


**JTH**
<https://jthkss.com/>  
 eISSN 2805-4431
DOI: <https://doi.org/10.53797/jthkss.v2i1.6.2021>

# The Influence of Mystery Box Media on Psychomotoric Abilities in The Mathematics Subject of Class V Students of Primary School 1 Panjang Kudus

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Available online 24 May 2021

**Abstract:** The aim of this research is to descriptively determine the learning success of fifth grade students at SD 1 Panjang Kudus who learn using the Mystery Box media. Therefore, the aim is to determine the effect of the Mystery Box media on psychomotor abilities in mathematics subjects for class V students at SD 1 Panjang Kudus. The results of the Paired Sample T-test show a sig value.  $0.000 < 0.05$  so it is known that the sig value. smaller than the sig level value of 0.05 or there is a difference in the average value before and after treatment. Thus, this research shows that the application of Mystery Box Media in Mathematics learning has a significant positive impact on the psychomotor abilities of class V students at SD 1 Panjang, Bae District, Kudus Regency. This indicates that the use of this media can help increase student interest and quality of learning at school.

**Keywords:** Mystery Box Media, Psychomotor Ability, Mathematics Learning

## 1. Introduction

Education in Indonesia has experienced several changes to the curriculum system aimed at improvement. Efforts made by the government to improve the curriculum are by changing and providing curriculum innovation. Curriculum changes include the KTSP/2006 curriculum to the 2013 curriculum to the Merdeka Belajar curriculum. Freedom to learn is the policy of the Ministry of Education and Culture of the Republic of Indonesia. The independent curriculum is implemented with the aim of training students' independence in thinking. The point is that the desire to think is aimed at the teacher, if the teacher is not free in teaching, of course the students will also not be free in thinking (Rahayu et al., 2022).

With freedom to learn, students can develop their potential according to their talents and interests because students also have different abilities in absorbing the knowledge conveyed by the teacher. (Naufal, Irkhamni and Yuliyani, 2020) Apart from that, freedom to learn also opens up teachers' insight into the problems they face. Starting from student admissions, lesson plans, learning processes, evaluations, to national exams. So the teacher's role is to become a channel for channeling potential for students to give birth to superior seeds for the nation's hopes, so that an interesting and innovative learning atmosphere is needed so that students can be enthusiastic about learning (Ningrum, 2022).

In the current era, many teachers choose to use books as the main medium for delivering learning material, resulting in learning becoming less interesting and monotonous. To overcome this, the solution that can be implemented is using learning media during the learning process. Learning media is very important in helping students understand learning material, therefore teachers must look for effective ways to help students learn and understand learning material (Hilyana, 2023). Too much material and inappropriate and monotonous methods and media can also disrupt the quality of classroom learning. In the future, this will cause students to get bored easily and not have enthusiasm when participating in learning, which can ultimately cause students' interest in learning to decrease and disrupt learning. Learning media is anything that can be used to convey messages and stimulate student learning (Maulida et al., 2023).

Learning using mystery box media (magic box) is a learning media in the form of a box or cube which contains the contents of the box and when the box is opened, students will not know the contents of the box when the box is closed. Therefore, mystery box media is applied during learning with the aim of making it easier for students to understand the

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learning and material presented by the teacher (Dwi Nopita Sari, Bukman Lian2, 2023). Therefore, in an effort to help students master the material, teachers can create innovative and fun learning media in the form of interactive media. Therefore, innovative teachers will be able to provide a pleasant atmosphere in the classroom so that students will feel happy when learning in the classroom (Pasya et al., 2023).

In the mystery box, the box contains material, for example the characteristics of flat shapes. At the first meeting, students will be given practice questions and other media used to measure skills, knowledge, intelligence, abilities or talents possessed by individuals or groups. The second and third meetings used the mystery box learning media treatment. When given treatment, researchers also provided LKPD during teaching and learning activities. To make it easier for students to understand the material on the characteristics of flat shapes easily. The learning process is more effective when utilizing various available facilities and infrastructure (Fricha et al., 2023).

This research uses quantitative research combined with experimental techniques as well as tests and observations as data collection methods. Initial observations carried out at SD 1 Panjang with the mathematics class teacher in class V, found several factors causing problems in mathematics learning. In learning activities, interactive and innovative media is needed to support learning facilities which aim to convey learning material effectively and efficiently. So, teachers can be creative in using appropriate learning media to convey the material to be taught.

Quoted from research entitled (Dwi Nopita Sari, Bukman Lian2, 2023) "The influence of the magic box learning media on the mathematics learning outcomes of second grade elementary school students" the results of this research show that there is an influence from the magic box media. ) on the mathematics learning outcomes of class II students at SD Negeri 142 Palembang in 2023, with an initial average pretest score of 43.64 (not appropriate) then increasing after carrying out the posttest with an average score of 78.18 (suitable). So,  $t_{count} = 22.184 > t_{table} = 1.717$  and sig value  $(0.00) < (a) 0.05$ . In accordance with the hypothesis test, namely if  $t_{count} > t_{table}$  then  $H_a$  is accepted, and  $H_0$  is rejected.

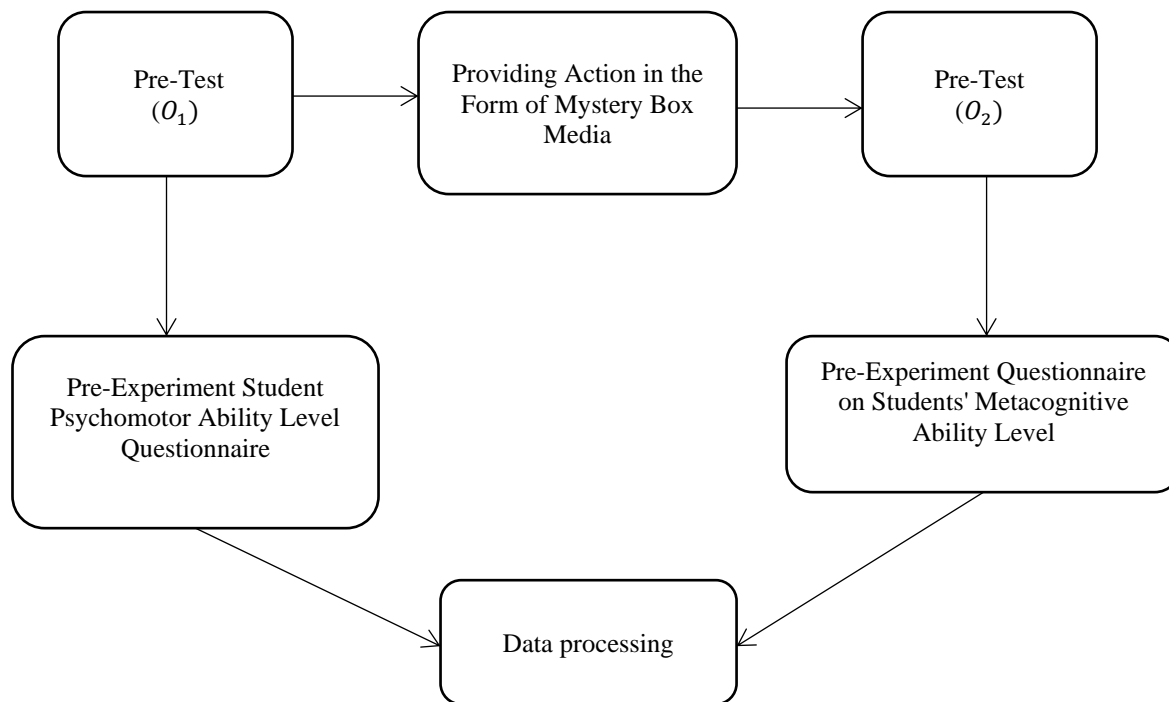
Quoted from research (Fajeri et al., 2023) entitled "The Influence of the Talking Stick Type learning model assisted by Mystery Box Media on Student Learning Outcomes". The results of this research show that there is an influence of the talking stick type learning model assisted by mystery box media on student learning outcomes on the theme of sonar students on animals. This is proven by the average score obtained from the two classes that were tested. In the cognitive aspect, a score of 54.9 was obtained for the control class and an average score of 72.3 for the experimental class. In the psychomotor aspect, the score was 77.8 in the control class and 88.2 in the experimental class. In the effective aspect, the score was 75.9 in the control class and 84.1 in the experimental class. This data shows that the results from each cognitive, psychomotor and affective aspect received the largest scores in the experimental class.

Based on the problems obtained by researchers. Researchers are interested in conducting research using Classroom Action Research (PTK) with the title "The Influence of Mystery Box Media on the Psychomotor Ability of Class V Students in Mathematics Subjects at SD 1 Panjang Kudus".

## 2. Methodology

The approach in this research uses a quantitative experimental approach, where in this research a treatment will be given to test how big the influence of Mystery Box Media is on students' psychomotor abilities. The population in this study were students at SD 1 Panjang, with the research sample being all class V students with a total of 25 students.

This research is included in the pre-experimental type in the form of a One Group Pretest-posttest Design with questionnaire data as a reference for assessing students' Psychomotor abilities which have been adjusted to indicators that include Psychomotor abilities as a measure of success. Pre-Experiment Research One Group Pretest-posttest Design The results of the treatment can be known more accurately, because observations can be made regarding the conditions before treatment (Prof.Dr.Sugiyono, 2018). The flow of this research process can be explained through the following chart:



**Figure 1:** One Group Pretest-posttest Design

In determining the research problem, the focus was on the application of Mystery Box Media to the Psychomotor abilities of students at SD 1 Panjang Kudus with stages before implementing Mystery Box Media and after implementing Mystery Box Media in the form of providing pre-test and post-test questionnaires to measure the level of students' Psychomotor abilities. The subjects of this research were fifth grade students at SD 1 Panjang Kudus in Mathematics. Meanwhile, at the data processing stage, the results of the pre-test and post-test will be compared with the level of students' cognitive abilities by carrying out a t test using SPSS 20 to determine the magnitude of the influence of the application of Mystery Box Media on students' Psychomotor abilities in Mathematics subjects at SD 1 Holy Long. The hypothesis of this research is to test how big the influence of Mystery Box Media is on the psychomotor abilities of class V students. The data is said to have an influence if the significance value is  $<0.05$  then  $H_a$  is accepted, and  $H_0$  is rejected.

Research Hypothesis, as follows:

$H_0$ : There is no influence from Mystery Box Media on students' psychomotor abilities in the material comparing the characteristics of flat shapes for class V SD 1 Panjang Kudus.

$H_a$ : There is an influence of Mystery Box Media on students' psychomotor abilities in the material comparing the characteristics of flat shapes for class V SD 1 Panjang Kudus.

Based on the picture above, it can be explained that in quantitative research design, there is an Experimental class. In this research, Mystery Box Media was used. According to (Syam et al., 2022) One Group Pretest-posttest Design, namely One Group Pretest Posttest Design, namely an experiment carried out on one group only without group comparisons. This model is more perfect when compared to the first model because it uses initial tests so that the magnitude of the effect from the experiment can be known with certainty. This research used a sample of 25 fifth grade students at SD 1 Panjang Kudus, Bae District, Kudus Regency. The sample is a portion of the population being studied or a small portion of the population taken according to certain procedures so that it represents the rest of the population.

### 3. Results

Based on the results of research using Mystery Box Media to improve students' psychomotor skills in Mathematics in class V at SD 1 Panjang Kudus, the instruments used in the research were tests in the form of pretests and posttests which were taken by 25 students. Then the following data can be obtained:

### 3.1 Prerequisite Test Results

The data that has been obtained by pretest and posttest is to find out whether the data is normally distributed or not, then a data normality test is carried out using the SPSS20 application. The results of the normality test can be seen in table 1.

**Tabel 1:** Test of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PRE-TEST	.147	25	.171	.946	25	.205
POST TEST	.176	25	.044	.923	25	.059

The results of the pretest data normality test show a sig value.  $0.205 > 0.05$  then it can be seen that the sig. pretest is greater than the sig.0.05 level or the data is normally distributed. The results of the posttest data normality test show a sig value. 0.059 so it can be seen that the sig value. posttest is greater than the sig level of 0.05 or the data has a normal distribution.

Data that has been declared to have a normal distribution, then a homogeneity test is carried out to find out whether several groups of data have the same variance or not. The homogeneity test results can be seen in table 2.

**Tabel 2:** Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
3.786	1	48	.058

The results of the pretest and posttest data homogeneity test show a sig.  $0.058 > 0.05$ . So, it can be seen that the sig value. is greater than the sig level value. 0.05 or homogeneous pretest and posttest data.

### 3.2 Hypothesis Test Results

Final data analysis to determine whether there is an effect of using Mystery Box Media on students' psychomotor abilities in Mathematics in class V at SD 1 Panjang Kudus with the Paired Sample T-test using SPSS 20. The results of the Paired Sample T-test can be seen in the table 3.

**Tabel 3:** Uji Paired Sample T-test

	mean	Std. Deviations	t	df	Sig. (2 Tailed)
Pair 1 pre-post	-17.960	7.144	-12.570	24	0.000

The results of the Paired Sample T-test show a sig value.  $0.000 < 0.05$  so it is known that the sig value. smaller than the sig level value of 0.05 or there is a difference in the average value before and after treatment.

## 4. Discussion

This research was conducted in class V of SD 1 Panjang involving 25 students as samples. The aim of this research is to assess the influence of Mystery Box Media on the fifth grade Mathematics subject at SD 1 Panjang. The method used to measure students' psychomotor abilities is by using questionnaires. Testing was carried out on 25 student samples through 1 meeting, namely before treatment using media and after treatment using media.

In an effort to overcome this problem, research was carried out by implementing the use of Mystery Box Media in Mathematics learning. The research results showed that the use of Mystery Box Media had a positive effect on students' psychomotor abilities. The questionnaire results showed a significant increase in students' psychomotor abilities, the results of the Paired Sample T-test showed a sig.  $0.000 < 0.05$  so it is known that the sig value. smaller than the sig level value of 0.05 or there is a difference in the average value before and after treatment. So, there is an influence of using Mystery Box Media on students' psychomotor abilities in Mathematics subjects in class V at SD 1 Panjang Kudus using the Paired Sample T-test. Thus, this research shows that the application of Mystery Box Media in Mathematics learning has a significant positive impact on the psychomotor abilities of class V students at SD 1 Panjang, Bae District, Kudus Regency. This indicates that the use of this media can help increase student interest and quality of learning at school.

Based on the results of the research conducted, there is no significant difference with previous research regarding the impact of Mystery Box Media on students' psychomotor abilities. This shows that the hypothesis states that Mystery

Box Media can improve students' initially low psychomotor abilities. This is indicated by the sig value.  $0.000 < 0.05$  so  $H_0$  is rejected, and  $H_a$  is accepted.

It has been proven to be correct compared to the use of conventional methods. Overall, Mystery Box Media is a learning medium in the form of a box or cube which contains the contents of the box and when the box is opened, students will not know the contents of the box when the box is closed. Mystery box media is media that resembles a question box. The media question box is a small box containing a number of questions that will be chosen randomly by each class member. This mystery box media helps the learning process in learning, stating that teachers do not need to read questions to students using this mystery box media. Instead, students get questions directly from the mystery box media. This makes the teacher's role easier in the learning process (Sidik & Fikroh, 2022).

Therefore, Mystery Box media is applied during learning with the aim of making it easier for students to understand the learning and material presented by the teacher. However, it needs to be emphasized that this research has limitations because the Mystery Box Media is only used in one Mathematics subject. Further research, this Media Mystery Box research can be expanded to other subjects at elementary school level to strengthen the results showing that Media Mystery Box can improve students' psychomotor abilities.

## 5. Conclusion

Based on the results of the research and data analysis carried out, it can be concluded that to determine students' psychomotor abilities using Mystery Box Media in Mathematics subjects in class V at SD 1 Panjang Kudus. This research was conducted on class V students with a sample size of 25 students which was carried out in 4 stages, namely introduction, implementation of learning, preparation for treatment and identification. The results of the Paired Sample T-test show a sig value.  $0.000 < 0.05$  so it is known that the sig value. smaller than the sig level value of 0.05 or there is a difference in the average value before and after treatment. Thus, this research shows that the application of Mystery Box Media in Mathematics learning has a significant positive impact on the psychomotor abilities of class V students at SD 1 Panjang, Bae District, Kudus Regency.

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