Marbel Application Based Learning Media to Develop Analytical Skills in Children Aged 4-5 Years

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ABSTRAK

Kurangnya fasilitas dan alat yang diperlukan di sekolah, guru terkadang hanya menggunakan satu media untuk mengajar. Selain itu, guru mengalami kesulitan dalam mengenalkan media kepada peserta didik mengingat anak-anak belum mengenal angka dan simbol angka permulaan. Penelitian ini bertujuan untuk menciptakan media pembelajaran berbasis aplikasi marbel untuk mengembangkan kemampuan analisis pada anak kelompok B. Model pengembangan yang digunakan dalam penelitian ini yaitu model pengembangan ADDIE. Metode pengumpulan data dengan menggunakan kuesioner dan alat penilaian (assessment form). Teknik analisis dengan analisis kuantitatif dan kualitatif. Berdasarkan uji validitas isi oleh dua orang pakar didapatkan nilai validitas isi yaitu 0,93 dimana nilai ini tergolong pada validitas sangat tinggi. Hal ini berarti aplikasi game marble fun numbers layak untuk digunakan dalam mengembangkan kemampuan analisis anak. Hasil uji coba keefektifan menunjukkan, nilai rata-rata kemampuan analisis anak kelompok kecil setelah belajar menggunakan marble fun numbers yaitu 80,2% dan kelompok besar jumlah nilai sebesar 81% nilai tersebut tergolong sangat baik. Disimpulkan bahwa media pembelajaran berbasis aplikasi marbel untuk mengembangkan kemampuan analisis pada anak kelompok B mendapatkan validitas sangat tinggi sehingga media pengembangan berbasis aplikasi marbel untuk mengembangkan kemampuan analisis pada anak kelompok B layak digunakan.

ABSTRACT

Lacking the necessary facilities and tools in schools, teachers sometimes only use one medium to teach. Teachers also experience difficulties introducing the media to students, considering that children still need to learn numbers and initial number symbols. This research aims to create learning media based on marble applications to develop analytical skills in group B children. The development model used in this research is the ADDIE development model. The data collection method uses questionnaires and assessment tools (assessment forms). Analysis techniques with quantitative and qualitative analysis. Based on the content validity test by two experts, the content validity value was 0.93, where this value is classified as very high validity. The Marble fun numbers game application is suitable for developing children's analytical skills. The results of the effectiveness trial showed that the average value of the analysis ability of the small group of children after learning to use marble fun numbers was 80.2%, and the large group's total score was 81%; this was classified as very good. It was concluded that the marble application-based learning media for developing analytical skills in group B children was highly valid. Hence, the marble application-based development media for developing analytical skills in group B children was suitable.

1. INTRODUCTION

Early childhood education is education that shapes a child's personality. Education can be used as a reference and benchmark for a country (Munawaroh et al., 2022; Warlim et al., 2021). The existence of education is very important in producing quality individuals as the nation's next generation, both in affective, cognitive and psychomotor aspects (R. Aryani & Fauziah, 2020; Saugi, 2020). Ages 0-6 years and 0-8 years are generally the range of early childhood (Dea et al., 2021; Mahmud, 2019). Early childhood children experience different growth and development processes based on their level of growth and

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development. Early Childhood Education or better known as PAUD is a very important educational foundation. PAUD provides a basic framework for children to build and develop basic knowledge, attitudes and skills (Hasanah & Munastiwi, 2019; Islamiah & Ichsan, 2022). Early childhood education is the initial stage of education which is intended as guidance for children starting from birth to the age of six. Providing educational stimulation from an early age can help children's physical and spiritual growth and development.

Currently, offline learning is carried out alternately by teachers where not all children go to school. The teachers divided the learning process, such as on Wednesday and Thursday the learning process was only carried out for group B and for group A it would be held on Friday. Based on observations and interviews conducted at the RA Miftahul Huda School in Gerokgak Village, Gerokgak District, it shows that teachers are still lacking in using instructional media in teaching. In addition, due to the lack of necessary facilities and tools in schools, teachers sometimes only use one medium for teaching. Apart from that, teachers experience difficulties in introducing the media to students considering that children do not yet know numbers and initial number symbols. By using the marble application, students have an interest in learning and make learning time efficient and students' understanding of learning more effective. Based on the analysis of these problems, the author hopes that young children can learn numbers and symbols by analyzing the initial numbers and symbols in their game play. They can also imitate or bold the numbers and symbols in the game. The aim of providing this game is to make it easier for children to understand numbers and symbols. Based on the results of initial observations on the cognitive development of early childhood at RA Miftahul Huda, it shows that of the 26 children in the group B semester learning group, there were 6 children who achieved very good development (BSB). However, many children have not achieved very good development (BSB) and are still below standard. Therefore, teachers must teach children to achieve excellent development (BSB). Teachers must provide learning so that children can achieve the desired very good development (BSB) because many children in this situation are still below average and have not achieved very good development (BSB). The large number of children who do not understand the learning concepts conveyed by teachers requires teachers to be able to teach, see and convey information clearly and effectively in an effort to build cognitive abilities in analyzing numbers and number symbols, so that children feel motivated to learn through media. .

The solution to stimulate children in the learning process really requires the use of intermediaries, tools and learning media. Learning media allows children to stay focused and develop cognitively over a long period of time (Arifin et al., 2021; Oktavia Wahyu Ariyani & Prasetyo, 2021). Teachers can divert children's attention so they don't get bored more quickly than without learning media. The existence of media in the learning process is able to improve the learning process for children. One of the teacher's obligations is to create a fun and interesting environment for children to carry out the learning process (Ariani, 2020; Arifin et al., 2021). Teachers are required to be able to give children the right to freedom to participate in all kinds of activities. The cognitive aspect is one of the important aspects to develop, especially in early childhood (NW Aryani & Ambara, 2021). Another aspect is that psychologists use the term cognitive to explain all mental changes or activities related to perception, thought patterns, memory and also information processing. Cognitive activities also include all psychological processes related to how a person learns, pays attention, imagines, estimates, assesses, and thinks about and understands the environment around him. The functional development of the ability to think symbolically determines the basic cognitive abilities of children at the preoperative stage, namely in the age range 2-7 years. Cognitive ability can be defined as a person's ability to process information, including connecting, assessing, and considering events or occurrences (Anjarani et al., 2020; Handayani, 2021). Cognitive development abilities include the ability to group objects that have similar colors, shapes and sizes; match triangles, circles, and quadrilaterals; and identifying and counting numbers 1–20. At the age of 3-5 years is the child's play period. Playing using objects or other play equipment starts at the age of one year and reaches its peak at the age of 5-6 years (Srihartini et al., 2021). Playing is very important for the thinking process, because through experience it can shape the way of thinking and can help children's intellectual development.

The use of media in the learning process is very varied and not monotonous, which is one way to make students more focused. It also helps teachers convey concepts more easily and effectively. Learning media refers to materials, tools, or methods used in the teaching and learning process to ensure effective educational communication between teachers and students. One of the media that can be used is game media. A game is a system or program in which one or more players can make decisions by controlling objects in the game for a specific purpose (Adanali, 2021; Pratama et al., 2021). Educational games that teach children numbers must also be adapted to their age (Maulidina et al., 2018). Playstore is an Android application that contains various educational games that help children aged four to five years learn numbers, such as marbles. There are several options in the marble application that children can play with, such as numbers, letters, numbers with sounds, and so on. In addition, the classification of the game to be

used based on its purpose must be considered when selecting the game. Educational games are intended to foster children's interest in learning about subject matter and make it easier for them to understand it and also help children think critically (Alfah, 2020; Winarni et al., 2020). Android-based educational games are very flexible, they don't have a set time and place when they have to be played (Windawati & Koeswanti, 2021). Educational games are a very fun activity that can be educational and useful for improving children's language, thinking and social interaction skills (Kholida et al., 2020; Rekysika & Haryanto, 2019).

Previous research findings stated that educational games are games that contain learning content that helps teachers convey topics (Mustika, 2021). Educational games are designed or created to encourage students to absorb learning material while playing (Anggraheni et al., 2019; Priatna, 2018; Ramadhani et al., 2017). Marbel is an educational application that focuses on numbers specifically designed for children aged 2-8 years. Through this application, children can learn in a fun and interesting way. Thus, the application of Marbel numbers is very suitable as an object for research. This research aims to create learning media based on marble applications to develop analytical skills in children in group B, Gugus II, Gerokgak District. The aim of educational games is to improve thinking power, increase focus and solve problems.

2. METHOD

This research is research and development. Development research is defined as research that aims to change or give a new touch to a "product" that is designed and developed to increase effectiveness and progress in the learning process. This study focuses on developing learning media based on the Marbel application to improve analytical skills in children from Group B in Gerokgak District. The research model that will be used in this research is the ADDIE development model (Analysis, Design, Development, Implementation and Evaluation). This model is one model that can be used to develop effective learning. Which can produce interactive teaching materials that are adapted to the appropriate product manufacturing process. The stages of the ADDIE development model are analysis, design, development, implementation and evaluation. The development model is adapted to the development that will be carried out in the research. The validation instrument grid for material experts and analytical skills is presented in Table 1 and Table 2.

Table 1. The Material Expert Validation Instrument Grid

No.	Aspect	Indicator	Amount Item	Number Item
1	DesignLearning	Flexibility	3	1,2,3
2	Material	Material Contents	3	4,5,6
		Material Completeness	2	7.8
3	Benefit	Benefits for Children	5	9,10,11,12,13
		Benefits for Teachers	1	14
Total			**14**	

Table 2. The Analysis Capability Instrument Grid

Aspect	Indicator	Number of Items	Item Number
Knowledge	1. Give reasons why an answer or approach to a problem makes sense.	3	1,2,3
	2. Anticipate Correct Conclusions or Decisions from Relevant Information	1	4
Understanding	1. Make and evaluate general conclusions based on investigations or research	1	5
	2. Analyze the questions and provide examples that can support or contradict them	2	6,7
Application	1. Use supporting data to explain why the method used in the answer is correct.	2	8.9
	2. Make and evaluate conclusions or decisions from appropriate information.	1	10

(Bloom's Taxonomy 2001)

Product trials are carried out by reviewing learning application media to improve children's analytical skills to prove whether the learning marble application is effective or not. The marble application is designed to improve children's cognitive abilities by looking at problems in the learning process. In this research, researchers involved several experts to evaluate learning applications to determine their validity. The role of experts in this research is as objects of validity testing. In this development research, the type of data used is qualitative data, which comes from non-numerical information, such as criticism, statements and suggestions.

Data collection is a systematic procedure for obtaining data. The data obtained is used to support research. The data collection method used in this research is by using a questionnaire and assessment tool (assessment form). The selected assessment method uses assessment instruments to collect facts. This research uses a questionnaire as a tool. Children will be given a questionnaire that has been declared appropriate by experts for them to fill in according to the information they have experienced. To determine how effective the questionnaire is as a research tool, the questionnaire that has been designed will be tested before being used for research. Several factors, including validity, determine the quality of an instrument for assessing learning outcomes in the cognitive domain. Validity is a metric that proves the validity or suitability of a tool. This validity test is used to evaluate the suitability of the questionnaire used in the research, namely the parenting style questionnaire and child analysis. Apart from quantitative, data analysis in this research also uses qualitative descriptive data analysis. Qualitative descriptive analysis analyzes data in the form of sentences or words in a systematic way to produce broad conclusions. This analysis is used to improve children's analytical skills through developing marble application media. In this development research, qualitative descriptive analysis was used to collect data about expert input, responses or recommendations regarding product validity testing.

3.   RESULT AND DISCUSSION

Result

Game application "Marbel Fun Numbers"is the media used in this research. This app allows children to play while learning numbers, which in turn will impact their ability to analyze numbers. This research uses learning media development with the ADDIE development model, which consists of five stages: analysis, design, development, implementation and evaluation. Analysis stage, the initial stage of this research is carrying out an analysis stage of children's needs so that later the results of the initial analysis carried out by researchers can be used as a guide in developing learning media that is suitable for children. Analysis is the ability to describe or describe material and information into smaller components so that they are easier to understand. Based on the results of initial research, it was found that children still have difficulty recognizing numbers, distinguishing numbers, writing them back and analyzing numbers. This is due to the limited learning media used by teachers, so children have difficulty analyzing numbers. Apart from that, in the current generation Z era, parents have been introduced to the use of technology at an early age, so children will be more interested in learning using technology-based learning media such as games. Based on the results of the analysis and interviews, it was found that to increase children's interest in learning and improve their analytical skills in recognizing numbers, more interactive learning media based on games and accompanied by attractive images is very necessary. Based on this needs analysis, researchers used learning media in the form of the game application "Marbel Fun Numbers" to improve children's analytical skills in understanding numbers. Marbel Fun Numbers is a medium that will provide variation in the learning process. Marbel Fun Numbers is able to integrate sound displays, text, images, animation, films, music and interactive quizzes so that the information conveyed is more extensive and complex compared to conventional books, and learning games are also provided that can make children more interested in learning.

In the design stage, the design of the learning media in the form of the game application "Marbel Fun Numbers" has an initial display containing the game title, namely "Marbel Fun Numbers". The media that will be combined with the marble fun number media is Canva media, in the Canva media there is also the same game as the marble fun number and to fill in the sound on Canva, use inshot. In the initial appearance, this learning media is also equipped with cartoon displays in the form of trains, cartoon cats, children's cartoons, house views and aquarium designs. On the right side of the initial display there are several menus that children can choose from to learn other materials such as learning to speak English, learning to recognize letters and others. In the top right corner of the game's initial display there is a settings menu that can be used to adjust the sound of the game and the language used. Then the initial display is also equipped with a "Play" button which, if clicked, will go to a page of learning options that children can use. In the display design of the learning menu options, there is a cartoon of a child riding a train in a park. In each train carriage there are game or learning options that children can choose from.

Development stage (development), These are the results of the design development of the Marbel Fun Numbers application game learning media and the media that will be combined with the Marbel Fun Number media Canva. The initial display when the new application is opened, in this image you can see that the game display is designed with cartoon images that are suitable for young children. The initial display of the game is equipped with opening sounds and music which can also attract children's interest in learning. Then there is also a triangle-shaped button which is the "play" button to start the game. Apart from that, in the top right corner of the initial display menu there is also a settings button which is used to set the language used in the application, as well as whether the music is on or off. There is also a heart button which is the life of the player, where the heart value on this button will decrease if the player is unable to complete the existing mission and increases if he is able to complete the mission in the game. In the media image that will be combined with the marble application, namely Canva media, where in the initial display you can see that when opened, the media display can display the name of the game which is also equipped with music and sound on the initial display of the Canva media. The game menu display, in this display, is designed with a design similar to the initial display, namely a cartoon theme with a train and a child and colors that match the colors in the initial display, namely leaf green combined with sky blue. In this display there are various types of game options that teachers or children can choose from which are located in a train carriage driven by a boy. On the Canva media display there is a list of games that can be played on the Canva media. In each carriage in this menu, in the first carriage there is a writing menu. If the player clicks on it, the player will be asked to copy the writing that appears on the screen. In the second carriage there is a calculation menu, which if clicked the player will be asked to carry out calculations on sea objects that appear in the application. There is also a story book menu, where children will be given a story and then analyze the objects in the story. There are also puzzle, pattern and quick match menus which contain games related to analyzing numbers.

Number Writing Menu Display, in this number writing menu the player or child is asked to follow the dots in the application to form numbers that appear on the layer and on the Canva media display, namely recognizing numbers where there will be a question showing the number that corresponds to the question asked. It's on Canva media. The appearance of the writing number menu is different from the initial display and menu options display, this display is designed with a blackboard theme, under which there are stars, where the stars are the values given by the application for answers or numbers formed by children from dots. The On the left of the screen there is a left arrow to return to the game's start menu, there is also a colored pencil to determine the color of the writing in the application. On the right of the screen there is a 123 button which is used to determine the number to be written, and a speaker button to turn on the sound in the application. The counting menu display, this menu has a display with a marine theme, where players or children can choose the type of fish or other marine life to be displayed on the screen, where these choices are on the left and right sides of the display, while on the middle side is Biodata Seathat players have to count. On the counting media on Canva, there is a picture of apples that will be added up, on the Canva media there are questions that will be answered according to the commands on the Canva media. In this menu, children are invited to calculate numbers from 1 to 9. On the left side of the screen there is a left arrow to return to the game's initial menu, and there is also a choice of sea animals that can be changed. On the right side of the screen there is also a choice of sea animals that can be changed. There is also a heart button which is the life of the player, where the heart value on this button will decrease if the player is unable to complete the existing mission and increases if he is able to complete the mission in the game.

Storybook view, in this view the player or child will be given a picture with a story, then if you click on any place to eat it will appear. In the picture, children are asked to analyze which fruits are the same, which fruits are no longer good, which fruits have the same color and so on, then the children have to separate the fruits into a container. At the bottom there is a star button which is the value obtained by the player. On the left side of the screen there is a left arrow to return to the start menu of the game. The puzzle menu display is the same as the initial display and the game menu options display, namely a park with a train and a child. In this menu, players will be asked to match the numbers running on the reel, by drawing the numbers on the train car driven by the boy. For example, if the number 8 appears on the reel, then the child must draw the number 8 on the train carriage the boy is driving, then place it on the number on the reel. On the left side of the screen there is a left arrow to return to the start menu of the game, there is also a heart button which is the player's life, where the value of the heart on this button will decrease if the player is unable to complete the existing mission and increases if he is able to complete the mission which is in the game. The appearance of this pattern menu is also similar to the initial appearance and appearance of the game menu options, namely a park with a train and a child. In this menu the player will be asked to draw one of the numbers on the carriage under the train that matches the number pattern on the train carriage the child is driving. On the left side of the screen there is a left arrow to return to the start menu of the game, there is also a heart button which is the player's life, where the value of the heart on this button

will decrease if the player is unable to complete the existing mission and increases if he is able to complete the mission which is in the game. The appearance of the quick quiz menu is slightly different from the initial display and the display of the game menu options, namely the background is a park but there is no train and no child. In this menu, in the column there will be fruit, children are asked to choose the number on the tree below that corresponds to the number of fruit that appears in the box. On the left side of the screen there is a left arrow to return to the start menu of the game, there is also a heart button which is the player's life, where the value of the heart on this button will decrease if the player is unable to complete the existing mission and increases if he is able to complete the mission which is in the game.

Implementation stage, at the implementation stage a trial was carried out using the Marbel Fun Numbers Game application with children in group B group II, Gerokgak District. After the trial is carried out, an assessment will be given by two experts who are teachers of Early Childhood Education Group B, Cluster II, Gerokgak District to see whether the Marbel Fun Numbers game application is suitable for use or not. Based on the calculation results, the CV value obtained for the feasibility of the Marbel Fun Numbers game application to develop analytical skills in children in Group B Group II, Gerokgak District, is 0.71, which is a value included in the high validity category, so it is based on the assessment of experts in the Marbel Fun Numbers game application. Suitable for use in developing analytical skills in group B group II children, Gerokgak District. Evaluation Stage (Evaluation) Based on the stages of implementation, the use of the Marbel Fun Numbers game application to develop analytical skills needs to be evaluated. In the evaluation stage, final revisions are made to the product developed based on suggestions and input from experts and users provided during the implementation stage. There are several suggestions given by experts, namely that in terms of the design of the marble fun numbers game application, it has an appearance that is easy for children to understand. The color combination in the marble fun numbers game application is harmonious, and the writing used in the marble application is easy to read. In terms of material, the material presented in the Marbel Fun Numbers game application is appropriate for the age level and easy for children to understand, and the order of presentation of the material in the application is also in accordance with learning indicators at the early childhood level, so it is suitable for application. to improve analytical skills, especially for young children, but in terms of completeness of material, the material presented in the marble fun numbers game application is still limited to only 9, it would be even better if it could display numbers up to 10 or more.

In terms of the benefits brought about by the use of this application in children's learning, by using the marble fun numbers game application, it has been able to attract children's interest in learning numbers, because they can learn while playing, apart from that, this application is also able to improve their abilities. Children's analysis in learning numbers and children better understand the differences between numbers. Expert II shows that overall, in terms of design, the Marble Fun Numbers game application is very good. In terms of design, the brightness of the colors is also very good, it is also able to attract children's interest in learning, and the music and background along with the images in the application are liked and suitable for young children. Based on the material presented, it is able to improve children's analytical skills and also the material presented is packaged in an attractive form, so that this learning method will be able to attract children's interest in learning and children will be able to easily analyze the shape of numbers, but the order of the material presented in The marble application is not very suitable for learning indicators at the PAUD level. Especially in pattern games, it is too difficult for young children. In terms of benefits, using this application is suitable for young children, because they can explore in the games presented in the application, so this will be able to improve children's analytical skills regarding numbers. Based on these suggestions, it is necessary to re-evaluate the use of the marble fun numbers game application to develop children's analytical skills. In the game application used, it is necessary to add number features so that children are better able to recognize numbers and numbers. Apart from that, the use of game patterns contained in the application is too difficult for young children to understand, so it is necessary to consider its use in learning so that children do not feel confused in answering the game questions in the application.

Discussion

Based on the results of the needs analysis, it was found that children in group B RA Miftahul Huda, Gerokgak Village, Gerokgak District, have a need for interactive learning media to help children analyze numbers, this is because using books and paper alone does not make children interested in learning. Children who are taught using books only lose focus more easily and feel tired in learning so they are unable to develop their analytical skills regarding numbers, so more interactive learning media such as the Marbel Fun Numbers game application is needed to improve children's analytical skills. Using this game is felt able to develop children's analytical skills. The effectiveness of using the Android-based educational game Marbel Numbers as a medium for introducing numbers to young children in the village. Educational games are a very fun activity that can be educational and useful for improving children's language, thinking and

social interaction skills (Septiyani & Ratama, 2023; Sulthoni & Ulfa, 2019). Using media in this learning process that is very varied and not monotonous is one way to make students more focused. It also helps teachers convey concepts more easily and effectively. The results of this research show that the learning process with the Android-based Marbel Figures educational game went well and children's abilities increased.

Learning using this marble application, children are better able to differentiate, recognize and name numbers, for example, some children previously had difficulty distinguishing and recognizing numbers 2 and 5, but after learning with this marble application, children found it easier to differentiate them. This is because there are attractive visuals that are easy for children to remember and understand. Apart from that, the presence of audio that children can listen to makes them able to recognize and say numbers fluently. This marble application also provides number writing games where children are given a number form containing dots, then the child can follow the dots. Writing numbers on this application makes children more interested than writing using paper alone. This is because in the marble application children are given visual numbers in an attractive form accompanied by cute background images appropriate to the child's age, as well as music that he can hear. In terms of using the application, children don't have too much difficulty in using it, especially today's children who have been familiar with gadgets from an early age. Apart from that, in the application, children will also be guided by the application using audio visuals, and the symbols used in the application are packaged with attractive images and match the images they often see in everyday life so that they do not experience difficulties in using the application (Arisantiani et al., 2017; Purnami & Suarni, 2021; Wibawa et al., 2018).

One of the educational games in the series titled "Marbel Numbers" is available on play store. Let's learn what the abbreviation for "marble" is. One of the marble games that teaches children the numbers 1 to 100 in a fun way (Janah, 2021). Apart from that, this marble application will be combined with Canva media, this Canva media has the same game as Marbel and to fill in the sound on Canva you use Inshot. The Marble application has images that suit children's characters. Because this coloring application uses bright colors, children may be more interested in using it. The learning design using this game means that children are assisted by their teachers and parents to use this application. In the early stages, children are taught to follow the number patterns in the application. If the numbers they draw match the existing pattern, then they will be given lots of stars by the application. There are also games for counting sea animals, in these games children are trained to develop counting skills and recognize numbers. There are also storybook games where children are asked to separate the same fruit in the same place or separate the fresh fruit from the container (Gang et al., 2016; Widarto et al., 2021). So children are trained to analyze and differentiate. Children will have better analytical skills if they use puzzle and grouped games. There are also number puzzle games that can help children develop their analytical skills, because in this game children will be asked to match the numbers on the train reel with the numbers on the train carriage. Furthermore, there are also pattern games, these pattern games are also able to train children's analytical skills because in this game children are asked to draw the next number according to the number pattern that is already in the previous train carriages. The final game in the marble fun numbers application is a counting quiz, where children will be asked to count the number of fruits in a rectangle, then choose the number that corresponds to the number of fruits on the screen.

The marble fun numbers game application is suitable for use in developing analytical skills in group B group II children in Gerokgak District. Using the marble fun numbers application in classroom learning to develop children's analytical skills. This finding is strengthened by previous research findings stated games. Education is a game that contains learning content that helps teachers convey topics (Mustika, 2021). Educational games are designed or created to encourage students to absorb learning material while playing (Anggraheni et al., 2019; Priatna, 2018; Ramadhani et al., 2017). However, this game has limitations, namely the quizzes used are too monotonous, so if it is used too often by children it can make children feel bored when playing it. Apart from the puzzle games presented in the games, they are too difficult for young children to understand. So children are confused about the puzzle game menu in the application. The implications of this research are that teachers can use creative and innovative learning media to improve children's analytical skills and understanding of the material provided.

4. CONCLUSION

The marble fun numbers game application is suitable for use in developing children's analytical skills. So the marble fun numbers game application is effective to use. Teachers should also be able to utilize technology in this digital era, because children are more interested in using technology. Further development of other learning media such as learning media to train children's language skills or development of learning media to train children's motor skills or other abilities. Future research should

carry out further development regarding other learning media such as learning media to train children's language skills or developing learning media to train children's motor skills or other abilities.

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