Article

Validity, Practicality, and Effectiveness of the ARIE (Activity, Reflection, Integration and Exploration) Learning Model Based on Local Culture

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Abstract: This study aims to evaluate the validity, practicality, and effectiveness of a local culture-based experiential learning model designed to enhance the Pancasila character of early childhood students. Despite the growing need for character education in Indonesia, there is a gap in culturally relevant, effective models for young learners. Using a research and development approach, the study involved expert validation, user testing, and an effectiveness trial at RAMA Kindergarten in Makassar. The model was found to be valid, with expert evaluations scoring between 3.61 and 3.69. Practicality tests indicated ease of implementation by teachers, while effectiveness trials demonstrated significant improvements in the development of Pancasila character traits, such as faith, noble morals, global diversity, cooperation, independence, critical thinking, and creativity. The findings suggest that the local culture-based experiential learning model is effective in fostering these values in early childhood education, offering a promising approach for character development in young learners.

Keywords: Local culture-based learning, Experiential learning, Pancasila character, Early childhood education, Character development

1. Introduction

The Indonesian nation is currently experiencing serious problems in terms of national character. The noble values that were built by the founding fathers of the Indonesian nation seem to be eroding in everyday life. Phenomena such as the loss of a sense of brotherhood among the nation's children, a decline in the sense of unity, weakening of ethics and manners, and the erosion of the spiritual relationship with God Almighty are increasingly troubling many parties[1].

Technological developments also play a big role in shifting values in society. Gadget technology that is connected to an online system with various features is like a double-edged sword that can be useful, but can also endanger people's lives. Information and interactions between nations are becoming less distant. Global interactions between nations result in a process of acculturation, mutual imitation, and mutual influence between their respective cultures [2].

Pancasila character education in Indonesia is not only implemented at elementary school to university level, but should start from an early age in PAUD institutions. Children aged 0-6 years are in the golden age which really determines the foundation of their character and future. At this age, character formation becomes very important because children's physical, emotional, social and cognitive development is at an optimal stage.

To support this, the Pancasila Student Profile launched by the Ministry of Education and Culture is a strategic step in forming a generation with Pancasila characters. This profile consists of six main dimensions: Divinity and noble morals, global diversity, mutual cooperation, independence, critical reasoning, and creativity. However, the main challenge in implementing it in PAUD lies in the effectiveness of the learning model used.

An initial survey of 50 PAUD institutions in South Sulawesi shows that there are still many institutions that do not have structured and effective learning programs to teach Pancasila values. The survey results show that PAUD teachers still experience difficulties in implementing the dimensions of the Pancasila Student Profile effectively in the learning process [3].

Based on these findings, the main challenge in implementing Pancasila character education in PAUD lies in the learning model which is not appropriate to the child's developmental age. The experiential learning model can be a solution, because this approach provides direct experience, meaningful social interaction, and opportunities to develop independence and creativity. Thus, this learning model is considered to be one solution in teaching Pancasila values from an early age, which is in line with the Merdeka Belajar policy which directs child-centred learning, with teachers as facilitators.

The experiential learning model is a model developed by David Kolb around the early 1980s, which emphasizes a holistic learning model in the learning process to achieve meaningful learning. The application of experiential learning makes experience central to the learning process. Experiential learning theory explains that learning is a process where knowledge is created through the transformation of experience. Experiential is not just listening but more about simulating real life situations. This model can be applied in PAUD, especially in instilling the desired Pancasila character values [4].

LITERATURE REVIEW

a. Model Experiental

Experiential Learning comes from two words, namely "experiential" which is rooted in the word "experience" which means experience, and "learning" which means learning. Thus, experiential learning can be interpreted as learning that is based on experience. Experiential Learning was developed by David Kolb in the early 1980s, emphasizing experience as the main component in the learning process, making it part of holistic learning2. The term "experiential" is to differentiate the theory from cognitive learning theory which focuses more on cognitive aspects, and behavioral learning theory which tends to ignore subjective experience.

Experiential Learning is defined by various sources as a process in which students build knowledge, skills, and values through direct experience. The Association for Experiential Education (AEE) emphasizes the importance of hands-on experience in learning. Sharlanova (2004) highlights the relationship between action and reflection in the knowledge construction process3, while Laevers (2005) adds that learning becomes more meaningful when students are actively involved. This approach makes experience a catalyst in developing students' abilities through real assignments, which provide insight and skills4.

The importance of learning through experience also includes learning from failure. Students need to be given the opportunity to experience challenges and learn to overcome setbacks. Martin-Kniep (2000) describes a supportive environment as a place where students feel free to express opinions, and educators view mistakes as opportunities to learn5. Wurdinger (2005) emphasizes that allowing children to make mistakes can improve understanding, because the learning process becomes more challenging and in-depth6.

Experiential Learning is also known as experiential education, which involves outdoor learning, where students build knowledge and skills through hands-on

experience. Educational programs that utilize real world experiences to achieve learning goals are increasingly developing and can be used as a basis for formal education7. Experience-based learning is expected to build deeper meaning and impressions in students' memories [5].

Based on the description above, the Experiential Learning Model is defined as a learning approach that emphasizes a learning process that involves the direct experience of students. This experience encourages children to act and think, and face challenges, resulting in new and deep understanding [6].

The main similarity between experiential learning models developed by Kurt Lewin, John Dewey, Jean Piaget, and David A. Kolb lies in the emphasis on direct experience, systematic reflection, concept development and application, and an iterative process that allows continuous learning and improvement. The contributions of each of these figures have formed the basis for a comprehensive and effective experience-based learning approach)8.

b. Learning Resources based on Local Culture

Learning resources include all tools, materials, techniques and contexts used to support and facilitate learning experiences. According to L. Wilson (2014), learning resources are all equipment and tools used to facilitate the learning process, provided that these resources must be in accordance with the learning objectives and be able to stimulate students' various senses, such as sight. , hearing, and taste9.

Culture is an important foundation in the development of national education. In the context of education, culture is not only seen as a static inheritance or asset, but also as a dynamic instrument in shaping the identity and character of students. Through the integration of culture into education, both through the formal curriculum and extracurricular activities, the values contained in that culture can be inherited and instilled in the younger generation10. UNESCO even suggests that learning should combine and connect local wisdom values with global insight. This means, apart from understanding their own local culture, students must also be able to place themselves in a global context, which helps them understand the diversity of the world [7].

The integration of local culture into the learning process takes many forms. According to Baka et al. (2018), local cultural content that can be integrated into early childhood learning includes various aspects such as traditional games, traditional musical instruments, traditional dances, simple technology, regional songs, traditional rituals, folklore, typical foods, and various handicrafts11. Pancasila values, as the basis of the Indonesian state, can also be found in local culture and must be integrated in teaching to form the Pancasila character in students [8].

Local culture-based learning resources provide relevant context for children, making learning closer to their everyday lives. For example, traditional musical instruments from South Sulawesi, such as the gandrang bulo and kecapi, can be used to teach children about the diversity of local culture while developing an appreciation for traditional music. Regional dances, such as the Padengan Dance and the Four Ethnic Dances, not only help children understand the various ethnicities in South Sulawesi, but also foster a sense of pride in their local culture. Through this dance, children can be introduced to traditional clothing, traditional decorations, and the social values contained in each dance movement [9].

Apart from that, typical local handicrafts, such as wood carving, weaving and batik, are also a very rich source of learning. For example, by learning South Sulawesi's typical ikat or songket weaving, children are not only taught technical skills, but also values such as perseverance, precision and love for local products. Learning through crafts allows

children to be creative while learning about the history and meaning behind each motif used in the craft.

Cultural events and traditional traditions can also be used as valuable learning resources. The South Sulawesi Anniversary Celebration, for example, is the right moment to introduce children to the history, important figures and cultural heritage of South Sulawesi. Local traditions, such as traditional ceremonies and festivals, provide opportunities for children to understand cultural diversity and deepen their appreciation for the traditions around them. In this way, character education can be carried out through direct experience involving children's participation in traditional traditions and ceremonies [10].

c. Character Formation of Early Childhood

The formation of students' character became an important element in national education after the moral degradation that hit the Indonesian nation. Society tends to value intellectual excellence more and ignores emotional, social and spiritual maturity. Starting from this, character formation should enter the smallest realm and start as early as possible so that the next generation will be born with a quality and complete personality.

Koesoema (2010) defines character education as a person's efforts personally (through his own experience) and socially (through socio-structural experience), to create an environment that is conducive to the growth of his freedom. The freedom in question is the value of molarity as an understanding of the values and norms that guide a person individually and as a social creature so that they can respect each other's uniqueness12.

Zubaedi (2017) added that character education is an effort to cultivate intelligence in thinking, appreciation in the form of attitudes, and practice in the form of behavior that is in accordance with the noble values that constitute one's identity, realized in interactions with God, oneself, society and the environment13.

According to Khan (2010), character education is a habituation process that directs students to think and behave intelligently to improve the quality of education and develop their minds, so that they have knowledge and actions that are in accordance with good values, which they then apply in their daily lives both at home. , at school and in society14.

Strengthening Character Education (PPK) is the government's effort to grow and equip the next generation to have good Pancasila character, high literacy skills, and superior 21st century competencies, namely being able to think critically and analytically, creatively, communicatively and collaboratively. Minister of Education and Culture (Mendikbud) Nadiem Anwar Makarim said that Pancasila character education was implemented as an effort to create Pancasila Students.

The term Pancasila Students in the PAUD scope become Pancasila Students, is the vision and mission of the Ministry of Education and Culture as stated in the Minister of Education and Culture Regulation Number 22 of 2020 concerning the Strategic Plan of the Ministry of Education and Culture for 2020-2024. The definition of Pancasila Students in question is the embodiment of Indonesian children who have global competence and behave in accordance with Pancasila values, with six profiles, namely: (1) have faith, are devoted to God Almighty, and have noble character; (2) global diversity; (3) working together; (4) independent; (5) critical reasoning; and (6) creative ((Keputusan Kepala BSKAP Kemendikbudristek No. 009/H/KR/2022, 2022) [11].

2. Materials and Methods

This type of research is research and development or in English Research and Development (R&D). Development research is carried out to produce new products, or develop and perfect existing products, validate them15, then test their effectiveness and

feasibility16. Development research products in the education sector can be models, media, teaching aids, modules, evaluation tools, and/or learning tools.

Good research and development products are produced through careful design and development procedures. The development procedure in this research uses the ADDIE development model, which is an acronym for Analyze, Design, Develop, Implement and Evaluate, as the development stages. The data collection techniques in this research were adapted to the model development stages [12].

3. Results and Discussion

a. Description of the Validity of the Experiential Learning Model Based on Local Culture to Form Pancasila Character

1) *Valitidy Result of the Model Book*

The results of the model book validation are an effort to obtain an overview referring to how strong the validity or accuracy of the assessments or decisions made are based on direct experience that occurs in the learning process. In the context of Pancasila character formation in kindergarten, the validity of experiential judgment assesses the extent to which the experiential learning proposed in the book can be relied upon as an effective tool for forming children's character according to the dimensions of the Pancasila student profile.

To calculate the Gregory index, the following Gregory content validity formula is used:

$$Kofisien\ validitas\ = \frac{D}{A+B+C+D} = \frac{35}{0+1+1+35} = \frac{35}{37} = 0.95$$

The results obtained from the assessment of the two validators were 0.95. The interpretation of these results is, if the agreement index is less than 0.4, the category is at low validity. If it is between 0.4 – 0.79, the category is at medium validity (mediocare). If the agreement index is more than 0.8, validity is said to be high. The validity coefficient of the model book in this study was 0.95, so it can be concluded that the validity of the experiential learning model book for forming the Pancasila Kindergarten character that was developed is in the very valid category [13].

b. Description of the Practicality of *Experiential Learning* Based on Local Culture to Form Pancasila Character

An assessment of the level of practicality of developing the ARIE learning model to improve children's Pancasila character is carried out to identify and ensure that each component of the learning model developed can be applied in the field based on instruments for observing the implementation of the learning model and teacher response questionnaires regarding the implementation of the model. Practicality assessments were carried out on a limited basis at RAMA Makassar Kindergarten [14].

a. Observation Result Implementation of ARIE model

Observation of the implementation of the learning model shows the implementation of all model components including syntasks, social systems, reaction principles, and support systems that occur during the implementation of the ARIE learning model, both during limited trials and during widespread trials.

A limited trial of the ARIE Experiential learning model was carried out for a week (5 learning days) to see changes in the consistency of children's behavior. This activity was combined with the celebration of Indonesian Independence by taking the topic of introducing Makassar archipelago and local culture in the form of traditional Makassar food. The results of the practicality test in the limited trial can be seen in table 1.

Table 1. Observation Results of the Implementation of the ARIE Learning Model in Limited Trials

No	Aspects	Session				
		I	II	III	IV	V
1	Sintax					
	Phase 1 – Action	3.17	3.83	3.83	4.00	4.00
	Phase 2 – Reflection	2.83	3.33	3.50	3.50	3.50
	Phase 3 – Integration	3.25	3.25	3.50	3.50	3.50
	Phase 4 - Exploration	3.50	3.50	3.50	3.50	3.75
2	Social System	3.33	3.67	3.83	3.83	3.83
3	Reaction Principles	3.42	3.67	3.83	3.83	3.83
4	Supporting System	3.71	3.86	3.86	3.86	3.86
	Average Score	3.32	3.59	3.69	3.75	3.75
	Implementation Percentage	83 %	90 %	92 %	94%	94 %
	Average Percentage	91%				

Source: Observation Sheet of Model Implementation, 2023

c. Description of the Effectiveness of Experiential Learning Based on Local Culture to Form Pancasila Character

Testing the effectiveness of this product is the final stage of research and development of a local culture-based experiential learning model (ARIE) to shape the Pancasila character of kindergartens. This stage is the stage of using the product and evaluating the product to determine the effectiveness of the model book product and learning tools implemented by the teacher. Researchers begin the process of using products (model books and learning tools) by directly observing how they are used by teachers or using communication media. During the use of this product, researchers continued to ask for suggestions and input from teachers regarding things that needed attention and the impact of using model books and teacher teaching guides [15].

a. ARIE Model Effectiveness Test Results in Limited Trials

A model trial was carried out to test its effectiveness in RAMA Group B1 Kindergarten with a teacher who taught using the local culture-based experiential learning model (ARIE) to form Pancasila character in students. Early childhood evaluation places more emphasis on direct observation during the learning process. Therefore, the assessment is carried out without using written tests, but rather through direct observation of children's activities. Evaluations related to Pancasila character values in children are carried out using observation sheets, where observers provide checklists on aspects that correspond to the children's activities being observed, in line with the performance tests carried out [16].

The observation results obtained are then tested using parametric inferential statistics, which requires prerequisite analysis before carrying out data analysis. Paired sample t-test is used to compare two sets of data that are related to each other with the aim of assessing the difference in averages before and after applying the experiential

learning model to instill Pancasila character values. The following are the steps taken in the prerequisite test.

1) Normality Test

The normality test is carried out to determine whether the data obtained comes from a population that follows a normal distribution or not. In the paired sample t-test normality test, the Shapiro-Wilk test statistic is used, where data is considered to be normally distributed if the Sig value is > 0.05. The following are the results of the normality test [17].

Table 2. Normality Test Data

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.102	15	.200	.968	15	.827
Postets	.145	15	.200	.956	15	.619

Based on the results of the normality test, Asymp. Sig. (2-tailed) the pretest data was 0.827 and the posttest data was 0.619 so it was concluded that the data was normally distributed, because Sig. ≥ 0.05. so it can be concluded that the data is normally distributed, so the data can be analyzed further.

2) Paired Sample t test

To see the effect of integrative learning of Pancasila values in kindergarten, a paired sample t test was carried out by comparing the mean pretest and posttest scores and seeing this significance value using SPSS 23 IBM, with statistical hypotheses:

$H_0 = T_{count} \leq T_{table}$
$H_1 = T_{count} > T_{table}$

The results of the paired sample t test can be seen in the following table

Table 3. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Postets	3.533	15	.1496	.0386
	Pretest	1.920	15	.2305	.0595

Based on the paired sample t test, it shows that the mean pretest value is 1,920 and the posttest value is 3,533. This data shows that the mean posttest value is greater than the pretest value with a difference value of 1.632. So this descriptive data shows that there has been an increase before and after the implementation of the ARIE learning model to form Pancasila character in kindergarten [18].

To see the effect of significance by testing the research hypothesis, a test was carried out by comparing the calculated t value with the t table value and looking at the Sig significance value. (2-tailed) as follows:

From the table above, the results of calculating the development of the integrative value of Pancasila t_count = 22,318 and the results of the t_table value = 1,761. From the data, it can be seen that t_count(22,318)> t_table (1,761), this shows that H_o is rejected and H_1 is accepted, with a value of Sig.0.00<0.05, and there is an average difference between the

activities after applying the model and the mean value 3.533 and the mean value before was 1.632. As the basis for decision making in the paired sample t test, it can be concluded that there is a significant difference in scores before implementing the model and after implementing the ARIE learning model towards increasing the development of Pancasila character values for RAMA group B kindergarten students. Meanwhile, the average difference also shows difference with a difference of 1,613. The following is a graph of the mean differences before treatment and after implementing the model [19].

3) N-Gain Test

After testing the hypothesis, it showed that there was a significant difference in the average value and influence before and after implementing the ARIE learning model to form Pancasila character. To see the effectiveness of the ARIE learning model in forming the character of Pancasila values in Group B students at RAMA Kindergarten, an N Gain test was carried out to see the effectiveness of this increase.

Table 4. The Results of N-Gain Test on the Implementation of ARIE model

No	Pretest	Postest	Skor post test-skor pretest	Ideal pretest score	N Gain Scores	Remark
1	1.9	3.8	2.0	2.1	0.9	Very Effective
2	2.0	3.6	1.6	2.0	0.8	Very Effective
3	2.1	3.7	1.6	1.9	0.8	Very Effective
4	2.3	3.5	1.3	1.7	0.7	Effective
5	1.7	3.4	1.7	2.3	0.8	Very Effective
6	2.0	3.2	1.2	2.0	0.6	Effective
7	2.1	3.5	1.4	1.9	0.7	Very Effective
8	1.5	3.6	2.1	2.5	0.8	Very Effective
9	2.3	3.6	1.3	1.7	0.8	Very Effective
10	1.8	3.4	1.6	2.2	0.7	Effective
11	1.8	3.5	1.6	2.2	0.8	Very Effective
12	1.9	3.5	1.6	2.1	0.7	Very Effective
13	1.6	3.6	2.0	2.4	0.8	Very Effective
14	1.8	3.7	1.9	2.2	0.9	Very Effective
15	2.0	3.4	1.4	2.0	0.7	Effective
Average Score of N Gain					0.8	Very Effective

The analysis above is the result of evaluating the effectiveness of a learning model applied to 15 students. In this evaluation, a comparison is made between the pretest scores (before the learning model is applied) and the posttest (after the learning model is applied). The assessment not only looks at the increase in overall score, but also takes into account the ideal score that each participant hopes to achieve if they achieve maximum performance on the posttest. The column "Posttest Score - Pretest Score" shows the increase in score obtained by each child from pretest to posttest. Meanwhile, the "Ideal Score - Pretest" column reflects the expected increase in score if each participant succeeds in achieving maximum performance on the posttest. Thus, the "Score N Gain" column describes the extent to which the score increase actually achieved the desired target.

The effectiveness of the learning model is assessed based on the "N Gain Score" value. If the N Gain Score value is ≥ 0.8, then the learning model is considered very effective. Meanwhile, if the N Gain Score value is below 0.8, the learning model is considered effective, although not optimal. The overall average N Gain Score is 0.8, indicating that the learning model applied in general is very effective in improving the character of the Pancasila values of students in RAMA Group B Kindergarten.

The results of this evaluation provide important information for future development and improvement of the ARIE model. By understanding the effectiveness of the learning model that has been implemented, necessary adjustments or improvements can be made to improve students' learning outcomes in the future [20].

4. Conclusion

The development of the ARIE learning model to shape Pancasila character in PAUD is based on the need for teachers and students to strengthen the profile of Pancasila students which has not been fully implemented in schools. The importance of children's active involvement in the learning process and efforts to integrate local culture are effective media for strengthening the character of Pancasila in children. The ARIE learning model is declared very valid based on validator assessments and practical based on the level of model implementation, teacher responses and children's activities during learning. The ARIE learning model has been tested for effectiveness through a trial phase in four kindergartens in three cities/districts and has proven to be very effective in forming Pancasila character.

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