



ANALYSIS OF INTERPERSONAL AND EMOTIONAL INTELLIGENCE STUDENTS IN INFORMATICS LEARNING IN TJKT DEPARTMENT AT SMK NEGERI 1 SINTANG

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Abstract

Interpersonal intelligence is intelligence in a person's interactions with other people. Meanwhile, emotional intelligence is a person's ability to control their emotions intelligently. This research aimed to evaluate students' interpersonal and emotional intelligence in the Informatics subject majoring in TJKT at SMK Negeri 1 Sintang. This research used the mixed method, qualitative and quantitative descriptive forms, with teachers and 49 students as the subject. The object of this research was interpersonal intelligence and emotional intelligence. The data collection techniques used were observation techniques, direct and indirect communication techniques, and documentation. Meanwhile, data collection tools are observation sheets, interview sheets, questionnaires, and documentation. The research results showed that interpersonal intelligence: empathetic attitude 79%; prosocial attitude 80%; self-awareness 69%; understanding of social and ethical situations 81%; effective problem-solving skills 71%; communication effective 76%; and effective listening 79%. While emotional intelligence: self-awareness 79%; managing emotions 77%; empathetic attitude 78%; using emotions productively 79%; and building relationships 89%. So, it can be concluded that students' interpersonal and emotional intelligence have a significant relationship with learning outcomes.

Keywords: interpersonal intelligence, emotional intelligence, learning process

INTRODUCTION

Vocational education is a form of secondary education in Indonesia. Vocational education provides various skills and knowledge to students so that the students can do certain jobs that are needed, both for themselves, the world of work, and the development of their nation. Vocational education is secondary education that prepares students primarily to work in certain fields.

Meanwhile, vocational high school, which is part of vocational education, is a form of formal education unit that provides vocational education at the secondary

education level. Government Regulation No. 73 of 1991, article 3 paragraph 6 states that: vocational education is education that prepares students to be able to work in a certain field. The main aim of vocational and vocational education is to prepare a skilled workforce.

In Indonesia, the term vocational education for secondary education is for example SMK/MAK and vocational education for higher education is academy, high school, polytechnic, institute, and university. Juridically, it can be seen in the National Education System Law (Sisdiknas) Number 20 of 2003. Article 15 of the

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National Education System Law. Vocational education policies include (1) economic policies, (2) employment policies, and (3) cultural policies. In terms of economic policy, vocational education makes a huge contribution to improving the quality and productivity of the business world and the national economic system, both quantitatively and qualitatively.

Economic growth cannot be achieved without the availability of qualified and well-managed human resources. In the process of achieving vocational education goals, a person will improve their technical skills and also improve their interpersonal intelligence and emotional intelligence abilities (Jama, 2018).

Interpersonal intelligence is the ability to understand and collaborate with other people (Muryastuti & Sugiharto, 2016). This intelligence requires the ability to absorb and be responsive to the moods, temperaments, intentions, and desires of other people. Interpersonal intelligence will show a child's ability to relate to other people. High interpersonal intelligence allows people to collaborate with other people and synergize to produce positive results.

The ability to recognize feelings, and their meaning, and control feelings in depth, thus helping emotional and intellectual development (Yunia et al., 2019). So, emotional intelligence is a condition where a person can understand himself, understand other people, and manage the emotions he feels in responding to pressure demands. Interpersonal intelligence and emotional intelligence lie in a person's ability to establish relationships and communicate with other people effectively.

Interpersonal intelligence certainly has a big influence on vocational school students, because with the many obstacles in the social world experienced by vocational school students, students will feel like they have failed in developing interpersonal intelligence. In this way, interpersonal intelligence is very helpful for vocational school students so that students can interact and socialize with other people.

Vocational school students who find it difficult to develop supportive relationships

with their peers are described as aggressive children, tending to be insensitive, uncaring, selfish, or very concerned with their egoism.

By having interpersonal intelligence is a factor in students being able to feel what other people feel, being able to give the right response so that other people feel comfortable, and being able to understand, and interact with other people this interpersonal intelligence can help vocational school students relate to their daily lives. So that the process felt by students gives rise to emotional intelligence, which is also a very important factor influencing the learning outcomes of vocational school students (Sukistiawati, 2014).

Interpersonal intelligence and emotional intelligence are closely related in shaping the social abilities of vocational school students. Emotional intelligence needs to be understood, owned, and paid attention to in its development, considering that today's life conditions are increasingly complex (Nurfadhilah, 2015). This increasingly complex life has a very bad impact on the emotional life constellation of vocational school students.

The relationship between interpersonal intelligence and emotional intelligence are two things that cannot be separated because emotional intelligence includes skills, namely interpersonal intelligence skills. These two bits of intelligence refer to the ability of students' learning outcomes in vocational schools to be able to understand themselves, manage emotions, utilize emotions productively, empathize and build relationships, a sense of empathy, prosocial attitudes, self-awareness, understanding of social situations and social ethics, problem-solving skills. effective, effective communication, and effective listening.

Teachers and schools have a very important role in fostering the learning process of vocational school students, especially in developing interpersonal intelligence and emotional intelligence. Interpersonal intelligence is the ability to interact and communicate with other people effectively and positively. This intelligence is very important for developing good

relationships between students, teachers, and the school environment as a whole.

Teachers can help develop students' interpersonal intelligence by providing opportunities to work in groups, discuss, and collaborate with other people. Schools can also facilitate extracurricular activities that encourage students to interact and work together in teams. Emotional intelligence, on the other hand, is the ability to recognize, understand, and regulate one's own and other's emotions.

This intelligence is critical in helping students cope with stress, develop self-confidence, and resolve conflicts positively and effectively. Teachers can help develop students' emotional intelligence by providing opportunities to talk about their emotions, teaching emotion regulation techniques, and providing constructive feedback. Schools can also provide emotional support, such as counseling, for students who need it (Solehudin, 2018).

METHOD

The research method used was mixed methods. Mixed methods research is designed to obtain information about the status of symptoms at the time the research was conducted, in this research, namely regarding interpersonal intelligence and emotional intelligence of students studying informatics at SMK Negeri 1 Sintang. Mixed methods is a procedure for collecting, analyzing, and mixing quantitative and qualitative methods in a research or series of research to understand research problems.

Likewise, the procedure applied in this research, namely applying qualitative methods and quantitative methods simultaneously in one study. Qualitative methods are used to analyze the application of learning models. Meanwhile, quantitative methods are used to analyze the role of learning models on students' intelligence.

RESULTS AND DISCUSSION

Interpersonal intelligence in informatics learning among students at SMK Negeri 1 Sintang. Based on the results of questionnaire analysis from 49 students, in the questionnaire, 30 students were in the

very good category of interpersonal intelligence with a percentage of 76-100%, 19 students were in the good category of interpersonal intelligence with a percentage of 51-75%, 0 students those in the interpersonal intelligence category are quite good with a percentage of 26-50%, and no students who are in the interpersonal intelligence category are in the poor category with a percentage of 0-25%.

The results of this analysis can help researchers as a supporting tool and make it easier for researchers to analyze students' interpersonal intelligence in informatics lessons, then the researcher will continue the observation process. A recapitulation of the questionnaire results analysis can be seen in Table 1.

Table 1. Results of Indicator Questionnaire Analysis

Indicator	Average	Information
Empathetic attitude	79%	Very good
Prosocial attitude	80%	Very good
Self-awareness	69%	Good
Understanding social and ethical situations	81%	Very good
Effective problem solving skills	71%	Good
Effective communication	76%	Very good
Effective listening	79%	Very good
Total Average	76%	Very good

Based on Table 1, it showed that there are seven indicators assessed from the intelligence questionnaire. The average score was obtained from the total scores of students who answered each indicator, then the interpersonal intelligence questionnaire was analyzed by researchers and then the results were obtained to determine the extent of students' knowledge of interpersonal intelligence in informatics lessons.

Apart from that, the questionnaire also aims to find out how many students have interpersonal intelligence in the categories of very good, good, quite good and not good, then the researcher will continue the process of observing students. Below we can see in Table 2 the results of the analysis of

students' interpersonal intelligence questionnaires.

Table 2. Results of Interpersonal Intelligence Questionnaire Analysis

Sintang State Vocational School 1	%	Category
30	76-100%	Very good
19	51-75%	Good
-	26-50%	Pretty good
-	0-25%	Not good

Based on Table 2, there are no students who have interpersonal intelligence in the poor category and no students who have interpersonal intelligence are categorized as quite good. There are 19 students have interpersonal intelligence in the good category and 30 students have interpersonal intelligence in the very good category.

Based on the results of observations made on students. These observations were made during learning in the classroom and outside the classroom. The activities obtained during the research carried out observations of students' interpersonal intelligence, namely there were seven indicators, namely empathy attitude, prosocial attitude, self-awareness, understanding of social and ethical situations, effective problem-solving skills, effective communication, and effective listening. The following recapitulation of student observations can be seen in Table 3.

Table 3. Results of Indicator Observation Analysis

Indicator	Average	Information
Empathetic attitude	73%	Good
Prosocial attitude	76%	Very good
Self-awareness	63%	Good
Understanding social and ethical situations	80%	Very good
Effective problem solving skills	69%	Good
Effective communication	80%	Very good
Effective listening	71%	Good
Total Average	73%	Good

Emotional intelligence in informatics learning among students at SMK Negeri 1

Sintang. Based on the results of questionnaire analysis from 49 students, in the questionnaire 34 students were in the very good category of emotional intelligence with a percentage of 76-100%, 15 students were in the good category of emotional intelligence with a percentage of 51-75%, no students those in the emotional intelligence category are quite good with a percentage of 26-50%, and no students who are in the emotional intelligence category are in the poor category with a percentage of 0-25%.

The results of this analysis can help researchers as a supporting tool and make it easier for researchers to analyze students' emotional intelligence in informatics lessons, then the researchers will continue the observation process. A recapitulation of the questionnaire results analysis can be seen in Table 4.

Table 4. Results of Indicator Questionnaire Analysis

Indicator	Average	Information
Empathetic attitude	78%	Very good
Managing emotions	77%	Very good
Self-awareness	79%	Very good
Make productive use of emotions	79%	Very good
Building relationships	89%	Very good
Total Average	80%	Very good

Based on Table 4, there were five indicators assessed from the emotional intelligence questionnaire. The average score was obtained from the total scores of students who answered each indicator, then the emotional intelligence questionnaire was analyzed by researchers and then the results were obtained to determine the extent of students' knowledge of emotional intelligence in informatics lessons.

Apart from that, the questionnaire also aims to find out how many students have emotional intelligence in the categories of very good, good, quite good, and not good, then the researcher will continue the process of observing students. Below we can see in Table 5 the results of the analysis of students' emotional intelligence questionnaires.

Table 5. Results of Emotional Intelligence Questionnaire Analysis

Sintang State Vocational School 1	Percentage	Information
34	76-100 %	Very good
15	51-75 %	Good
-	26-50 %	Pretty good
-	0-25 %	Not good

Based on the results of observations made on students. These observations were made during learning in the classroom and outside the classroom. The activities obtained during the research carried out observations of students' interpersonal intelligence, namely there were five indicators, namely empathy, managing emotions, self-awareness, using emotions productively, and building relationships. The following recapitulation of student observations can be seen in Table 6.

Table 6. Results of Observation Analysis Based on Indicators

Indicator	Average	Information
Empathetic attitude	61%	Good
Managing emotions	69%	Good
Self-awareness	94%	Very good
Make productive use of emotions	59%	Good
Building relationships	76%	Very good
Total Average	72%	Good

Based on the results of interviews with teachers, it was known that respondents' answers regarding the efforts made by teachers to improve students' interpersonal intelligence and emotional intelligence are described as follows. From the results of the interview with the class in informatics learning at school, teachers make various efforts to improve students' interpersonal intelligence and emotional intelligence, one way is to create a safe, open, and supportive classroom environment for interaction.

Encourag collaboration, cooperation, and active participation in group activities is an effective way to improve interpersonal intelligence. Teachers can be good examples

of showing healthy emotions and managing conflict constructively. Interpersonal intelligence and emotional intelligence are two important aspects of informatics learning that can influence the quality of students.

Students with good interpersonal intelligence can convey thoughts, ideas, and questions clearly and effectively. They can communicate well with fellow students, teachers, or other parties involved in learning. In informatics learning, students who have empathy can better understand the challenges and difficulties experienced by their classmates and provide appropriate support.

Students with good interpersonal intelligence will be able to resolve conflicts constructively and find mutually beneficial solutions. Those who have strong motivation tend to be more persistent and able to face difficulties that arise in learning informatics. Self-awareness emotional intelligence involves deep self-awareness, including an understanding of personal strengths, weaknesses, interests, and goals. Students who have good self-awareness can recognize their abilities and interests in the field of informatics, strengthen their potential, and develop appropriate career plans.

Empathy, as previously mentioned, is emotional intelligence. As an Informatics subject teacher, Mrs. Ana, S.Kom. has taught empathy to students at school because we know that empathy is a very important thing where students must understand the feelings of other people or their friends. Apart from that, it also teaches prosocial attitudes and teaches students to be willing to help their friends when they are on class picket, willing to share with their friends, and willing to persuade them if a friend is sad.

Use of technology to manage emotions, teach students to use technology positively in managing their emotions. Discussion and Support, provide space for students to talk about the emotions they feel when learning informatics. Breathing and relaxation exercises, teach deep breathing and relaxation techniques to students. Ways to teach students to manage their emotions in informatics lessons: emotional awareness,

teach students to develop awareness of their own emotions.

Behavior modeling, as an educator, is important for you to be an example in managing your own emotions when teaching informatics. Identify the causes of emotions, and help students identify factors that trigger negative emotions when learning informatics. Setting realistic goals and expectations, encourages students to set realistic goals and manage their expectations in learning informatics.

Using emotions productively is an important skill for students to develop. Several ways to teach students to use emotions productively, recognizing and understanding emotions, teach students to recognize and understand the various emotions they feel. Using emotions as a source of inspiration, teach students to use their emotions as a source of inspiration in creativity and innovation. Managing emotions wisely, teach students about the importance of managing emotions wisely. Self-reflection, invite students to self-reflect on how they use their emotions in learning Informatics

Factors that can become obstacles in the development of interpersonal intelligence and emotional intelligence in students include: lack of self-awareness, lack of communication skills, lack of empathy, unsupportive social environment, lack of learning and behavior modeling, cognitive or psychological factors, and lack of support and understanding.

To overcome factors inhibiting students' interpersonal intelligence and emotional intelligence in informatics lessons, you can involve the following steps: Building a safe and supportive environment and creating a safe and supportive classroom environment where students feel comfortable sharing thoughts, feelings, and experiences. Keep the classroom atmosphere open and friendly so that students feel heard and appreciated.

Implementing collaborative learning, encourages students to work collaboratively in informatics assignments and projects. Group activities or pair work can help students build better interpersonal

relationships, communicate, and collaborate with peers. Integrating Communication and Collaboration, Include elements of communication and collaboration in informatics learning. For example, provide opportunities for students to discuss, share ideas, provide feedback, and work together in completing informatics assignments or projects.

Using technology to promote communication, take advantage of technology in informatics learning to facilitate better communication between students. Use online communication platforms, such as discussion forums, chat rooms, or digital collaboration tools, that allow students to interact and share information effectively.

Based on the results of interviews with the Head of Curriculum, it was known that the respondents' answers regarding school policy in improving interpersonal intelligence and emotional intelligence of class also pay attention to the development of interpersonal and emotional intelligence. This can include teaching communication skills, cooperation, empathy, and emotion management. The curriculum currently being used at SMK Negeri 1 Sintang, namely the independent curriculum, where students are trained to be able to socialize with their peers, is an example on a small scale.

Teachers are important agents in developing students' interpersonal and emotional intelligence. Schools can organize regular training for teachers in these areas so that they can provide appropriate guidance to students and create an environment that supports emotional and social development. Schools can organize personality development programs that involve activities such as mentoring, counseling, and group coaching. This program can help students develop interpersonal skills, understand their own emotions, and learn to manage emotions positively.

Based on the partial correlation analysis test of interpersonal intelligence with learning outcomes, the result was that the sig value = $0.256 < 0.281$, it was concluded that there was no significant relationship between interpersonal

intelligence and learning outcomes. The partial correlation analysis test between emotional intelligence and learning outcomes showed that the sig value = $0.446 > 0.281$, it was concluded that there was a significant relationship between emotional intelligence and learning outcomes.

Table 8. Results of Partial Correlation Test Analysis

		Correlations		
		Interper- -sonal District	Emotio- -nal District	Lear- -ning out- comes
Inter- personal district	Pearson	1	.732**	-.165
	Corre- -lation			
	Sig. (2- -tailed)		.000	.256
	N	49	49	49
Emotio- -nal district	Pearson	.732**	1	-.111
	Corre- -lation			
	Sig. (2- -tailed)	.000		.446
	N	49	49	49
Learning - outcomes	Pearson	-.165	-.111	1
	Corre- -lation			
	Sig. (2- -tailed)	.256	.446	
	N	49	49	49

The contribution of interpersonal and emotional intelligence to student learning outcomes can be determined using multiple linear regression analysis. Multiple linear regression analysis can be carried out if it passes the prerequisite hypothesis tests, namely the data normality test, linearity test, multicollinearity test, heteroscedasticity test, and autocorrelation test. The following are the prerequisite test results.

Based on the results of the normality test, the interpersonal intelligence variable showed that the value of sig. $0.024 > 0.05$, it was concluded that the interpersonal intelligence variable is normally distributed. The normality test for the emotional intelligence variable showed that the sig. $0.016 > 0.05$, it was concluded that the emotional intelligence variable is normally distributed. The normality test of the learning outcome variables showed that the value of sig. $0.033 > 0.05$, it was concluded that the

learning outcome variables are normally distributed.

Based on the significant value (Sig) from the output above, the deviation from linearity sig value was $0.785 > 0.05$. So it was concluded that there was a significant linear relationship between the interpersonal intelligence variable (X1) and the learning outcomes variable (Y). The deviation from the linearity sig value was $0.650 > 0.05$. So it was concluded that there is a significant linear relationship between the emotional intelligence variable (X2) and the learning outcomes variable (Y).

Based on data analysis, it was known that the VIF value for the interpersonal intelligence and emotional intelligence variables was 1,365, which was less than 10,000 ($1,365 < 10,000$), so it was stated that there is no multicollinearity in the regression model. Based on test results heteroscedasticity in the interpersonal intelligence variable found a significant value of $0.405 > 0.05$, so it was concluded that there were no symptoms of heteroscedasticity in the regression model.

The results of the heteroscedasticity test on the emotional intelligence variable showed that the significant value was $0.924 > 0.05$, so it was concluded that there were no symptoms of heteroscedasticity in the regression model. Based on test results autocorrelation on the variables interpersonal intelligence and emotional intelligence found a significant value of $1.6257 = 2.123$, it can be concluded that there were no problems or symptoms of auto-autocorrelation.

Based on the analysis of simultaneous test calculations, for the interpersonal intelligence and emotional intelligence variables on learning outcomes, the sig. = $0.000 > 0.05$ so it can be concluded that interpersonal intelligence and emotional intelligence data on learning outcomes for independent/independent variables have a significant influence on the dependent/dependent variable.

CONCLUSION

Based on the research stages, conclusions can be drawn: (1) based on the analysis of interpersonal intelligence, it was found that

students have very good interpersonal intelligence, namely the average percentage of questionnaire scores was 76%; (2) based on the analysis of emotional intelligence that students have very good emotional intelligence, namely the average percentage of questionnaire scores was 80%; (3) based on the analysis of teachers' efforts to improve students' interpersonal intelligence and emotional intelligence, it was found that teachers must create a safe, open and supportive environment in the classroom. This can be done by building good relationships with each student, listening to them, respecting their differences, and responding to their needs with empathy. Teachers can also provide opportunities for students to talk and share their ideas; (4) based on the results of school policy analysis in improving students' interpersonal and emotional intelligence, namely by means of schools that can integrate social and emotional learning into the existing curriculum. This can be done by devoting special time to the study of interpersonal and emotional intelligence, or by inserting these aspects into existing courses. Schools can also provide training to teachers in interpersonal and emotional intelligence, so they can teach and support students effectively in developing these skills. This training may include an understanding of interpersonal and emotional intelligence, relevant teaching strategies, as well as ways to manage a classroom that promotes positive relationships; (5) based on partial correlation analysis test calculations, the relationship between interpersonal intelligence and students' emotional intelligence on learning outcomes, it was found that the partial correlation analysis test of interpersonal intelligence with learning outcomes had a value of $\text{sig} = 0.256 < 0.281$, it was concluded that there was no significant relationship between interpersonal intelligence with learning outcomes. The partial correlation analysis test between emotional intelligence and learning outcomes showed that the sig value = $0.446 > 0.281$, it was concluded that there was a significant relationship between emotional intelligence and learning outcomes; and (6) based on multiple linear regression test calculations, the contribution of interpersonal and emotional intelligence to the results learning obtained a sig value. = $0.000 > 0.05$ so it can be concluded that interpersonal intelligence and emotional intelligence data on learning outcomes for independent/independent variables have a

significant influence on the dependent/dependent variable.

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