skills of reasoning, processing, and presenting the developments learned in school effectively in Mechanical Engineering subjects. While communication between teachers and students is not given much attention which causes the intensity of student involvement during distance learning to decrease, and this should be avoided because it can be the main cause of the risk of learning loss in distance learning.

Teacher often placed as communicators and students as communicants because of the teacher's duties and role in leading learning in the classroom. However, the establishment of the 2013 curriculum makes teachers have an obligation to guide students to be actively involved in the learning process. So that teachers and students are in an equal position, which means that both teachers and students have the opportunity to convey messages and respond to each other in learning.

On the other hand, the differences in background, cognitive, language skills, motor skills, talents and readiness to learn in students cause different communication skills. The different abilities of each individual require separate services from the teacher in an effort to adjust the learning program to be created and implemented. Teachers will be able to plan appropriate adjustments and treatment by knowing the differences in the abilities that exist in students. Then students will feel comfortable with the learning they receive so that it is expected to affect student learning outcomes.

Most of the research related to interpersonal communication skills (interpersonal) is only done only on offline learning or offline through conventional learning. Based on the description and problems above, researchers are interested in researching the effect of students' interpersonal communication skills on student learning outcomes in mechanical engineering subjects.

Interpersonal Communication Skills

According to Deddy Mulyana, the word or term communication according to its origin comes from the Latin communis which means the same, also communico, communication, or communicare which means an effort to achieve togetherness or similarity in meaning. Terminological communication refers to the process of delivering a statement by one person to another (Mulyana, 2003). Proficiency in interpersonal communication is a valuable thing in social life. Devito (in Suranto A. W.) means that interpersonal or interpersonal communication is the process of sending and receiving messages between two people or a small group of people with feedback.

Devito (1997: 259-264) (in Suranto AW, 2011) states that there are 5 positive attitudes that can support effective communication. The five positive attitudes include openness, empathy, supportiveness, positiveness, and equality.

Openness is an attitude of being able to receive input from others, and the desire to convey important information to others, openness is in interpersonal communication based on the following indicators.

a. There is a good response, acceptance, or feedback in the communication process
b. Feelings of responsibility for the message or information conveyed
c. Presence and attention in communication
d. There is a spontaneous response
e. There is a sense of comfort in expressing opinions

Empathy means the ability to be able to feel and understand something that is being experienced by others. Empathy exists in the interpersonal communication process with indicators:

a. Listen to other people's conversations well
b. Can receive messages from other people's point of view
c. Be sensitive to other people's feelings

Supportiveness in communication means having a commitment to support the ongoing interaction openly. support in interpersonal communication are as follows:

a. Convey messages and information clearly and make the other person feel valued
b. Communicating a desire for cooperation in solving a problem
c. Be honest and don't harbor any motives

Positiveness shown in the form of attitudes and behavior. A positive attitude in interpersonal communication can be seen with the following characteristics:

a. Appreciate, respect, and believe in the importance of others and yourself
b. Positive thinking and don't be overly skeptical
c. Give praise and appreciation as a form of appreciation for the achievements of others
d. Commitment to cooperation

Equality is an acknowledgment that both parties involved in the communication process have interests, are equally valuable, valuable, and need each other. Regardless of its relation to gender, ethnicity, class, and religion, the principle of equality in addressing differences in general:

a. There is the same treatment
b. Stay away from discriminatory attitudes
c. Appreciate the difference
d. Upholding justice
e. Increase of tolerance

Student's Learning Outcomes

According to Suprian S. A. learning outcomes are also closely related to assessment as an evaluation of teaching. Assessment in a teaching serves to determine whether or not the instructional objectives are achieved comprehensively which includes aspects of knowledge, attitudes, and behavior. Assessment also serves as useful feedback for subsequent actions. As for educators, assessment is useful for measuring the success of the teaching process for students (Permana et al., 2019)(Saputra, 2007).

Mechanical Engineering Subject

Mechanical engineering subject is the main science studied in the department of building science or civil engineering. Engineers use mechanical engineering subject to study the loads acting on a structure and influencing the behavior of the structure (Murfihenni, 2014). The Mechanical engineering subject subject is studied by the students of the DPIB skill program at SMK Negeri 2 Garut, precisely in class X. The Mechanical engineering subject subject takes 105 hours of lessons with 45 minutes per lesson hour and 3 hours of lessons for one meeting. Mechanical engineering subject have basic competencies that are in accordance with the current curriculum, namely the 2013 curriculum.

Question Research

Based on the description that has been put forward in the background, the formulation of the problem in this study is:

a. What is the general description of the interpersonal communication skills of class X DPIB students in the Mechanical Engineering subject at SMKN 2 Garut?

b. What is the general description of the learning outcomes of class X DPIB students in the Mechanical Engineering subject at SMKN 2 Garut?
c. How big is the influence of students' interpersonal communication skills on student learning outcomes in Mechanical Engineering subjects at SMKN 2 Garut?

Research Method

This research is a correlational study with a quantitative approach. In this study, the approach used is quantitative which measures students' interpersonal communication skills and how much influence it has on student learning outcomes in Mechanical Engineering Subjects.

Research Location and Time

This research was conducted in the even semester of the 2020/2021 Academic Year during the COVID-19 pandemic where distance learning took place. SMKN 2 Garut is located on Jl. Suherman No. 90, Jati, Tarogong Kaler District, Garut Regency, West Java, 44151. This research was conducted during the COVID-19 pandemic where learning was carried out remotely using online media.

Population and Sample

The total population in this research with a quantitative approach is 96 people who are students of class X DPIB 1, 2, and 3 of the 2nd Garut State Vocational High School who carry out learning on engineering mechanics subjects at SMKN 2 Garut by utilizing online media. Class X DPIB 1 consists of 30 students, X DPIB 2 consists of 33 students, X DPIB 3 consists of 33 students.

The sample selection used in this study was saturated sampling based on the provisions proposed by Sugiyono (2002). Saturated sampling is a sampling technique that uses all members of the population as a sample. The samples in this study were all students of class X DPIB 1, X DPIB 2, and X DPIB 3, totaling 96 people.

Table 1. *Research Population and Sample*

No	Population and Sample	Amount
1	Kelas X DPIB 1 SMKN 2 Garut	30
2	Kelas X DPIB 2 SMKN 2 Garut	33
3	Kelas X DPIB 3 SMKN 2 Garut	33
	Total	96

Source : Authors Document, 2021

Data Collecting Method

Student Learning Outcomes are seen from the final score which is the average value of students' skills and knowledge in the Engineering Mechanics subject for the even semester of the 2020/2021 academic year. While students' interpersonal communication skills are seen based on students' scores on the interpersonal communication skills test which is the instrument in this study.

Research Procedure

In this study, researchers developed research procedures as a plan and reference in conducting research. The research procedure is a series of steps that the researcher must take during the research. In conducting this research, it is necessary to go through the following steps:

a. Determine the research problem and research variables.
b. Creating hypotheses that are derived deductively through theory.
c. Establish research methods and samples.
d. Determine data/statistical analysis techniques.
e. Implementation of research instruments.
f. Research with data collection student learning outcomes, distribution of tests and data recap.
g. Analysis of research data

h. Discussion of research findings
i. Conclusions, implications, and recommendations

Data Analysis Technique

The existing data needs to be processed and analyzed so that it can be used as a basis for decision making. The data processing in this study was carried out through data quality tests, such as validity and reliability tests, classical assumption tests consisting of normality and linearity tests, and then correlation and determinations coefficients, simple linear regression equations, as well as significance and hypothesis tests.

Results

The analysis of the research data consisted of data quality tests, classical assumption tests, correlation coefficients and determinations, simple linear regression equations, and significance and hypothesis tests.

Data Quality Test Results

After the research instrument was declared valid by the expert validator, the researcher collected data by distributing a link to the student's interpersonal communication ability test form link which was filled out by 96 samples. Then the researcher tested the validity of the data obtained on the student's interpersonal communication ability test by calculating the Pearson correlation on the IBM SPSS Statistics application and with the help of Microsoft Excel. The instrument validity test was carried out by comparing rtable with rcount. The rtable value is obtained from the distribution table for the rtable value for a significance of 5% and N as much as 95 is 0.202.

The results of validity test of the research instrument with a total of 30 statements for the test of students' interpersonal communication skills and as data from the predictor variables, 27 questions were declared valid and 3 questions were declared invalid. In accordance with the statement that all instruments that have been represented in the statement are at least one (Arikunto, 2020), invalid statement items will be omitted in further research and no statement item changes will be made. Because every aspect has been represented by indicators and other statement questions.

The result of the calculation of the reliability test is 0.798 for the Cronbach Alpha Coefficient (r11 = 0.798). Because Cronbach's Alpha coefficient is greater than rtable or r11 0.798 > rtable 0.202, the research instrument, namely the test of students' interpersonal communication skills, is declared reliable (consistent).

Students Interpersonal Communication Skills

Researchers used tests to collect data on students' interpersonal communication skills which were predictor variables in this study. Tests are shared online via the Google Forms. The following is a table of indicator categories based on data obtained from the student's interpersonal communication ability test which was filled out by 96 samples with a total of 30 statement :

Table 2. *Indicators Category Based on the Average Score of Sample on Student Interpersonal Communication Skill Test*

Aspect	Indicator	Samples Average Score	Indicator Category
Openness	There is a good response, acceptance, or feedback in the communication process	72	High
	Feelings of responsibility for the message or information conveyed	92.5	Very High
	Presence and attention in communication	64.5	Low
	There is a sense of comfort in expressing opinions	74.5	High

Aspect	Indicator	Samples Average Score	Indicator Category
Empathy	Listen to other people's conversations well	79.63	High
	Can receive messages from other people's point of view	82.75	High
	Be sensitive to other people's feelings	80.88	High
Supportiveness	Deliver messages and information that are true / according to reality	75.38	High
	Communicating a desire for cooperation in solving a problem	85.25	Very High
	Be honest and don't harbor any motives	74.50	High
Positiveness	Appreciate, respect, and believe in the importance of others and yourself	75.25	High
	Positive thinking and don't be overly skeptical	80.25	High
	Give praise and appreciation as a form of appreciation for the achievements of others	83.25	High
	Commitment to cooperation	68.75	Low
Equality	There is equal treatment and upholds justice	77.63	High
	Stay away from discriminatory attitudes	76.75	High
	Appreciate the difference	77.88	High
	Increase of tolerance	79.63	High
Average Score of Predictor Variable Indicators		**77.42**	**High**

From the table above, it can be seen that the data acquisition of predictor variables which is the interpersonal communication ability of students X DPIB 1, 2, and 3 from the percentage information of each indicator. The lowest score for students' interpersonal communication skills is found in the indicator of presence and attention in communication on the aspect of openness, which is 64.5 with the "Low" category. While the highest score of students' interpersonal communication skills is found in the indicator of feeling responsible for the message or information conveyed in the openness aspect, which is 92.5 with the indicator category "Very High". From the overall data, the average score of the student's interpersonal communication ability test is 77.42, which means that the average sample interpersonal communication ability is included in the "High" category.

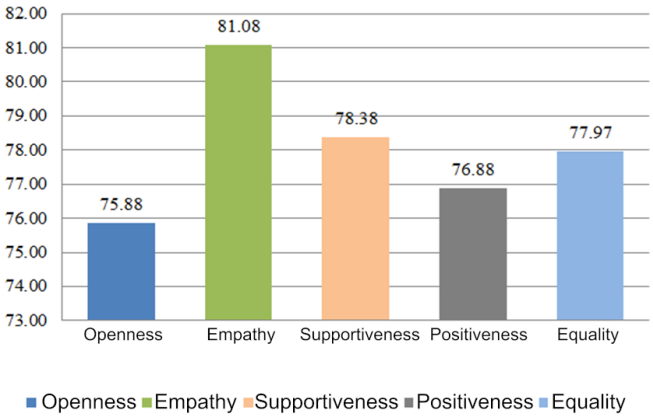

Figure 1: Fatihah, Maknun, Mardiana, Students' Interpersonal Communication Ability Based on the Five Aspects of Communication, 2021, Bar Chart. Source : Research Results

Among five aspects of interpersonal communication skills, all of them are in the "High" category. The highest score is in the empathy aspect, which is 81.8 in the "High" category, while the lowest value is in the openness aspect, which is 75.88 in the "High" category. The average value of interpersonal communication skills of students of class X DPIB 1, 2, 3 SMK Negeri 2 Garut is 78.40 and is included in the "High" category.

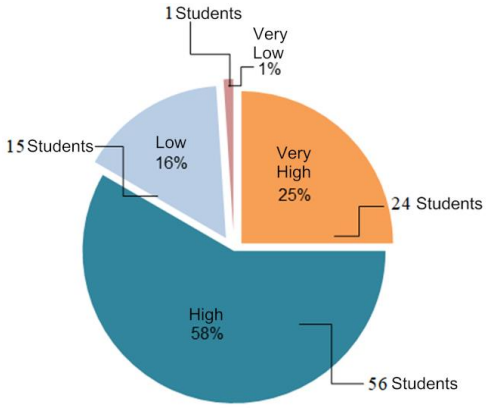

Figure 2 Fatihah, Maknun, Mardiana, Student's Interpersonal Comunication Skills Percentage, 2021, Pie chart. Source : Research Results

The figure above provides an overview of the interpersonal communication skills of students of class X DPIB 1, 2, 3 SMK Negeri 2 Garut which is the sample in this study. Based on the answers and the total score of each sample on the student interpersonal communication test, there are 24 students, which is 25% of the sample, are in the "Very High" category and 56 students, which is 58.33% of the sample, are in the "High" category. , 15 students who constituted 15.63% of the sample were in the low category, and 1 student who constituted 1.04% of the sample was in the very low category. Overall, the largest percentage of the sample, which is 58.33%, has "High" interpersonal communication skills.

Student's Learning Outcomes

The response variable in this study, which is the result of student learning, is seen from the final score of each sample in the Engineering Mechanics subject in the even semester for the 2020/2021 Academic Year. The final score is the average value of the knowledge and skills of students in the Mechanical Engineering subject. While the KKM limit or Minimum Completeness Criteria for Mechanical Engineering subjects is 65. The following predicates and categories and value ranges are used by SMK Negeri 2 Garut based on the Guide to Assessment of Learning Outcomes and Character Development in Vocational High Schools from the directorate of vocational high school development 2018. The following table of values final students and their categories:

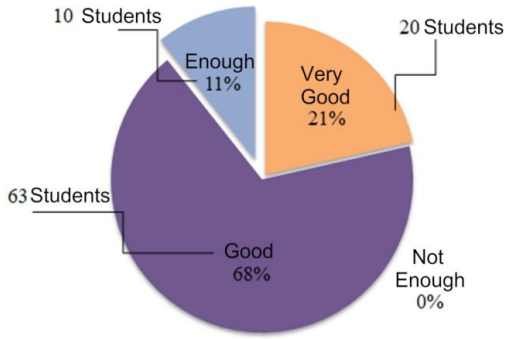

Figure 3 Fatihah, Maknun, Mardiana, Student's Learning Outcomes Percentage, 2021, Pie Chart. Source : Research Results

The figure above shows an overview of the learning outcomes of class X DPIB 1,2,3 students for the Engineering Mechanics subject. Student learning outcomes are in the "Enough" and "Very Good" categories with 20 students in the "Very Good" category, 63 students in the "Good" category, and 10 students in the "Enough" category with the smallest score. is 65.

Classic Assumption Test Results

The following figure is the result of the normality test with the Q-Q Plot, in the figure it can be seen that the data points spread around the line and follow the direction of the diagonal line. So it can be predicted that the predictor variable data (student interpersonal communication skills) are normally distributed.

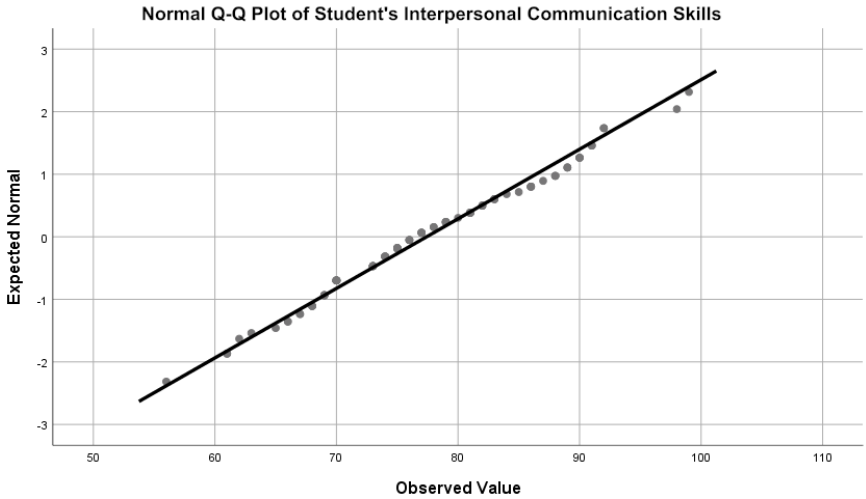

Figure 4 Fatihah, Maknun, Mardiana, Q-Q Plot Visual Approach of Predictor Variable, 2021, Q-Q Plot. Source : Research Results

From the response variable data which amounted to 96, the statistical value of the predictor variable was 0.076, while the significance value was 0.2. The significance value of the response variable data is 0.2 and greater than 0.05, then the predictor variable data is normally distributed.

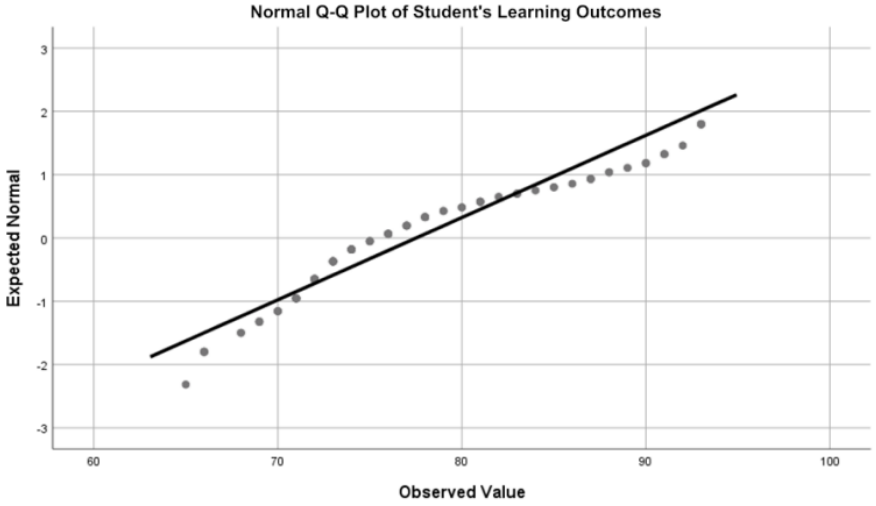

Figure 5 Fatihah, Maknun, Mardiana, Q-Q Plot Visual Approach of Response Variable, 2021, Q-Q Plot. Source : Research Results

The figure above is the result of the normality test with the Q-Q Plot, in the picture it can be seen that the data points of the response variable or student learning outcomes spread around the line and follow the direction of the diagonal line. So it can be predicted that the variable data of student learning outcomes are normally distributed. To find out more and be specific, the researcher used the normality test with the Kolmogorov-Smirnov approach.

From the response variable data which amounted to 96, the statistical value of the response variable was 0.135, while the significance value was 0.06. The significance value of the response variable data is 0.06 and is greater than 0.05, then the student learning outcomes variable data is normally distributed.

Based on the results of the linearity test, it is known that the value of Sig. deviation from linearity is 0.052 > 0.050, it can be concluded that the relationship between the predictor variable (student interpersonal communication ability) and the response variable (student learning outcomes) is linear.

Correlation Coefficient

Based on the calculation obtained a correlation coefficient of 0.244. Because the correlation coefficient is between the range of 0.200 - 0.399, it means that the strength of the relationship between the X variable, namely the students' interpersonal communication skills with the Y variable, is included in the "Low" category. So there is indeed a correlation of students' interpersonal communication skills to their learning outcomes.

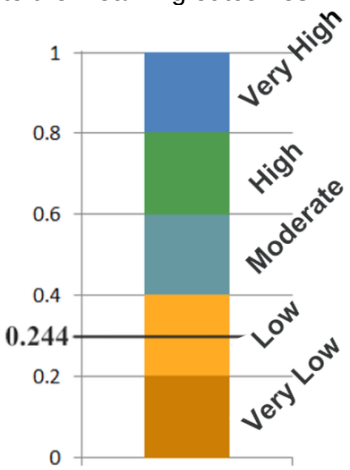

Figure 6 Fatihah, Maknun, Mardiana, Q-Q Correlation Coefficient Category, 2021, Diagram. Source : Research Results

Determination Coefficient

The coefficient of determination shows how much the predictor variable's ability to explain the variation of the response variable is. The value of the coefficient of determination can be determined by squaring the correlation coefficient. ($r^2 = (0{,}244)^2 \cong \mathbf{0{,}060}$).From the calculation, the correlation coefficient value (r2) is 0.060. This value means that 6% of the predictor variables, namely students' interpersonal communication skills, can explain the response variable, namely student learning outcomes, while 94% are explained by other variables.

Simple Linear Regression Equation

The researcher looks for the regression equation with the help of the IBM SPSS Statistics 25 application. The constant a value is 61.65 and the b coefficient is 0.205. Then the regression equation can be written as:

$$Y = a + bX \rightarrow \boldsymbol{Y = 61{,}65 + 0{,}205X}$$

The equation can be translated:

a. The constant a of 61.65 means that the consistent value of the Student Learning Outcomes variable is 61.65.
b. The regression coefficient X (b) of 0.205 states that each value of the X variable (student interpersonal communication skills) increases by 1, the value of the Y variable (student learning outcomes) increases by 0.205. The regression coefficient is positive, so it can be said that the effect of variable X on Y is positive.

The depiction of data and regression lines based on these equations can be seen in the following diagram:

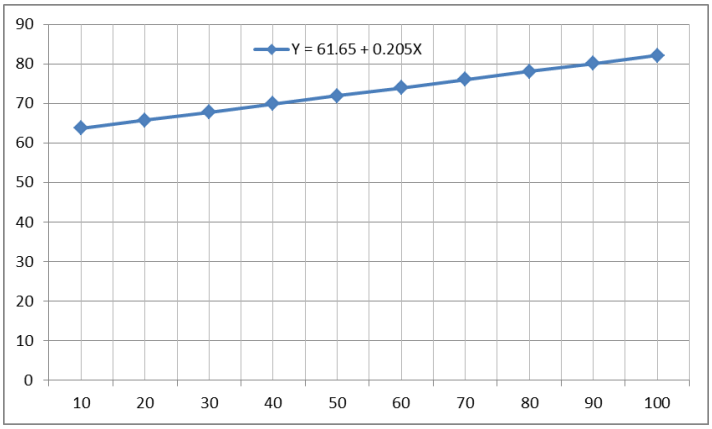

Figure 7 Fatihah, Maknun, Mardiana, Depiction of data from simple linear regression equation, 2021, Diagram. Source : Research Results

The researcher conducted a significance test to determine whether the predictor variables had a significant effect on the response variables. Significant means that the influence between variables applies to the entire population, in this study the significance test used the t-test. Based on the distribution table, the value of t_{table} is 1.98552. Meanwhile, t_{count} can be seen in the coefficients table, which is 2,394. Therefore, the results of the t-test can be described as the following diagram:

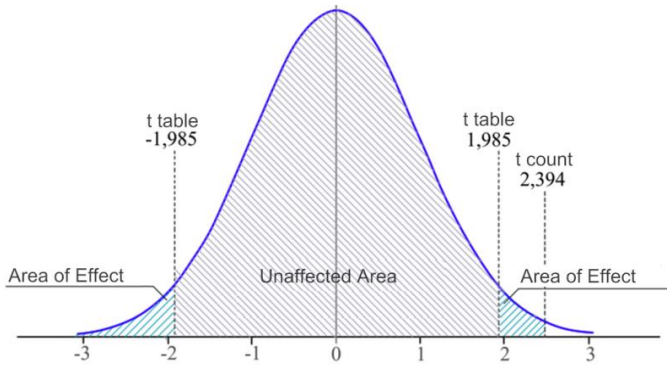

Figure 8 Fatihah, Maknun, Mardiana, t-test Curve, 2021, Diagram. Source : Research Results

The diagram above shows the area of no effect and area of influence in the t-test curve. The area of effect is between t_{table} 1.985 and t_{count} 2.394, that area is a positive effect of student's interpersonal communication skills on student learning outcomes. While the area of effect that is less than t_{table} -1.985 is a negative effect of student's interpersonal communication skills on student learning outcomes. Based on the coefficients table obtained the value of sig. of 0.019 < 0.05 and is included in the significant category, while the t_{count} value of 2.394 > t_{table} 1.98552 indicates a positive influence. So it can be concluded that the variable of student's interpersonal communication skills (X) has a significant effect on the variable of student learning outcomes (Y). In addition, because of the value of t_{count} > t_{table} , then H1 is accepted, there is a positive and significant effect on student's interpersonal communication skills on student learning outcomes in Mechanical Engineering subject.

Discussion

The correlation value between interpersonal communication skills on student learning outcomes is included in the low category, the low correlation between the two variables can be caused by the presence of other unknown variables that mediate the relationship between the two variables. Although the correlation is low, it does not mean that students' interpersonal communication skills can be ignored. This does not mean that the impact is insignificant. Because good interpersonal communication skills have the potential to improve the quality of interpersonal relationships, so every activity related to transferring knowledge, attitudes, and skills can shape students' attitudes and motivate students to learn and improve their learning achievement. Skills in interpersonal communication are important in social life, good communication skills and a positive identity instilled in an individual will affect the level of trust in society.

The research data shows that there is a positive and significant influence on students' interpersonal communication skills on student learning outcomes in class X DPIB 1, 2, 3 at SMK Negeri 2 Garut in the Mechanical Engineering subject. This means that the increased interpersonal communication skills of class X DPIB 1, 2, 3 SMK Negeri 2 Garut students will increase student learning outcomes in Mechanical Engineering subjects as well. The results in this study are in line with Rozaq (2012), Trianingsih (2014), Opdenakker (2011), Rianatha (2015), Putri (2018), Agung (2020) which in their research results show that the communication process carried out directly by the teacher to students can motivate students to be enthusiastic in learning, doing and completing assignments and understanding learning so that it affects learning outcomes.

The pattern of communication in the Mechanical Engineering subject is basically the same as communication in other subjects, only different in the content of the message it conveys. Because engineering mechanics is an exact subject that is mathematical in nature, problem solving in engineering mechanics involves several abilities such as coordinating various mathematical information or ideas. Goetz (2004) in the paper of Mahmudi (2009), developing mathematical communication skills is not much different from developing communication skills in general (Mahmudi, 2006). Such as brainstorming techniques to initiate learning which includes the disclosure of a number of concepts to communicate mathematical ideas. Regarding nonverbal communication, it is also not much different, as when a student writes a literary work, he should think about who the work is intended for, the same as assignments in engineering mechanics subjects, students must be able to clearly write down various relevant information so that it is easily understood by the teacher or other students.

The results of this study can be predicted to apply similarly to other subjects, but not necessarily the same. Because even though there are perceptions of students who tend to find mathematical exact subjects difficult, in this case engineering mechanics, it turns out that there is still a positive influence on students' interpersonal communication skills on their learning outcomes. It is undeniable that every learning cannot be carried out if there is no exchange of information in it, while the exchange of information or messages between each element of learning can only occur if there is a communication process in it, both verbal and nonverbal communication.

Conclusion

The average interpersonal communication skills of class X DPIB 1,2,3 SMK Negeri 2 Garut students are included in the "High" category. Judging from the indicators and the five aspects of interpersonal communication skills, the highest average value of the sample is on the indicator "feeling of responsibility for the message or information conveyed" in the aspect of openness with a

value of 92.5 ("Very high" category), and the lowest average value the sample is on the indicator of "presence and attention in communication" in the aspect of openness with a score of 64.5 ("Low" category). The highest score is in the empathy aspect, which is 81.8 in the "High" category, while the lowest value is in the openness aspect, which is 75.88 in the "High" category. The average value of interpersonal communication skills of students of class X DPIB 1, 2, 3 SMK Negeri 2 Garut is 78.40 and is included in the "High" category.

The average student learning outcomes of class X DPIB 1,2,3 SMK Negeri 2 Garut in the Mechanical Engineering Subject is 77.5 and is in the "Good" category. Student learning outcomes are seen from the final score of each sample in the Mechanical Engineering subject for the even semester of the 2020/2021 Academic Year. The final score is the average of the students' skills and knowledge scores. While the Minimum Completeness Criteria limit for Engineering Mechanics subjects is 65.

Based on the results in this study, it can be concluded that there is a positive and significant effect of students' interpersonal communication skills on student learning outcomes. From the simple linear regression equation, it is found that the consistent value of the Student Learning Outcomes variable is 61.65 and each value of the X variable (communication ability) student interpersonal) increased by 1, the value of the Y variable (student learning outcomes) increased by 0.205. The regression coefficient is positive, so it can be said that the effect of variable X on Y is positive. From the significance test and the hypothesis with the t-test obtained a value of , then H1 is accepted, namely there is a positive and significant influence between students' interpersonal communication skills and student learning outcomes. This means that the better the students' interpersonal communication skills, the better their learning outcomes in Mechanical Engineering subjects.

Implication

In an era where technology has advanced and learning takes place remotely, the source of knowledge is not only teachers. Access to knowledge can be obtained by students from anywhere. But that can only happen if there is a will in students, toughness, and patience to always learn something new. The task of the teacher in distance learning is not only to deliver the subject matter. Be an example, encourage, and motivate students to become individuals who continue to learn. By understanding the importance of communication in learning and interacting more with students, teachers will get to know their students better. Teachers will know the strengths and weaknesses of students so that they can read what students need and help them to communicate and express their ideas. and implemented. Proper handling will make students feel comfortable with the learning they receive so as to improve student learning outcomes.

Recommendation

In the research process there are several limitations in the research instrument, data collection, other unknown variables, as well as limitations in the ability of the researchers themselves. The research instrument in this thesis is a test of students' interpersonal communication skills which focuses on students' interpersonal communication skills in general. The research instrument that has been made lacks statements that contain the context of distance learning and mathematical communication, causing low correlation in data analysis of the two research variables. In addition, the research instruments were also distributed online through the Google form. The possibility of respondents being dishonest and not being serious is still there. The researcher's limited understanding of communication science and the limited time and opportunity to get guidance from the only expert validator in this study. The researcher himself has limitations in time and ability even though he has tried to give the best in the work of this thesis.

However, this study is the first study to examine the effect of students' interpersonal communication skills on student learning outcomes in engineering mechanics subjects. So that it can expand further research. Especially for future researchers who want to see the influence or relationship of interpersonal communication on student learning outcomes in subjects with characteristics similar to Mechanical Engineering subject. By knowing the limitations of this study, it is hoped that future researchers can conduct better research related to students' interpersonal communication skills on student learning outcomes by looking at variables and other factors not examined in this study. So that science related to this will be able to grow. It is hoped that the

research instrument in this thesis in the form of a student's interpersonal communication ability test can be developed and equipped with shortcomings.

Research topics that researchers can recommend for future researchers are the effect of students' interpersonal communication skills on student learning outcomes in other basic subjects of DPIB expertise programs, on student learning outcomes in exact subjects, on student learning outcomes in non-exact subjects, and comparison of the effects of ability student interpersonal communication on student learning outcomes in exact and non-exact subjects.

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