Media Magic Box Based on the Rembang Local Culture to Improve Class-A Motor Skills

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A B S T R A K

Masih banyak anak yang masih perlu meningkatkan kemampuan motorik halusnya. Berbagai faktor menyebabkan kurangnya minat guru terhadap media pembelajaran sehingga anak tidak tertarik untuk belajar. Penelitian ini bertujuan untuk membuat media magic box berbasis budaya lokal Rembang untuk meningkatkan kemampuan motorik halus anak Kelompok A di Taman Kanak-Kanak. Metode dalam penelitian ini adalah penelitian pengembangan dengan menggunakan sepuluh langkah pelaksanaan penelitian. Analisis yang digunakan dalam penelitian ini adalah analisis kuantitatif dan analisis kualitatif. Pengumpulan data dilakukan melalui observasi, wawancara, angket, dokumentasi, dan validasi ahli. Subyek penelitian adalah 30 siswa TK, delapan guru, dan satu kepala sekolah. Hasil penelitian menunjukkan bahwa hasil validasi ahli materi dan media dinilai layak untuk meningkatkan kemampuan motorik halus anak. Pengembangan media magic box berbasis budaya lokal Rembang efektif meningkatkan kemampuan motorik halus anak Kelompok A kelompok Srikandi dengan t-test 33,53 dan t-tabel 2,022. Selanjutnya, N-gain sebesar 72,7 pada kategori tinggi tersebut dapat diartikan sebagai peningkatan kemampuan motorik halus anak dengan interpretasi yang cukup efektif. Penelitian ini mengandung makna bahwa diharapkan kemampuan anak dapat ditingkatkan dengan menggunakan media magic box berbasis budaya lokal Rembang.

A B S T R A C T

There are still many children who still need to improve their fine motor skills. Various factors cause a lack of interest in the teacher's learning media, so children are not interested in learning. This study aims to create magic box media based on the local culture of Rembang to improve the fine motor skills of Group A children in Kindergarten. The method in this study is research and development research using ten steps of research implementation. The analysis used in this research is the quantitative analysis and qualitative analysis. The data was collected through observation, interviews, questionnaires, documentation, and expert validation. The research subjects were 30 kindergarten students, eight teachers, and one principal. The results showed that material and media experts' validation results were deemed feasible to improve children's fine motor skills. The development of magic box media based on the local culture of Rembang effectively improves the fine motor skills of Group A children in the Heroines group with a t-test of 33.53 and a t-table of 2.022. Furthermore, an N-gain of 72.7 in this high category can be interpreted as an increase in children's fine motor skills with a fairly effective interpretation. This research implies that it is hoped that children's abilities can be increased by using magic box media based on the local culture of Rembang.

1. INTRODUCTION

A kindergarten is a form of PAUD-level service that is on a formal route. The role of education in Kindergarten is very important, preparing children to be ready to enter basic education, education in elementary schools (Mulyani, 2019; Nurjannah, 2018; Pramana, 2020). One aspect that is very important in influencing the next child's life is the physical-motor aspect, or motor-physical skills (Fitriani, 2018; Maryati et al., 2021). Motoric development controls physical movements through the coordinated activities of the nerve centers, nerves, and muscles (Aghnaita, 2017). Optimizing children's motor development positively impacts development and good health. Children with good motor coordination

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will feel happy, motivated, confident, and active. Motor development in children is divided into fine and gross motor development (Sukmaningrum, 2015; Suryaningsih et al., 2021; Wandi et al., 2019a). The physical-motor aspect is a need for early childhood that needs to be developed because it greatly influences early childhood academic achievement and school readiness (Mayar et al., 2022; Wandi et al., 2019b). However, in reality, many children still have low fine motor skills. Various factors cause the need for more interest in the learning media the teacher uses so that children are not interested in learning (Wahono et al., 2017). They feel bored, so learning can be done more optimally (Mahmud, 2019; Muslihin, 2018). In addition to the less attractive media, which causes the lack of implementation of this activity, the method used by the teacher does not vary. The teacher uses the same method yearly: the lecture method and giving (Mayar et al., 2019; Wati et al., 2022). Teachers need to be more creative in providing learning activities for children. Teachers often provide drawing, coloring, and working on children's worksheets. Teachers often repeat providing the same activities so children do not get new learning experiences. Based on observations made in the Srikandi cluster, Sulang sub-district, the fine motor skills of children aged 4-5 years still need to meet the specified minimum standards. Children must still be more skilled in drawing, tracing shapes, cutting, pasting, and sewing. Children also quickly get bored with this activity. It can be seen from the average weekly assessment of children who meet the criteria for developing according to expectations below 50%. If this problem is not resolved, it will impact children's motor development.

Solutions to overcome these problems can use learning media. One media that can be used is magic box media based on local culture. Learning media is anything that can convey or channel messages from a source in a planned manner so that a conducive learning environment occurs where the recipient can carry out the learning process efficiently and effectively (Fitrianti, Handayani, & YP, 2020; Twiningsih, 2020). Learning media is important to use because the use of learning media can arouse students' interest and motivation, reduce verbalism as a channel of information, encourage students, and increase knowledge retention in learning (Sania et al., 2022; Sintya et al., 2020). Magic Box learning media is a learning media in the form of a box or cube in which the material is only visible when the box is opened. When closed, students will not know the box's contents (Fitrianti, Handayani, & Yp, 2020; Sania et al., 2022; Sintya et al., 2020). With the application of this media, students will be interested, and their curiosity will increase so that students do not get bored participating in learning activities, and the material obtained will be easily understood.

Several previous research findings state that magic box media can improve student learning outcomes (Fitrianti, Handayani, & YP, 2020). The rotating trio exchange learning model assisted by magic box media can be applied in the learning process to improve student learning outcomes (Sintya et al., 2020; Twiningsih, 2020). Magic box learning media can be tested or used as learning media (Zaenal Fais et al., 2019). Based on these findings, learning media is very important. The development of children's fine motor skills from an early age is very important because this will affect the child's subsequent cognitive development. This fine motor development uses an assignment method with four stages: providing materials and tools, giving directions and opportunities to practice, observing children individually and in groups, and evaluating the child's fine motor development continuously and directedly. This study aims to create magic box media based on the local culture of Rembang to improve class A motor skills.

2. METHOD

This research uses research and development. The development procedure used in this research adapts to the development procedure by Borg and Gall. In this study, the goal was to develop a magic box media based on the local culture of Rembang to improve children's fine motor skills in group A. The subjects in this study consisted of Group A students at Mardi Siwi Kindergarten, Karangsari Village, Sulang District, Rembang Regency, for the 2021/2022 academic year. Ten children were in the experimental class, ten students in ABA Seren Kindergarten, and 10 in Kenanga Pranti Kindergarten as the control class. Teachers and kindergarten heads at Mardi Siwi Karangsari Kindergarten, totaling three teachers and 1 Kindergarten Principal, two teachers at ABA Seren Kindergarten, 3 Teachers at Kenanga Pranti Kindergarten to obtain data on children's fine motor development and media needs. Methods of data collection in this study using observation, interviews, questionnaires, documentation, and expert validation and analysis techniques used quantitative and qualitative analysis. The steps of this research are presented in Figure 1.
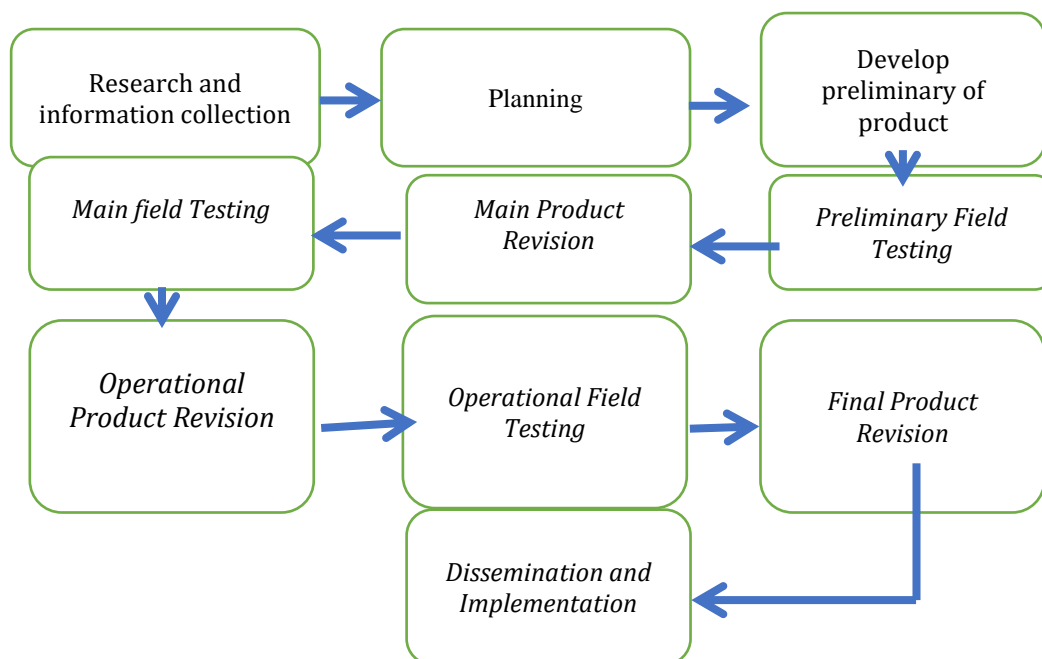
Figure 1. Research and Development Steps

3. RESULT AND DISCUSSION

Result

This study aims to create learning media magic box media based on the local culture of Rembang to improve class A motor skills. Based on data analysis used to obtain pre-test and post-test scores. Large field trials were carried out in ABA Kindergarten and Memories Kindergarten. The number of respondents was 20 children, with ten children in each Kindergarten. In the wide trial, the initial observation was carried out as the initial score of the pre-test score, and the second observation after carrying out learning using magic box media based on the local culture of Rembang as the post-test score. Pre-test and post-test scores are presented in Table 1.

Table 1. Pre-Test and Post-Test Scores

Description	Pre-test	Post-test
Average	46.45	85.48
Standard deviation	3.915	5.961
Lowest score	39	73
Highest score	54	98

Table 1 shows an increase in the average score of the pre-test and post-test. The average pre-test score was 46.45, and the average post-test score was 85.48. From these results, it is known that there has been a significant increase, so the use of magic box media based on the local culture of Rembang can improve the fine motor skills of kindergarten children. The Normality Test uses the Shapiro-Wilk because the number of respondents is less than 50. In a large field test, researchers used 20 respondents. If the sig score > 0.05, then it is said to be normally distributed. The results of the normality test are broadly presented in Table 2.

Table 2. Broad Normality Test Results

	Class	Shapiro – Wilk		
		Statistic	Statistic	Statistic
Observation	*Pre-test*	0.928	0.939	0.936
Results	*Post-test*	0.948	0.975	0.943

Based on Table 2, the normality test results in the broad trial in the control class obtained a pre-test sig score of 0.928 and a post-test of 0.48 with a sig level of 0.05. Whereas the experimental class

showed that the sig pre-test score in experimental class 1 was 0.939 and in the experimental class 2, sig was 0.936, and in the post-test, the experimental class showed that the sig post-test score in experimental class 1 was 0.975 and in the experimental class 2 sig was 0.943. Then the calculated sig score > from the sig table. All data are normally distributed so that the test data can be widely used for research subjects. The homogeneity test results are broadly presented in Table 3.

Table 3. Broad Homogeneity Test Results

		Lavene Statistic	df 1	df 2	Sig
Observation Results	Based on Mean	3.318	1	78	.072
	Based on Median	2.040	1	78	.157
	Based on the Median and with adjusted df	2.040	1	56.626	.159
	Based on trimmed Mean	3.286	1	78	.074

Based on the homogeneity test, the results obtained were sig 0.072. It means that the sig arithmetic is 0.072 > 0.05, so it can be concluded that the trial data are broadly the same. Then a hypothesis test was carried out with an independent paired sample t-test analysis. The results of the independent paired sample t-test are presented in Table 4.

Table 4. Independent Paired Sample T Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	postest – pre-test	39.025	7.361	1.164	36.671	41.379	33.532	39	0.000

Based on Table 4, the T count is 33.53 while the score of t table df 39 is 2.022, then 33.53 > 2.022 because t count > t table then Ho is rejected and Ha is accepted. It can be interpreted that the development of Rembang local culture-based magic box media can improve the fine motor skills of kindergarten children. After the t-test, the data from the test results are widely used in the N-gain test. The results of the N-gain test in the trials are broadly presented in Table 5.

Table 5. N-gain Test Results Widely Tested

No	Score	Class
1	N –gain	0.727
2	Criteria	Tinggi
3	N-gain %	72.7
4	Interpretation	Effective enough

Based on Table 5, an N-gain result of 0.727 is obtained in the high category with g ≥ 0.727. It can be interpreted that there is an increase in children's fine motor skills in the high category. The N-gain score of 72.7 can be interpreted as quite effective. Thus the development of magic box media based on the local culture of Rembang is effective enough to improve the motor skills of kindergarten children.

Discussion

Based on the study's results, it was shown that the development of magic box media based on the local culture of Rembang was quite effective in increasing the motor skills of kindergarten children. Magic box learning media is a learning media in the form of a box or cube in which the material is only visible when the box is opened. Students will not know the box's contents when the box is closed. It can stimulate children's fine motor skills. This large media with attractive shape designs and interesting sewing, folding, and pasting activities. These activities attract children's learning interests only after realizing they can improve children's fine motor skills. The importance of fine motor development in children of this age is so important, especially if one aspect of development, fine motor, is stimulated from an early age because early childhood is a golden age or repeated imitators because they are still very small (golden age) can be

influential and useful in a future life (Kharisma et al., 2019; Maulidha et al., 2017; Nurjannah, 2018). Many activities and activities that require the development of children's fine motor skills are related to the use of fingers and hands, wrists on the hands, and also coordination that occurs between the eyes and hands of the child (Lestariani et al., 2019; Wandi et al., 2019a). The development of magic box media based on the local culture of Rembang is quite effective in stimulating children's motor skills. Because magic box media is concrete and real media, students find it easier to use. Learning media can clarify the presentation of messages and information to improve learning processes and outcomes. Learning media can also improve learning processes and outcomes and motivate learning and teacher interaction with students (Oktarina et al., 2019; Pura et al., 2019). Quality learning media, which can increase student motivation to learn, is practical and easy to use, so this media is effectively used (Pertiwi, 2020; Rozi et al., 2021). This finding is reinforced by previous studies stating that magic box media is appropriate and effective for child development (Sintya et al., 2020). In addition, magic box media can improve student learning outcomes. This media can be used in various subjects. This research implies that children's abilities can be increased by using magic box media based on the local culture of Rembang.

4. CONCLUSION

Implementing learning in Kindergarten Group A on fine motor aspects requires learning media to stimulate children's motor development. Development of learning media Magic box media based on the local culture of Rembang. Feasibility test of learning media Magic box media based on the local culture of Rembang according to the validation score of material experts and media experts in the good category and very feasible to improve children's motor skills. Magic box media based on the local culture of Rembang is effectively used to improve the fine motor skills of Group A children. The effectiveness of the media is based on limited trials and large field tests with the results t count > t table. The results of the N-gain test in the limited test are included in the effective category and the broad field test in the moderately effective category. It is recommended for Kindergarten teachers that learning media as teaching aids need to be developed. The development of learning media can support the learning process. So it is suggested to make magic box media based on the local culture of Rembang as a media reference to improve children's fine motor skills.

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