

The Use of Traditional Gundu Games in Improving Student Discipline in Mathematics

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ABSTRACT

The purpose of this study was to determine the relationship and influence between the character of discipline and student responses in the traditional game of gundu (marbles) in mathematics. This research was conducted at SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas, Batanghari district. The method in this study was comparative quantitative data analysis. Where comparative is research that compares two or more variables. The results of this study are descriptive statistical tests of the character of the traditional game of gundu (marbles) on student responses to the mathematics subject at SDN 112/I Perumas which has a very good percentage for the results of the discipline character as well as for the results of student responses to traditional games. Followed by the assumption test where the three schools on the normality test are normally distributed and the linearity test has a linear relationship. Then proceed with the correlation test has a relationship and the regression test has an effect. So it can be concluded that the character of discipline on student responses to traditional games is interconnected and influential.

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1. INTRODUCTION

Education is a very important thing. It aims to improve self-quality, by improving educational processes and outcomes must be done through a focus on teaching (Kalaw, 2017; Şemin, 2019; Sman & City, 2020). Learning is basically not only learning about concepts, theories and facts, but is more concerned with applications in everyday life (Asumpta & Marlina, 2021; Santosa, 2018; Siang et al., 2017). The teaching and learning process must be supported especially learning materials that include

basic concepts that can be a vehicle for learning for students (Prihatini, 2017; Riswanto & Dasmo, 2017; emin, 2019). Therefore, a good education is needed today.

In learning at school, both at the elementary school junior high school and high school levels must have skills. These skills cover four aspects of education which include learning to know, learning to do, learning to be and learning to live together (Wegawati et al., 2016; Gelen Assoc, 2018; Gürsoy, 2021). Given that learning integration is important, it can offer learning according to the interests of students, therefore students can apply what they learn (B. Setiawan et al., 2017; Asrizal et al., 2018; Mutakinati et al., 2018). This is what causes the importance of paying attention to the learning carried out in elementary school to high school. Learning can be carried out effectively by considering the presentation of literacy enrichment teaching according to the characteristics of students (Rochman et al., 2017; Hartini et al., 2018; Laila Puspita, 2019).

Based on school observations, students' characteristics in solving a problem with the scientific method are very good for the learning process (Ratih Indah Puji Hartini, 2017; Setiawan, 2019; Chan et al., 2020). Monotonous learning difficult to accept, this causes students to be lazy to do assignments because of the applied education system (Mansouri & Moumine, 2017; Sari et al., 2017; Astalini et al., 2018). Therefore, the learning process and assessment by the teacher must be effective. Teachers are required in addition to conducting cognitive and psychomotor assessments, teachers are also required to carry out affective assessments that have not been carried out in detail by the teaching teachers (Maison. et al. 2018; Hariyanto, Harizon & Nanda. 2015; Fujika, Evita & Retni. 2015). Therefore, teachers must provide good assessments of students such as difficult subjects, one of which is mathematics.

Mathematics is a learning science that discusses magnitude, structure, space and change, both in elementary school and at the next level. Primary school mathematics learning can hone students' mathematical abilities to think logically, analytically, critically and systematically by improving the learning process (Kenedi, 2019; Nurlaily et al., 2019; Saleh et al., 2018). This states that participation and soft skills as well as a good point of view can be used to solve math problems (Hendriana et al., 2018; Ambussaidi & Yang, 2019; Lin et al., 2020). This tendency is a problem-solving technique in determining mathematical concepts using concrete objects (Surya et al., 2017; Saleh et al., 2018; Nuryadi et al., 2020). So that it can improve student discipline.

Discipline is one of the basic competencies in learning. The benefits of this discipline aim to show actions that are in accordance with the agreed code of conduct (Hartati, 2020; Li et al., 2013 n.d.; Siswantari, 2017). Learning behavior on the level of development and knowledge greatly affects motivation and discipline (Hyseni Duraku & Hoxha, 2021; Panungcat et al., 2021). Being scientific and communicating are important aspects related to studying how the results in learning (Hamdani et al., 2017; Wahyudi & Lestari, 2019). Therefore, a learning method can be used by using a tool such as the traditional game of gundu (marbles) in the mathematics subject matter of the circle.

The traditional game is a relatively simple game that allows developing a competitive understanding in depth (Ngazizah, 2019; Steffen et al., 2020; Li, et al., 2021). One of the traditional games used is gundu (marbles) to improve students' understanding. Gundu traditional games contain elements of mathematical material that are often of concern, namely building a ball-shaped space, flat circle, etc. (Febriyanti et al., 2018; Karina & Supardi, 2021; Kennett et al., 2018). The types of traditional games for mounded children have an influence on understanding concepts as learning resources (Ismawati & Warsito., 2002; Fajriah, 2017; Wijayanti, 2016). Therefore, good learning can foster student discipline towards regulations.

This research is in line with previous research conducted by (Febriyanti et al., 2018; Karina & Supardi, 2021; Kennett et al., 2018). about the character of student discipline. Previous research did not perform some of the tests carried out in this study. Previous research also did not test the correlation and regression tests. Other previous research conducted by (Hartati, 2020; Siswantari, 2017) about student responses to the traditional game of gundu in mathematics. However, previous studies did not compare the character of the discipline with the student's response to the traditional game of gundu in mathematics. the same thing with research on the character of student discipline, research on student

responses also did not pass the tests carried out in this study, namely regression and correlation tests. The regression test serves to determine the effect of the discipline character with student responses. So it can be concluded that previous research did not test some of the tests carried out by this study. The urgency of the research based on previous research, it is very important to examine more deeply the problems regarding the relationship and influence of student discipline character with student responses by using traditional games. By looking at how important the character of discipline is with student responses from the attachment observation, the researchers conclude that the purpose of the problem is to determine the relationship and influence between the character of discipline and student responses in the traditional game of gundu (marbles) in mathematics.

2. METHODS

This study uses a type of quantitative research that is used comparatively. Quantitative research is a field of inquiry that stands alone, is scientific in nature and aims to understand social reality (Rukin, 2019; Suwendra, 2018; manzilati 2017). In this case, a survey is a good procedure to use. Survey design is a procedure in quantitative research in which you administer a survey or questionnaire to a small group of people (called a sample) to identify trends in attitudes, opinions, behaviors, or characteristics of a large group of people (Creswell, 2013).

The sample in this study was 120 students from SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas, Batanghari district. The sampling technique is purposive sampling. Purposive sampling is a type of sampling in which a researcher more or less handpicks a case (Stommel & Wills, 2004). The reason for taking this technique is because not all samples have criteria that match the phenomenon being studied. The most important thing in sampling should consider the analysis of the sample (Luppens et al, 1992). The samples taken were 40 students at SD IT Aulia, 40 students at SD Islam Muntaz, and 40 students at SDN 112/I Perumas in Batanghari district.

The instrument in this study was the character of the traditional game of gundu (marbles) on the students' responses to mathematics. The assessment instrument is one of the latest experimental assessment instruments in the field of assessment (Caltagirone et al., 2005; Purwanti et al., 2020). There are 18 valid question items on this instrument using a Likert scale. The scale consists of 5 points with 1 (very bad), 2 (not good), 3 (fairly good), 4 (good), 5 (very good). Each statement is a representative of each indicator of the character of the traditional game of gundu (marbles) on students' responses to mathematics lessons. The focus of this research is on the general dimensions of the character of the traditional game of gundu (marbles) on students' responses to mathematics. For the questionnaire grid for this research, it can be seen in table.

The lattice of the questionnaire instrument for the traditional game discipline of gundu (marbles) on students' responses to the mathematics subject used in this study are as follows:

Table 1. Questionnaire instrument grid the character of the traditional game of gundu (marbles) on students' responses to mathematics lessons

| No | Indicator | No Item | amount |
|----|--|------------------------------|--------|
| 1 | Student interest in TPS type cooperative learning | 1, 2, 3* | 3 |
| 2 | The benefits that students get during learning by using the TPS type of cooperative learning model | 4, 5, 6, 7, 8, 9 | 6 |
| 3 | Constraints experienced during the TPS type cooperative learning process | 10*, 11*, 12*, 13*, 14*, 15* | 6 |

| | | | |
|------------------------|--|-------------|---|
| 4 | Students' expectations and suggestions for the TPS-type cooperative learning process | 16, 17, 18* | 3 |
| Kusuma & Aisyah (2012) | | | |

This research was carried out starting from mentioning a questionnaire or questionnaire, then quantitative data analysis was carried out using two types, namely associative and comparative. Where associative is research that seeks to find a relationship between one variable and other variables, while comparative is research that compares two or more variables. A description or presentation of large amounts of data that includes the mean, mode, median, max. min, and the standard deviation is a descriptive statistic (Pramesti.2018; Santoso. 2019; Wahyuni. 2020). Therefore, differential statistics are used with assumption tests consisting of tests of normality, linearity, and homogeneity. As well as correlation test and regression test to find the relationship and influence. The normality test aims to determine whether a data can be said to be normal or not, while the homogeneous test aims to determine whether the data of the two samples is homogeneous or not. The first step in this research is to determine the normality and homogeneity of a data using the normality test and homogeneity test. The research method is basically a scientific way to obtain data with certain purposes and uses, one of which is to clarify various analytical processes using real calculation methods (diretta da et al, 1990; Suharsaputra, 2012). Next, identify the results for follow-up. At the data collection stage, questionnaires were given to 120 students in three schools from SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas Batanghari Regency. From this data, data analysis is then carried out, namely data coding, filtering appropriate data and analyzing the data.

The data obtained in this research is qualitative data. Then this data will be analyzed using descriptive statistics. After being analyzed using descriptive statistics, it will be continued with assumption tests starting from normality, homogeneity and linearity tests. If the data being tested is normal, and linear data, it ends with hypothesis testing to see whether between the three schools from SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas Batanghari Regency there is a significant relationship and influence using correlation tests and tests. urgency. The research process carried out can be seen in picture 1.



3. FINDINGS AND DISCUSSION

Descriptive statistics

The following describes the results of descriptive statistics on the character of the traditional game of gundu (marbles) on mathematics subjects in three schools, namely: SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas, Batanghari district as follows:

Table 2. Description of the character of the traditional game of gundu (marbles) on mathematics subjects in three schools

| Student response | Category | interval | F | % | mean | median | Min | Max |
|----------------------------------|---------------|-------------|----|------|------|--------|-----|-----|
| Aulia IT Elementary School | Very Not Good | 18.0 - 32.4 | 0 | 0 | | | | |
| | Not good | 32.5 - 46.8 | 0 | 0 | | | | |
| | Enough | 46.9 - 61.2 | 10 | 25 | 4.20 | 4.0 | 3.0 | 5.0 |
| | Good | 61.3 - 75.6 | 12 | 30 | | | | |
| Muntaz Islamic Elementary School | Very good | 75.7 - 90.0 | 18 | 45 | | | | |
| | Very Not Good | 18.0 - 32.4 | 0 | 0 | | | | |
| | Not good | 32.5 - 46.8 | 0 | 0 | | | | |
| | Enough | 46.9 - 61.2 | 7 | 17.5 | 4.25 | 4.0 | 3.0 | 5.0 |
| SDN 112/I Perumas | Good | 61.3 - 75.6 | 16 | 40 | | | | |
| | Very good | 75.7 - 90.0 | 17 | 42.5 | | | | |
| | Very Not Good | 18.0 - 32.4 | 0 | 0 | | | | |
| | Not good | 32.5 - 46.8 | 0 | 0 | | | | |
| SDN 112/I Perumas | Enough | 46.9 - 61.2 | 2 | 5 | 4.50 | 4.0 | 3.0 | 5.0 |
| | Good | 61.3 - 75.6 | 16 | 40 | | | | |
| | Very good | 75.7 - 90.0 | 22 | 55 | | | | |

From the table, it is found that there are results from descriptive statistics of the character of the traditional game of gundu (marbles) on student responses to mathematics in three schools. It can be seen from the table above that out of the three schools, SDN 112/I Perumas is superior.

The following describes the results of descriptive statistics on student responses to the traditional game of gundu (marbles) in mathematics subjects in three schools, namely: SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas Batanghari Regency as follows:

Table 3. Description of students' responses to the traditional game of gundu (marbles) on mathematics subjects in three schools

| Student response | Category | interval | F | % | mean | median | Min | Max |
|----------------------------|---------------|-------------|----|------|------|--------|-----|-----|
| Aulia IT Elementary School | Very Not Good | 18.0 - 32.4 | 0 | 0 | | | | |
| | Not good | 32.5 - 46.8 | 7 | 17.5 | 3.25 | 3.0 | 2.0 | 4.0 |
| | Enough | 46.9 - 61.2 | 16 | 40 | | | | |
| | Good | 61.3 - 75.6 | 17 | 42.5 | | | | |

| | | | | | | | | |
|----------------------------------|---------------|-------------|----|----|------|-----|-----|-----|
| | Very good | 75.7 – 90.0 | 0 | 0 | | | | |
| | Very Not Good | 18.0 - 32.4 | 0 | 0 | | | | |
| Muntaz Islamic Elementary School | Not good | 32.5 - 46.8 | 10 | 25 | | | | |
| | Enough | 46.9 – 61.2 | 12 | 30 | 3.20 | 3.0 | 2.0 | 4.0 |
| | Good | 61.3 – 75.6 | 18 | 45 | | | | |
| | Very good | 75.7 – 90.0 | 0 | 0 | | | | |
| | Very Not Good | 18.0 - 32.4 | 0 | 0 | | | | |
| SDN 112/I Perumas | Not good | 32.5 - 46.8 | 0 | 0 | | | | |
| | Enough | 46.9 – 61.2 | 4 | 10 | 4.35 | 4.0 | 3.0 | 5.0 |
| | Good | 61.3 – 75.6 | 14 | 35 | | | | |
| | Very good | 75.7 – 90.0 | 22 | 55 | | | | |

From table 23, it is found that there are results from descriptive statistics of students' responses to the traditional game of gundu (marbles) in mathematics subjects in three schools. It can be seen from the table above that out of the three schools, SDN 112/I Perumas is superior.

Assumption Test Normality test

The results of the normality test of the character of the traditional game of gundu (marbles) on student responses to mathematics in three schools, namely: SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas, Batanghari district are as follows:

Table 4. Test the normality of the character of the traditional game of gundu (marbles) on students' responses to mathematics in three schools

| School | Variable | Kolmogorov-Smirnov | | | Shapiro-Wilk | | |
|----------------------------------|----------------------|--------------------|----|-------|--------------|----|------|
| | | Statistic s | df | Sig. | Statistic s | df | Sig. |
| Aulia IT Elementary School | Discipline character | .089 | 40 | .200* | .790 | 40 | .356 |
| | Student response | .127 | 40 | .137 | .950 | 40 | .175 |
| Muntaz Islamic Elementary School | Discipline character | .158 | 40 | .210 | .907 | 40 | .500 |
| | Student response | .106 | 40 | .200* | .964 | 40 | .069 |
| SDN 112/I | Discipline | .124 | 40 | .194 | .957 | 40 | .187 |

| | | | | | | | |
|---------|------------------|------|----|-------|------|----|------|
| Perumas | character | | | | | | |
| | Student response | .113 | 40 | .200* | .963 | 40 | .275 |

Based on the table results. It can be concluded that the data is normally distributed, the normality test is obtained with the Kolmogorov-Smoniv test, the significance value is > 0.05 . Where at SD IT Aulia got a sig. namely 0.200 and $0.137 > 0.05$. Then at SD Islam Muntaz with a sig. 0.210 and $0.200 > 0.05$. Furthermore, at SDN 112/I Perumas with the value of sig. 0.194 and $0.200 > 0.05$.

Linearity test

The results of the linearity test of the character of the traditional game of gundu (marbles) on students' responses to mathematics in three schools, namely: SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas Batanghari Regency are as follows:

Table 5. Linearity test of the character of the traditional game of gundu (marbles) on students' responses to mathematics in three schools

| School | Variable | Kolmogorov-Smirnov Sig. |
|----------------------------------|-----------------------|-------------------------|
| Aulia IT Elementary School | Disciplined character | 0.034 |
| | Student response | 0.030 |
| Muntaz Islamic Elementary School | Disciplined character | 0.049 |
| | Student response | 0.020 |
| SDN 112/I Perumas | Disciplined character | 0.036 |
| | Student response | 0.043 |

Based on the table results. It can be concluded that there is a linear relationship, the normality test is obtained with the Kolmogorov-Smoniv test with a significance value of < 0.05 . Where at SD IT Aulia got a sig. namely 0.034 and $0.030 < 0.05$. Then at SD Islam Muntaz with a sig. 0.049 and $0.020 < 0.05$. Furthermore, at SDN 112/I Perumas with the value of sig. 0.036 and $0.043 < 0.05$.

Correlation Test

In this test, it is carried out in order to determine the relationship of variables to mathematics subjects. The conditions in this test if the significance value is > 0.05 , it can be said that the variable has no relationship. If the significance value is < 0.05 , then the variable has a significant relationship.

The correlation test for the character of the traditional game of gundu (marbles) on students' responses to mathematics in three schools, namely: SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas, Batanghari district, is shown in the following table:

Table 6. Correlation test of the character of the traditional game of gundu (marbles) on student responses to mathematics in three schools

| School | N | Pearson Correlation | Sig. (2-tailed) |
|----------------------------------|----|---------------------|-----------------|
| Aulia IT Elementary School | 40 | 0.613 | 0.043 |
| Muntaz Islamic Elementary School | 40 | 0.638 | 0.039 |

| | | | |
|----------------------|----|-------|-------|
| SDN 112/I Perumas | 40 | 0.642 | 0.018 |
|----------------------|----|-------|-------|

From the table, it is found that there is a relationship between the character of the traditional game of gundu (marbles) and the students' responses to mathematics in three schools. This is evidenced by the value of sig (2-tailed) < 0.05.

Regression Test

The following describes the results of the regression test of the character of the traditional game of gundu (marbles) on student responses to mathematics in three schools, namely: SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas, Batanghari district.

Table 7. Regression test of the character of the traditional game of gundu (marbles) on students' responses to mathematics in three schools

| school | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--|-----------------------------|----------------|---------------------------|----------------|--------------|
| | B | Std. Error | Beta | | |
| Aulia IT Elementary School | 65,142 .101 | 11.223 .154 | .106 | 5.804 .656 | .000 .016 |
| Muntaz Islamic Elementary School | 64,386 .126 | 12.116 .166 | .122 | 5.314 .760 | .000 .042 |
| SDN 112/I Perumas | 37,031 .480 | 9.947 .130 | .514 | 3,723 3.695 | .001 .001 |

From the table, it is found that there is an influence between the disciplinary character of the traditional game of gundu (marbles) on student responses to mathematics subjects in three schools. This is evidenced by the value of sig (2-tailed) < 0.05. Thus the effect of the variable relationship can be described by a simple linear regression equation as follows:

$$\hat{Y} = a + bx \quad \hat{Y} = a + bx \quad \hat{Y} = a + bx$$

$$\hat{Y} = 65.142 + 0.101x \quad \hat{Y} = 64,386 + 0.126x \quad \hat{Y} = 37.031 + 0.480x$$

Where :

\hat{Y} = Student Discipline Character

b = Student Response

Table 8. The result of the calculation of the coefficient of determination

| school | R | R Square | Adjusted Square | R Std. Error of the Estimate |
|---|-------|----------|-----------------|------------------------------|
| Aulia IT Elementary School | 0.821 | 0.658 | 0.663 | 4.75 |
| Muntaz Islamic Elementary School | 0.761 | 0.659 | 0.654 | 4.71 |

| | | | | |
|----------------------|-------|-------|-------|------|
| SDN 112/I Perumas | 0.754 | 0.654 | 0.650 | 4.72 |
|----------------------|-------|-------|-------|------|

Based on the table, the correlation value (R) and the coefficient of determination are obtained from the square of the R value. From the output results displayed by SPSS, the determinant coefficient is obtained as in the table for the three schools, which means that the influence of the student response variable on the student discipline character is good and the rest is influenced by other variables.

Discussion

There are five criteria for student responses to the learning model, namely: not good; not good; enough; good; and very good. Based on the results of the description of all data on the character of the traditional game of gundu (marbles) on student responses to mathematics in three schools, namely: SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas, Batanghari district. From the results of the first descriptive statistical table, we can see that each school already has a fairly good disciplinary character seen from the results of the existing presentations, namely SD IT Aulia has a very good 45% presentation, SD Islam Muntaz has a very good 42.5% presentation, and SDN 112/I Perumas has a very good 55% percentage. From these results, we can see that the most superior among the three elementary schools is SDN 112/I Perumas. Furthermore, in the second descriptive statistical test about student responses to traditional games, the results are almost the same as the first test with the most superior being SDN 112/I Perumas with a percentage of 55% very good, followed by SD Islami Muntaz with a good score of 45% and the last SD IT Aulia is 42.5% good.

Then, it was continued with the normality test with the Kolmogorov-Smoniv test with a significance value $>$ from 0.05, so it can be concluded that the data is normally distributed. In table 5 we can see the results of the normality test where the sig values from SD IT Aulia are 0.200 and 0.137 $>$ 0.05, SD Islam Muntaz are 0.210 and 0.200 $>$ 0.005, and SDN 112/I Perumas are 0.194 and 0.200 $>$ 0.05. it can be concluded from the data that the distribution is normal. Furthermore, a linearity test was carried out to find a linear relationship where if Kolmogorov-smoniv $<$ 0.05 then it can be said to have a linear relationship, otherwise it does not have a linear relationship. In the results of the elementary school linear test data, we can see that SD IT Aulia has 0.034 and 0.030 $<$ 0.05, Islamic Elementary School Muntaz has a value of 0.049 and 0.020 $<$ 0.05, and SDN 112/I Perumas has a value of 0.036 and 0.043 $<$ 0.05. it can be concluded from the results that the three schools have a linear relationship between the character of students' discipline and students' responses to the traditional game of gundu (marbles) in mathematics.

In the correlation test of the character of the traditional game of gundu (marbles) on student responses to mathematics in three schools, namely: SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas, Batanghari district to find the relationship between schools, it can be seen in table 7 where if the value of sig.(2-tailed) $<$ 0.05 then it can be said that the result has a relationship and if sig.(2-tailed) $>$ 0.05 then it has no relationship. So it can be seen that the result of SD IT Aulia has a value of 0.043 sig. (2-tailed) $<$ 0.05, then Islamic Elementary School Muntaz has a value of 0.039 sig. (2-tailed) $<$ 0.05, and SDN 112/I Perumas has a value of 0.018 sig. (2-tailed) $<$ 0.05. So, it can be concluded that SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas have a correlation with the character of the traditional game of gundu (marbles) on students' responses to mathematics.

In the last test, the regression test of the character of the traditional game of gundu (marbles) on student responses to mathematics subjects in three schools, namely: SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas, Batanghari district where this test is to find the effect of character discipline on student responses to the traditional game of gundu with a cut of determination if the result of the value of sig $<$ 0.05 then has an effect if $>$ 0.05 then it has no effect. Table 8 shows that SD IT Aulia has a value of 0.016 and 0.028 $<$ 0.05, then SD Islam Muntaz has a value of 0.042 and 0.042 $<$ 0.05, and SDN 112/I Perumas has a value of 0.001 and 0.001 $<$ 0.05. it can be concluded from the three schools that have an

influence on the character of discipline on student responses to the game of marbles (marbles) in mathematics

How to use this traditional game students play it in groups and test cohesiveness and cooperation. Students respond that with traditional games learning becomes more fun. The interesting thing from this study shows that the traditional gundu game has ethnomathematics related to mathematical concepts including geometric concepts such as circles, balls, triangles and also the concept of distance. These mathematical concepts can be used to introduce and understand the concepts of geometry and distance through local culture. The results of this study are contained in the results table which explains the percentage of student responses.

Discipline character is a character that is included in the 18 characters that want to be developed and instilled in each individual from an early age, this is as stated in the 13 revised curriculum. The character of discipline itself is an action that can make other people like it both in actions and good words (Farikan.2019; Kamaruddin.2012; Yasin. 2019). Based on the results of student exposure to the character of discipline in elementary schools, each school has only a few differences from each school, but basically the overall results obtained from SD IT Aulia, SD Islam Muntaz, and SDN 112/I Perumas Batanghari Regency have goes well. Therefore, the benefits of this discipline are very good for improving the quality of a school, an alternative can also be applied to the use of traditional games

Traditional games are games that are closely related to the customs or habits of the people in a place. One of the traditional games commonly used is the game of marbles (marbles) in mathematics. Gundu traditional games contain elements of mathematical material that are often of concern, namely building a ball-shaped space, flat circle, etc. (Febriyanti et al., 2018; Karina & Supardi, 2021; Kennett et al., 2018). Therefore, through this gundu game, it can train students' discipline so that it increases the character values in the school. Because the attitude of the students themselves will make students like the lesson or not so that the approach used is also different. (Asrial, et al., 2019; Kurniawan, et al. 2018; Astalini, et al., 2018; Darmaji, et al., 2019; Tampubolon, et al., 2017). It is through the learner's approach that these values can be known.

This research is in line with previous research conducted by (Febriyanti et al., 2018; Karina & Supardi, 2021; Kennett et al., 2018). about the character of student discipline. Previous research did not perform some of the tests carried out in this study. Previous research also did not test the correlation and regression tests. Other previous research conducted by (Hartati, 2020; Siswantari, 2017) about student responses to the traditional game of gundu in mathematics. However, previous studies did not compare the character of the discipline with the student's response to the traditional game of gundu in mathematics. the same thing with research on the character of student discipline, research on student responses also did not pass the tests carried out in this study, namely regression and correlation tests. The regression test serves to determine the effect of the discipline character with student responses. So it can be concluded that previous research did not test some of the tests carried out by this study.

The urgency of the research based on previous research, it is very important to examine more deeply the problems regarding the relationship and influence of student discipline character with student responses by using traditional games. By looking at how important the character of discipline is with student responses from the attachment observation, the researchers conclude that the purpose of the problem is to find out the relationship and influence between the character of discipline and student responses in the traditional game of gundu (marbles) in mathematics. The results of this study are expected to contribute ideas for students. knowledge and education as well as providing an overview of the relationship and influence between the character of the discipline and student responses in the traditional game of marbles (marbles) in mathematics. Therefore, as an educator, you are required to have your own skills that can improve student learning discipline.

4. CONCLUSION

Based on the results of the descriptive statistical test of the character of the traditional game of gundu (marbles) on the students' responses to the mathematics subject, SDN 112/I Perumas has a very

good percentage for the results of the discipline character as well as for the results of students' responses to traditional games. Followed by the assumption test where the three schools in the normality test are normally distributed and the linearity test has a linear relationship. Furthermore, it was continued with correlation and regression tests to find the relationship and influence between the character of the traditional game of gundu (marbles) on student responses to mathematics. From the results obtained, the correlation test has a relationship and the regression test has an influence. So it can be concluded that the disciplined character of students' responses to traditional games is interconnected and influential.

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