

The Development of Picture Books Based on Meaningful Learning to Increase Social Awareness of Elementary School Students

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Abstract

Instilling social care in children is essential to mitigate the negative impacts of globalization, which has contributed to declining empathy among students. This study aims to develop and evaluate the effectiveness of a picture book based on meaningful learning in enhancing elementary school students' social care, particularly in the aspects of sharing and cooperation. The research employed a Research and Development (R&D) method using the ADDIE model, which includes the stages of Analysis, Design, Development, Implementation, and Evaluation. The independent variable was the use of the meaningful learning-based picture book, while the dependent variable was the students' social care. The study was conducted on June 28–29, 2022, at Public Elementary School (SDN) Mandikapau Barat 2 Martapura, involving 20 students selected through purposive sampling. The results showed that in terms of knowledge, only 25% of students achieved mastery before the intervention, which increased to 100% after using the picture book. For social care, 55% of students reached mastery in sharing, and 70% in cooperation. These findings indicate that the meaningful learning-based picture book is effective in enhancing students' social care. This study offers a reference for teachers to adopt innovative learning media and serves as inspiration for developing similar educational materials.

Keywords: *meaningful learning, picture books, social care.*

Abstrak

Penanaman karakter peduli sosial pada anak menjadi penting untuk mengurangi dampak negatif globalisasi yang ditandai dengan menurunnya empati. Penelitian ini bertujuan mengembangkan dan menguji efektivitas buku bergambar berbasis *meaningful learning* dalam meningkatkan kepedulian sosial siswa sekolah dasar, khususnya pada aspek berbagi dan bekerja sama. Metode yang digunakan adalah penelitian dan pengembangan (R&D) dengan model ADDIE yang mencakup tahap Analisis, Desain, Pengembangan, Implementasi, dan Evaluasi. Variabel bebas dalam penelitian ini adalah penggunaan buku bergambar berbasis *meaningful learning*, sementara variabel terikatnya adalah kepedulian sosial siswa. Penelitian dilaksanakan pada 28–29 Juni 2022 di SDN Mandikapau Barat 2 Martapura dengan 20 siswa sebagai sampel yang dipilih melalui teknik purposive sampling. Hasil menunjukkan bahwa pada aspek pengetahuan, sebelum penggunaan buku bergambar hanya 25% siswa yang tuntas, meningkat menjadi 100% setelah intervensi. Pada aspek kepedulian sosial, indikator berbagi mencapai 55% tuntas dan bekerja sama mencapai 70% tuntas. Temuan ini menunjukkan bahwa buku bergambar berbasis *meaningful learning* efektif meningkatkan kepedulian sosial siswa. Penelitian ini memberikan referensi bagi guru dalam menggunakan media pembelajaran inovatif serta menjadi inspirasi bagi pengembangan bahan ajar serupa.

Keywords: *buku bergambar, pembelajaran bermakna, peduli sosial.*

INTRODUCTION

The learning process involves the interaction of teachers and students. Learning is an activity used to generate initiative and the role of students in implementing a curriculum that has been agreed upon by an educational institution so that students can achieve educational goals (Apriliani & Radia, 2020). Learning objectives, learning materials, learning methodology, and learning assessments have been adjusted by the teacher so that everything can fit into the learning environment. Learning methods and media are very prominent aspects of learning methodology, both of which have an important position in achieving learning goals effectively (Masykur, Nofrizal & Syazali, 2017). The learning process is fundamentally an interactive activity between teachers and students, aimed at achieving educational goals through a structured curriculum. Teachers play a central role in aligning learning objectives, materials, methodologies, and assessments to create an effective learning environment. Among these components, learning methods and media stand out as crucial elements in ensuring the success of the instructional process. One key area where effective learning methods and media can have a profound impact is in character education, particularly in fostering students' social awareness. Character education plays a vital role in shaping students' personalities and should begin from the elementary school level, as this is a critical period for moral and social development.

Character is a collection of values heading towards a system that underlies thinking, feeling, attitude, and behavior performed by someone (Rosyadi, 2013). In order to build good characters, one could achieve it through education and constant training, which could start from the family (Koesoema, 2010). Since people's characteristics are influenced by its environment, the engraining of religious, moral, and manner values is important to be done from early age. Character education is a fundamental aspect in forming students'

personalities, especially in instilling the value of social awareness from an early age. According to Hasanah and Deniatur (2019) character education must be instilled from elementary school age because this period is a critical period in children's moral and social development.

However, the reality on the ground shows that many elementary school students still have a low level of social awareness. Based on the results of observations, it was found that many students still lack empathy, are less willing to work together, and are less active in social activities in the school environment. This shows that there are problems that have not fully succeeded in instilling the value of social awareness in students. One of the causes of students' low social awareness is the lack of use of interesting and contextual learning media. According to Yanti et. al., (2024), in his theory of cognitive development, elementary school age children are in the concrete operational stage, where they understand concepts more easily if they are presented through visual media and direct experience. Picture books are an effective medium in helping students understand social values because they use an interesting combination of text and images. Research by Rahmawati et al (2018) shows that picture books can increase children's understanding of social values and help them internalize moral concepts.

The decline in children's empathy is also inseparable from the influence of technological advances. As explained in the research of Normalasarie et al. (2023), the results of the study showed that children's empathy abilities had decreased by 40% in the last 10 years. One of the causes is addiction to smartphones which has an impact on the development of children's social behavior. To overcome this problem, the use of learning media in the form of picture books based on local culture can be an effective solution.

The Meaningful learning approach developed by Saleem, Kausar & Deebea (2021) that the primary purpose of exploration tasks is to establish learning experiences that can be utilized for later teaching and Learning, such as introducing the new topic or concepts, discussion, and skills learning. Emphasizing the importance of linking new concepts with the experiences students already have. Through this approach, learning will be more meaningful because students can understand concepts in more depth and apply them in everyday life. Research by Evita, Syahid, & Nurdin (2019) shows that meaningful learning-based learning can increase students' understanding of social values and help them apply social care attitudes in real life. Based on the problems that have been identified, this research will answer the question of how valid Meaningful learning-based picture books are to increase elementary school students' social awareness, and how effective Meaningful learning-based picture books are in increasing elementary school students' social awareness.

Overcoming the low social awareness of elementary school students requires the development of learning media that is not only interesting but also has a strong theoretical basis. The solution offered in this research is the development of Meaningful learning-based picture books that are valid and effective in improving students' social care attitudes. Nurgiyantoro (2016) states that picture book is a children's story reading book which contains pictures. Picture story books in improving reading comprehension skills are expected to make it easier for students to learn, can make learning activities more fun, students are more enthusiastic and active to participate in learning activities. Picture books can serve as a creative and non-academic tool for learning (Oktavianti & Nur, 2022). Picture

books are an effective medium for enhancing children's social attitudes as they incorporate topics and ideologies that cultivate children's minds and imagination, enabling them to approach real challenges with greater openness. Picture books, particularly in the English edition, are constructed based on narrative philosophies that encompass not only the positive aspects of life but also the negative aspects.

This media is designed with an approach that allows students to connect social care values with their daily lives. This solution is based on previous research which shows the effectiveness of picture books in shaping students' character. According to Purwaningrum et, al., (2023) who said that picture books are story books that contain content with colorful pictures so that students are interested in learning and stories related to everyday life. Apart from that (Normalasarie et al., 2023) also concluded that interesting picture story books with a combination of writing and picture content have the function of strengthening students' knowledge. The same thing was said by Yue Song (2021) who said that students with different cultural backgrounds may show varying levels of social concern, but they still have the same empathy.

Overcoming the low social awareness of elementary school students requires the development of learning media that is not only interesting but also has a strong theoretical basis. The solution offered in this research is the development of Meaningful learning-based picture books that are valid and effective in improving students' social care attitudes. This media is designed with an approach that allows students to connect social care values with their daily lives. This solution is based on previous research which shows the effectiveness of picture books in shaping students' character. According to Purwaningrum et, al., (2023) who said that picture books are story books that contain content with colorful pictures so that students are interested in learning and stories related to everyday life. Apart from that (Normalasarie et al., 2023) also concluded that interesting picture story books with a combination of writing and picture content have the function of strengthening students' knowledge. The same thing was said by Yue Song (2021) who said that students with different cultural backgrounds may show varying levels of social concern, but they still have the same empathy.

The main focus of this research is increasing elementary school students' social awareness through the development of Meaningful learning-based picture books. Social concern as part of prosocial behavior, includes various aspects including sharing and cooperation. According to Yao et. Al., (2023), sharing is an individual's willingness to give part of his or her possessions to others without expecting anything in return, while cooperation is the ability to carry out joint activities with other people to achieve common goals. They added more about knowledge sharing that Sustaining intraorganizational knowledge sharing is challenging. Employees may strategically withhold critical knowledge to maintain their competitive status among peer colleagues, leading to the lessdiscussed issue of knowledge hiding. By integrating the concepts of sharing and collaborating in meaningfully designed picture books, it is hoped that students can understand and integrate these values. This is in line with the Meaningful learning theory which emphasizes the importance of linking learning material with students' real experiences so that learning becomes more relevant and easier to understand. Through this approach, students not only gain cognitive knowledge but also develop attitudes and behavior that reflect social

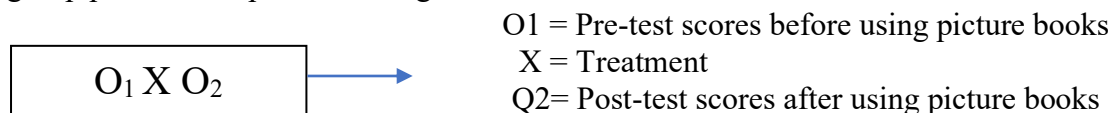
concerns in everyday life (Normalasari, et., al 2023). This is in line with research by Apriliani & Radia (2020) who also said that picture books not only develop cognitive but are also an interesting medium that makes students interested in trying them, that way students will easily understand the material and increase their interest in reading.

METHODS

This research uses Research and Development (R&D) method with the ADDIE (Analysis, Design, Development, Implementation and Evaluation) development model. This model was chosen because it is systematic and suitable for developing teaching materials. This research was conducted at SDN Mandikapau Barat 2 involving 20 students as test subjects. The stages of the ADDIE model, namely the analysis of learning needs in elementary schools, are mainly related to the formation of students' social awareness attitudes. Observations and interviews were carried out with teachers to identify problems and needs for teaching materials that were more contextual and based on Meaningful learning.

The design was carried out after a needs analysis, a picture book was designed to suit the characteristics of elementary school students. At this stage, indicators of social concern were determined, especially aspects of sharing and collaboration. Preparing manuscripts and developing attractive illustrations according to students' cognitive development stages. Implementation or trial at SDN Mandikapau Barat 2 involving 20 students with the aim of seeing the effectiveness of books in increasing students' social awareness. Data collection was carried out through observation, questionnaires and interviews with students and teachers. Evaluation is carried out in two stages, namely formative evaluation, namely evaluation of each development product, and summative evaluation which is carried out after implementation to determine the effectiveness of picture books in increasing students' social awareness through pre-test and post-test to measure the increase in students' social awareness after using picture books.

Evaluation includes two main aspects, namely sharing and collaborating, each of which is analyzed based on knowledge, attitudes and skills. Through comparative analysis of pre-test and post-test results, the effectiveness of Meaningful learning-based picture books in increasing social awareness can be determined. This research uses a one group pre-test and post-test design. According to Machali (2021), this design can be explained as a research activity which shows that an initial test is given before the treatment is carried out and a final test is given after the treatment is given. The following is the formula for one group pre-test and post-test design.



Data collection techniques are documentation, observation and interviews. Documentation is a technique that collects various information with the aim of completing previous data. Observation is a technique for identifying previous book use, interviews are carried out in the form of questions about previous book use and the reasons why attitudes towards social awareness are still low.

According to Machali (2021), validity can be measured in several ways, including content validity, which is a measurement that covers all aspects of the variable dimensions to be measured, criterion validity, which is a type of validation used to measure the extent to which the results of a measurement instrument can be predicted or correlated with the results of criteria that are considered standards.

Testing the effectiveness of the depiction of social care attitudes is processed using the following steps: 1 highest score: 3, 2 lowest score: 1, 3 highest and lowest score range: 3-1=2, score interval: Score range /3=2/3=0.67 from these steps the following criteria are obtained:

Criteria	Range
Good	2.34 - 3.00
Enough	1.68 - 2.33
Less	0.00 - 1.67

The statistical assumption test was carried out before the difference test, namely the normality test of the pre-test and post-test data, the normality test used the Kolmogrov-Smirnov test. This test uses SPSS version 21 software calculations. H0: The sample comes from a normally distributed population. H1: The sample comes from a population with a non-normal distribution. Test criteria: If the probability value (Sig.) of Z is greater than $\alpha = 0.05$ then the null hypothesis is accepted, and conversely if the probability value (Sig.) of Z is smaller than $\alpha = 0.05$ then the null hypothesis is rejected.

The 't' test testing the effectiveness of using picture books based on Meaningful learning is carried out by a paired sample t test with the following stages:

a. Hipotesys

$$H_0 : \mu_{\text{posttest}} = \mu_{\text{pretest}}$$

There is no difference in the average aspects of students' social care attitudes (knowledge, attitudes, skills) before and after using picture books based on meaningful learning.

$$H_0 : \mu_{\text{posttest}} > \mu_{\text{pretest}}$$

Aspects of students' social care attitudes (knowledge, attitudes, skills) after implementing the use of meaningful learning-based picture books are better than before the use of meaningful learning-based picture books

b. Finding t_{count}

Step to find t_{count} can be done as follow:

- 1) Calculate the difference (d), namely pretest data - posttest data.
- 2) Calculate the total d, then find the mean d. Calculate $d - (d \text{ average})$, then square the difference, and calculate the total squared difference.

- 3) Finding Sd^2 , by using the formula:

$$Sd^2 = \frac{1}{(n-1)} \times [\text{total } (d - d_{\text{Average}})^2]$$

- 4) Finding t_{hitung} by using the formula:

$$t_{\text{hitung}} = \frac{\bar{d}}{\frac{Sd}{\sqrt{n}}}$$

Noted:

\bar{d} : Average

Sd : Standar deviation

n : Frequency

(Sudjana, 1996)

If the data on aspects of students' social care attitudes is not normally distributed, then testing is carried out using the Wilcoxon sign rank test.

RESULTS AND DISCUSSION

The effectiveness of Meaningful learning Banjar-based picture books in improving the character of social care behavior.

The effectiveness of Meaningful learning-based picture books to improve the character of social care behavior is divided into two parts, namely limited test and extensive test. In this extensive test, the results of research will be revealed regarding the description of the social care behavior of elementary school students in Banjarmasin in the knowledge, attitude and skills aspects as well as the effectiveness of Meaningful learning-based picture books to increase social care in the knowledge, attitudes and skills aspects of elementary school students in Banjarmasin.

Depiction of social care behavior characteristics in the knowledge aspect.

The research results show that the characteristics of social care behavior in the knowledge aspect before the implementation of the picture book based on Meaningful learning were 25% in the "achieved" category and 75% in the "failed" category. After the implementation of the Meaningful learning picture book, 100% fell into the "achieved" category. Table 1 below presents an overview of the characteristics of social care behavior in the knowledge aspect.

Table 1. The Representation of Social Care Behavior Characteristics
in the Knowledge Aspect

No.	Treatment	Criteria	Range	Frequency	Persentase
1	Pretest	Achieved	≥ 75	5	25.00
		Failed	< 75	15	75.00
2	Posttest	Achieved	≥ 75	20	100.00
		Failed	< 75	0	0.00

If represented in a graph, the depiction of social care behavior characteristics in the knowledge aspect "before and after" the implementation of the Meaningful learning-based picture book is presented in Chart 1.

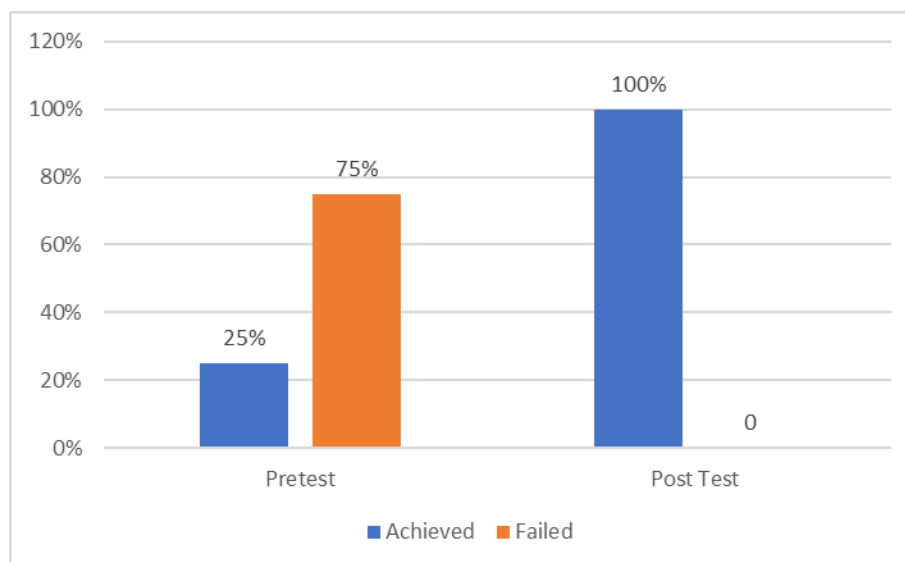


Chart 1. The Representation of Social Care Behavior Characteristics in the Knowledge Aspect

The depiction of social care character in the knowledge aspect based on the sharing indicator shows that before the implementation of the Meaningful learning-based picture book, 15% fell into the "achieved" category, while 85% were in the "not achieved" category. After the implementation of the meaningful learning-based picture book, 55% were in the "achieved" category, while 45% remained in the "not achieved" category. Table 2 below presents an overview of the social care behavior character in the knowledge aspect based on the sharing indicator.

Table 2. The Representation of Social Care Behavior Characteristics in the Knowledge Aspect Based on the Sharing Indicator

No	Treatment	Criteria	Range	Frequency	Percentage
1	Pretest	Achieved	≥ 75	3	15.00
		Failed	< 75	17	85.00
2	Posttest	Achieved	≥ 75	11	55.00
		Failed	< 75	9	45.00

If represented in a graph, the depiction of social care behavior characteristics in the knowledge aspect based on the sharing indicator before and after the implementation of the Meaningful learning-based picture book is presented in Chart 2.

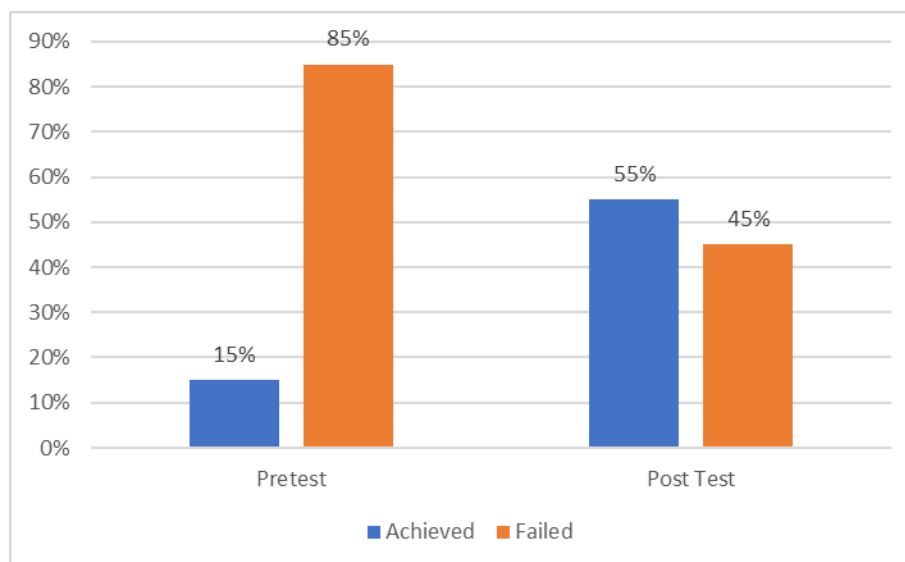


Chart 2. The Representation of Social Care Behavior Characteristics in the Knowledge Aspect Based on the Sharing Indicator

The depiction of social care behavior characteristics in the knowledge aspect based on the cooperation indicator shows that before the implementation of the locally-based Banjar culture picture book teaching material, 5% fell into the "achieved" category, while 95% were in the "not achieved" category. After the implementation of the Meaningful learning-based picture book teaching material, 70% were in the "achieved" category, while 30% remained in the "not achieved" category. Table 3 below presents an overview of the social care behavior characteristics in the knowledge aspect based on the cooperation indicator.

Table 3. The Representation of Social Care Behavior Characteristics in the Knowledge Aspect Based on the Cooperation Indicator

No	Treatment	Criteria	Range	Frequency	Percentage
1	Pretest	Achieved	≥ 75	1	5.00
		Failed	< 75	19	95.00
2	Posttest	Achieved	≥ 75	14	70.00
		Failed	< 75	6	30.00

If represented in a graph, the depiction of social care behavior characteristics in the knowledge aspect based on the cooperation indicator before and after the implementation of the locally-based Banjar culture picture book is presented in Chart 3.

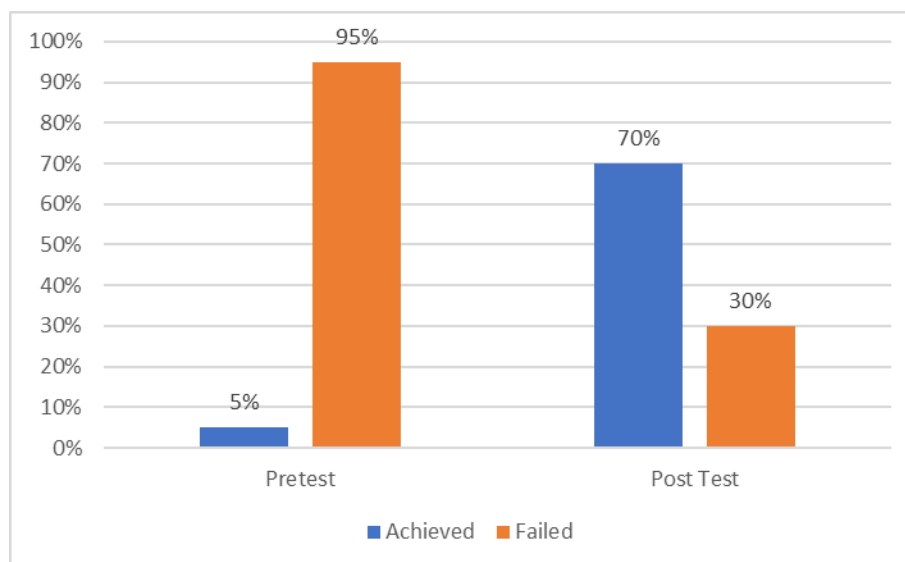


Chart 3. The Representation of Social Care Behavior Characteristics in the Knowledge Aspect Based on the Cooperation Indicator

Statistical Assumption Test

Before conducting the difference test, a statistical assumption test is first performed, specifically the normality test for the pretest and posttest data. The normality test is conducted using the Kolmogorov-Smirnov test with the assistance of SPSS version 21. The null hypothesis being tested is:

H_0 : The sample comes from a normally distributed population

H_1 : The sample comes from a non-normally distributed population

Testing Criteria: If the probability value (Sig.) of Z is greater than $\alpha = 0.05$, then the null hypothesis is accepted. Conversely, if the probability value (Sig.) of Z is less than $\alpha = 0.05$, then the null hypothesis is rejected. The results of the normality test for pretest and posttest data are presented in Table 4.

Table 4. Normality Test of Pretest and Posttest Data
on Social Care Behavior Characteristics in the Knowledge Aspect

Data	N	Average	KS-Z	Sig, (2-tailed)	H _o
Pretest	20	61.6665	0.303	0.060	Accepted
Posttest	20	90.9995	0.216	0.051	Accepted

Table 4 shows that all significance (Sig.) values (2-tailed) are greater than 0.05, indicating that the null hypothesis (H_0) is accepted. Therefore, based on the pretest and posttest data, the population is normally distributed. Since the data has been confirmed to follow a normal distribution, a paired t-test is then conducted. The detailed results of the paired t-test are presented below.

Difference Test

The hypothesis test is conducted to examine the effectiveness of the meaningful learning-based picture book in enhancing social care behavior characteristics in the knowledge aspect. The statistical hypotheses tested are as follows::

$$H_0 : \mu_{\text{posttest}} = \mu_{\text{pretest}}$$

There is no difference in the average knowledge aspect of students' social care behavior before and after using the meaningful learning-based picture book.

$$H_1 : \mu_{\text{posttest}} > \mu_{\text{pretest}}$$

The average aspect of students' social care behavior knowledge after implementing the use of picture books based on meaningful learning is better than before implementing the use of picture book teaching materials based on meaningful learning.

Testing Criteria: If the probability value (Sig.) is greater than $\alpha = 0.05$, then the null hypothesis (H_0) is accepted; otherwise, H_0 is rejected. The results of the significance test for the difference in the knowledge aspect of students' social care behavior using the paired t-test are presented in Table 5.

Table 5. Paired t-Test for the Knowledge Aspect of Students' Social Care Behavior

Data	Average	Std. Deviation	Mean Difference	Ttest	Sig	H ₀
Pretest	61.6665	12.58917	29.33300	15.983	0.000	Rejected
Posttest	90.9995	7.88009				

Table 5 shows that the probability value or Sig. (2-tailed) is 0.000, which is smaller than $\alpha = 0.05$, leading to the rejection of the null hypothesis (H_0). This indicates that the knowledge aspect of students' social care behavior improved after the implementation of the Meaningful learning-based picture book. Chart 4 below presents a comparison of the average pretest and posttest scores for the knowledge aspect of students' social care behavior before and after using the Meaningful learning-based picture book.

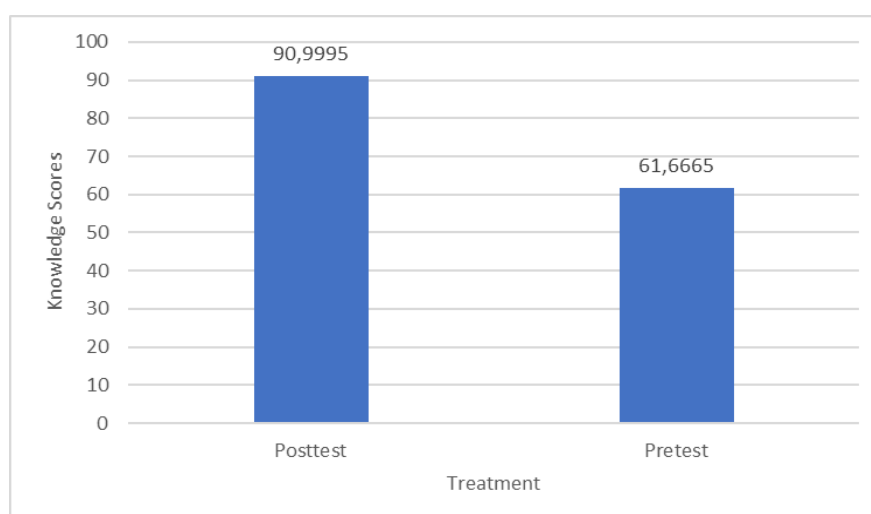


Chart 4. Average Pretest and Posttest Scores
for the Knowledge Aspect of Students' Social Care Behavior

Next, the effectiveness test will be analyzed based on the indicators of the knowledge aspect of students' social care behavior. The hypothesis test is conducted to examine the effectiveness of the Meaningful learning-based picture book in improving the indicators of the knowledge aspect of students' social care behavior. The statistical hypotheses tested are as follows:

$$H_0 : \mu_{\text{posttest}} = \mu_{\text{pretest}}$$

There is no difference in the average scores of the indicators of the knowledge aspect of students' social care behavior before and after using the Meaningful learning-based picture

$$H_1 : \mu_{\text{posttest}} > \mu_{\text{pretest}}$$

The average scores of the indicators of the knowledge aspect of students' social care behavior after the implementation of the Meaningful learning-based picture book are higher than before its implementation.

Testing Criteria: If the probability value (Sig.) is greater than $\alpha = 0.05$, then the null hypothesis (H_0) is accepted; otherwise, H_0 is rejected. The results of the significance test for the difference in the indicators of the knowledge aspect of students' social care behavior using the paired t-test are presented in Table 6.

Table 6. Paired t-Test for the Indicators
of the Knowledge Aspect of Students' Social Care Behavior

Indicator	Data	Range	Std. Deviation	Mean Difference	Ttest	Sig	H ₀
Sharing	Pretest	53.3325	25.13333	30.00200	7.285	0.000	Rejected
	Posttest	83.3345	20.23184				
	Pretest	53.3335	19.94419				
Coorporation	Posttest	90.0010	15.67051	36.66750	7.678	0.000	Rejected
	Posttest	95.0005	12.21036				

Table 6 shows that the probability value or Sig. (2-tailed) is 0.000, which is smaller than $\alpha = 0.05$, leading to the rejection of the null hypothesis (H_0). This indicates that the indicators of the knowledge aspect of students' social care behavior improved after the implementation of the Meaningful learning-based picture book. Graph 5 below presents a comparison of the average pretest and posttest scores for the indicators of the knowledge aspect of students' social care behavior before and after using the Meaningful learning-based picture book.

Effectiveness Test of the Meaningful Learning-Based Picture Book in Enhancing Social Care Behavior Characteristics in the Attitude Aspect

The data used to test the effectiveness of the Meaningful learning-based picture book in enhancing social care behavior characteristics in the attitude aspect consists of pre-test and post-test data. The calculation steps are as follows:

Statistical Assumption Test

Before conducting the difference test, a statistical assumption test is first performed, specifically the normality test for the pre-test and post-test data. The normality test is conducted using the Kolmogorov-Smirnov test with the assistance of SPSS version 21. The null and alternative hypotheses tested are as follows:

H₀: The sample comes from a normally distributed population.

H₁: The sample comes from a non-normally distributed population.

Testing Criteria: If the probability value (Sig.) of Z is greater than $\alpha = 0.05$, then the null hypothesis (H₀) is accepted. Conversely, if the probability value (Sig.) of Z is less than $\alpha = 0.05$, then the null hypothesis (H₀) is rejected.

The results of the normality test for the pre-test and post-test data are presented in Table 7.

Table 7. Normality Test of Pretest and Posttest Data
on Social Care Behavior Characteristics in the Attitude Aspect

Data	n	Average	KS-Z	Sig, (2-tailed)	H ₀
Pretest	20	1.8905	0.184	0.076	Accepted
Posttest	20	2.4655	0.165	0.160	Accepted

Table 7 shows that both datasets have Sig. (2-tailed) values greater than 0.05, leading to the acceptance of the null hypothesis (H₀). Thus, based on the pre-test and post-test data, the population follows a normal distribution. After confirming normality, a paired t-test is conducted. The detailed results of the paired t-test are presented below.

Differences Test

The hypothesis test is conducted to examine the effectiveness of the local Banjar culture-based picture book teaching material in enhancing social care behavior characteristics in the attitude aspect. The statistical hypotheses tested are as follows:

H₀ : $\mu_{\text{posttest}} = \mu_{\text{pretest}}$

There is no difference in the average scores of the attitude aspect of students' social care behavior before and after using the Meaningful learning-based picture book

H₁ : $\mu_{\text{posttest}} > \mu_{\text{pretest}}$

The average score of the attitude aspect of students' social care behavior after using the Meaningful learning-based picture book is higher than before its implementation

Testing Criteria: If the probability value (Sig.) is greater than $\alpha = 0.05$, then the null hypothesis (H₀) is accepted. Otherwise, H₀ is rejected. The results of the significance test for the difference in the attitude aspect of students' social care behavior using the paired t-test are presented in Table 8.

Table 8. Paired t-Test Results for the Attitude Aspect of Students' Social Care Behavior

Data	Average	Std. Deviation	Mean Differences	Ttest	Sig	H ₀
Pretest	1.8905	0.26498	0.57500	15.863	0.000	Rejected
Posttest	2.4655	0.15181				

Table 8 shows that the probability value or Sig. (2-tailed) is 0.000, which is less than $\alpha = 0.05$, leading to the rejection of the null hypothesis (H₀). This indicates that the attitude aspect of students' social care behavior improved after the implementation of the Meaningful learning-based picture book. Chart 5 below presents a comparison of the average pretest and posttest scores of the attitude aspect of students' social care behavior before and after using the meaningful learning-based picture book.

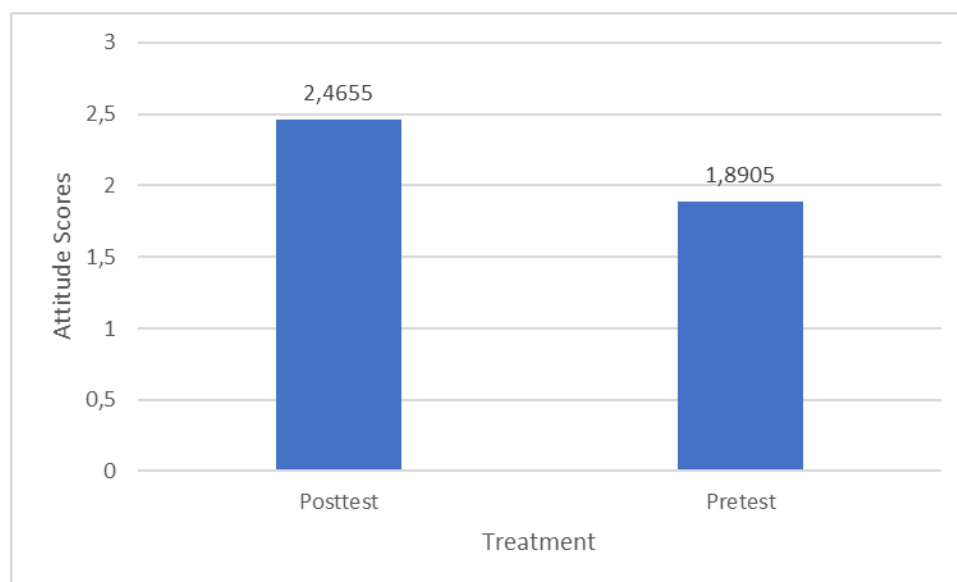


Chart 5. Average Pre-test and Post-test Scores of the Attitude Aspect of Students' Social Care Behavior

Then, the effectiveness test will be analyzed based on the indicators of the attitude aspect of students' social care behavior. The hypothesis test is conducted to evaluate the effectiveness of using the Meaningful learning-based picture book in enhancing the indicators of the attitude aspect of students' social care behavior.

The statistical hypotheses being tested are as follows:

$$H_0 : \mu_{\text{posttest}} = \mu_{\text{pretest}}$$

There is no significant difference in the mean scores of the indicators of the attitude aspect of students' social care behavior before and after using the Meaningful learning-based picture book.

$$H_1 : \mu_{\text{posttest}} > \mu_{\text{pretest}}$$

The mean score of the indicators of the attitude aspect of students' social care behavior after using the Meaningful learning-based picture book is higher than before its implementation

Testing Criteria: If the probability value (sig.) is greater than $\alpha = 0.05$, then H_0 is accepted. Otherwise, H_0 is rejected. The results of the significance test for differences in the indicators of the attitude aspect of students' social care behavior using the paired t-test are presented in Table 9.

Table 9. Paired T-Test of Data Indicators of Students' Social Care Behavioral Attitude Aspects

Indicator	Data	Range	Std. Deviation	Mean Difference	Ttest	Sig	H_0
Sharing	Pretest	1.8665	0.41048	0.55150	7.467	0.000	Rejected
	Posttest	2.4180	0.30523				
Cooperation	Pretest	1.8995	0.42027	0.65300	6.274	0.000	Rejected
	Posttest	2.5525	0.29275				

Table 9 shows that the probability value or sig. (2-tailed) is 0.000, which is less than $\alpha = 0.05$, $\alpha = 0.05$. Therefore, H_0 is rejected. This indicates that the indicators of the attitude aspect of students' social care behavior have improved after the implementation of the Meaningful learning-based picture book.

Based on the research findings, the development of picture books based on Meaningful Learning has proven effective in improving the social care character of elementary school students, especially in the aspects of sharing and cooperation. This is indicated by the increase in the score of the sharing indicator from 1.8665 (pretest) to 2.418 (posttest), and the score of the cooperation indicator from 1.8995 to 2.5525. This increase reflects significant developments in students' knowledge, attitudes, and skills after the use of picture book media that raises the local context of Banjar culture.

This improvement indicates that after using the picture books, students' knowledge, attitudes, and skills in sharing and cooperation developed significantly. These findings are consistent with previous research by Rahmawati (2018), which stated that picture books can enhance students' understanding. Theoretically, this result aligns with the Meaningful learning concept introduced by Ausubel (1968), which emphasizes that meaningful learning occurs when students can connect new information with their existing cognitive structures. As a result, they can internalize social values more deeply and in a more applicable manner.

This finding is supported by Normalasarie et al. (2023), who emphasized that picture book teaching materials are effective in instilling good character in students, where 65.8% of educators agreed that such materials facilitated the character education process. Moreover, their study concluded that the use of picture books not only improved students' learning interest but also fostered empathy and social engagement, which are essential components of social care behavior. This study is also in line with the findings of Hartati et al. (2025), who developed a sociocultural-based reflective picture story book and showed a significant increase in students' social skills and reading interests. Both emphasized the importance of a contextual learning approach as an effective means of character building. Adapting the story to students' social realities makes the material more alive and emotionally relevant.

In addition, Komari et al. (2024) revealed that 80% of students showed high interest in picture story books and most of them were able to understand the contents of the reading well. This supports the idea that the use of attractive visual media can not only foster interest in reading, but also strengthen the process of internalizing character. Rusydiana et al.'s (2023) research further shows the effectiveness of picture story books in improving elementary school

students' science literacy through an active learning approach. Although focused on science, the success of similar media in building understanding and critical thinking is evidence that picture books also have educational value in shaping social character.

This finding is also supported by the statement of Patria et al. (2021) that picture story books are able to meet the needs of teachers and students and are very suitable for use in social character education learning. Support also comes from Dyson (2001) who explains that students' expressions of cooperation and social concern are closely related to their ability to show empathy and respect for peers. Thus, the use of picture story books based on Meaningful Learning that promote local wisdom is not only successful in improving cognitive aspects, but also in forming students' social characters holistically. This finding confirms the importance of learning media that link content to students' real experiences to foster positive social attitudes and behaviors from an early age.

CONCLUSION

Based on the research findings, it can be concluded that picture books based on Meaningful learning are effective in enhancing elementary school students' social awareness, particularly in the aspects of sharing and cooperation. This is evidenced by the increase in pre-test and post-test scores for both indicators. The Meaningful learning approach enables students to develop a deeper understanding of social awareness, integrate these values into their daily lives, and improve their social attitudes and skills. It is hoped that these picture books can be utilized in classroom learning as an interactive and engaging learning medium for elementary school students. Additionally, further research can be conducted by expanding the scope of the material and testing the books on a larger scale to maximize their benefits. Thus, the use of picture books based on meaningful learning is effective in enhancing students' social awareness, particularly in the aspects of sharing and cooperation. This finding suggests that a learning approach that connects materials with students' real-life experiences can foster positive social attitudes and behaviors.

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