



## The development of interactive educational games to improve character values in early childhood

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### Abstract

Based on the preliminary study that the researcher did, the researcher saw that there were still many children's character values that were not good, such as the difficulty of queuing and social interaction while in the school environment. This study aims to produce educational games to improve the values of early childhood characters that are valid, practical, and effective. This study uses the Sugiyono model development method (potential and problems, data collection, product design, design validation, usage trials, product revisions, product trials, design revisions, product revisions and mass production). The resulting development products consist of 2 types, namely manuals on the use of educational games to increase character values and educational game software to improve character values for early childhood. In the initial development process, the developer consults with media experts to get input and suggestions about the developed media. To determine the validity of the product, expert validation tests of media experts, material expert validation and field expert validation tests (expert lecturers) were carried out. The instrument of this research is a questionnaire which is used to determine the validity of the product. The results of the assessment were analyzed using a descriptive percentage analysis technique. Informants in this study were teachers and children. Data collection techniques used consisted of questionnaires, and documentation. The data analysis technique uses validity analysis, practicality analysis and effectiveness analysis.

**Keywords:** Educational Games, Character Values, Early Childhood

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## Introduction

Early childhood education (PAUD) is intended for preschool children so that children can develop their potential from an early age, namely by providing educational stimuli to help children's physical and spiritual growth and development. Early childhood education is a very important education because early childhood education is basic education which is the basis for continuing education to a higher level. The kindergarten education system is one level of early childhood education, national education explains that Kindergarten includes early childhood education that provides guidance for children from birth to the age of six. (Suyadi and Ulfah, 2013) define early childhood education in essence as education organized with the aim of facilitating the growth and development of children as a whole or emphasizing on the development of all aspects of the child's personality.

Early childhood is an individual who is in a period of rapid growth and development. Early childhood is an individual who is in the age range 0 to 8 years. Early childhood really needs the help of adults in the process of growth and development. Therefore, the role of the family and the school environment greatly affects the development of children. Furthermore (Suryana, 2013) defines early childhood as an individual figure as a sociocultural being who is undergoing a very fundamental development process for the next life and has several characteristics. In addition (Suryana, 2016) also defines early childhood education as an effort to foster children from birth to the age of six years which is carried out by providing educational stimuli to help physical and spiritual growth and development so that children have readiness to enter further education.

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Early age is a period of maturity of physical and psychological functions that are ready to respond to stimulation (stimulation) provided by the environment. This period is a time to lay the first foundation in developing physical (motor), intellectual, emotional, social, language, artistic and moral spiritual potential. This is in line with the opinion (Sujiono, 2013) which suggests that early childhood is an individual figure who is undergoing a development process rapidly and fundamentally for the next life.

One aspect that develops is the aspect of character development. According to (Saunders, 2011) character is a real and distinct trait shown by individuals. Character can be seen from the various attributes that exist in individual behavior patterns. Furthermore, character education (Cahyaningrum, 2017) for early childhood is intended to instill good values so that they can become habits when they grow up or at the next level of education. Character education for early childhood is intended to instill good values as the basis for further personal development.

A child who is introduced to and instilled in character education since childhood, it is hoped that when he grows up the characters, he acquires will become a habit for him. Therefore, the active role of parents, educators and the community are to jointly promote the values of character education at every opportunity, especially for early childhood children both within the family and the community in their environment. This is in line with the results of research (Hadiyanto, 2013) in his journal stating that the way students behave and have character at school is the result of what the school expects. The important thing is that each learner follows an agreement about the desired expectations.

Currently, the existence of technology is an interesting thing and provides many conveniences such as Android, tablets and notebooks and laptops. Everyone has the right to enjoy the available technological facilities, including in the field of education. According to (Priyanto et al., 2014) Smartphone technology can be used as one of the innovative media in kindergarten to transmit education through learning methods that are concise, interesting, interactive and can be accessed at any time. Game is a kind of tool in playing in various circles. According to (Krisnawan, 2015) Game is a system where players are involved in an artificial conflict, here players interact with systems and conflicts in games that are engineered or artificial, in the game there are rules that aim to limit player behavior and determine the game.

According to (Efwan et al., 2014) Educational Games are digital games designed for educational enrichment (supporting teaching and learning). Game is a medium in conveying various types of education and learning about culture that is interesting and fun (Sugiyanto & Hening, 2011). This explains that the game is one of the interesting media that can be used in various types of education. One of them is in early childhood education. According to (Yudistira, 2014) Games that have educational content are better known as educational games which aim to provoke children's interest in learning the subject matter while playing, so that with a happy feeling it is hoped that children can more easily understand the subject matter presented.

According to (Borman & Erma, 2018) Educational games are games developed for educational purposes which have educational and entertaining characteristics. According to (Klisch et al., 2013) this educational game reflects the learning style of a generation that is more digitally savvy and represents the trend in formal and informal educational settings towards the use of technology. The results of the study (Setiawan et al., 2019) with the title Use of Digital Educational Games as a Tool for Early Childhood Learning indicate that the development and support of digital technology has provided new opportunities to provide learning in the form of digital educational games for early childhood. According to (Rakimahwati et al., 2020) games aim to develop children's abilities such as children's language, cognitive and social emotional abilities in an interesting way. Games are not only as effective learning media but also as fun entertainment.

Based on the observations and interviews of researchers in kindergarten in Koto Tengah District, it can be seen that the character development of children is still not well developed. This can be seen when children queue to wash their hands, take food as well as good manners and behavior while in the school environment. Based on the description above, the researcher is interested in developing a product in the form of an educational game to increase the character values of early childhood.

This game is designed with attractive and interactive images so that children are interested in being active in running it. Children who answer correctly will be rewarded in the form of praise and applause so that children will feel confident in their abilities. Based on this description, the authors developed the development of educational games to increase character values in early childhood in the Koto Tengah sub-district in the city of Padang.

## Methodology

The type of research used is research on the development of learning media or Research and Development (R&D) which is carried out to improve the implementation of teaching and learning in Kindergarten. According to (Sugiyono, 2012) research and development is a research method used to produce certain products, and test

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the practicality and effectiveness of these products. The development model used is a procedural model, which is a descriptive model and outlines the development steps. The data collection technique in this research is to use instruments in development research. In this case the researcher asked for expert help to validate the Educational Game to increase character values in children. The data analysis technique uses validity analysis, practicality analysis, and effectiveness test analysis.

## Result

Based on the results of observations at the Kindergarten in Koto Tengah on April 2, 2021, it can be seen that there is potential for children as a generation that is able to maintain and preserve the character values of early childhood. The character values of children are still not optimal such as not having behavior that reflects self-confidence, not having behavior that reflects an attitude of obedience to daily rules to practice discipline, not wanting to hear when other people talk, not having behavior that reflects a caring attitude and willing to help when asked for help, respect and tolerance for others, do not yet have behavior that can adapt and reflect an attitude of responsibility and express needs, desires and interests in an appropriate way.

The results of interviews with kindergarten teachers and principals in Koto Tengah on April 2, 2021 found that children tend to work individually because they are considered more free, some children don't care about their friends and only focus on themselves and children don't want to play with friends who others who are not close friends.

## Data Collection

The results of data collection carried out at this stage are observations on learning activities. Observations and interviews were conducted on April 2, 2021 using the interview and observation format to determine the curriculum used, namely the 2013 curriculum, learning activities and the use of learning media, especially about the character of early childhood.

Children's character values are still low such as not having behavior that reflects self-confidence, not having behavior that reflects an attitude of obedience to daily rules to practice discipline, not wanting to hear when other people talk, not having behavior that reflects an attitude of caring and willing help when asked for help, respect and tolerance for others, do not yet have behavior that can adapt and reflect an attitude of responsibility and express needs, desires and interests in an appropriate way. It is hoped that the use of technology media is able to create a modern feel in the dissemination or introduction of elements of character values for early childhood.

The problem that can be seen is that educators need media in developing children's social skills, especially the introduction of Minangkabau culture because educators still have difficulty in making media in recognizing the character values of early childhood. The difficulty of the educator is due to the lack of knowledge and skills of educators in designing educational games in learning. Auxiliary media commonly used by educators in the learning process are more in the form of visual media or in the form of images.

## Product Design

The design process is the stage of designing educational games to increase the character values of early childhood in kindergarten. At this stage, we also design instruments to measure the validity of educational games to increase the values of early childhood characters that are developed. This stage aims to assess the validity of educational game designs to improve the character values of early childhood in kindergarten. The product to be developed is checked by the developer to find out whether the product can be used properly and all components can run properly as expected. The results of the educational game development stage to improve the character values of early childhood are as follows:

Educational game to increase character values in early childhood. developed using Adobe Flash pro cs6, using the Story Board design with the theme of my culture. This creation was carried out with a PC Processor Core i-5, 8 Gigabyte Ram specifications and 1 Terabit hard disk, and using Adobe Photoshop CS6 software, Corel Draw x7. Games that have been made will be developed and installed on Android smartphones or tablets that can be used for early childhood learning. Educational games to improve the character values of early childhood contain ethical behavior. Each game content is designed in the form of a description of right and wrong behavior. Children will be stimulated to think analytically, comparing and considering the behavior of early childhood. Validity with material experts is done by showing educational games to improve character values in early childhood that have been made then material experts provide suggestions and comments. After that, make revisions according to the suggestions and comments of material experts.

The value of V for item 1 is obtained from  $V=2/1(4-1) = 0.67$ , as well as V for items 5,6,7,9, 13, 14, 15 and for item 2 it is obtained from  $V=3/1(4-1)=1$ , as well as V for items 3, 4, 8, 10, 11, 12,16. Aiken's V coefficient value ranges from 0 to 1. Aiken's coefficient value of 1 is found in 8 items including 3, 4, 8, 10, 11, 12,16, while Aiken's

coefficient value of 0.67 is found in 8 items including 1, 5,6, 7,9, 13, 14, 15. So the average value of Aiken's coefficient of  $V = 0.84$ , is declared to have valid item validity and appropriate media material feasibility.

Validity with media experts by showing Educational Games to improve the values of early childhood characters that have been made then media experts provide suggestions and comments. After that, make revisions according to the suggestions and comments of media experts. The value of  $V$  for item 2 is obtained from  $V = 3/1(4-1) = 1$ , as well as  $V$  for items 3, 4, 5, 8, 9, 13, 14, 16, 20 and for  $V$  item 1 is obtained from  $V = 2/1(4-1) = 0.67$ , as well as  $V$  for items 6, 7, 10, 11, 12, 15, 17, 18, 19, 21. Aiken's  $V$  coefficient values range from 0 to 1. The coefficient value Aiken's value of 1 is found in items 2, 3, 4, 5, 8, 9, 13, 14, 16, 20 while Aiken's coefficient value of 0.67 is found in items 1, 6, 7, 10, 11, 12, 15, 17, 18, 19, 21. So the average value of Aiken's coefficient is  $V = 0.83$ , it is stated that it has a valid item validity and the feasibility of the media material is very feasible.

At the revision stage of this product, based on the results of the validation of experts with the results of educational games to improve the character values of early childhood in TK Koto Tengah, it was declared feasible to use. Educational games to improve the character values of early childhood in Koto Tengah Kindergarten are declared suitable for use.

### Product Trial

Practicality Trial The limited trial will be held on June 1, 2021. The results of the trial are to see the practicality of Educational Games to improve the character values of early childhood. Based on the results of 13 aspects of assessment in the Educational Game trial to improve the character values of early childhood. The average number of assessment scores is 47.5 The average percentage of practicality for each aspect of the assessment is 91%. The results of the practical test stated that the Educational Game to improve the character values of early childhood that was developed was stated to be very practical with the results of the limited trial of the Educational Game to improve the character values of early childhood can be continued at the implementation stage.

The limited trial was carried out on June 1, 2021 at the Koto Tengah Kindergarten in small groups with a total of 6 children. The results of the trial to see the effectiveness of educational games to improve the character values of early childhood. Based on the results of the practicality test, there are 12 assessment aspects in the post-test effectiveness test for children. On April 8, 2021, the total assessment scores were 42, 40,43, 41, 43 and 42. The average percentage of practicality for each aspect of the assessment was 87%. The results of the effectiveness trial state that the Educational Game to improve the character values of early childhood that was developed was declared very successful with the criteria of developing very well with the results of a limited trial.

Product revision activities on June 15, 2021, improvements were made based on the results of testing the Educational Game product to improve the character values of early childhood. The revisions included the addition of an Educational Game navigation function to increase the character values of early childhood in the Educational Game user manual to improve the character values of early childhood. In addition, the addition of explanations in the form of audio (audio instructions) in the Educational Game to increase the character values of early childhood so that it is easier for children to understand.

At this stage a trial of use is carried out by preparing educational game products to increase the character values of early childhood. on June 21, 2021 in kindergarten which has been declared feasible by experts and tested on children, then educators assess educational games to increase the character values of early childhood to determine the feasibility of educational games to increase the values of early childhood characters. users and user responses after using the learning media. Implementation of Educational Games to improve character values for early childhood. It will be held on June 24, 2021 at Koto Tengah Kindergarten with a total of 20 children with a description of activities 1) The teacher provides an explanation of Educational Games to improve character values for early childhood; 2) Children demonstrate wrong and right behavior in early childhood character values; 3) The teacher introduces educational games to improve the character values of early childhood; 4) Children play educational games to improve the character values of early childhood. Then the evaluator of the Educational Game media to improve the character values of early childhood. also assessed by kindergarten teachers with FGD (Focus Group Discussion) activities which were carried out online through the google meet application on June 23, 2021. The results of the FGD (Focus Group Discussion) activities were that some audio did not use interactive or easy-to-understand words. by child.

Practicality Test is the level of practicality of the media used by the teacher. This activity was carried out to find out the extent of the benefits, ease of use by the teacher. This practicality test is carried out by providing a practicality questionnaire of educational games to improve the character values of early childhood. This instrument is filled in by the teacher after using educational games. The teachers who assessed were SA Teachers for class B1, JZ, teachers for class B2, TWO teachers for Class B3 and AS the Principal. The media practicality test was also assessed by the teachers and principals of the Kindergarten Kindergarten District of

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Koto Tangah. FGD (Focus Group Discussion) activities were carried out online through Google Meet by Kindergarten teachers on June 23, 2021, as many as 10 teachers and principals. i.e. RS, M, DC, LS MS, IY, LP, EF, SR, AN, RE, Y.

Based on the results of the teacher practicality test assessment in the Koto Tangah sub-district, as many as 4 people with the results on the aspect of using the media that is 94%, the result on the aspect of time is 94%, the result on the aspect of attractiveness is 96%, and the result on the aspect of understanding the concept of the material is 87%. So that the average result of the practicality test is 92% and is declared very practical. Thus, the results of the Parktality test by 4 teachers in TK Koto Tangah with an average of 92%. The results of the practicality test with an average of 92% stated that the Educational Game for Improving the character values of early childhood to be developed was stated to be very practical.

Data analysis of children's learning activities was obtained by calculating the results of the Educational Game assessment to increase the character values of early childhood in the large group test of 20 children, the assessment by the class teacher contained in the observation sheet. Based on the results of the Pretest Test of the Effectiveness of Educational Games to Improve the character values of early childhood, there are 20 children. The results on the Social Communication/Interaction aspect are 63% and the results on the Social Ethics/Self-Awareness aspect are 65%. So that the average result of the effectiveness test for assessing children's character values is 64%.

Based on the results of the effectiveness test of the assessment of the character values of children in Koto Tangah Kindergarten, there are 20 children. The results on the aspect of Social Communication/Interaction are 91%. and the results on the aspect of Social Ethics/Self-Awareness are 86%. So that the average result of the effectiveness test for assessing children's character values, which is 88%, can be declared very effective as a learning medium. Based on the results of the Pretest Test of Effectiveness to improve the character values of the Control Class B2, there are 20 children. The results on the Social Communication/Interaction aspect are 63% and the results on the Social Ethics/Self-Awareness aspect are 65.4%. So that the average result of the effectiveness test for assessing children's character values is 65%. Based on the results of the Assessment (Protest) of the Effectiveness Test in increasing the character values of the early childhood control class B2, there were 20 children. The results on the Social Communication/Interaction aspect were 64.5% and the results on the Social Ethics/Self-Awareness aspect were 73.8%. With the results of the average test of the effectiveness of the assessment of children's interpersonal intelligence, namely 69.15%.

Product revisions are carried out based on assessment sheets from expert lecturers and classroom teacher response questionnaires to educational games to improve the character values of early childhood in kindergarten. From the results of the experts, the material has adequate and valid item validity, and the results of the assessment conclusions from the validator are declared eligible for use with revisions. While the results of the media expert have adequate and valid item validity, and the results of the assessment conclusions from the media expert validator are declared eligible for use with revisions. Material and media revisions were made to improve the media even better. From the results of the assessment in the media practicality test by 4 teachers, namely SA teacher for class B1, JZ teacher for class B2, TWO teachers for class B3 and AS the principal. The results of the practical test state that educational games to improve character values developed are very practical as learning media to improve interpersonal intelligence of early childhood in kindergarten. From the results of the percentage of the effectiveness of the media declared effective as a learning medium. Based on the results of the evaluation of the learning objectives achieved using educational games. This can be seen from the children who are able to answer the challenges of the game with feelings of pleasure and enthusiasm.

## Discussions

The procedure for developing educational games to improve the character of early childhood in kindergarten is carried out with potential and problem stages, data collection, product design, design validation, product design revision, product trials, product revisions, usage trials, product revisions, and production proposed by (Sugiyono, 2010). These stages are carried out in research to assess the level of validity, effectiveness and practicality in product development.

The first step in making educational games is to analyze the curriculum and needs that refer to the 2013 curriculum. The material used is related to character values. The next stage is compiling game content such as materials, audio and visual designs from educational games to increase the character values of early childhood. The next stage is to design audio-visual designs to be included in educational games and to design educational game guidebooks to increase the character values of early childhood in kindergarten. To produce educational games to improve the character values of appropriate early childhood, a series of material expert validations, media expert validation, practicality tests, and effectiveness tests are carried out. The series is carried out to obtain educational games to increase the values of early childhood character values that are appropriate and

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useful for users. The following are the results of the validation, practicality, and effectiveness of educational games to improve the character values of early childhood in kindergarten.

The resulting product is an educational game to increase the character values of early childhood in kindergarten. The use of technological media in the form of games is a medium that provides improvements for children's development, especially interpersonal intelligence. Interesting and entertaining games will attract children's interest to learn (Alwan et al., 2020). This educational game contains games that stimulate children to be able to consider behaviors or actions that are considered wrong or deviant in Minangkabau customs so as to prepare children to become individuals who become individuals according to the noble values of Minangkabau culture. Educational games are expected to be one of the products that can improve children's interpersonal intelligence such as communication or interaction and children's social ethics with fun learning.

The results of the validity of the material indicate that the Educational Game to increase the character values of early childhood in kindergarten from the variables of the feasibility of content, language and presentation has adequate and valid item validity. In the aspect of content feasibility, the material is presented in accordance with the 2013 Curriculum for Early Childhood Education in Kindergarten in Koto Tengah, the material is presented according to the needs of the child, the material presented is in accordance with the learning objectives. All of these aspects are declared to have valid item validity by material experts and the feasibility of the media is very feasible to use. This educational game to increase the character values of early childhood in kindergarten can be used as a valid, practical, and effective way to increase the values of early childhood character in kindergarten.

The results of the media validity show that the Educational Game to improve the character values of early childhood in kindergarten from the display and operation variables of the program has adequate item validity and is valid by media experts (Prof. Dr. Alwen Bentri, M. Pd). In the aspect of appearance, namely the attractiveness of the media, the suitability of the choice of background color and the suitability of the text of the grouping of images with the learning theme, the text can be read clearly, the suitability of the layout of the image, and the suitability of the selection of the type and size of the image displayed. All of these aspects are declared to have valid item validity by material experts and the feasibility of the media is very suitable for use in early childhood learning.

The results obtained meet the statement stated by the expert that media development must pay attention to the appearance of media that is attractive to children. The use of simple educational games can make it easier for children to run them (Firmansyah et al., 2018). Educational games from the aspect of appearance have adequate, interesting and valid validation by media experts by prioritizing educational elements. This means that the display of the developed media is very good and can attract children's interest and attention in the learning process. In addition, educational games are also useful in facilitating learning activities (Amirulloh et al., 2019).

In the aspect of presentation there are indicators related to the content of the material presented clearly, the order of systematic learning material, pictures and illustrations presented in accordance with the learning material, audio (music and sound) that are presented clearly, and audio (music and sound) which is presented in accordance with learning. And the operation of the program is also easy to use and systematic. All of these indicators have an adequate value of item validity and are valid by media experts.

After validation, the teacher then conducted a practicality test of the media. The practicality of the media is related to the practicality of using the developed media. Aspects related to practicality have 13 indicators in 4 aspects of assessment, namely 1) the use of media consists of 3 indicators, namely a) Educational games are easy to use; b) Educational Games facilitate the implementation of the learning process; c) Guidebooks on the use of educational games can make it easier for teachers to use educational games 2) time consists of 2 indicators a) the use of educational games makes learning time efficient; b) Educational Games overcome the limitations of space and time 3) attractiveness consists of 3 indicators, namely a) attractive appearance; b) Choice of audio, color and image in interesting educational games; c) Educational games can motivate children to learn and 3) understanding the concept of the material consists of 5 indicators, namely a) the presentation of the material is easy to understand; b) The material contained in educational games can be understood well; c) The material presented is systematic; d) The material presented is complete; e) The language used is easy to understand.

Practicality Test is the practicality level of Educational Games to improve the character values of early childhood in kindergarten used by teachers. This activity was carried out to find out the extent of the benefits, ease of use by the teacher. This practicality test was conducted in Kindergarten, Koto Tengah Padang District. This Practicality Questionnaire was filled out by the teacher after using Educational Games to improve the character values of early childhood in kindergarten, while the child effectiveness test questionnaire was filled out by the teacher. The teachers who judged were SA Teachers for class B1, JZ teachers for class B2, TWO

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teachers for Class B3 and AS. Then the assessment of Educational Games to improve the character values of early childhood in kindergarten according to the needs of children and teachers is also assessed by teachers and Kindergarten principals with FGD (Focus Group Discussion) activities which are carried out online through google meet app. The results obtained are that the level of practicality of educational games to increase the character values of early childhood in kindergarten is very practical, namely precise, fast and easy to use. This means that Educational Games to improve the character values of early childhood in kindergarten are very well developed, easy to use, interesting and provide benefits to children. In addition, the results of FGD (Focus Group Discussion) activities, namely this educational game sometimes require guidance or assistance so that children better understand the meaning of illustrations or images in game content.

This is because the game is an interesting thing for children to play. According to (Cahyo, 2011) the game is an inseparable part of the world of children, it can even be said to be very important for the growth of children's intelligence. Based on these results, it shows that educational games to improve the character values of early childhood in kindergarten are beneficial for children and teachers because educational games can generate interest for children so they want to repeat them. The use of educational games is practical because it saves time, it is used whenever and wherever (Mewengkang et al., 2018). Educational games to improve the character values of early childhood in kindergarten are stated to be practical to use in learning and can be used for a long period of time if needed. The effectiveness of educational games to improve the character values of early childhood in kindergarten that is developed can be seen from the percentage of observations of children's values. According to (Sani, 2019) states that effective learning cannot be separated from effective learning conditions, student involvement, learning resources that support adequate facilities and infrastructure. Effective learning conditions include three important factors, namely learning motivation, learning objectives and learning suitability.

According to (Nugroho & Komarudin, 2018) the development of educational games as learning media can help the learning process and increase children's motivation and enthusiasm in learning so that learning objectives are achieved. One of the determinants of product effectiveness is increasing children's potential so that learning objectives are achieved. In addition, interesting learning media will stimulate learning many things without coercion. Educational games are effective because they are interesting and challenging and are very suitable for raising awareness or behavior for children because children will remember them (Borman & Purwanto, 2019). Inculcating behavior in this game is focused on increasing the character values of children, especially children's behavior in interacting and ethics with others. This is closely related to the manners of manners in behaving in everyday life.

The use of educational games to improve the character values of early childhood in kindergarten can be seen from the ability of children to run games by answering each question properly so that children are considered to be able to understand good and wrong social and ethical communication in everyday life. In addition, children also begin to implement it. Therefore, Educational Games to improve the character values of early childhood in kindergarten are declared effective in increasing the character values of children.

## Conclusion

Based on the results of research and discussion on research on Educational Games to Improve Early Childhood Characters in Kindergarten, it can be concluded that the resulting product is in the form of Educational Games to Improve Early Childhood Characters. Each game content is designed in the form of a description of right and wrong behavior. Children will be stimulated to think analytically, comparing and considering behavior in the everyday environment.

Educational Games to Improve Character Values for Early Childhood in Kindergarten are declared to have valid item validity and the results of the feasibility of materials and media are very feasible to use. With the average value of Aiken's V by material experts is 0.84 and the average value of Aiken's V by media experts is 0.83.

Educational Games to Improve Early Childhood Characters in Kindergarten are stated to be very practical as learning media, with an average practicality percentage of 92%. Educational Games to Improve Early Childhood Characters in Kindergarten are declared effective as learning media, with the percentage of effectiveness being 88%.

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