

THE IMPACT OF TEACHER INTERPERSONAL INTELLIGENCE AND STUDENT INTEREST IN LEARNING ON MATHEMATICS LEARNING OUTCOMES OF MADRASAH ALIYAH STUDENTS

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Abstract: This is an ex post facto study that seeks to assess the impact of teacher interpersonal intelligence and student learning interest on mathematics learning outcomes among MA DDI *Cambalagi* students. The population in this study consisted of all X MIA and XI MIA students from six classes: X MIA1, X MIA2, X MIA3, XI MIA1 XI MIA2, and XI MIA3 MA DDI *Cambalagi* classes in the 2019/2020 academic year, totaling 162 students, with a sample size of 115 students drawn using a proportionate stratified random sampling technique. The research tools employed were the teacher interpersonal intelligence assessment, the student interest questionnaire, and mathematics learning outcomes test. SPSS was used to conduct descriptive and inferential analyses on the data. The results showed that: (1) teachers' interpersonal intelligence is in the moderate category, (2) students' learning interest is in the moderate category, and (3) there is an influence between teachers' interpersonal intelligence and students' learning interest together on the mathematics learning outcomes of MA DDI *Cambalagi* students.

Keywords: teacher interpersonal intelligence; student learning interest; learning outcomes

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INTRODUCTION

Education is a critical component of the national development process that determines a country's economic growth. This is because education is one of the few things that may improve the quality of human capital. One of the most important components of education is the teacher. In the context of education, teachers have broad and strategic responsibilities (Oviyanti, 2017). During the learning process, a teacher is assigned to a group of students who are eager to receive the transfer of knowledge, information, and skills from the teacher. This condition makes the role of the teacher more important and demanding, because the teacher must be able to support themselves, provide education, and care for their students effectively, as well as understand the factors

that improve learning performance so that they can maximize the factors available to achieve the desired learning outcomes (Zidni et al., 2023). According to (Purnamasri, 2020), a teacher's or educator's responsibility is to understand the abilities and levels of achievement of each student via experience and reflection during the learning process. The process of learning mathematics is not solely individual; in fact, understanding the material requires assistance from others, such as a teacher or tutor. Developing effective learning relationships necessitates the use of interpersonal skills (Janna, 2024).

Teacher's job entails human beings and social processes, thus in order to carry out his or her duties as a teacher or student, the guru must have the ability to foster positive social connections. According to Howard Gardner's theory of interpersonal competence, the ability to maintain good social relationships is referred to as interpersonal competence (Oviyanti, 2017). According to (Purnamasri, 2020), interpersonal competence is the result of interactions with others in the surrounding area. Interactions that are valued are not just those that involve discussion and the acquisition of *suka* or *duka*, but also those that involve the acquisition of empathy or responsibility. According to Gardner (Oviyanti, 2017), interpersonal competence is the ability to understand others: what motivates them, how they work, and how they work together. Usually or predominantly a person who has high interpersonal intelligence is more often in the extrovert group and is very sensitive to the feelings of others. Realizing and understanding character and building communication with others is also a factor in learning success. Therefore, it is important for teachers to understand as well as possible about the learning process of students, in order to provide guidance and provide an appropriate and harmonious learning environment for students (Hamalik, 2017).

According to Suyanto and Hisyam (Suprihatiningrum, 2016), an effective teacher has interpersonal skills, particularly the ability to foster empathy, respect for students, and motivation. As a result, a teacher must be capable of optimizing the situation. Poor interpersonal skills on the part of the teacher will have a negative impact on the learning process and, as a result, the ability to achieve the learning goal. Similarly, with good interpersonal skills, the goal of learning mathematics may be achieved with ease, resulting in a positive impact on the learning process. According to the findings of Brackett and Rivers' research, interpersonal guru relationships have a significant impact on student motivation and engagement in learning (Rahmatunisa, 2020).

Apart from the teacher's interpersonal intelligence, another factor that also affects student learning activities and results is student interest in learning. Interest in learning has a big influence on learning because if the lessons learned are not in accordance with interests, students will not learn as well as possible. As stated by (Sirait, 2016) that spurring interest in learning in every lesson is important, especially in the implementation of mathematics learning which for every student is less interested. If students are less interested in learning math, the ability of students in the field of mathematics will be hampered. According to (Syahputra, 2012) interest in learning is the psychological aspect of an individual that gives rise to curiosity, passion, a feeling of enthusiasm to undergo a process of behavioral renewal through activity in exploring experience and knowledge. Students who have an interest in teaching and learning activities will try harder than students who have less interest (Purnama, 2016). Therefore, to achieve high achievement, in addition to intelligence, student interest is also needed, because without interest the teaching and learning process runs less effectively.

Based on preliminary observations at MA DDI Cambalagi in November 2019, the teaching that has been carried out by the math teachers has been effective and in line with the current curriculum. During the learning process, students are given a group project so that they may work together to solve the problems that have been assigned to them; however, only those who are actively working on the project are able to do so, while others who are not actively working on it are only able to see if they are working or not. Even if only a few employees are assigned to the housekeeping duties. This situation has an impact on the students' mathematical learning outcomes.

As the results of semester test scores based on data obtained from mathematics teachers, it is known that the results of mathematics learning in class X MIA MA DDI Cambalagi vary greatly, some get scores above the Minimum Completion Criteria (KKM) standard of 75 set by the mathematics teacher, but not a few who get scores below the standard.

Therefore, the factors causing student difficulties, especially those affecting math learning outcomes, need to be investigated systematically, so that student characteristics that are thought to have an influence on math learning outcomes can be traced more thoroughly. Thus, as a first step, it is considered necessary to conduct research on factors that are thought to affect math learning outcomes. Some of the factors in question include interest in learning mathematics and teacher interpersonal intelligence.

METHOD

The approach in the research used is a quantitative approach with the type of ex post facto research. Using this method, researchers will be able to collect data in the form of angka and analyze the relationship between the variables being studied (Anita, 2020). The popularity of this study is due to the fact that all X MIA and XI MIA MA DDI Cambalagi students are divided into six classes, three X MIA and three XI MIA, which are taught by the same math teacher. In this study, 115 students were selected as study participants using the Yamane method. The sampling technique used in this study is Proportionate Stratified Random Sampling, which is used when the population has a homogeneous and proportionately distributed population (Sugiyono, 2010).

This study aims to help understand the importance of non-academic factors, such as teachers' interpersonal intelligence and students' interest in learning, in influencing students' mathematics learning outcomes. To collect data on teachers' interpersonal intelligence, the researcher used various aspects of interpersonal intelligence, such as social understanding, social sensitivity, and individualized social communication. Meanwhile, to collect data on students' learning interest, the researcher used a questionnaire that explored various aspects of students' learning interest in mathematics, such as feelings of pleasure and interest in mathematics, attention, and participation as well as desire/awareness related to the subject. This questionnaire helped the researcher understand the factors that influence students' interest in learning mathematics.

In addition to the use of questionnaires, researchers also collected data through student math ability tests. This test will measure students' understanding and application of mathematical concepts in real situations. The data obtained from this test will be an indicator of students' math learning outcomes.

After collecting the data, the researchers conducted a regression analysis to evaluate whether there was an influence between teachers' interpersonal intelligence and students'

interest in learning together on students' mathematics learning outcomes. However, before testing the hypothesis, a prerequisite test was first carried out. The prerequisite tests carried out before testing this hypothesis are normality test and data linearity test. Data for hypothesis testing and prerequisite tests are processed with SPSS program analysis.

RESULT AND DISCUSSION

A. Analisis Deskriptif

Table 1 shows that the number of samples (N) is 115 students, from these 115 samples it is obtained that the minimum value of the mathematics learning outcomes test of students in class X MIA and XI MIA MA DDI Cambalagi obtained from even semester exam scores is 40, the highest value obtained is 95. The average of teachers' interpersonal intelligence is the highest among the two variables which is 82.77, while the average of students' interest in learning and students' learning outcomes are lower. This shows that in this sample, the mean of teachers' interpersonal intelligence is higher than the mean of students' interest in learning and students' learning outcomes. The low standard deviation for teachers' interpersonal intelligence indicates that most of the values are centered around the mean, while the higher standard deviations for students' learning interest and learning outcomes indicate greater variation in the data. Therefore, teachers' interpersonal intelligence has a fairly strong correlation with student learning outcomes, while student interest shows greater variation.

Table 1. Descriptive Statistical Results of Teacher Interpersonal Intelligence, Learning Interest and Student Learning Outcomes of MA DDI Cambalagi

| Statistic | Teacher Interpersonal Intelligence | Student Learning Interest | Learning Outcomes |
|---------------|------------------------------------|---------------------------|-------------------|
| N | 115 | 115 | 115 |
| Minimum | 61 | 45 | 40 |
| Maximum | 104 | 89 | 95 |
| Range | 43 | 44 | 55 |
| Sum | 9518 | 8109 | 8250 |
| Mean | 82,77 | 70,52 | 71,74 |
| St. Deviation | 9,010 | 10,429 | 13,557 |
| Variansi | 81,185 | 108,769 | 183,791 |

Based on table 1 above, then compile a table of data categories of teachers'

interpersonal intelligence, students' interest in learning and learning outcomes of MA DDI Cambalagi students.

Table 2. Teacher Interpersonal Intelligence Category

| Category | Interval | Frequency | Percentage |
|----------|--------------------------|-----------|------------|
| Low | $x < 73,757$ | 19 | 16,5 % |
| Medium | $73,757 \leq x < 91,777$ | 78 | 67,8 % |
| High | $91,777 \leq x$ | 18 | 15,7 % |
| Total | | 115 | 100% |

Information:

x = score teacher interpersonal intelligence

Based on table 2 above, it is found that the majority of the student sample is in the moderate category with a percentage of 67.8%. This indicates that most students have scores between 73.757 and less than 91.777. Furthermore, 15.7% of students are in the high category, with scores equal to or greater than 91.777. This indicates that there are a number of students who have quite high scores and only 16.5% of students fall into the low category, with scores less than 73.757. Thus, if the average score of teachers' interpersonal intelligence is put into the category, it can be concluded that the score of teachers' interpersonal intelligence in this study is in the medium category.

Table 3. Student Learning Interest Category

| Category | Interval | Frequency | Percentage |
|----------|--------------------------|-----------|------------|
| Low | $x < 60,087$ | 20 | 17,4% |
| Medium | $60,087 \leq x < 80,946$ | 79 | 68,7% |
| High | $80,946 \leq x$ | 16 | 13,9% |
| Total | | | 100% |

Information:

x = score student learning interest

Based on table 3 above, it is found that the majority of students, 68.7%, fall into the medium category in terms of learning interest. This indicates that most students have a fairly good level of learning interest, with scores between 60.087 and less than 80.946. A total of 13.9% of students fell into the high category in terms of learning interest, with scores equal to or greater than 80.946. This indicates that there are a number of students who have a high interest in learning and only 17.4% of students fall into the low category

in terms of interest in learning, with a score of less than 60.087. Thus, the data from the category table of learning interest of students in class XI MIA and XI MIA MA DDI Cambalagi illustrates that students' learning interest is in the medium category.

Table 4. Category of Student Mathematics Learning Outcomes

| Category | Interval | Frequency | Percentage |
|----------|--------------------------|-----------|------------|
| Low | $x < 58,182$ | 17 | 14,8 % |
| Medium | $58,182 \leq x < 85,296$ | 85 | 73,9 % |
| High | $85,296 \leq x$ | 13 | 11,3 % |
| Total | | 115 | 100% |

Information:

x = score learning outcomes

Table 4 shows that most students had moderate math learning outcomes at 73.9%. This indicates that the majority of students had a fairly good level of learning achievement, with scores between 58.182 and less than 85.296. A total of 11.3% of students fell into the high category in terms of learning outcomes, with scores equal to or greater than 85.296. This shows that there are a number of students who have high learning achievement and only 14.8% of students fall into the low category in terms of learning outcomes, with a score of less than 58.182. Thus, if the average score of students' mathematics learning outcomes is put into this category, it can be concluded that the scores of students' mathematics learning outcomes in all subjects of this study are in the medium category.

B. Hypothesis Analysis

Furthermore, hypothesis testing is carried out, but first the prerequisite analysis is carried out in the form of normality test and linearity test. The following results of the normality test and linearity test are presented in table 5.

Table 5. Normality Test Results

| Variable | Asymp. Sig (2-tailed) | Conditions | Conclusion |
|---|-----------------------|------------|------------|
| Teacher Interpersonal Intelligence (X1) | 0,182 | $> 0,05$ | Normal |
| Learning Interest (X2) | 0,400 | $> 0,05$ | Normal |
| Learning Outcomes (Y) | 0,082 | $> 0,05$ | Normal |

The normality test results in Table 5 show that the data variance is normally distributed. Based on the calculation results obtained Asymp. Sig. (2-tailed) for all

variables using the Kolmogorov-Smirnov test, namely 0.182 for the effect of Teacher Interpersonal Intelligence (X1), 0.400 for learning interest (X2), and 0.200 for learning outcomes (Y). Each value is greater than 0.05, so H_0 is accepted, meaning that the data of all variables are normally distributed.

Table 6. Linearity Test Results

| Variable | Deviation from Linearity Sig. | Conditions | Conclusion |
|--|-------------------------------|------------|------------|
| Learning Outcomes* Teacher Interpersonal Intelligence | 0,189 | > 0,05 | Linier |
| Learning Outcomes * Learning Interest | 0,074 | > 0,05 | Linier |

Based on table 6 shows that the results of the linearity test of teacher interpersonal intelligence on math learning outcomes obtained Significance results (0.189) > 0.05 means that the teacher interpersonal intelligence data is linear. While the linearity test of student learning interest on mathematics learning outcomes obtained Significance results (0.074) > 0.05 so that student learning interest data is linear. Thus, the relationship between teacher interpersonal intelligence and student learning interest on student math learning outcomes is linear (equal).

After testing the prerequisites of data analysis, it is known that the data on teacher interpersonal intelligence, student learning interest, and student math learning outcomes in this study are normally distributed and linear, so data testing can be continued in the next data inferential analysis, namely hypothesis testing using multiple linear regression with a significant level of $\alpha = 0.05$. Hypothesis testing is carried out to determine the effect of teacher interpersonal intelligence and interest in learning together on student math learning outcomes.

H_0 : There is no influence between teachers' interpersonal intelligence and students' interest in learning together on the learning outcomes of MA DDI Cambalagi students.

H_1 : There is influence between teachers' interpersonal intelligence and students' interest in learning together on the learning outcomes of MA DDI Cambalagi students.

Conditions:

If Sig. < α , then H_0 is rejected. If Sig. > α , then H_0 is accepted. (Nasir, 2018)

Table 7. Results of Multiple Regression Test Analysis of Teacher Interpersonal Intelligence and Learning Interest on Learning Outcomes

| Model | Sum of Squares | df | Mean Square | F | Sig. | |
|-------|----------------|-----------|-------------|----------|--------|-------------------|
| 1 | Regression | 4053.789 | 2 | 2026.894 | 13.434 | .000 ^b |
| | Residual | 16898.385 | 112 | 150.878 | | |
| | Total | 20952.174 | 114 | | | |

b. Predictors: (Constant), Minat_belajar, Interpersonal_guru

Based on the results of multiple linear regression tests, the Sig value = 0.000 is

obtained. Because the Sig value of 0.000 < 0.05, the decision is Ho rejected and H1 accepted. This means that there is an effect of teacher interpersonal intelligence and student learning interest simultaneously affecting the math learning outcomes of MA DDI Cambalagi students.

Table 8. Estimation Results of the Effect of Interpersonal Intelligence and Learning Interest Variables

| Model | Unstandardized | | Standardized | t | Sig. |
|------------------------------|----------------|------------|--------------|-------|-------|
| | Coefficients | | Coefficients | | |
| | B | Std. Error | Beta | | |
| (Constant) | 10.749 | 12.091 | | 0.889 | 0.376 |
| 1 Interpersonal_Intelligence | 0.419 | 0.127 | 0.309 | 3.297 | 0.001 |
| Learning_Interest | 0.218 | 0.098 | 0.209 | 2.229 | 0.028 |

R Square: 0.193

Based on calculations using SPSS in table 8 above, the regression equation is obtained as follows:

$$Y = 10,749 + 0,419X_1 + 0,218X_2$$

This figure of 10.749 is a constant which in this case cannot be interpreted because it is impossible for someone to have interpersonal intelligence worth 0. While the regression value for interpersonal intelligence (X1) is 0.419, this figure implies that every one-unit addition of interpersonal intelligence (X1), the math learning outcomes (Y) will increase by 0.419 units. And the regression value for learning interest (X2) is 0.218, this figure implies that every one-unit addition of student learning interest (X2), the math learning outcomes (Y) will increase by 0.218 units. While the coefficient of determination is 0.193. This shows that the teacher's interpersonal intelligence and student interest in learning have an influence on math learning outcomes by 19.30% and the remaining 100% - 19.30% = 80.60% is influenced by other variables not examined.

The results of this study indicate that together the interpersonal intelligence of teachers and students' interest in learning significantly affect the mathematics learning outcomes of students in class X MIA and XI MIA MA DDI Cambalagi. It can be seen from table 7 that the effect of teachers' interpersonal intelligence and students' interest in learning together on students' mathematics learning outcomes as obtained value (Sig 0.000 < 0.05). This finding is consistent with the results of research (Intang Sappaile & Darwis, 2019) which states that interpersonal intelligence has an influence on math learning outcomes. Several studies have been conducted previously, namely (Fajriani & Masni, 2017; Janna, 2024; Purnamasri, 2020) found that interpersonal intelligence, learning style preferences, and motivation levels affect students' mathematics learning achievement. Likewise, research (Ismail et al., 2023; Mulbar et al., 2019) that there is a positive effect of interest in learning mathematics on students' mathematics learning achievement and interpersonal intelligence affects math learning outcomes by paying attention to intrapersonal intelligence.

The results of this study also show that there is an effect of interest in learning with student learning outcomes (Setiawan et al., 2020), so that if interest in learning is

high, student learning outcomes will also increase. Because interest in learning is a sense of preference and a sense of interest in a thing or activity without anyone telling you to (Rose et al., 2019). From this opinion, in this study, learning interest affects the learning outcomes of students in grades X MIA and XI MIA MA DDI Cambalagi in mathematics subjects, where learning interest includes feelings of pleasure, student interest, student attention, student participation, and desire / awareness, which of the five aspects included in learning interest in this study. Interest in learning will provide in-depth knowledge of mathematics, subject matter can be mastered properly, so that it will provide good learning outcomes. Good learning outcomes are achieved through the interaction of various factors that support each other and high learning interest. Therefore, the role of learning interest in the learning process is said to be very important.

With the teacher's interpersonal intelligence and high student interest in learning, it will affect students' math learning outcomes. Interpersonal intelligence that exists in each individual to be able to socialize with other individuals around them. This intelligence must be well developed so that each individual can understand and cooperate with other individuals (Nurelah, 2016). Positive learning interests that have been embedded for students will encourage the desire or willingness to always learn and interest as understood and used by people so far can affect the quality of achievement of learning outcomes in certain fields of study (Mustofa, 2015).

Based on the results of the discussion above, it can be concluded that teachers' interpersonal intelligence and students' interest in learning together have a significant influence on the mathematics learning outcomes of MA DDI Cambalagi students. This shows that teachers' interpersonal intelligence and students' interest in learning have a significant influence on students' mathematics learning outcomes.

CONCLUSION

Based on the results of the research and data analysis that has been stated, it can be concluded that the teacher's interpersonal intelligence and student learning interest in this study are in the moderate category and the results show that there is a significant effect of teacher interpersonal intelligence and student learning interest on the mathematics learning outcomes of MA DDI Cambalagi students.

REFERENCES

- Anita, F. D. (2020). Penerapan Pendekatan Realistic Mathematics Education (RME) Melalui Perangkat Pembelajaran Terhadap Motivasi Belajar Matematika Siswa. *Jurnal PEKA (Pendidikan Matematika)*, 3(2), 54–59. <https://doi.org/10.37150/jp.v3i2.787>
- Fajriani, & Masni, E. D. (2017). Pengaruh Kecerdasan Interpersonal Terhadap Hasil Belajar Matematika Siswa. *Pedagogy: Jurnal Pendidikan Matematika*, 2(1), 63–73. <http://dx.doi.org/10.30605/pedagogy.v2i1.661>
- Hamalik, O. (2017). *Proses Belajar Mengajar* (Cetakan Kesembilan Belas). Bumi Aksara.
- Intang Sappaile, B., & Darwis, M. (2019). *THE INFLUENCE OF ADVERSITY QUOTIENT, INTERPERSONAL INTELEGENCE, VISUAL-SPATIAL*

*INTELEGENCE, AND LOGICAL THINKING SKILL ON MATHEMATICS
EARNING OUTCOMES OF GRADE VIII STUDENTS AT PUBLIC JUNIOR
HIGH SCHOOLS IN BULUKUMBA DISTRICT.*

- Ismail, R., Imawan, O. R., & Nadhifah, A. (2023). *The influence of interest in learning mathematics on mathematics learning achievement of junior high school students in Papua*. 2811. <https://doi.org/10.1063/5.0142257>
- Janna, N. (2024). PENGARUH KECERDASAN INTERPERSONAL TERHADAP HASIL BELAJAR MATEMATIKA. *Al-Irsyad Journal of Mathematics Education*, 3(1), 1–10. <https://doi.org/10.58917/ijme.v3i1.89>
- Mulbar, U., Arwadi, F., & Assagaf, S. F. (2019). The Influences of Intrapersonal Intelligence and Interpersonal Intelligence towards Students' Mathematics Learning Outcomes. *Proceedings of the 1st International Conference on Advanced Multidisciplinary Research (ICAMR 2018)*, 227, 219–221. <https://doi.org/10.2991/icamr-18.2019.54>
- Mustofa, B. (2015). *Psikologi Pendidikan*. Parama Ilmu.
- Nasir, A. M. (2018). *Matematika Farmasi dan Ilmu-Ilmu Lain Yang Sejenis*. Kencana.
- Nurelah, E. (2016). Kemandirian Belajar dan Kecerdasan Interpersonal dengan Hasil Belajar IPS Peserta Didik Kelas V SDN di Wilayah Binaan IV Pulogadung Jakarta Timur. *Jurnal Pendidikan Dasar*, 7(1), 13–26. <https://journal.unj.ac.id/unj/index.php/jpd/article/view/500>
- Oviyanti, F. (2017). URGENSI KECERDASAN INTERPERSONAL BAGI GURU. *Tadrib: Jurnal Pendidikan Agama Islam*, 3(1), 75–97. <https://doi.org/10.19109/Tadrib.v3i1.1384>
- Purnama, I. M. (2016). Pengaruh Kecerdasan Emosional dan Minat Belajar Terhadap Prestasi Belajar Matematika di SMAN Jakarta Selatan. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 6(3), 233–245. <https://doi.org/10.30998/formatif.v6i3.995>
- Purnamasri, I. (2020). Pengaruh kecerdasan interpersonal, gaya belajar, dan motivasi berprestasi terhadap hasil belajar PAI kelas XI SMAN 1 Tinambung. *Inspiratif Pendidikan*, 9(2), 260–272. <https://doi.org/10.24252/ip.v9i2.14960>
- Rose, D. C., Sutherland, W. J., Barnes, A. P., Borthwick, F., Ffoulkes, C., Hall, C., Moorby, J. M., Nicholas-Davies, P., Twining, S., & Dicks, L. V. (2019). Integrated farm management for sustainable agriculture: Lessons for knowledge exchange and policy. *Land Use Policy*, 81, 834–842. <https://doi.org/10.1016/j.landusepol.2018.11.001>
- Setiawan, J., Aman, A., & Wulandari, T. (2020). Understanding Indonesian history, interest in learning history and national insight with nationalism attitude. *International Journal of Evaluation and Research in Education (IJERE)*, 9(2), 364–373. <https://doi.org/10.11591/ijere.v9i2.20474>
- Sirait, E. D. (2016). Pengaruh Minat Belajar Terhadap Prestasi Belajar Matematika. *Jurnal Formatif*, 6(1), 35–43. <http://dx.doi.org/10.30998/formatif.v6i1.750>
- Sugiyono. (2010). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Alfabeta.
- Suprihatiningrum, J. (2016). *Guru Professional: Pedoman Kinerja, Kualifikasi & Kompetensi Guru*. Ar-Ruzz Media.
- Syahputra, E. (2012). *Snowball Throwing Tingkatkan Minat dan Hasil Belajar*. Haura Publishing.

Zidni, K., Ali, M., & Muthoifin. (2023). Pengaruh Kecerdasan Intrapersonal dan Minat Belajar Terhadap Hasil Belajar PAI Siswa Kelas X SMA Negeri 1 Kedunggalar Tahun Ajaran 2021/2022. *Al Qodiri : Jurnal Pendidikan, Sosial Dan Keagamaan*, 20(3), 467–477. <https://doi.org/10.53515/qodiri.2023.20.3.467-477>