Students' interest in learning reviewed from the Traditional Game Guide Book at SMP Kepulauan Riau

Putri Ayu Melyana Indrawati 1,*

1University of Muhammadiyah Malang, Indonesia
*Corresponding author: putriayumelyana@gmail.com

KEYWORDS

student interest in learning
guide books
traditional games

ABSTRACT This study aims to describe how the students' interest in learning class VIII SMP after using a traditional game guide book with the selection of subjects who have low interest in learning mathematics. The research used a descriptive form with a qualitative approach. The data from this research are students' interest in learning. The object of this study were students of class VIII SMP. The data collection techniques used were questionnaires and interviews as data reinforcement from the questionnaire results. The results of this study indicate that the use of traditional game guidebooks in mathematics learning is very effective, as seen from the results of the questionnaire on student interest in learning where male students' interest in learning increases by 79 %, while for female students, it increases by 82 %, and is strengthened by the results of interviews which revealed that most students were happy with the use of traditional game guidebooks and gave positive responses to mathematics learning.

© The Author(s) 2021. CC BY-NC 4.0 International license

1. INTRODUCTION

Mathematics is a structured and interconnected science where there are basic abstract ideas, concepts, and objects arranged hierarchically from one concept to the basis of further conceptual learning (Meke et al., 2019). The objectives of junior high school mathematics learning include five things: (a) understanding the concept of mathematics; (b) use reasoning; (c) problem-solving skills; (d) communicating ideas with symbols; and (e) have an attitude of appreciating the usefulness of mathematics in life (Departemen Pendidikan Nasional, 2006). However, the five objectives of learning mathematics at the SMP/MTs level cannot be fully achieved, regarding the problem of students' low mathematics learning outcomes, which is suspected to be caused by students' lack of interest and motivation to learn mathematics (Gazali & Atsman, 2018).

When students do an activity, students will be influenced by one of the factors, namely interest (Putra & Setyaningrum, 2018). Interest factors can also affect the development of student achievement (Hidayati et al., 2020). The results of an interview conducted on 23 February 2019 with a teacher who said that students' interest in taking lessons was still lacking. Students often do not learn when a class test is being held. This is reinforced by the results of research which say that an important problem generally faced by students in learning is about the lack of interest of some students in certain subjects (Widyastuti et al., 2019). Meanwhile, the results of the observations said that some IV grade students had problems in their interest in learning (Dores et al., 2019). This can be seen from the learning outcomes in the form of students' daily test scores, seen from the activities in the classroom when learning takes place based on the results of student observations that pay less attention to the teacher's explanation when the learning takes place.

It turns out that the teaching and learning process of mathematics is not only a learning model and media that affect, but interest also plays a very large role in learning achievement (Hidayatullahifah & Sujadi, 2017). The lack of student interest or interest in learning mathematics is because most students consider mathematics to be a difficult and tiring subject (Risnawati et al., 2018). Interest is very influential on learning because if the learning material being studied is not following student interests, students will not study as well as possible because there is no attraction for students to learn (Dores et al., 2019). Student interest in learning can guide students in enhancing meaningful learning and improving students' long-term memory (Azmidar et al., 2017). Interest relationship with learning activities, interest becomes the driving force to achieve the desired goals (Nurfazar et al., 2016). It is further said that without interest, learning objectives will not be achieved. One of the lessons that can arouse student interest in learning is to give the impression that mathematics is not difficult (Fifko, 2017). So that learning is more interesting with a fun and not boring learning atmosphere and can arouse students' curiosity, one of which is through games or games (Rahmawati et al., 2018).

The view of students who think mathematics is difficult so that the lack of interest in learning mathematics must be changed by directing mathematics learning to-
wards a more enjoyable atmosphere for students through games (Nizaruddin et al., 2017). The learning material that is presented with the help of media or game methods provides a special attraction for students so that students’ interest in learning this material can increase (Maharani et al., 2019). The use of media or methods in learning can motivate and guide students to learn independently (Ro-hiazati et al., 2020). Efforts that can be made by the teacher by looking at mathematics learning, namely by the game method, games that can be used by the teacher are traditional games (Surahmi, 2016). The game method can educate students because there are elements of education and learning so that students can actively participate in the learning process (Setiyani et al., 2019). Games are one of the main sources of motivation for students that can make students more enthusiastic about learning and are a real application of the term “learning by doing” to create an attractive and educational learning environment (Vasileva-Stojeanovska et al., 2014). Games increase students’ interest and curiosity, so learning by playing can help students develop their logical thinking skills and understand mathematical processes such as addition, subtraction, and other concepts (Mirawati, 2017). Traditional games can prioritize social interaction or improve social skills because they are played simultaneously or in groups (Perdani, 2014). Traditional game–based learning is learning that is the basis for teachers in teaching social skills to students (Nugraha et al., 2018). Traditional game–based learning has an important role in student development in various aspects such as motor, cognitive, emotional, social, spiritual, ecological, and value or moral aspects (Hidayat, 2013).

These traditional games can be written in a guidebook. Books are analytical results in writing the curriculum in the form of knowledge that comes from a thought (Mondli, 2019). Apart from textbooks, students also need other guidebooks that support and enrich their mastery of knowledge of learning (Astra & Saputra, 2018). A guidebook is a piece of information that provides the reader with steps to follow the guidelines provided with information display in the form of writing and images (Santoso et al., 2015). Books with illustrated pictures can increase students’ interest in learning (Meylana et al., 2019). Handbooks have an important role in the learning process because they can build students’ understanding of concepts and improve the quality of learning (Susilo et al., 2018). This research is supported by previous research entitled “product development in the form of a guidebook for traditional children’s games” conducted by Margarethia Rossa Sangsang Apriliana Mondli (2019).

Based on the background of this problem, the researchers are interested in researching to know students’ interest in learning in terms of traditional game guidebooks at SMP Kepulauan Riau.

2. METHOD

The research used a descriptive form with a qualitative approach. The research was conducted at SMP Kepulauan Riau with the selection of subjects who have a low interest in learning mathematics. Selection of subjects according to the results of interviews with mathematics teachers at SMP Kepulauan Riau. The data from this study were students’ interest in learning. Meanwhile, the data source comes from the results of the student interest in learning after using a traditional game guidebook. The data collection methods from this study were questionnaires and interviews. This questionnaire aims to determine students’ interest in learning after using traditional game guidebooks. This interview aims to strengthen the results of the questionnaire.

3. RESULTS & DISCUSSION

The research was carried out at SMP Kepulauan Riau by selecting subjects who have a low interest in learning mathematics with a total of 22 students. There are seven male students and 15 female students. The results of the questionnaire analysis of students’ interest in learning mathematics used scores of 1, 2, 3, and 4. The average male student interest in learning was 2.98 after using a traditional game guide book.

The following is the explanation of each indicator, namely 86% of male students agree that learning using traditional game guidebooks makes me prefer mathematics lessons, 100% of male students agree that learning using traditional game guidebooks makes me understand the concepts more detail mathematics, 100% of male students agree that I can follow learning well using traditional game guidebooks, 85% of male students agree that learning using traditional game guidebooks makes me more motivated to learn mathematics, 100% of male students agree that learning using traditional game guidebooks is very interesting and fun, 86% of male students agree that learning using traditional game guidebooks makes mathematics easy to understand, 71% of male students agree with learning using traditional game guides are what I expected, 72% of male students agree that learning using traditional game guidebooks makes me get experience in remembering math concepts easily, 14% of male students agree that learning using traditional game guidebooks is not suitable for me, 14% of male students agree that learning using traditional game guidebooks makes it more difficult for me to understand Mathematics material, 71% of male students agree that the applied learning media is able to overcome my difficulties in learning mathematics, 86% of male students agree that I can remember math concepts better by learning using traditional game guidebooks, 100% male students agree that the lessons that were carried out made me not easily bored learning mathematics, 100% of male students agreed that using learning media, learning mathematics at school made me not bored.

Whereas the average learning interest of female students after using traditional game guidebooks was 3.02 with the explanation of each indicator, namely 93% of female students agreed that learning using traditional game guidebooks made me prefer mathematics, 100% of female students agreed that learning using traditional game guidebooks made me understand math concepts more in detail, 100% of female students agreed that I could follow learning well using traditional game guidebooks, 87% of female students agreed that learning using traditional game guidebooks made me more motivated to learn mathematics, 100% of female students agreed that learning using traditional game guidebooks was very interesting and fun, 87% of female students agreed that learning using traditional game guidebooks makes mathematics lessons easy to understand, 73% of female students agree that learning using tra-
ditional game guidebooks is what I expected, 80% of female students agree that learning using traditional game guidebooks makes mathematics material understandable, 100% female students agreed that learning using traditional game guidebooks gave me experience in remembering math concepts easily, 13% of female students agreed that learning using traditional game guidebooks was not suitable for me, 20% of female students agreed that learning with using traditional game guidebooks makes it more difficult for me to understand mathematics material, 87% of female students agree that the learning media applied is able to overcome my difficulties in learning mathematics, 93% of female students agree that I can remember the concepts better, and 63% of female students agree that the learning carried out makes me not easily bored learning mathematics, 100% of female students agree that using learning media, learning mathematics at school makes me not bored.

The results of the analysis of the students’ interest in learning at SMP Kepulauan Riau on the implementation of mathematics learning in terms of traditional game guidebooks are very effective, seen from the results of the questionnaire on student learning interest, namely the interest in learning from 7 male students with an average of 79%, while the interest in learning from 15 female students with an average gain of 82%. The results of the questionnaire on students’ interest in learning when using traditional game guidebooks were strengthened by the results of student interviews. Students said that mathematics was made easy by using traditional game guidebooks. This is because the games in the guidebooks are traditional games that are often played by residents of the Riau Islands. Traditional games make mathematics very interesting and fun.

Based on the results of the average student interest in learning, seen from gender, it shows that female students have a better interest in learning mathematics than male students. This is in line with research conducted by Friantini and R. Winata (2019), in-class X IIS SMA Negeri 1 Jelmolo for the 2018/2019 academic year in Landak Regency, which obtained results of female students’ interest in learning better than male students in learning mathematics. Previous research also said that teachers should pay attention to students’ interest in learning during learning, especially in mathematics learning which is usually a subject that students do not like so that in mathematics learning, students are less interested in learning [29]. It is better if mathematics learning is more connected between material and real-life so that it can make students more interested in learning. Also, teachers should use learning methods that can make students interested in learning, namely learning methods that are more varied or more fun, such as learning using games or role-playing and others so that students become more interested in learning mathematics and are interested in carrying out mathematics learning.

4. CONCLUSION

From this study, it can be concluded that the learning interest of Riau Islands Junior High School students towards the implementation of mathematics learning in terms of traditional game guidebooks is very effective seen from the results of the questionnaire on student learning interest, namely the learning interest of 7 male students with an average of 79%, whereas interest in learning from 15 female students with an average gain of 82%. The increase in student interest in SMP Kepulauan Riau totalling 22 people, namely the results of the interviews revealed that most of the Riau Islands Junior High School students were happy with the use of traditional game guidebooks in mathematics learning because traditional game guidebooks contained interesting, fun games and made it easier for students to understand learning mathematics to increase students’ interest in learning mathematics.

REFERENCES

Astra, I. M., & Saputra, F. (2018). The Development of a Physics Knowledge Enrichment Book “Optical Instrument Equipped with Augmented Reality” to Improve Students’ Learning Outcomes. Journal of Physics: Conference Series, 1013(1). https://doi.org/10.1088/1742-6596/1013/1/012064  

Azmidar, A., Darhim, D., & Dahlan, J. A. (2017). Enhancing Students’ Interest through Mathematics Learning. Journal of Physics: Conference Series, 895(1). https://doi.org/10.1088/1742-6596/895/1/012072  

Departemen Pendidikan Nasional. (2006). Standar Isi untuk Satuan Pendidikan Dasar dan Menengah. Departemen Pendidikan Nasional Direktorat Pendidikan Dasar dan Menengah.

Dores, O. J., Huda, F. A., & Riana, R. (2019). Analisis Minat Belajar Matematika Siswa Kelas IV Sekolah Dasar Negeri 4 Sirang Setambang Tahun Pelajaran 2018/2019. J-PIMat, 1(1), 38–48.

Fikfo, H. (2017). Meningkatkan Minat Belajar Matematika Melalui Media Dekak Multifungsi di Sekolah Dasar. Jurnal Pendidikan Guru Sekolah Dasar, 3(6), 215–222.

Gazali, R. Y., & Atsnan, M. F. (2018). Peningkatan Motivasi dan Minat Belajar Matematika Siswa Melalui Pemadatan Kontekstual dalam Pembelajaran Matematika yang Bermakna. Pythagoras: Jurnal Pendidikan Matematika, 12(2), 123–134.

Hidayat, D. (2013). Permainan Tradisional dan Kearifan Lokal Kampung Dukuh Garut Selatan Jawa Barat. Jurnal Akademik Fisip Undat, 5(2).

Hidayatyi, Abidin, Z., & Ansari, B. I. (2020). Improving Students’ Mathematical Communication Skills and Learning Interest Through Problem Based Learning Model. Journal of Physics: Conference Series, 1460(1). https://doi.org/10.1088/1742-6596/1460/1/012047  

Hidayatullathifah, & Sujadi, A. . (2017). Peningkatkan Minat dan Prestasi Belajar Matematika melalui Pembelajaran Make A Match Siswa Kelas VII F SMP 1 Banguntapan. Jurnal Pendidikan Matematika, 5(3), 229–236.

Maharani, L., Rahayu, D. I., Yuberti, Komiksesari, H., Sodikin, & Hidayah, R. (2019). Toondoo Application Based on Contextual Approach: Development of Comic Learning Media. Journal of Physics: Conference Series, 1155(1). https://doi.org/10.1088/1742-6596/1155/1/012023  

Meke, K. D. P., Jailani, J., Wutsqa, D. U., & Ali, H. D. (2019). Problem-based learning using manipulative materials to improve student interest of mathematics learning. Journal of Physics: Conference Series, 1157(3), 1–7. https://doi.org/10.1088/1742-6596/1157/3/032099  

Meylana, D. A., Pujiastuti, P., & Sartono, K. E. (2019). Lift The Flap Story Book Based on Child-Friendly: Improving the Ability of Students Mathematical Conne-
tion. *Journal of Physics: Conference Series*, 1157(4). https://doi.org/10.1088/1742-6596/1157/4/042065

Mirawati. (2017). Creative Mathematical Games: The Enhancement of Number Sense of Kindergarten Children Through Fun Activities. *Journal of Physics: Conference Series*, 812(1). DOI: 10.1088/1742-6596/755/1/011001

Mondli, M. R. S. A. (2019). Pengembangan Buku Panduan Permainan Tradisional dengan Materi Matematika untuk Pembelajaran Tematik Tema 2 di Kelas 1 Sekolah Dasar. Universitas Sanata Dharma.

Nizaruddin, Muhtarom, & Sugiyanti. (2017). Learning Mathematics with Traditional Game “Jirak”: Impact on Mathematics Disposition and Students’ Achievement. *International Conference on Mathematics: Education, Theory, and Application (ICMETA)*, 1.

Nugraha, Y. A., Handoyo, E., & Sulistyorini, S. (2018). Traditional Game on The Social Skill of Students in The Social Science Learning of Elementary School. *Journal of Primary Education*, 7(2), 220–227.

Nurfazar, S., Rokhayati, A., & Lidinillah, D. A. M. (2016). Pengaruh Metode Dramath terhadap Minat Belajar Siswa Sekolah Dasar dalam Pembelajaran Matematika. *Perdani*, P. A. (2014). Peningkatan Keterampilan Sosial Anak Melalui Permainan Tradisional. *Jurnal Pendidikan Ustaz Dini*, 8(0).

Putra, W. D. P., & Setyaningrum, W. (2018). The effect of edutainment toward students’ interest in learning mathematics. *Journal of Physics: Conference Series*, 1097(1), 1–7. DOI: 10.1088/1742-6596/1097/1/012120

Rahmawati, N. D., Buchori, A., & Bhihikmah. (2018). Pengembangan Strategi Permainan Tradisional Sunda Manda pada Pembelajaran Matematika di SMP *Jurnal Ilmiah Pendidikan Matematika*, 1(2), 1–8.

Risnawati, Amir, Z., & Wahyuningsih, D. (2018). The Development of Educational Game as Instructional Media to Facilitate Students’ Capabilities in Mathematical Problem Solving. *Journal of Physics: Conference Series*, 1028(1).

Rohaizati, U., Mailizar, & Hajidin. (2020). Junior Secondary School Teachers and Students’ Needs for the Use of Digital Comics in Learning Mathematics. *Journal of Physics: Conference Series*, 1460(1). https://doi.org/10.1088/1742-6596/1460/1/012026

Santoso, R., Margana, & Wahyudi, A. T. (2015). Perancangan Buku Panduan Belajar Menggambar untuk Anak Usia 4-6 Tahun. *Jurnal Desain Komunikasi Visual Adiwarna*, 1(6).

Setiyani, Ferdianto, F., Meidasari, R., & Sagita, L. (2019). Designing educational game android to improve mathematical understanding ability on fraction. *Journal of Physics: Conference Series*, 1188(1). https://doi.org/10.1088/1742-6596/1188/1/012067

Surahmi, E. (2016). *Permainan Tradisional dalam Pembelajaran Matematika SD sebagai Bentuk Interaksi Sosial Siswa*.

Susilö, T., Sujadi, I., & Indriati, D. (2018). Developing A Media ‘Visual Design of Pop Up Mathematics Book’ as a Supporting Tool in Inquiry-Based Learning for Learning Three-Dimensional Figures. *Journal of Physics: Conference Series*, 1108(1). https://doi.org/10.1088/1742-6596/1108/1/012029

Vasileva-Stojanovska, T., Vasileva, M., Malinovski, T., & Trakjovik, V. (2014). The Educational Prospects of Traditional Games as Learning Activities of Modern Students. Proceedings of the European Conference on Games-Based Learning.

Widyastuti, Wijaya, A. P., Rumite, W., & Marpaung, R. R. T. (2019). Minat Siswa terhadap Matematika dan Hubungannya dengan Metode Pembelajaran dan Efikasi Diri. *Jurnal Pendidikan Matematika*, 13(1), 83–100.