



Validity, Practicality, and Effectiveness of Character Learning Model Based on Al-Islam *Kemuhammadiyaan* Values

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJESS/2023/v48i11037

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/99886>

Original Research Article

Received: 12/05/2023

Accepted: 15/07/2023

Published: 31/07/2023

ABSTRACT

The main objective of this study is to determine the validity, practicality, and effectiveness of character-learning models based on the values of al-Islam *Kemuhammadiyaan* that have been developed to improve the character of early childhood. Departing from the results of preliminary studies and prototypes of models that have been developed, as well as the research methods used, namely research and development, researchers compiled expert test instruments, user tests, and rubric assessments of children's character as a data collection tool, which was then analyzed using the average of the scales used and inferential tests to determine their effectiveness. The validity test was carried out by two experts, the practicality test was carried out by 15 teachers, and the effectiveness test was carried out on group B children at Aisyiyah Kindergarten, Makassar City. The results showed that the learning model that had been developed was declared valid by experts because it was within the interval limit of $3.50 \leq V < 4.00$, and the results of the practicality test showed that teachers obtained the value of ease in implementing the product, while the results of the effectiveness test found that the results of the trial application of the model in as many as five

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meetings descriptively showed an increase in the character development of students with an average score. Students' ability was 3.7 (very well developed) with a very high category, so it is concluded that the character learning model based on the values of Al-Islam Kemuhammadiyaan is valid and practical and has also been shown to be effective for improving early childhood character. These results indicate that the character learning model based on the values of al-Islam Kemuhammadiyaan that has been developed is proven to be able to grow and strengthen the character of students by the values of al-Islam Kemuhammadiyaan namely justice, honesty, brotherhood, hard work, steadfast heart, king, 'khauf, and ittiba' to the prophet. So in this way, students in group B at Aisyiyah Kindergarten in Makassar City in the future can grow and develop with the potential to become superior human beings as the aim of the Muhammadiyah association.

Keywords: Validity; practicality; effectiveness; learning model; Al-Islam Kemuhammadiyaan.

1. INTRODUCTION

Education is the appropriate means to develop children's potential and build their character [1]. The cultivation of character values, formed and instilled from an early age, will become the foundation for shaping values in the future [2]. Character encompasses values related to psychological aspects of character, which include moral actions, moral values, moral personality, moral emotions, moral reasoning, moral identity, and basic characteristics [3]. With these values, children will be able to interact with their environment effectively, both as individuals and as moral agents in society [4,5]. The research conducted by [6] shows that an integrative character education concept strengthens honesty, directed attitudes, and actions in the future. The research emphasizes the importance of instilling character values from an early age so that children become accustomed to positive traits. These findings are supported by [7], who states that character education provided from an early age produces future generations with quality personalities who can contribute significantly to the nation.

The formation of a child's character is not just born like that; there is a process that he goes through so that the process becomes an inherent character in a child—starting from the child being born and growing into an adult in the family environment, hanging out with friends in-game groups, schools, and the community. Parents, without realizing it, have a negative attitude toward their child will bring the child down. For example, when parents beat and exert pressure, the child is negative, inferior, timid, and dares not take risks, which these characteristics will carry until he grows up. This behavior needs attention, especially at the level of early childhood education.

The concept of Islamic Muhammadiyah-based character education is an implementation of Muhammadiyah's organizational vision and mission, with its main basis being Islamic education that embraces progressive Islamic values. The implementation of the concept can be applied from preschool to university level, aiming to shape students who possess modern ethos, strong faith, analytical abilities, and qualities that contribute to a great and resilient nation. This education is not only developed through academic knowledge but also through the formation of students' character, which is developed through teaching materials such as the Qur'an, faith (aqidah), morality (akhlak), worship (ibadah), social interactions (mu'amalah), and more [8–10].

The curriculum of Islamic Muhammadiyah-based character education serves as a strength and identity for educational institutions within Muhammadiyah, including in early childhood education or PAUD Aisyiyah. The values of this curriculum, which form the spirit and identity of kindergarten or TK Aisyiyah, are mentioned in the preamble to the Muhammadiyah Bylaws and include the principles of monotheism (Tauhid), worship (ibadah), justice (keadilan), honesty (kejujuran), brotherhood (persaudaraan) and cooperation (gotong royong), mutual assistance (tolong menolong), sincerity (keikhlasan), responsibility (tanggung jawab), hard work (kerja keras), patience (sabar), reliance on God (tawakkal), steadfastness (tabah hati), hope and fear (raja' and khauf), following the teachings of Prophet Muhammad (ittiba'), future orientation, and consultation (musyawarah) [11].

According to Ahmad Dahlan, developing Islamic Muhammadiyah-based character values requires some principles. It focuses on universal moral values (religion, belief, social and cultural). It is holistically addressing the mind, heart, emotions,

and physical aspects. it is integrated, which means implementing education by combining, connecting, and strengthening its elements. There is participation by involving and engaging the entire academic community (kaffah). It involves local wisdom, 21st-century skills, fairness, and inclusivity, as well as alignment with development. Applying Islamic Muhammadiyah-based character values is crucial during the golden period of a child's growth in order to help establish the foundations of religious norms, social and emotional development, and basic skills needed for children to adapt to their environment [12].

Considering the importance of character development in early childhood, education holds a significant responsibility to instill these values through the learning process [13]. Character education is a solution to shaping the personality of students [14]. This aligns with the objectives of developing Islamic Muhammadiyah-based character values in early childhood education, which is to nurture seeds of faith and devotion to Allah SWT in children's personalities from an early age, which is manifested through physical and spiritual development in accordance with their developmental stages [15].

Integrating character values into learning activities means incorporating and applying values believed to be good and correct to shape, develop, and nurture the habits or character of young students in accordance with the nation's identity. Learning materials related to norms or values in each subject need to be developed, made explicit, and connected to everyday life in preschool-age children.

The research conducted by [16] indicates the need for appealing learning strategies in instilling Islamic Muhammadiyah-based character values. Therefore, the development of patterns and Islamic Muhammadiyah-based character models is required in early childhood education. The development of this model is essential as it prepares children for the future. Therefore, it is important for the academic community to contribute to the pedagogy of teachers in character development, especially for early childhood education.

1.1 Overview of the Need for the AIK Learning Model

A learning model that is developed, of course, always departs from the results of the needs

analysis so that the learning model can solve problems, as well as the character learning model based on al-Islam *Kemuhammadiyaan* (AIK) values, which departs from the problem of early childhood character building in Aisyiyah Kindergarten, Makassar City. From the observation results, the model developer found that the social attitudes of group B students have begun to form. However, it must be admitted that to form students' behaviour and attitudes in accordance with good character are not formed instantly but are the results of the learning process obtained by students in the family environment and the school environment. Early childhood education in Aisyiyah Kindergarten in Makassar City, especially in Group B, and developing basic skills such as writing, reading, and arithmetic, also emphasizes forming students' attitudes and behaviors or characters.

The application of good attitudes and behaviors in children is carried out through examples given by teachers and other school communities involved in the child's learning process, such as giving greetings when meeting, shaking hands with teachers, putting garbage in its place, storing shoes and bags in their respective lockers, and many other examples of behavior. In contrast, teachers carry out character development efforts related to AIK through routine activities and programmatic. The character of students in Aisyiyah Kindergarten in Makassar City, especially in Group B, still needs to be further improved in accordance with the results of the observation of some initial attitudes as a form of habituation activities that have begun to be applied by teachers. Based on the data obtained when making observations of 15 students in Group B of Aisyiyah Kindergarten, Makassar City, on the development of honesty, curiosity, creativity, self-confidence, discipline, independence, cooperation, and responsibility, the following conclusions were drawn (Table 1):

Table 1. Implementation of AIK character value indicators

No.	Indicator	Category
1	Justice	High
2	Honesty	moderate
3	Brotherhood	moderate
4	Hard work	low
5	Steadfastness	moderate
6	King'	moderate
7	Khauf	Low
8	Ittiba' To the Prophet	moderate

In addition, in the classroom learning process, teachers refer to the Daily Learning Program Plan (RPPH) planned in the learning curriculum. Applying attitudes and behaviors remains the teacher's responsibility from the beginning to the end of a learning activity. The character values to be taught to students are integrated through learning activities. For example, by doing prayers together before the learning process begins and after the learning process students have finished, by saying basmalah before eating together in class and hamdalah after finishing eating together; examples of such applied behavior can help children develop moral and religious values.

The consideration that early childhood is a critical age phase that is very appropriate to apply the best values makes it a challenge for teachers to develop the learning process of students, one of which can be done through the development of learning models whose implementation remains on the principle of ECCE, namely playing while learning without forgetting the learning objectives that have been set, namely the application of character based on the values of Al-Islam *Kemuhammadiyaan* for the early childhood level. If this can be realized, then role-playing activities are not only directed at children to understand how to play roles well, but children must also be able to pick up and inherit the expected character values.

1.2 AIK Values-Based Character Learning Model

Each learning model has a minimum component that must be contained in it, as well as a character learning model based on AIK values whose component arrangement is based on the model components proposed by Joyce [9], which consist of 1) syntax or learning steps; 2) social system; 3) support system; 4) reaction principle; and 5) instructional impact and accompaniment impact of the AIK values-based character learning model. The prototype of the AIK values-based character learning model developed based on the results of the analysis of the needs of teachers and students to improve the character of students in accordance with the concept of AIK values is as follows:

1) Model Syntax /Learning Steps

- Exemplary
At this stage, the teacher gives an example directly to the learner of how to behave well in everyday life. Teachers must

demonstrate behaviors that students can model.

- Delivering learning objectives
Teachers convey character learning objectives and motivate students to strive to achieve learning goals.
- Presenting information/ Teaching
At this stage, the teacher gives students knowledge, attitudes, and skills in acting about good character behavior so that the child has a conceptual idea about the values that guide the protégé in behaving that can develop into character. The teacher presents the students with demonstrations, exemplary or through reading materials.
- Determining character learning priorities
With so many characters that must be developed, educators must determine a priority scale that can be used as the goal of character learning.
- Evaluation of character learning priorities
The teacher evaluates the learning outcomes of the material that has been learned, and each student is allowed to express his opinion about the learning that has been carried out.
- Rewarding and strengthening positive activities
The teacher appreciates every child who has carried out the learning process thoroughly without trying to discriminate in terms of the completeness of the learning process.
- Reflection
At this stage, the teacher evaluates the character development activities carried out thoroughly and sees the shortcomings and advantages of the character development process.

2) Social System

- Action, the teacher plans the actions to be performed at the time of learning to provoke the learner's reaction related to the development of the AIK character.
- Interaction, the process of interaction between the teacher and the student must be proportional. In developing the student's character, the teacher should not appear more dominant to the children. On the contrary, the student should instead be given space to accelerate himself under the supervision and guidance of the teacher.

- The transaction, the process of transferring knowledge to the child, does not lead to informative knowledge but must go through exemplary as in the learning step.
- 3) Reaction Principle
- Managers and teachers must build good communication with all teachers to integrate children's learning into forming children's character.
 - Designer the teacher must design the entire process of learning activities by paying attention to the aspects of the achievement of the child's character that have been set.
 - Facilitating the teacher as a facilitator means allowing students to determine their learning needs and objectives and utilize various learning resources.
 - Moderator, the teacher must be able to be a moderator between the child's wishes and the parents' desire to cooperate in building students' character at school and home.
 - Motivators and teachers provide convenience in learning and carry out learning as interesting as possible to raise students' spirits.
 - Evaluator, the teacher must be a good appraiser, in accordance with existing instruments, and has been established as an important part of the learning model.
- 4) Support System
- Teaching manual containing the technical steps of implementing the learning model, from planning to assessing the child's character
 - A semester program that elaborates learning themes to sub-sub-themes for one semester refers to integrating AIK character values
 - RPPM, a derivative of a semester program that contains the elaboration of learning themes to sub-sub-themes for one week, refers to the integration of AIK character values.
 - RPPH is the final derivative of the semester and RPPM program, which elaborates learning themes to sub-sub-themes during one day of teaching and learning activities that integrate AIK character values.
- Child Character Observation Sheet, containing child assessment indicators related to explicit scores from AIK
- 5) Instructional Impact and Accompaniment Impact
- The instructional impact on the AIK values-based character learning model includes setting learning objectives on prose, RPPM, and RPPH that match the AIK values.
 - The impact of accompaniment on the AIK values-based character learning model contains the achievement of all AIK values: justice, honesty, brotherhood, hard work, steadfastness, king', khauf, and ittiba' to the Prophet.

As the accompanying impact above, the AIK learning model was developed with the ultimate goal of forming the character of students in accordance with the values of Al-Islam Kemuhmadiyaan as follows:

1. The value of justice, a value that can shape the character of students so that they always behave correctly, side with the truth, and use the same standard in assessing the truth.
2. The Value of Honesty is a value that can shape the character of students so that they always convey everything in accordance with reality, be it through words, writing, gestures, and actions.
3. The Value of Brotherhood is a value that can shape the character of students so that they are always inclusive, open to interacting with everyone regardless of ethnicity, religion, race and class.
4. The value of hard work, a value that can shape the character of students so that they always behave in a way that embodies genuine efforts in dealing with various learning obstacles and assignments as well as possible.
5. The value of Steadfastness, a value that can shape the character of students so that they are always patient, not easily discouraged and broken-hearted or enthusiastic in facing all tests and problems.
6. Raja's value, a value that can shape the character of students so that they always expect the pleasure, mercy, and help of Allah SWT, and believe that this can be achieved.

7. Khauf value, a value that can shape the character of students so that they are always afraid of punishment which makes them always act or walk in a justified direction.
8. The value of Ittiba' to the prophet, a value that can shape the character of students so that they always follow the Sunnah of the prophet, both the words and behavior exemplified by him.

2. METHODOLOGY

The type of research used in this study was the research and development method. The researchers adopted the stages proposed by [17]. The research stages can be illustrated in the following Table 2.

The sampling process in the initial stage of the study involved purposive sampling of 15 teachers. The sample of 15 students in the testing phase and 5 teachers was selected using simple random sampling. In the needs analysis stage, 60 questionnaire items with five categories were used. The practicality of the model was assessed using an observation sheet with 23 items and four categories. Expert validation was conducted to assess the validity of the model book, guidebook, student activity sheets, semester programs, lesson plans, student assessment sheets, using four categories. The attractiveness of the model was measured using 28 questionnaire items with four categories. The measurement of the development level of Islamic Muhammadiyah-based character in students used the following indicators: a) the value of fairness, which shapes the character of students to always act rightly, be fair, and use the same standards in assessing truth; b) the value of honesty, which shapes the character of students to always convey things in accordance with the existing reality, whether through words, writing, gestures, or actions; c) the value of brotherhood, which shapes the character of students to be inclusive and open to interacting with everyone regardless of ethnicity, religion, race, or social class; d) the value of hard work, which shapes the character of students to make sincere efforts in facing various learning obstacles and tasks to the best of their abilities; e) the value of perseverance, which shapes the character of students to be patient, not easily discouraged or disheartened, and maintain their spirit in facing challenges and problems; f) the value of relying on Allah, which shapes the character of students to always seek the pleasure, mercy, and

assistance of Allah SWT, and have faith that it can be achieved; g) the value of fear, which shapes the character of students to have a fear of punishment that makes them always act or walk in the right direction; and g) the value of following the Prophet, which shapes the character of students to always follow the Prophet's Sunnah, both in words and behavior.

To measure the effectiveness of children's character development, the N Gain analysis was used, and it is categorized into criteria proposed by [18] Meltzer (2002): low ($0.00 < g < 0.30$), moderate ($0.30 \leq g < 0.70$), high ($0.70 \leq g \leq 1$). To measure the difference in children's character abilities before and after implementation, hypothesis testing was conducted using the paired sample t-test analysis [19].

2.1 Results of the Needs Analysis of the Development of Islamic Muhammadiyah-Based Character Models

From the data analysis results, it is shown that the level of understanding of teachers regarding the development of Islamic Muhammadiyah-based character models indicates that 75% of teachers have a low level of understanding, while 25% have a high level of understanding. These findings can be seen in Table 3.

2.2 Description of Islamic Muhammadiyah-based Character Models Development Module

In the development of Islamic Muhammadiyah-based character models, two books have been developed: a module book and a learning implementation guidebook. The description of the module book and the implementation guidebook is presented in Table 4.

2.3 Validity and Practicality of Islamic Muhammadiyah-based Character Development

The validation results of the Islamic Muhammadiyah-based character development model conducted by experts indicate a highly valid category (3.62) and are proven suitable for use. The practicality test results show a highly practical category (3.80). The validity and practical results of the initial model can be seen in Tables 5 and 6.

Table 2. The stages by Aka and Gall

Stages	Objectives	Research activities	Research object
Preliminary Study	Need Analysis	Distributing questionnaires	21 Teachers
Planning	Creating an initial draft for the development of Islamic Muhammadiyah-based character products	Determining the structure of activity modules and identifying ideas for stimulation activities, required materials/tools, and methods for preparing materials for activity implementation.	
Product Design Development	Creating the basic framework of the Islamic Muhammadiyah-based character module	Developing the initial product, which includes preparing the learning content, procedures/arrangement, and evaluation instruments. The development of the initial product is carried out while considering the planning.	
	Developing the Islamic Muhammadiyah-based character learning module for character education	Conducting validation for the Islamic Muhammadiyah-based character learning module.	2 Experts
Preliminary field testing	Conducting preliminary field testing, which involves conducting initial field trials on a limited scale.	Collecting and analyzing data can be done through methods such as interviews, observations, or questionnaires.	15 students. 5 teachers.
Revision of Product I	Improving the initial product	Refining the results obtained from the preliminary testing, demonstrated through limited testing until the main draft product is ready for broader testing.	
Main Field Testing	Conducting evaluation on the achievement of the test results of the product compared to the control group's achievement	Performing pretest and posttest field testing using experimental methods	15 students and 5 teachers
Product Revision II	Making improvements to the Phase II testing	Making further adjustments and refinements based on the broader testing results, so that the developed product becomes an operational model design that is ready to be validated	
Operational Field Testing	Determining whether the developed model design can be implemented in schools without the need for guidance or supervision from researchers/developers.	Conducting validation tests on the operational model that has been generated, including surveys, interviews, observations, and analysis of the results	This testing involves 2 experts, 15 students, and 5 teachers.
Final Product Revision	Developing the final product based on the results of the testing phase	making final improvements to the model	

Stages	Objectives	Research activities	Research object
Dissemination and Implementation	disseminating the developed product/model to the wider audience/public.	Communicating and promoting the product through activities such as research seminars, journal publications, and presentations to relevant stakeholders.	

Table 3. Level of teacher understanding towards islamic muhammadiyah-based character models

	The concept of Islamic Muhammadiyah-based character	Social System	Planning	Implementation	Evaluation
Mean	2.87	2.27	2.33	2.73	2.60
Median	3.00	2.00	2.00	3.00	3.00
Mode	3	2	2	3	2

Table 4. Description of model book and guidebook

Unit	Components	Content
Book of Model Development of Islamic Muhammadiyah-based Character	Rationalization	Basic concepts about Islamic Muhammadiyah-based character models for the development of character in children aged 5-6 years old
	Supporting theories of the Islamic Muhammadiyah-based character model	Theories underlying the implementation of Islamic Muhammadiyah-based character models for children aged 5-6 years.
	Concept of character education for children.	Definition, values, functions, objectives, and strategies for developing the character of children aged 5-6 years.
	Islamic Muhammadiyah-based character Values of early childhood	Definition, AIK development, AIK objectives, AIK benefits, AIK character values for children aged 5-6 years.
	Concept of Islamic Muhammadiyah-based character model development of early childhood education	Concept of developing Islamic Muhammadiyah-based character learning model and syntax for children aged 5-6 years.
	Planning and implementation of Islamic Muhammadiyah-based character learning model	Core competencies, basic competencies, the process of developing Islamic Muhammadiyah-based character models activities, Weekly Learning Implementation Plan, and Daily Learning Implementation Plan.
Guidebook for the implementation of Islamic Muhammadiyah-based character models	Assessment of Islamic Muhammadiyah-based character learning model	Definition of assessment, principles of assessment, assessment techniques.
	Module 1	The implementation of Islamic Muhammadiyah-based character learning model
	Module 2	Technical aspects of learning activities
	Module 3	Assessment of Islamic Muhammadiyah-based character learning model
	Module 4	Scenario of Islamic Muhammadiyah-based character learning model

Table 5. Aspects of validity testing of model

No	Aspect	Score	Category
1	Learning Model Book	3.71	Very Valid
2	Teaching Guide Book	3.58	Valid
3	Semester Program	3.62	Very Valid
4	Weekly Learning Program Plan	3.54	Valid
5	Daily Learning Program Plan	3.51	Valid
6	Student Character Assessment Sheet	3.73	Very Valid
Total		3.62	Very Valid

Table 6. Results of practicality testing

No.	Aspect of assessment	Score	Category
Model syntax			
1	Providing role modeling	3.5	Practical
2	Communicating learning objectives	4	Very Practical
3	Presenting information	3.5	Practical
4	Determining character learning priorities	4	Very Practical
5	Evaluating character learning priorities	3.5	Practical
6	Giving rewards and reinforcement for positive activities.	3.5	Practical
7	Reflection	4	Very Practical
Social System			
1	The teacher is responsible for initiating the stages	3.5	Practical
2	The teacher guides students through activities at each stage.	3.3	Practical
3	Teacher-student interaction	3.5	Practical
4	Student-student interaction	3.5	Practical
5	The teacher fosters and encourages the application of Islamic Muhammadiyah-based character values in students.	4	Practical
Principle of reaction			
1	Teacher responds positively to students' reactions	3.5	Practical
2	The teacher assists the child in exploring various perspectives on the situation or problem and comparing several alternatives.	3.5	Practical
3	The teacher enhances the child's awareness of their own views and feelings by engaging in reflection, paraphrasing, and summarizing the child's responses.	3,5	Practical
4	The teacher explains to the child that there are many ways or alternatives to solve a problem	4	Very Practical
Supporting system			
1	The selected learning resources/media can be used to achieve learning objectives.	3,5	Practical
2	The learning resources are suitable for the characteristics of the students.	4	Very practical
3	The assessment system is designed to measure the achievement of students in terms of cognitive, affective, and psychomotor aspects.	4	Very practical
Average		3.8	Very practical

Table 7. Indicators of achievement in islamic muhammadiyah-based character development for children aged 5-6 years

Indicator	Data	Score	Gain	N-Gain	Interpretation
Justice	Pretest	2.0	1.0	0.5	Moderate
	Posttest	3.0			
Honesty	Pretest	2.0	2.0	1.0	High
	Posttest	4.0			
Brotherhood	Pretest	1.0	3.0	1.0	High
	Posttest	4.0			
Hard work	Pretest	1.0	3.0	1.0	High
	Posttest	4.0			
Patience	Pretest	2.0	1.0	0.5	Moderate
	Posttest	3.0			
Raja' (Obedience)	Pretest	1.0	2.0	0.7	High
	Posttest	3.0			
Khauf (Fear of Allah SWT)	Pretest	2.0	2.0	1.0	High
	Posttest	4.0			
Following the Prophet Muhammad SAW	Pretest	1.0	2.0	0.7	Moderate
	Posttest	3.0			
Total	Pretest	12.0	16	6.3	Moderate
	Posttest	28.0			

Paired samples test						t	df	Sig. (2-tailed)
Paired Differences	Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
				Lower	Upper			
Pair 1 Post - Pre	2.000	.75593	.26726	1.36803	2.63197	7.483	7	.000

2.4 Effectiveness of Islamic Muhammadiyah-based Character Development Model

The results of character development in children aged 5-6 years after the implementation of Islamic Muhammadiyah-based character models can be presented in Table 7.

3. RESULTS AND DISCUSSION

3.1 Needs of Islamic Muhammadiyah-based Character Development Model

Based on the results of the needs analysis conducted in the previous study, it is evident that teachers still have a limited understanding of the concept of Islamic Muhammadiyah-based character education. Consequently, the process of instilling character traits in students may not be aligned with the cultural values and beliefs they adhere to. The character education in schools should be based on the values embraced by the community. The formation of character should align with the needs, personalities, and school culture to optimize and

facilitate the development of students' personalities [20]. The cultivation of character and moral values by adults has a positive impact on children's development [3]. Multicultural and local wisdom-based character education implemented in children contributes to the development of positive character values in their interactions. According to [21], character development is crucial for preventing aggressive behavior and uncontrolled actions in children. Character plays a vital role in building moral values and shaping individuals holistically [22].

3.2 Characteristics of Islamic Muhammadiyah-based Character Development Model

The development of Islamic Muhammadiyah-based character model that has been developed exhibits several characteristics. Firstly, the implementation of Islamic Muhammadiyah-based character cultivation activities encompasses comprehensive aspects of a child's character, including religious, individual, and societal values. The development of children should be holistic and cover cognitive-language, sensorimotor, and

social-emotional domains, as these aspects are interdependent and not to be focused on individually. This is in line with the understanding that non-academic abilities are a contributing factor to a child's future academic achievements [23,24].

Secondly, the cultivation of character values is based on Islamic Muhammadiyah-based character principles, which is a distinctive feature that can be integrated with general character development. The Islamic Muhammadiyah-based character values are not merely about instilling character values for self-preservation. What is most important is how the values of Islamic education can be liberated from the pressures of financial constraints, lack of knowledge, social-cultural backwardness, and economic challenges [25]. The prophetic attitudes of *Shiddiq* (truthfulness), *amanah* (trustworthiness), *tabligh* (conveying the message), and *fatamah* (wisdom) [26] are examples of attitudes that should be manifested in Islamic education, as they are components of the Islamic Muhammadiyah-based character model. The study conducted by [27] suggests that integrating explanations about wisdom and the learning process in character cultivation can shape Islamic character through behavioral change, social interaction, and the enhancement of life skills.

Thirdly, the model provides comprehensive guidelines for teachers in instilling character values in children. The role of adults is to create a supportive environment that facilitates the development of children towards the intended goals as they learn about life values and collaborate "in the spirit of sharing, tolerance, and goodness". Through collaboration among educators and staff who are committed to implementing character development guidelines consistently, the capacity of educators with character can be enhanced [28]. The method of habituation through exemplification and repetition is highly effective in training early childhood children in positive habits, which can be implemented by educators in schools [29]. This study's findings indicate that to achieve the goal of shaping students' character, cognitive understanding alone is not sufficient. Learning should be accompanied by practical application and observable behavior demonstrated by professional teachers serving as role models for students. Likewise, students are not only expected to comprehend the concepts of al-Islam but also to practice all the good deeds outlined in

the Islamic Muhammadiyah-based character curriculum [30].

3.3 Effectiveness of the AIK Learning Model

Based on the N-Gain analysis, there is a significant difference in the development of Islamic Muhammadiyah-based character after implementing the Islamic Muhammadiyah-based character model in the learning process. The Gain value is 16.0, and the N-Gain score for all indicators is 6.3, falling into the moderate category ($0.30 \leq g < 0.70$). The statistical test using paired sample t-test shows a calculated t-value of 7.483, which is greater than the tabulated t-value of 2.1447, with a significance value (sig) of 0.00. This indicates the rejection of the null hypothesis (H0) and the acceptance of the alternative hypothesis (H1).

Therefore, based on all the conducted statistical tests, it can be concluded that the Islamic Muhammadiyah-based Character Education for 5-6-year-old children has a significant influence on improving the students' character development. The developed character development model can be widely used for character development in children aged 5-6, as implemented in several Aisyiyah Muhammadiyah Kindergartens. The substantial improvement in early childhood character is influenced by the comprehensively designed program.

4. CONCLUSION

The Islamic Muhammadiyah-based character development module developed for 5-6-year-old children, based on expert validation, falls into the category of being valid and practical, as confirmed by the results of its implementation by teachers. The data analysis results indicate that the developed model is effective for character development in children. The module contains step-by-step instructions for implementing character education, making it recommended for use in efforts to teach character education in schools.

CONSENT

As per international standard or university standard, Participants' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard guideline participant consent and ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Hasanah U, Deiniatur M. Character education in early childhood based on family. *Early Child Res J ECRJ*. 2020;2:29–42.
2. Mufidah M. Students' character development in mathematics learning in low grade elementary school. *J Obsesi J Pendidik Anak Usia Dini*. 2021;6:1133–1146.
3. Berkowitz MW, Bier MC. Research-based character education. *Ann Am Acad Pol Soc Sci*. 2004;591:72–85.
4. Althof W, Berkowitz MW. Moral education and character education: Their relationship and roles in citizenship education. *J Moral Educ*. 2006;35:495–518.
5. Istiana I. Differences in prosocial behavior of adolescents in terms of gender in the tanjung rejo sub-district of sunggal medan. *J Divers*. 2018;4:58–67.
6. Ansori YZ. Educators' strategies in fostering honest character in early childhood. *J Obsesi J Pendidik Anak Usia Dini*. 2021;6:261–270.
7. Billah A. Character education for early childhood from an islamic perspective and its implementation in science materials. *Attarbiyah J Islam Cult Educ*. 2016;1:243–272.
8. Amiruddin. *Character education*. Medan: CV. Manhaji; 2016.
9. Djauhari A. Character education based on Al Islam And Kemuhammadiyah with shibghah method. *Instruksional*. 2021;2:93–102.
10. Sudin M. *Character of muhammadiyah educators*. Yogyakarta: CV. Tangan Emas; 2019.
11. Nashir H. *Muhammadiyah gerakan pembaharuan*. Yogyakarta: Suara Muhammadiyah; 2010.
12. Mil S, Wibawati KA. The cultivation of muhammadiyah values as a strengthening of character education from an early age at tk aisyiyah bustanul athfal 24 Kayu Putih, East Jakarta. *Pros Semin Nas Pendidik*; 1, Available: <https://jurnal.umj.ac.id/index.php/SNP/article/view/2786> (2018, accessed 27 July 2023).
13. Ahsanul Khaq M. Forming the religious character of learners through the habituation method. *J Prakarsa Paedagog*; 2. Epub ahead of print; 2019. DOI: 10.24176/jpp.v2i1.4312
14. Trimuliana I, Dhieni N, Hapidin H. Religious behavior of 5-6 years old children at character model PAUD. *J Obsesi J Pendidik Anak Usia Dini*. 2019;3:570–577.
15. Shobahiya M. Effectiveness of the implementation of the al-islam mentoring program, Available: <http://publikasiilmiah.ums.ac.id/handle/11617/1000> (2008, accessed 27 July 2023).
16. Hayati M, Hayati AM, Aqodiah. Learning the value of al islam kemuhammadiyah in tk aba panto daeng sumbawa besar and tk aba taliwang sumbawa barat. *Ibtidaiy J Prodi PGMI*. 2019;4:98–103.
17. Aka KA. Integration Borg & Gall (1983) and Lee & Owen (2004) models as an alternative model of design-based research of interactive multimedia in elementary school. *J Phys Conf Ser*. 2019;1318:012022.
18. Meltzer. *Educational Research Methods (Quantitative, Qualitative and R&D Approaches)*. Bandung: Alfabeta; 2002.
19. Sugiyono. *Quantitative, Qualitative, and R&D Research Methods*. Bandung: Alfabeta; 2017.
20. Retnaningtyas W, Zulkarnaen Z. Teacher strategies in early childhood social character building in the school environment. *J Obsesi J Pendidik Anak Usia Dini*. 2023;7:374–383.
21. Haslip M, Donaldson L. How early childhood educators resolve workplace challenges using character strengths and model character for children in the process. *Early Child Educ J*; 49. Epub ahead of print 1; 2021. DOI: 10.1007/s10643-020-01072-2
22. Lickona T. *Educating for character: How our school can teach respect and responsibility*. New York: Bantam Books; 1991.
23. Baker-Henningham H, López Bóo F. *Early childhood stimulation interventions in*

- developing countries: A comprehensive literature review. IDB Publ Work Pap. Available:<https://ideas.repec.org/p/idb/briks/2660.html> (2018, accessed 27 July 2023).
24. Suardi IP, Ramadhan S, Asri Y. First language acquisition in early childhood. *J Obsesi J Pendidik Anak Usia Dini*. 2019; 3:265–273.
 25. Rahmania AH, Mandasari B. Students' perception towards the use of joox application to improve students' pronunciation. *J Engl Lang Teach Learn*. 2021;2:39–44.
 26. Roqib M. Ilmu Pendidikan Islam. Development of integrative education in schools,. Family, and Community. Yogyakarta: LKIS; 2009.
 27. Nasir N, Setiawati H, Khumas A. Strengthening islamic character through skills empowerment activities for street children in parepare city. *Bul KKN Pendidik*. 2022;4:153–160.
 28. Schaps E, Lickona T, Lewis C. Eleven principles of effective character education.
 29. Kusumastuti A. *Quantitative Research Methods*. Yogyakarta: Deepublish Publisher; 2020.
 30. Baidarus B, Hamami T, Suud FM, et al. Al-Islam and Muhammadiyah as the basis of character education. *AL-ASASIYYA J Basic Educ*. 2020;4:71–91.

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Peer-review history:
The peer review history for this paper can be accessed here:
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