

The Effect of Jigsaw Cooperative Learning on Islamic Education Motivation Among 11th Grade Students at SMAN 12 Makassar

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Abstract: This study aims to examine the effect of Jigsaw Cooperative Learning on the learning motivation of 10th-grade students in Islamic Religious Education subjects at SMAN 12 Makassar. This study is descriptive quantitative research with a survey approach that aims to describe the effect of implementing the Jigsaw cooperative learning method on students' motivation in Islamic Religious Education (PAI) subjects in class XI SMAN 12 Makassar. The population of this study was all students of class XI who had participated in learning with the Jigsaw method, with a sample of 38 students taken by purposive sampling. Two main instruments were used in data collection to measure the learning process a queue: a questionnaire on the implementation of the Jigsaw method and a questionnaire on learning motivation filled out by students; the data collected was then analyzed descriptively to describe the implementation of the Jigsaw method and how this method affects students' learning motivation. In addition, correlation analysis was also used to see the relationship between implementing the Jigsaw method and the level of student motivation. The results of this study are expected to provide a clear picture of the Effect of Jigsaw cooperative learning on students' learning motivation in class XI SMAN 12 Makassar. Jigsaw Learning Method, 53% of respondents are in the "moderate" category (values 39.39 to 47.81), 29% of respondents are in the "high" category (above 47.81), and 18% are in the "low" category (less than 39.39). Thus, most students have assessments that are around the average, with a distribution centred on the moderate category. The average motivation value of 61.24 with a standard deviation of 4.82 indicates a relatively good level of motivation. As many as 55% of respondents have learning motivation in the moderate category (57.03 to 65.43), while 18% are in the high category, and 26% are in the low category. Most respondents are in the moderate category, indicating relatively stable learning motivation. The descriptive analysis shows that the jigsaw learning method and student learning motivation are pretty good and consistent, with most students performing moderately. Implementing the Jigsaw type of cooperative learning method has a significant impact on increasing student learning motivation, especially at SMAN 12 Makassar in the subject of Islamic Religious Education (PAI). Based on the statistical analysis, this method has been proven to substantially increase learning motivation, where each increase in the implementation of the Jigsaw method increases student learning motivation by 0.849 units. In addition, this method is also effective in involving students more actively in the learning process, deepening understanding of the material, and improving social skills such as communication and collaboration. This study confirms that Jigsaw is an effective learning strategy that can improve motivation and learning outcomes in classrooms with diverse students.

Keywords: Cooperative Learning, Jigsaw, Learning Motivation, Islamic Education.

Introduction

Education is one of the essential pillars in building the nation's character, and the subject of Islamic Religious Education (PAI) has a central role in shaping the morals and ethics of students. Amid the social dynamics of urban communities such as

Makassar, the challenges in the world of education are increasingly complex, especially in motivating students to learn actively. Many factors influence students' internal and external learning motivation, making the classroom learning process only sometimes run optimally.

As one of the metropolitan cities in Indonesia, Makassar is a centre of education with diverse social, cultural, and economic backgrounds owned by its students. (Makbul, 2021) This condition brings challenges to education, mainly Islamic religious education. At SMAN 12 Makassar, grade 11 presents a reflection of the diverse academic conditions of students. Some students show a high enthusiasm for learning and a strong interest in Islamic Religious Education material. However, only some also find it difficult to follow the learning and even lose interest in actively participating. This can be seen from the low mental presence during learning, lack of seriousness in doing assignments, and low student participation during the learning process.

Several factors cause low learning motivation among students. First, the learning method still needs to be more varied. (M. Makbul & Nur Aini Farida, 2023) Most teachers still apply the lecture method as the primary approach, where the teacher is more dominant in delivering the material, while students only act as listeners. This approach can stimulate students' curiosity and active participation in the learning process. (Makbul & Saputri, 2023) Second, social and environmental pressures are less supportive. (Monika et al., 2684) In an urban context, students are often faced with distractions from the environment outside the school that can affect their concentration and commitment to learning. (Lokahita et al., 2024) Social media, unhealthy relationships, and academic pressure from various subjects also decrease learning motivation.

In addition, the gap in learning abilities between students is also a challenge. Students with lower academic abilities often feel left behind and less motivated to learn because they cannot follow the lessons well. Conversely, students with better abilities also tend to feel bored if the learning process does not challenge them to think more critically. These differences require a more dynamic and inclusive learning approach that can accommodate the needs of all students with various backgrounds and abilities.

To face these challenges, innovation is needed in learning methods that are not just about

teaching but can also build students' learning motivation. (Susilo & Sarkowi, 2018) One of the learning methods considered adequate in this Case is the jigsaw cooperative learning model. (Komala Sari et al., 2684) The Jigsaw method is a form of cooperative learning that emphasizes student collaboration in learning material. (Lubis & Harahap, 2016) (Vani et al., 2024) Students are divided into small groups, where each member is responsible for understanding a specific part of the material, which must then be taught back to the other group members. (Suryani & Aman, 2019) This method makes students learn for themselves and have the responsibility to help their friends understand the material. (Lovez et al., 2023)

Using the Jigsaw model in Islamic Religious Education learning in class 11 of SMAN 12 Makassar is expected to increase students' learning motivation effectively. (I. S. Dewi et al., n.d.) First, this model encourages students to participate more actively because they receive material and act as material providers for their friends. (Sukmawati et al., 2023) This can increase students' sense of responsibility and self-confidence, ultimately increasing learning motivation. (Restu Adji et al., 2023). In addition, this learning model also fosters cooperation between students, which can improve social relationships and the spirit of learning together to achieve the same goal.

Previous studies have shown that Jigsaw-type cooperative learning effectively improves students' motivation and learning outcomes in various subjects. (Setiawan, 2018). With this method, students become more actively involved in the learning process, feel more motivated because there is an element of collective responsibility, and understand the material better because they learn by re-teaching it to others. (Febriani et al., 2023) This is in line with the theory of constructivism, which states that learning is an active process through which students construct their understanding through social interaction and direct experience. (A. N. Dewi et al., 2024)

However, implementing the Jigsaw learning model also requires thorough preparation from the teacher. (Febriani et al., 2023) Teachers must be able to design learning materials that can be divided into sub-materials based on students' abilities. In

addition, teachers need to provide sufficient guidance so that each group can carry out its duties well. (Nidaa Lydia Mustika Nabiilah et al., 2024) With good planning, it is hoped that this Jigsaw model can positively impact students' learning motivation, especially in Islamic Religious Education subjects. (Nidaa Lydia Mustika Nabiilah et al., 2024)

In conclusion, Jigsaw-type cooperative learning is expected to be an innovative alternative to increasing students' learning motivation at SMAN 12 Makassar. With this learning model, students are not only invited to understand the material in depth but are also given the responsibility to help their friends so that they can create a more interactive and collaborative learning atmosphere. Amidst education challenges in big cities like Makassar, innovation in learning methods is needed to answer the needs and increase students' learning motivation.

Materials and Methods

This descriptive quantitative research with a survey approach that aims to describe the effect of implementing the Jigsaw-type cooperative learning method on students' motivation in Islamic Religious Education (PAI) subjects in class XI of SMAN 12 Makassar. The population of this study was all class XI students who had participated in learning with the Jigsaw method, with a sample of 38 students taken by purposive sampling. Two main instruments were used in data collection: the jigsaw learning perception questionnaire and learning motivation, which students filled out to measure their level of motivation after learning. (A. Muri Yusuf, 2015; Nawawi, 2001; Sulaiman Saat & Sitti Mania, 2020) The data collection process begins

with observing the implementation of Jigsaw cooperative learning. The collected data is then analyzed descriptively to describe the implementation of the Jigsaw method and how this method affects students' learning motivation. (Mathar, 2018) In addition, correlation analysis is also used to see the relationship between implementing the Jigsaw method and the level of student motivation. (Mutiara Fajriatu Aprilia et al., 2020) The results of this study are expected to provide a clear picture of the effectiveness of Jigsaw-type Jigsaw cooperative learning in increasing student learning motivation in class XI of SMAN 12 Makassar.

Results and Discussion

Before going into a more in-depth explanation of the results of the data analysis, it is essential to understand that descriptive analysis is used in this study to provide an overview of the variables studied. This analysis aims to determine how applying the Jigsaw cooperative learning method affects students' learning motivation. Through descriptive analysis, researchers can present data in a more straightforward and easier-to-understand form so that the study results can more clearly describe the trends, patterns, and relationships between the variables measured. The following is a description of the results of the descriptive analysis based on the data that has been collected:

Descriptive Analysis of Jigsaw Learning

After data analysis was carried out on the Jigsaw Learning Method variable using SPSS, the results can be displayed as follows:

Table 1. Descriptive Analysis of Jigsaw Learning Method.

		Description		
		Statistics	Std. Error	
Jigsaw Learning Method	Mean	43.6053	.68362	
	95% Confidence Interval for Mean	Lower Bound	42.2201	
		Upper Bound	44.9904	
	5% Trimmed Mean	43.7573		
	Median	44.5000		
	Variance	17,759		
	Std. Deviation	4.21413		
	Minimum	31.00		
	Maximum	53.00		
	Range	22.00		
	Interquartile Range	7.00		
	Skewness	-.628	.383	
	Kurtosis	1,036	.750	

Referring to the results of the descriptive analysis, the Jigsaw learning method showed quite good results, with an average value of 43.61. Most of the students' scores were between 42.22 and 44.99. The median (44.50) was slightly higher than the average, indicating that most scores were above average, with a data distribution slightly skewed to the left. The scores ranged from 31 to 53, with a

data spread that was not too large (standard deviation 4.21). This shows that the learning outcomes of the Jigsaw method were consistent and stable in the groups analyzed.

Next, from the average and standard deviation data, the categorization is determined, which is presented in the following table:

Table 2. Categorization of Jigsaw Learning Methods.

Category Limits	Interval	Frequency	Percentage	Information
$X < (\mu - 1.0\sigma)$	$X \leq 39.39$	7	18%	Low
$(\mu - 1.0\sigma) \leq$	$39.39 \leq X \leq 47.81$	20	53%	Medium
$(\mu + 1.0\sigma) \leq X$	$47.81 \leq X$	11	29%	High
	Amount	38	100%	

Referring to the categorization table above, it is known that 15% of case method learning is in the low category, 68% in the medium category, and 17% in the high category, so it can be concluded that the description of Case Base-based learning is in the medium category.

Based on the categorization table, the respondent data is divided into three main categories: low, medium, and high. As many as 18% of respondents have low scores below 39.39. Most respondents, namely 53%, are in the medium category, with scores between 39.39 and 47.81. This

shows that most respondents have an assessment of the jigsaw learning method around the average. Meanwhile, 29% of respondents have high scores above 47.81. In other words, more than half of the respondents are in the medium category, while a small number are divided into the low and high categories. This distribution shows that the respondents' performance is generally in the middle, with little deviation towards low or high scores.

Overview of Learning Motivation of Islamic Religious Education Students at Singaperbangsa University, Karawang

After conducting data analysis on the learning motivation variable for students of the Islamic

Religious Education Study Program at Singaperbangsa University, Karawang, the results of the SPSS analysis can be displayed as follows:

Table 3. Descriptive Analysis of Learning Motivation.

		Description		
		Statistics	Std. Error	
Motivation to learn	Mean	61.2368	.78248	
	95% Confidence Interval for Mean	Lower Bound	59.6514	
		Upper Bound	62.8223	
	5% Trimmed Mean	61.0965		
	Median	61.0000		
	Variance	23,267		
	Std. Deviation	4.82356		
	Minimum	53.00		
	Maximum	72.00		
	Range	19.00		
	Interquartile Range	7.25		
	Skewness	.399	.383	
	Kurtosis	-.435	.750	

The descriptive results regarding learning motivation show that the average motivation is 61.24, reflecting overall good learning motivation. The 95% confidence interval indicates that the true mean is between 59.65 and 62.82, so we can be confident that these results are relatively stable. The median is 61, almost the same as the mean, indicating a balanced distribution. The variation in motivation values among respondents is seen from the standard deviation of 4.82, indicating that the data is not too spread out. The range of values from the lowest (53) to the highest (72) is 19, with a

distribution that is slightly skewed to the right, but still within normal limits. Overall, these data indicate that most respondents have a good level of learning motivation, with not too significant variations among them.

Referring to the results of the descriptive analysis, the average value is 53.5786 with a standard deviation value of 4.41884. Thus, the data above is used as a reference for compiling a categorization table, which can be displayed as follows:

Table 4. Categorization of Student Learning Motivation.

Category Limits	Interval	Frequency	Percentage	Information
$X < (\mu - 1.0\sigma)$	$X < 57.03$	10	26%	Low
$(\mu - 1.0\sigma) \leq X$	$57.03 \leq X \leq 65.43$	21	55%	Medium
$(\mu + 1.0\sigma) \leq X$	$65.43 \leq X$	7	18%	High
Amount		38	100%	

Based on the learning motivation categorization table, most respondents, namely 55%, have

learning motivation in the moderate category, with scores between 57.03 and 65.43. This shows that

most respondents have a pretty good level of motivation. As many as 26% of respondents are in the low category, with scores below 57.03, which means that more than a quarter of respondents have relatively low learning motivation.

Meanwhile, only 18% of respondents have high learning motivation, with scores above 65.43. Most respondents have moderate motivation, with a small portion in the low and high categories.

Classical Assumption Test of Jigsaw Learning on Students' Learning Motivation

Normality Test of Variable X against Variable Y

Table 5. Normality Test of Variable X against Variable Y.

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual	
N		38	
Normal Parameters,b	Mean	.0000000	
	Std. Deviation	3.23731233	
Most Extreme Differences	Absolute	.109	
	Positive	.109	
	Negative	-.092	
Test Statistics		.109	
Asymp. Sig. (2-tailed) c		.200d	
Monte Carlo Sig. (2-tailed) e	Sig.	.290	
	99% Confidence Interval	Lower Bound	.279
		Upper Bound	.302

Referring to the results of the one-sample Kolmogorov-Smirnov Test it was conducted to check the normality of the residual distribution. From the data of 38 samples (N = 38), it is known that the residual average is 0 with a standard deviation of 3.2373. The value of the most significant extreme difference (Most Extreme Differences) between the sample distribution and the theoretical normal distribution was recorded as 0.109 for the absolute value, with a maximum positive difference of 0.109 and a maximum negative difference of -0.092. The KS test statistic of 0.109 has a significance value of Asymp. Sig. (2-

tailed) of 0.200 after Lilliefors correction, which is greater than 0.05. This indicates insufficient evidence to reject the null hypothesis, so it can be concluded that the residual distribution follows a normal distribution. In addition, the Monte Carlo method with 10,000 samples provides a significance value of 0.290, with a 99% confidence interval between 0.279 and 0.302, supporting the conclusion that the residual distribution is normal. Overall, this test shows that the distribution of residual data is within the accepted limits of normality.

Linearity Test

Table 6. Linearity Test.

			ANOVA Table				
			Sum of Squares	df	Mean Square	F	Sig.
Learning Motivation * Jigsaw Learning Method	Between Groups	(Combined)	663,985	14	47,428	5,541	<.001
		Linearity	473.101	1	473.101	55,268	<.001
		Deviation from Linearity	190,884	13	14,683	1,715	.125
Within Groups			196,883	23	8,560		
Total			860,868	37			

The results of the ANOVA test showed that there was a significant relationship between Learning Motivation and the Jigsaw Learning Method. Overall, the differences between groups in this learning method were statistically significant ($F = 5.541$, $p < 0.001$). The linearity test showed the relationship between learning motivation and the Jigsaw learning method was linear and highly significant ($F = 55.268$, $p < 0.001$). There was no significant deviation from the linear pattern ($p = 0.125$), so the relationship between these two variables was stable and followed a linear pattern.

Inferential Analysis of the Influence of Jigsaw Cooperative Learning on Islamic Religious Education Learning Motivation at SMAN 12 Makassar

This study aims to determine how implementing Jigsaw Cooperative Learning affects students' Learning Motivation in Islamic Religious

Education (PAI) subjects at SMAN 12 Makassar. Jigsaw-type learning is one of the cooperative learning methods that aims to increase student participation in the teaching and learning process through group cooperation, where each group member has responsibility for a different part of the material.(Mulyani, 2013)

Learning motivation is one crucial aspect that influences students' learning outcomes.(Fatonah et al., 2016)Therefore, this study analyzes whether applying the Jigsaw method can significantly influence students' learning motivation in Islamic Religious Education subjects. The following are the results of a simple linear regression analysis that tests the relationship between the Jigsaw Learning Method as an independent variable and Learning Motivation as a dependent variable among students of SMAN 12 Makassar.

Table 7 Influence of Jigsaw Cooperative Learning on Learning Motivation Summary Model.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.741a	.550	.537	3.28197

a. Predictors: (Constant), Jigsaw Learning Method

b. Dependent Variable: Learning Motivation

The table above summarises the model from a simple linear regression analysis using the Jigsaw Learning Method as an independent variable and Learning Motivation as a dependent variable. The R-value of 0.741 indicates a strong relationship between the learning method and students' learning motivation. The R Square value of 0.550

indicates that applying the Jigsaw learning method can explain 55% of the variation in learning motivation. In addition, the Adjusted R Square value of 0.537 indicates that after adjusting for the number of variables and sample size, this model can still explain around 53.7% of the variation in learning motivation. Meanwhile, the Standard

Error of the Estimate of 3.28197 indicates the magnitude of the standard error produced in predicting learning motivation. Overall, this model

explains the relationship between the Jigsaw learning method and students' learning motivation.

Table 8. The Influence of Jigsaw Cooperative Learning on Learning Motivation Anova.

ANOVA						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	473.101	1	473.101	43,922	<.001b
	Residual	387,767	36	10,771		
	Total	860,868	37			

a. Dependent Variable: Learning Motivation

b. Predictors: (Constant), Jigsaw Learning Method

From the regression model that predicts Learning Motivation based on the Jigsaw Learning Method. The table shows that the Sum of Squares value for the regression is 473.101, which represents the variation in Learning Motivation that the model can explain. Meanwhile, the Sum of Squares for the Residual (error) is 387.767, a variation the model cannot explain. The total value of both is 860.868, representing the total variation in the data. The degree of freedom (df) for the regression is 1 because there is only one predictor variable, namely the Jigsaw learning method. The degree of freedom for the Residual is 36, from the

total sample used (37) minus the number of predictors. Mean Square is the result of dividing the Sum of Squares by the degrees of freedom, with the Mean Square for the regression being 473.101 and the Mean Square for the residual being 10.771. The F value generated from the ANOVA test is 43.922, indicating that the regression model can significantly predict Learning Motivation. The Significance Value (Sig.) of <0.001 indicates that this result is very statistically significant (less than 0.05), which means that there is a solid and significant relationship between the Jigsaw Learning Method and Learning Motivation.

Table 9. Influence of Jigsaw Cooperative Learning on Learning Motivation Coefficients.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24,236	5,608		4.322	<.001
	Jigsaw Learning Method	.849	.128	.741	6,627	<.001

a. Dependent Variable: Learning Motivation

The table above shows the results of the regression coefficient analysis to predict Learning Motivation based on the Jigsaw Learning Method. The constant value of 24.236 indicates that when the Jigsaw Learning Method variable is zero, the fundamental value of Learning Motivation is 24.236. Meanwhile, the regression coefficient of 0.849 indicates that every unit increase in applying the Jigsaw learning method will increase students' learning motivation by 0.849. The Standardized

Coefficients (Beta) value of 0.741 shows the strength of the relative contribution of the learning method to learning motivation in standard units. This means that the Jigsaw learning method makes a significant and robust contribution to changes in learning motivation.

The t-value of 6.627 and the level of significance (Sig.) of <0.001 indicate that the relationship between the independent variable (Jigsaw Learning Method) and the dependent variable

(Learning Motivation) is very statistically significant. This indicates that the Jigsaw learning method has a real and significant impact on increasing students' learning motivation.

Based on the results of the simple linear regression analysis that has been carried out, it can be concluded that the implementation of Jigsaw Cooperative Learning significantly influences students' Learning Motivation in Islamic Religious Education (PAI) subjects at SMAN 12 Makassar. This is evident from the correlation coefficient (R) value of 0.741, which indicates a strong relationship between the Jigsaw method and students' learning motivation. In addition, the R Square value of 0.550 indicates that 55% of the variation in learning motivation can be explained by implementing this method, with an Adjusted R Square value of 0.537, which strengthens this result after considering the number of variables in the model.

The results of the ANOVA test also show that this model is very significant overall, with an F value of 43.922 and a significance level (Sig.) of less than 0.001. This means that the application of the Jigsaw method statistically has a significant effect on students' learning motivation. In addition, from the results of the regression coefficient test, every increase in the application of the Jigsaw method by one unit will increase students' learning motivation by 0.849 units. The t value of 6.627 and a significance level of less than 0.001 further indicate that the relationship between the Jigsaw learning method and learning motivation is statistically significant.

Overall, implementing the Jigsaw Learning Method has been proven to greatly increase students' learning motivation. Therefore, this method can be considered one of the effective strategies to increase student engagement and learning outcomes in Islamic Religious Education subjects at SMAN 12 Makassar.

Discussion

Jigsaw cooperative learning is based on the theory of social constructivism, which emphasizes that learning is a social process in which students construct knowledge through interaction with others. This method involves group work, where

each member is responsible for a different part of the material and shares knowledge. (Nursifa et al., 2024) This theory is supported by Vygotsky's opinion which states that social interaction plays a vital role in the learning process, primarily through the concept of the Zone of Proximal Development (ZPD), where students can learn more effectively with the help of more experienced friends or teachers. (Nashirotnun, 2020)

Based on the results of this study, the application of the Jigsaw method has been proven to have a significant effect on students' learning motivation at SMAN 12 Makassar, as evidenced by the high correlation coefficient ($R = 0.741$) and significant F value (43.922, $p < 0.001$). This shows that learning methods based on interaction and cooperation, such as Jigsaw, can substantially increase students' learning motivation. (Putu & Darmita, 2022) Learning motivation is one of the key aspects determining learning outcomes because motivated students tend to be more active in learning and are better prepared to face academic challenges.

In the context of students at SMAN 12 Makassar, the characteristics of students in this school may reflect diversity in terms of academic ability, learning style, and level of participation in the learning process. Applying the Jigsaw method, which emphasizes the division of responsibilities in groups, can embrace various types of students, both those with active and passive tendencies in class. (Urwati & Ernita, 2019) This method allows each student to contribute to the group so that they feel more involved and have responsibility for the learning outcomes of their group.

Students at SMAN 12 Makassar will also benefit from this approach because the Jigsaw method encourages direct involvement in the teaching-learning process. (Hardianto et al., 2024) By being given responsibility for specific material, students get the opportunity to deepen their understanding and improve social skills such as communication and collaboration.

Other studies examining this method have shown that the Jigsaw method positively impacts learning at various levels of education. A study at SDN Ujung Menteng 01 East Jakarta, conducted in the 2022-2023 academic year, showed that applying

the Jigsaw method improved students' speaking skills in learning Indonesian. Before the application of this method, students tended to be passive, with an average score of 56.8, but after the application of Jigsaw, their scores increased to 82.67, showing a significant improvement in their communication skills. In mathematics, a study at an elementary school in Purwakarta Regency revealed that the Jigsaw method also contributed to improving students' mathematical understanding. Students who learned using the Jigsaw method showed a better understanding of flat-shaped material than conventional learning methods. This proves that this method can make learning more effective and exciting.

In addition, a study at SMA Negeri 2 Surakarta showed that combining the Jigsaw method with Problem-Based Learning (PBL) can improve student learning outcomes in science subjects. Applying this method makes students more actively involved in the learning process, ultimately improving their understanding of the subject matter. These studies show that the Jigsaw method improves students' academic and social skills, such as communication and collaboration, which are very important in the teaching and learning process. (Nur Amalia & Abstract Info, 2023)

Furthermore, the results of this study also show that every increase in the application of the Jigsaw method by one unit will increase student learning motivation by 0.849 units. This fact is very relevant in the context of students at SMAN 12 Makassar, where learning motivation is often the main factor influencing students' active participation in class. Increasing motivation is hoped to help students be more involved in learning and achieve better academic results. (Zaharah, 2020)

Overall, the results of this study strengthen the theory that cooperative learning methods such as Jigsaw have great potential to improve student motivation and learning outcomes. At SMAN 12 Makassar, with diverse student characteristics, this method allows each student to actively participate in the learning process, both academically and socially. This method is effective in encouraging learning motivation and increasing student involvement in Islamic Religious Education

subjects and can be applied more widely in other learning contexts.

Conclusions

Jigsaw Learning Method, 53% of respondents are in the "moderate" category (values 39.39 to 47.81), 29% of respondents are in the "high" category (above 47.81), and 18% are in the "low" category (less than 39.39). Thus, the majority of students have assessments that are around the average, with a distribution centred on the moderate category. The average motivation value of 61.24 with a standard deviation of 4.82 indicates a relatively good level of motivation. As many as 55% of respondents have learning motivation in the moderate category (57.03 to 65.43), while 18% are in the high category, and 26% are in the low category. Most respondents are in the moderate category, indicating relatively stable learning motivation. The descriptive analysis shows that the jigsaw learning method and student learning motivation are pretty good and consistent, with most students performing moderately. Implementing the Jigsaw cooperative learning method significantly impacts increasing student learning motivation, especially at SMAN 12 Makassar in the subject of Islamic Religious Education (PAI). Based on the statistical analysis, this method has been proven to substantially increase learning motivation, where each increase in the implementation of the Jigsaw method increases student learning motivation by 0.849 units. In addition, this method is also effective in involving students more actively in the learning process, deepening understanding of the material, and improving social skills such as communication and collaboration. This study confirms that Jigsaw is an effective learning strategy that increases motivation and learning outcomes in classes with diverse students.

Conflict of Interest: The authors declare that there is no conflict of interest, either directly or indirectly, that may affect the objectivity, validity, or integrity of the process of compiling, writing,

and publishing this article. All information, data, and analysis presented in this article have been carried out independently and transparently, without being influenced by personal interests, institutions, or third parties that may provide benefits or losses to either party.

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