



---

## Development of PAIKEM-Based Buddhist Education Teaching Materials in Class IV Elementary Schools

Puskainah<sup>1</sup>, Martinis Yamin<sup>2</sup>, and Emosda<sup>3</sup>

<sup>1</sup>SD Citra Nusantara Jambi, Jambi, Indonesia

<sup>2,3</sup>Universitas Jambi, Jambi, Indonesia

Corresponding author email: [puskainah.inah71@gmail.com](mailto:puskainah.inah71@gmail.com)

---

### Info Article

Received: 13 Jul 2022

Revised: 13 Aug 2022

Accepted: 16 Sep 2022

Online Version: 20 Oct 2022

---

### Abstract

Develop teaching materials based PAIKEM (Active, Innovative, Creative, Effective and Fun Learning) Buddhist education. The purpose of this development is to produce teaching materials based PAIKEM Buddhist education can improve student learning outcomes and fit for use for educational learning Buddhism. The model of development adopted development model by Dick & Carey. Broadly speaking, this development model consists of 9 phases: 1) Identify Instructional Goals, 2) Conduct Instructional Analysis, 3) Identify Entry Behaviors and Learner Characteristics, 4) Write Performance Objectives, 5) Develop Criterion-Referenced Test Items, 6) Develop Instructional Strategy, 7) Develop and Select Instructional Materials, 8) Develop and Conduct Formative Evaluation, 9) Develop and Conduct Summative Evaluation. Product testing conducted on fourth grade students at Citra Nusantara Elementary School, Jambi. Based on the validation results of teaching materials, the overall form teaching materials can be categorized as good and fit for use in Buddhist education.

Keywords: Buddhist Education; Teaching Materials

*This is open access article under the [CC-BY](https://creativecommons.org/licenses/by-nc-sa/4.0/) licence*



---

## INTRODUCTION

Education is a basic human need. Quality education for every individual in society is a basic principle that the nation should have and must be provided by the state to its citizens (Pahlevi, 2017; Mahardhani, 2018; Daud & Triadi, 2021). The state provides this by preparing students to become independent members of society (Noviani et al., 2017; Afriyeni, 2018; Novita, 2020). An independent person is a person who is independently able to think, discover and create something new, see problems and find new solutions that are reasoned and accountable (Siswadi, 2011; Amirudin, 2017; Alfiah, 2020).

Independent individuals are produced by learning which aims to acquire skills, skills and good attitudes (Karwati, 2017; Sutarto et al., 2018; Jumainah & Nurhayati, 2020). Meanwhile, Buddhist education is a conscious effort carried out in a planned and continuous manner in order to develop students' abilities so that the understanding of Buddha Dharma obtained from Buddhist education at school can be applied and realized in daily behavior, thus providing benefits for themselves and others, and the environment (Dewi, 2021). In this way, each person involved in the learning process of Buddhist education has the belief (Saddha) and motivation to practice Buddha Dharma in life as an

individual and as part of a community (Afriani, 2008).

Therefore, effective and enjoyable Buddhist education learning materials are needed in order to provide appropriate direction to students to practice religious teachings as a result of belief (saddha) in the Buddha Dhamma (Jannah, 2017). This means that teachers must be able to provide learning materials that students can understand and practice easily, so that students can practice them without any obstacles. However, in reality, teaching materials as a source of student learning and one of the teaching materials for Buddhist education used so far are still far from the expectations or needs of students in general and Citra Nusantara Elementary School students in particular. So far, Citra Nusantara Elementary School students have used different teaching materials, resulting in obstacles to student learning and also resulting in student achievement not being achieved optimally.

Previous research regarding the development of multimedia learning for Buddhist religious holidays by Pebrianto et al., (2021) found that the development of multimedia material for Buddhist religious holidays was suitable for use in learning. This research is in line with previous research, this research develops PAIKEM-based Buddhist religious education teaching materials in elementary schools. The novelty of this research lies in the development of PAIKEM-based Buddhist education teaching materials that are adapted to the needs and characteristics of fourth grade elementary school students. Previous research may have tried various learning approaches, but integrating Buddhist principles into the PAIKEM learning method is still relatively rare. Thus, this research makes a significant contribution in enriching the repertoire of Buddhist learning strategies that are relevant and interesting for students at the primary education level.

The urgency of this research is also very important considering the importance of providing meaningful religious education and building character at an early age. Buddhist education has an important role in shaping students' attitudes, values and morality. By developing PAIKEM teaching materials that are in accordance with Buddhist principles, it can be hoped that students will be more involved, enthusiastic, and understand the values being taught better. This also has the potential to increase students' interest in Buddhism, which in turn can strengthen their religious identity and build a strong spiritual foundation from an early age. Therefore, this research not only has academic value, but also has a real impact in efforts to improve the quality of Buddhist education at the elementary level.

Based on the above, it is necessary to develop paikem-based Buddhist education teaching materials that can improve student learning achievement and these teaching materials can be used effectively, so that obstacles in the learning process can be overcome, especially in teaching materials and student achievement will increase.

## **RESEARCH METHODS**

### ***Research Design***

The research model in this development is procedural descriptive, meaning that in developing teaching material products there are steps that must be followed to produce a product. The development model developed was adopted from the development model developed by Dick & Carey (2009). Where in general this development model consists of 9 stages, namely: 1) Identifying general learning objectives, 2) Developing learning analysis, 3) Identifying initial ability characteristics, 4) Formulating specific learning objectives, 5) Developing Criterion Reference tests, 6) Developing Learning Strategies, 7) Developing learning materials, 8) Designing and conducting Formative evaluations, 9) Revising Learning. Of the 9 stages of developing teaching materials, the author adopted 7 stages for research in the field using the Dick and Carey model in designing teaching materials.

### ***Research Target/Subject***

The sample for this research was fourth grade students at Citra Nusantara Elementary School, Jambi. The test subjects involved in this development were thirty-one students and one teacher. The sampling technique was carried out using purposive sampling (Nurdianti & Waliyo, 2020; Desmawan & Nugroho, 2020).

### ***Research Procedure***

This research procedure uses a procedural descriptive model, which means that in developing teaching material products there are steps that must be followed to produce the product. The development model used was adapted from the development model developed by Dick & Carey (2009), which consists of 9 general stages, namely: 1) Identifying general learning objectives, 2) Developing learning analysis, 3) Identifying initial ability characteristics, 4) Formulating specific learning objectives, 5) Developing Criterion Reference tests, 6) Developing Learning Strategies, 7) Developing learning materials, 8) Designing and conducting formative evaluations, 9) Revising Learning.

### ***Instruments, and Data Collection Techniques***

To produce quality development products, trials need to be carried out using instruments that are able to explore what should be desired in developing teaching materials, in the form of evaluation and revision. The data collection instruments used in developing teaching materials for Buddhist education are in the form of questionnaires and observations. This stage is important to determine where imperfections are in the product being developed. Next, the product that has been developed is then tested in individual trials, small group trials, and field trials. With this trial process, it is hoped that the quality of the teaching materials developed will be better.

### ***Data analysis technique***

The validation of Paikem-based Buddhist teaching material products was carried out by two experts, namely a material expert and an educational technology expert. The test subjects involved in this development were a total of thirty-one students and one teacher. The type of data obtained at the product development trial stage is qualitative and quantitative, where the data is obtained from the results of assessments by material experts, educational technology experts and students, in order to obtain data about the attractiveness of the teaching materials used, while data from observations is used to find out students' reactions in using teaching materials.

## **RESULTS AND DISCUSSION**

The product produced in this development is paikem-based Buddhist education teaching materials in the fourth grade of elementary schools, which includes learning outcomes, concept maps, learning objectives, learning presentations and learning evaluation. The development of this teaching material was developed based on a needs analysis where based on the results of observations and interviews conducted through the distribution of questionnaires, it was discovered that the implementation of Buddhist education learning experienced a lack of interesting and effective teaching materials. Apart from lacking teaching materials, inconsistency between one teaching material and another is also a problem, resulting in student learning outcomes not being optimal.

Apart from that, information was also obtained that Buddhist education teachers need Buddhist education teaching materials that are attractive and effective for students to use, so that all students can use them easily. In fact, for Buddhist education subjects there are already teaching materials provided by the government or publishers, but these teaching materials are still not very interesting and do not have a moral effect on students. In fact, the characteristic of Buddhist religious education is that it leads to comprehensive mastery of knowledge (Pariyatti) which will be put into practice through the results of what is learned as a guide for daily behavior (Patipatti) and ultimately the achievement of the truth of the Dhamma (Pativedha).

Based on the characteristics of Buddhist education which must be studied correctly so as to create correct guidance and produce the application of right actions, Buddhist education has the function of assisting students in accepting the transformation of dharma values according to the Tri Pitaka, helping students to appreciate, practice and practice the Dhamma in daily life according to the level of ability, and can make students who are able to take responsibility for all actions through thought (mano), speech (vaci) and physical body (kaya) which are carried out in accordance with Dharma principles . Based on

the characteristics of Buddhist education, it is necessary to provide teaching materials for Buddhist education that can improve student learning comprehensively.

Furthermore, based on the results of the field trials, the total number of scores obtained from the results of individual tests on three students in learning Buddhist religious education was 418. Based on the percentage calculation of the data obtained according to the formula used, the percentage of responses to the sample of teaching materials obtained developed reached 93%. The quality percentage of 93% of the results of this trial, if confirmed by the feasibility criteria table, is in the range between 80%-100%. This means that the quality of the test results in this range is in the very decent category. Based on the percentage of sample responses and existing criteria, it can be said that the Buddhist education teaching materials developed are suitable for use.

From several student responses, there are percentages that are below 80%, which is an indicator of the learning material, especially in the presentation of material on the history of puja bhakti and the meaning of puja bhakti. The low percentage figures for these two items indicate that the qualifications are appropriate and need to be revised, because the presentation is less simple and therefore less understandable. The third test subject was of the opinion that learning, especially Puja Bhakti, was carried out in a monastery or place where you could directly practice the steps of puja bhakti as stated in the instructions for implementing puja bhakti. The reason is so that they can see firsthand the facilities and infrastructure for devotional puja and can practice devotional puja directly.

Another thing that was obtained from the results of the individual trials was that the three test subjects all wanted Buddhist learning to be carried out in a special room (which had equipment and facilities for devotional service). Buddhist education learning is learning that requires knowledge, attitude and psychomotor activities. Meanwhile, Buddhist religious education learning carried out in an appropriate place utilizes appropriate learning media so that knowledge, attitudes and psychomotor activities can be achieved by students, so that they can maximize the achievement of learning objectives.

The use of media in learning is in line with the opinion of Sadiman (2008), that the use of learning media in the learning process can clarify the presentation of messages so that they are not too verbal, overcome the limitations of space and time, sensory power and proper use can overcome the passive nature of learning. children, so that learning becomes active. According to the constructivist view, learning is an active process for students to construct meaning (text, dialogue, physical experience, etc.) (Bada & Olusegun, 2015; Bächtold, 2013). Indrawati, (2009) defines fun as a learning atmosphere that is happy, relaxed, free from pressure, safe, interesting, arouses interest in learning, full involvement and high concentration.

From small group trials, data was obtained. Overall the percentage calculation for the data obtained according to the formula used was 86%. The quality percentage of 86% of the results of this trial, if confirmed with the eligibility criteria table, is in the range of 80%-100%. This means that the quality of test results in this range is in the very decent category. Based on the sample percentage and existing criteria, it can be said that the Buddhist religious education teaching materials for grade 4 elementary schools in Citra Nusantara Jambi that have been developed are suitable for use. Data from large group trials using questionnaires shows students' positive appreciation for learning Buddhist religious education using teaching materials developed products. Of the 30 questions asked in the questionnaire, all items were answered in the range between 80% and 100%.

The lowest percentage of test subject responses showed a figure of 80% in item 1 which stated that the name of the front page was suitable for learning Buddhist religious education, which means that the front page of the book was appropriate and did not need to be repaired but the percentage range was no more than 80%. Meanwhile, the highest percentage of test subject responses showed a figure of 92% in item 11 which stated the ease of students reading as a result of the product being developed, and item 12 which stated that the font size was easy to read, as well as item 13 which stated that the use of book accessories can create enthusiasm for learning in students. From the results of large group trials, it can be seen that the product developed is very suitable for use in learning. From the learning outcomes data, it is

known that the average increase in student learning outcomes as a group increased from 62.20 to 81.05. If calculated simply, the increase in student learning outcomes is 31.50.

Next, the product was tested on subject teachers and the overall data obtained was that the percentage calculation for the data obtained according to the formula used was 87%. The percentage quality of 87% of the results of this trial, if confirmed with the eligibility criteria table, is in the range of 80%-100%. This means that the quality of the test results in this range is in the very decent category. Based on the sample percentage and existing criteria, it can be said that the Buddhist education teaching materials for grade 4 elementary schools in Citra Nusantara Jambi that were developed are suitable for use.

Based on the percentage calculation of the data obtained according to the formula used, the percentage of responses from teachers of Buddhist religious education subjects to the teaching materials developed reached 84%. The quality percentage of 84% of the results of this trial, if confirmed by the eligibility criteria table, is in the range between 80%-100%. This means that the quality of the test results in this range is in the very decent category. Conformity of commands and performance as contained in teaching materials helps teachers in carrying out the learning process.

Based on observations and preliminary interviews conducted by the developer with teachers (colleagues) and students, information was obtained that Buddhist religious education teaching materials can help students understand the material provided during the learning process. In fact, at the Citra Nusantara Jambi Elementary School, teaching materials are provided for almost all fields of study to support the learning process. However, in reality, teaching materials as a source of student learning and one of the teaching materials for Buddhist education used so far are still far from the expectations or needs of students in general and Citra Nusantara Elementary School students in particular. So far, Citra Nusantara Elementary School students use different teaching materials, resulting in obstacles to student learning and also resulting in student achievement that cannot be achieved.

And to overcome possible obstacles that occur during the interpretation process and so that learning can take place effectively, wherever possible the delivery of the message (content/material) is assisted by using teaching materials, so that the learning material reaches the goals to be achieved. By using teaching materials, it is hoped that students can gain various real experiences, so that the lesson material presented can be absorbed easily and well.

The implication of this research is that there is a push to integrate the PAIKEM approach into the Buddhist curriculum at the elementary school level, with a focus on active, innovative, creative, effective and fun learning aspects. Apart from that, this research also encourages Buddhist educators to pay attention to more practical and applied religious aspects in preparing teaching materials, so that they can have a more real and relevant impact on students' spiritual development at the elementary level. Thus, the implications of this research extend towards improving and developing learning strategies that are more holistic and oriented towards students' experiences in understanding and internalizing Buddhist religious values.

The limitations of the research are the limited sample coverage and research environment. This research may only involve a certain number of schools or areas, so the generalizability of the findings is limited. Apart from that, limited time and resources can also be a limiting factor in the process of developing comprehensive and in-depth teaching materials. Furthermore, policy and curriculum factors at the Buddhist education level in various regions can also influence the widespread implementation of PAIKEM teaching materials. In addition, this research may also be limited in the aspect of long-term evaluation of the effectiveness of using PAIKEM teaching materials in increasing students' understanding and experience regarding Buddhism. By understanding these limitations, educational researchers and practitioners can take appropriate steps to improve the quality of research and implementation of PAIKEM teaching materials in the future.

## CONCLUSION

After going through a series of development processes adopting the Dick and Carey development model, in general this development model consists of nine stages, namely: 1) Identifying general learning objectives, 2) Developing learning analysis, 3) Identifying initial ability characteristics, 4) Formulating Specific learning objectives, 5) Developing Criterion Reference tests, 6) Developing Learning Strategies, 7) Developing learning materials, 8) Designing and conducting Formative evaluations, 9) Revising Learning. And after improvements were made based on the data obtained during validation and after revision, we finally produced a product in the form of Buddhist religious education teaching materials which included PAIKEM-based teaching materials, so that they could be used in the learning process.

## ACKNOWLEDGMENTS

A big thank you to all parties who have been involved directly or indirectly in this research. Contributions and support from various parties have become a strong foundation for the success of this research. Without the hard work, assistance and collaboration of all related parties, our achievements in this research would not have been possible. Once again, thank you to all who played a role in producing these valuable research results.

## REFERENCES

- Afriani, R. (2008). Visuddhi Tisarana dalam tradisi agama Buddha Theravada.
- Afriyeni, Y. (2018). Pembentukan karakter anak untuk peduli lingkungan yang ada di sekolah adiwiyata mandiri SDN 6 Pekanbaru. *PAUD Lectura: Jurnal Pendidikan Anak Usia Dini*, 1(2), 123-133.
- Alfiah, A. (2020). Upaya Peningkatan Hasil Belajar Menggunakan Media Flash Card Pada Siswa Kelas IV MI. *Journal of Social Knowledge Education (JSKE)*, 1(3), 82-87. <https://doi.org/10.37251/jske.v1i3.365>
- Amirudin, N. (2017). Pendidikan Humanisme dalam Perspektif Islam. *Tamaddun: Jurnal Pendidikan dan Pemikiran Keagamaan*, 1-25.
- Bächtold, M. (2013). What do students “construct” according to constructivism in science education?. *Research in science education*, 43, 2477-2496.
- Bada, S. O., & Olusegun, S. (2015). Constructivism learning theory: A paradigm for teaching and learning. *Journal of Research & Method in Education*, 5(6), 66-70.
- Daud, D., & Triadi, Y. (2021). Implementasi Pendidikan Karakter Cinta Tanah Air Dalam Proses Pembelajaran Di Sekolah Dasar. *Journal Evaluation in Education (JEE)*, 2(4), 134-139. <https://doi.org/10.37251/jee.v2i4.239>
- Desmawan, W. A., & Nugroho, G. (2020). Identifikasi karakter disiplin siswa Madrasah Tsanawiyah Syifa'ul Qulub pada mata pelajaran akidah akhlak. *Jurnal Pendidikan Agama Islam Indonesia (JPAAI)*, 1(1), 23-27. <https://doi.org/10.37251/jpaaiv1i1.62>
- Dewi, M. P. (2021). Budaya Organisasi Dhammasekha Saddhapala Jaya sebagai Lembaga Pendidikan Nonformal Agama Buddha. *Cendekia: Jurnal Pendidikan dan Pembelajaran*, 15(1), 145-161.
- Indrawati, Setiawan Wanwan. (2009). *Pembelajaran Aktif, Kreatif, Efektif, Dan Menyenangkan Untuk Guru SD*. Jakarta: Pusat Pengembangan Dan Pemberdayaan Pendidik Dan Tenaga Kependidikan Ilmu Pengetahuan Alam (PPPPTKIPA).
- Jannah, M. (2017). *Ritus Vivaha Pada Umat Buddha Theravada Di Vihara Suvanna Dipa Teluk Betung Selatan Bandar Lampung* (Doctoral dissertation, UIN Raden Intan Lampung).
- Jumainah, J., & Nurhayati, N. (2020). Pengaruh minat belajar siswa terhadap kewirausahaan siswa di smk 1 purnama. *Journal of Social Knowledge Education (JSKE)*, 1(1), 16-20. <https://doi.org/10.37251/jske.v1i1.51>
- Karwati, L. (2017). Pemberdayaan perempuan melalui pelatihan kewirausahaan berbasis potensi alam setempat. *JIV-Jurnal Ilmiah Visi*, 12(1), 45-52.
- Mahardhani, A. J. (2018). Pemberdayaan masyarakat melalui pendidikan nonformal berkarakter cinta tanah air. *JPK (Jurnal Pancasila dan Kewarganegaraan)*, 3(2), 56-63.

- Noviani, Y., Rajab, R. M., & Hashifah, A. N. (2017, May). Pendidikan humanistik ki hadjar dewantara dalam konteks pendidikan kontemporer di Indonesia. In *Prosiding Seminar Nasional Pendidikan FKIP* (Vol. 1, No. 2).
- Novita, E. (2020). Pengembangan Buku Pedoman Praktikum Berbasis Keterampilan Proses Dasar Sains Kelas IV Sekolah Dasar. *Journal Evaluation in Education (JEE)*, 1(1), 34-41. <https://doi.org/10.37251/jee.v1i1.38>
- Nurdianti, I., & Waliyo, W. (2020). Peran Guru Pendidikan Agama Islam dalam Menguatkan Sikap Kejujuran Peserta Didik di Sekolah Dasar. *Jurnal Pendidikan Agama Islam Indonesia (JPAAI)*, 1(2), 89-95. <https://doi.org/10.37251/jpaa.v1i2.94>
- Pahlevi, F. S. (2017). Eksistensi Pendidikan Kewarganegaraan di perguruan tinggi dalam memperkokoh karakter bangsa Indonesia. *Jurnal Kependidikan Dasar Islam Berbasis Sains*, 2(1), 65-81.
- Pebrianto, P., Herpratiwi, H., & Fitriawan, H. (2021). Pengembangan Multimedia Pembelajaran Hari Raya Agama Buddha di Sekolah Minggu Buddhis Bodhisattva. *Edukatif: Jurnal Ilmu Pendidikan*, 3(4), 1261-1270.
- Sadiman, Arief. (2008). *Media Pendidikan*. Jakarta: Raja Grafindo Persada
- Siswadi, S. (2011). Menuju Realitas Peserta Didik yang Penuh Kreativitas. *INSANIA: Jurnal Pemikiran Alternatif Kependidikan*, 16(1), 97-117.
- Sutarto, J., Mulyono, S. E., Nurhalim, K., & Pratiwi, H. (2018). Model pemberdayaan masyarakat melalui pelatihan kecakapan hidup berbasis keunggulan lokal Desa Wisata Mandiri Wanurejo Borobudur Magelang. *Jurnal Penelitian Pendidikan*, 35(1), 27-40.