

DIGITAL TECHNOLOGY AS A LEARNING MEDIUM IMPLEMENTED IN EARLY CHILDHOOD EDUCATION PROGRAMS (A CASE STUDY AT KINDERGARTEN PLUS OF AL GEBRA BANDUNG)

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Abstract

This research is motivated by digital technology being a challenge in the field of education in this modern era. Intracurricular learning activities are designed so that children can achieve the abilities stated in the learning outcomes. The essence of intracurricular learning activities is meaningful play as an embodiment of "Freedom to Learn, Freedom to Play". Face-to-face teaching can be handled virtually with just a videophone, teleconferencing used for digital learning. This research was carried out at TK Plus Al Gebra Bandung. Researchers use qualitative research. A qualitative approach is a research procedure that produces descriptive data about people's behavior and written or spoken words. The aim of this approach is to find truths that can be accepted by human common sense. The research method used is the case study method. The case study method allows researchers to gain an in-depth understanding of a particular phenomenon or case being researched. By focusing on one or a small group of cases, research can explore the factors that influence the phenomenon as a whole. This research can be concluded that if applied wisely, digital technology can help and improve learning in PAUD. However, its success relies heavily on careful planning, strong support, and active involvement from everyone involved. Technology in PAUD is not just about incorporating digital tools into the classroom, but also about creating learning environments that are innovative, inclusive and encourage children's development.

Keywords: Digital, Technology, Instructional Media.

INTRODUCTION

Digital technology is a challenge in itself in the field of education in this modern era. Attachment I to Minister of Education and Culture Decree no. 262/M/2022 concerning amendments to Minister of Education and Culture Decree no. 56/M/2022 concerning guidelines for implementing the curriculum in the context of learning recovery in point A.1 regarding the curriculum structure in PAUD on intracurricular learning activities states "Intracurricular learning activities are designed so that children can achieve the abilities stated in the learning outcomes. The essence of intracurricular learning activities is meaningful play as an embodiment of "Freedom to Learn, Freedom to Play". The activities chosen must provide an enjoyable experience and be able to improve children's achievements. Activities need to be supported by the use of real learning resources that exist in the environment around the child. Learning resources that are not available in real life can be provided with the support of digital technology. According to Wibowo (2023:1), digital technology is technology whose operation no longer requires a lot of human power and aims to use an automatic system with a computer system. In the educational context, digital technology facilitates quick access to new information and other special matters. Face-to-face teaching can be handled virtually with just a videophone, teleconferencing used for digital learning. In their journal (Burumi & Watini,

2022) states that "In entering the modern era teachers must be more creative in using various varied learning methods in the learning process inside and outside the classroom". One way that teachers must do in relation to this statement is to use digital media in the learning process. Teachers must think smartly so that the teaching and learning process is more varied by choosing the learning media used in accordance with current technological developments.

Early Childhood Education (PAUD) is one of the government's efforts to educate the nation's life and develop the whole person. Law Number 20 of 2003 concerning the National Education System in Article 1 Paragraph 4 of 2003 states that PAUD is a coaching effort aimed at children from birth to six years old. This is done through providing educational stimuli to help children's physical and spiritual growth and development so that they are ready to enter a further stage of education. Cultivating a strong foundation in early childhood is a strategic effort in building future human resources who have strong character, master multi-skills of the 21st century, have certified competencies, are elastic and lifelong learners, have an innovative and entrepreneurial spirit, and become a global citizen. The strength of this strong foundation must be built in line with advances in the technological and digital era. Therefore, it is very relevant if learning and use of digital technology and digital literacy are part of PAUD. The use of digital technology can be used as a learning resource for teachers and children as well as documenting children's growth and development. Apart from that, digital technology can play a role in developing learning systems. This is caused by the conventional learning system which must gradually be assimilated to make maximum use of digital technology. Currently, various learning delivery formats that utilize digital technology have developed, such as online learning, as well as a combination of face-to-face and online learning (hybrid classroom). In achieving learning objectives the role of the teacher is very important. In the process of educating children, teachers cannot be separated from technology. "Teachers are not a single source of information, but information can be obtained from various sources. One of them is the use of technology" (Nureda & Watini, 2022). The choice of learning media in an educational institution can be adjusted based on current developments. The use of technology is one option for educational institutions to use as an innovative learning media so that through this learning media they can develop children's intelligence optimally.

Trifiana (2024) said that learning media is very important for young children because they are not yet able to understand things that are abstract or cannot be captured by their five senses. Media can make learning more real, making it easier for children to digest. The benefits of using learning media for early childhood are as follows:

1. Attract children's attention by using learning media. At first, they may be interested in seeing the colors and shapes seen in the media, as well as other things, which make them interested in the material that will be presented.
2. Clarify learning content and messages: Learning media has a significant impact on children's senses in understanding the material. This is due to the fact that this media allows children's senses to perceive messages in a real and concrete way, so that the material conveyed is clearer and more detailed. For example, for the theme "animals" and the

subtheme "wild animals", teachers can use pictures, videos, or miniatures of wild animals to allow children to see and learn about them.

3. Overcoming limitations of time, space and energy. Not all learning can be provided directly by the teacher in class. If we want to show an example of a tiger, we should not bring it into the classroom because it will endanger students' safety. Likewise, with limited time and space, all these problems can be overcome by using media. Children have abilities such as seeing a tiger even though they have never seen one, recognizing the shape of an elephant without seeing it directly, and many more.
4. Learning becomes more interactive. If there is media that is interesting, colorful and varied. This can make children more involved, active, free to explore, and try new things in learning activities through play. Apart from that, learning becomes more interactive because with media there is active two-way communication, whereas without media teachers tend to only speak in one direction.

The nature of learning technology is actually as a tool that should make it easier and even provide a way for children to learn what they don't know, and experience exciting learning experiences for themselves with their independence. According to research conducted by Al Ayubi (2022), technology can not only have a good impact on children, but can also have a bad impact if it is not used properly, such as poor quality content. Furthermore, according to Yunita in her journal, the implications of digital era technology for educational transformation (2023). Another problem in using digital technology is the lack of technological accessibility. Not all PAUD children have the same access to devices and internet connectivity, resulting in gaps in accessibility in learning opportunities. Children from low economic backgrounds or remote areas may face accessibility barriers.

Other problems occur in the implementation of the use of digital technology in learning in Early Childhood Education (PAUD):

1. Curriculum. Educators are still adapting to the use of this independent curriculum so they are still looking for activities that suit children's needs.
2. Human resources. Not all PAUD educators have adequate training or understanding in the use of digital technology. Lack of PAUD teacher qualifications can affect teaching effectiveness. Many early childhood education teachers may need training to integrate technology into learning.
3. Infrastructure. Not all PAUD institutions have digital media devices that can be used for learning activities in their schools.
4. Inadequate technological infrastructure. Educational institutions must prepare infrastructure such as internet connections and electricity which is an obstacle in implementing digital technology as a learning medium, because installing an internet connection requires quite a lot of funds.
5. Parents. Parents are worried that if their children watch a lot of YouTube, it will be difficult for them to socialize with their environment

The problems above are interesting to research, so the following research title emerged: "Implementation of the Use of Digital Technology as a Learning Media in Early Childhood Education (Case Study at Kindergarten Plus Al Gebra, Bandung Regency)". Kindergarten Plus Al Gebra was taken as the research object because after the researchers observed, this kindergarten uses digital technology as a daily learning medium. For this reason, researchers are interested in conducting research at Kindergarten Plus Al Gebra with the aim of finding out the implementation of the use of digital technology as a learning medium in early childhood education at the Kindergarten.

THEORETICAL BACKGROUND

1. Quality Management

Quality Management in the world of education refers to a series of strategies, policies and processes implemented by educational institutions to ensure that the education provided is of high quality and in accordance with established standards. This involves managing and regulating various aspects of education, including curriculum, teaching and learning processes, student evaluation, development of teaching staff, as well as stakeholder involvement. (Burnham and Garry Squires, 2010).

Deming Quality Management was developed by W. Edwards Deming, a leading statistician and quality expert, is an iterative approach to process improvement and management that aims to improve the quality and performance of products or services which consists of four main stages, namely Planning (Plan), Implementation (Do) , Inspection (Check) and Follow-up (Act). Therefore, the PDCA cycle is also known as the Deming cycle, Shewhart cycle, or control cycle. There are four stages of the PDCA Cycle, namely:

- a. Plan (Planning): This stage involves planning the final goal and the process that must be followed to achieve it. Things that need to be considered at this stage include: 1) Defining the problem you want to solve; 2) Set clear and measurable goals; 3) Identify the root cause of the problem; 4) Develop solutions to address the root causes of problems; 5) Create an implementation plan.
- b. Do (Implementation): This stage involves implementing the planned solution. Things that need to be done in this stage include: 1) Implementing the solution; 2) Monitoring processes and results; 3) Make adjustments if necessary.
- c. Check: This stage involves evaluating the results of implementing the solution. Things that need to be done at this stage include: 1) Comparing actual results with goals; 2) Identify areas that need improvement.
- d. Act (Follow-up): This stage involves implementing the evaluation results for continuous improvement. Things that need to be done in this stage include: 1) Based on the results of the evaluation in the previous stage, make decisions about what actions need to be taken to improve the process or achieve goals. This may involve plan changes, process adjustments, or larger improvements; 2) Monitoring the effectiveness of improvements. take action based

on the evaluation results obtained at the "Check" stage. 3) If the results meet expectations, this step involves taking preventative action to maintain improvement. However, if the results do not meet targets, then corrective action must be taken to address the problem and improve the process or system.

The PDCA cycle is a very useful tool in quality management and continuous improvement. It provides a systematic framework for identifying problems, testing solutions, and ensuring that necessary changes are made effectively. This cycle also promotes a culture of continuous learning and improvement within the organization. This method can help us to think systematically and plan in solving problems.

2. Early Childhood Education (PAUD)

Early childhood education (PAUD) has an important role in shaping children's character and potential from an early age. Kindergarten (TK) is an early childhood education institution that provides the first learning experience for children and is the first formal educational institution for children before entering primary education. The quality of learning in kindergarten plays a very important role in shaping the six aspects of education for early childhood (moral religious values, physical motor skills, language, cognitive, social and artistic) because this is where the basis for the formation of children's character, attitudes and learning abilities begins to be formed.

3. Digital Technology

The word "digital" comes from the Latin word "digitus", which means finger and refers to one of the oldest computers in the world. When information is stored, it is transmitted in digital form and then converted into numbers at the simplest machine level. Digitalization is a type of change from analog mechanical and electronic technology to digital technology. This form of digitalization was launched in the 1980s and continues to this day. The history of modern digital technology can be traced back to the discovery of semiconductors, Faraday's material of choice for computer chips at the end of the 19th century. Digital is the modernization or renewal of the use of technology, often associated with the presence of the internet and information technology. Where everything becomes possible with advanced devices to make things easier for people. Technological development is influenced by three factors, namely: (1) Digital transition, (2) Network convergence, meeting the needs of local people. And (3) Digital infrastructure. Wibowo (2023:2).

Digital technology is technology that no longer uses human power or manual work, but aims to work automatically with a system or format that is read by a computer. Basically, digital technology is just a very fast computing system that processes all types of information as numerical values Wibowo (2023:6). Digital technology uses digital signals as a representation of data exchange via communication media such as cables and wireless. Data in the form of characters, namely letters, numbers and symbols, sounds and images, is converted or converted into digital signals so that they can pass through transmission media.

Advantages of digital technology: 1) The transmitted data is stored from one place to another and will not be affected by bad weather or certain noise because the data is transmitted in the form of a digital signal; 2) Different communication systems can be connected to each other; 3) Device maintenance costs are cheaper and easier.

Disadvantages of digital technology: 1) Errors that can occur when converting analog signals to digital (digitization); 2) Hackers or viruses can steal digital information; 3) Creates over-dependence in users, which can seriously affect their empathy and social skills.

Examples of devices that use digital technology or signals: 1) Digital thermometer; 2) Computer; 3) Laptops; 4) Tablets; 5) Cell phone; 6) Digital radio

Digitalization of education is the utilization of technology as an aspect of the learning system, starting from the curriculum to the education administration system (Gumelar, 2020). The scope includes utilization, management, development, assessment as well as the scope of learning forms. Digital-based learning can of course be applied in various educational sciences, where the learning process requires the role of a teacher or educator who supports it (Trisiani, 2020).

Technology does not only include the use of hard technology, but also soft technology related to learning planning, innovative learning models for PAUD and other supporting skills. These soft technologies include: Microsoft Office applications, Canva, YouTube.

RESEARCH METHODS

Researchers use qualitative research. A qualitative approach is a research procedure that produces descriptive data about people's behavior and written or spoken words. The aim of this approach is to find truths that can be accepted by human common sense. The research method used is the case study method. The case study method allows researchers to gain an in-depth understanding of a particular phenomenon or case being researched. By focusing on one or a small group of cases, research can explore the factors that influence the phenomenon as a whole.

The data analysis technique carried out in research on the implementation of the use of digital technology as a learning medium in early childhood education is descriptive analysis. The method is to summarize and summarize the qualitative data collected in case study research. The aim of descriptive data analysis techniques in qualitative research using the case study method is to systematically organize data collected through observation, interviews and documentation studies.

This process includes providing explanations and observations, organizing data into certain categories, compiling patterns, choosing what is important and studied, and making conclusions so that they are easily understood by the researcher himself and others.

RESEARCH FINDINGS AND DISCUSSION

1. Research Findings

Learning using digital media has begun to be implemented at Kindergarten Plus Al Gebra since 2022. In 2023, the curriculum used is the independent curriculum, which is in accordance with Appendix 1 of the Minister of Education and Culture, Research and Technology Decree No. 262/M/2022 concerning guidelines for implementing the independent curriculum, containing the curriculum structure for PAUD (TK/RA/BA, KB, SPS, TPA) states that "Learning resources that are not actually available can be provided with the support of technology and children's reading books". From the results of observations, interviews and documentation studies conducted by researchers at TK Plus Al Gebra, researchers obtained several findings as follows: a) Curriculum. The new curriculum implemented in the 2023-2024 academic year is the independent curriculum. Educators are still adapting to the use of this independent curriculum so they are still looking for activities that suit children's needs; b) Human resources. Of the eight teachers who teach, only one teacher really masters the use of digital media, so that if there are teaching and learning activities where the teacher has not yet mastered digital technology, then the teacher will ask for help from other teachers to operate the tool, so this is indirectly will directly disrupt the teaching and learning process in the class; c) Infrastructure. The facilities used for learning using digital media at TK Plus are in the form of hardware, namely, one smart TV unit, one laptop unit, one infocus unit, and one tablet unit.

Meanwhile, the software used is Canva, YouTube channel, Microsoft Office (especially Power Point), Cap Cut and Inshot which are used to make videos. TK Plus Al Gebra has four classes consisting of 2 (two) TK A classes and 2 (two) TK B classes. One smart TV unit which is only owned by TK Plus Al Gebra makes learning activities very difficult because the use of the television must be scheduled and the television It must be moved from one room to another room that requires the television. It is feared that if there is only one television, teaching and learning activities in each class will be delayed. Teachers wait their turn to use the television and are worried that the television will quickly break down. Infocus digital media is rarely used because the image quality is not as good as smart TVs. Digital media tablets and laptops are used for one-on-one learning, where the teacher shows a picture and the children are asked to come forward to look carefully at the picture on the laptop and tablet; d) Inadequate technological infrastructure. Sometimes unstable internet connections and power outages become obstacles in the application of digital technology as a learning medium, because when teaching and learning activities are being carried out and suddenly the internet connection is interrupted or the power suddenly goes out; e) Parents. Parents are worried that if their children watch YouTube at school, they will get carried away at home. And it is feared that children will find it difficult to socialize with their environment.

2. Discussion

The main focus of this research is the implementation of the use of digital technology as a learning medium in early childhood education. One important step to improve the quality of education in the early stages of children's development is to use digital technology as a learning

tool. Discussion regarding the implementation of the use of digital technology as a learning medium in early childhood education at Kindergarten Plus Al Gebra using a qualitative approach. Quality management developed by W. Edwards Deming is an iterative approach to process improvement and management which aims to improve the quality and performance of products or services which consists of four main stages, namely Planning, Implementation (Do), Inspection (Check) and Action Continue (Act).

From Deming's theory, quality management in the implementation of the use of digital technology as a learning medium in early childhood education at Kindergarten Plus Al Gebra is divided into four stages, namely:

a) Planning for implementing the use of digital technology as a learning medium in early childhood education at Kindergarten Plus Al Gebra. The planning process (Plan) for implementing the use of digital technology as a learning medium in early childhood education at TK Plus Al Gebra includes four main stages, namely: 1) Identifying the problems that occur. Through the initial stage of identifying problems that occurred at Kindergarten Plus Al Gebra and conducting an in-depth analysis of the use of digital technology as a learning medium, several problems were identified as follows: a) The TK Plus Al Gebra teaching staff are still adapting to the use of the newly implemented independent curriculum in the 2023-2024 school year so they are still looking for activities that suit their children's needs; b) Lack of educators at Kindergarten Plus Al Gebra who master the use of digital media and can integrate technology in learning; c) Lack of facilities in the form of a smart TV at TK Plus Al Gebra which can be connected to an internet connection, making learning activities difficult because the use of the television must be scheduled and used alternately. Technological infrastructure in the form of an internet connection at TK Plus Al Gebra which is sometimes unstable and power outages are an obstacle in the application of digital technology as a learning medium, because when teaching and learning activities are being carried out and suddenly the internet connection is interrupted or the electricity suddenly goes out; e) Parents of Kindergarten Plus Al Gebra students who are worried about their children's condition will find it difficult to socialize with their environment. Setting Clear Goals and Objectives. Based on the results of identifying problems that occur, clear goals and targets are created to increase the effectiveness of early childhood learning through the use of digital technology. The objectives include: 1) TK Plus Al Gebra creates a curriculum that can integrate the independent curriculum and technology and increase children's involvement in the learning process; 2) TK Plus Al Gebra improves the skills of teaching staff in developing interesting learning materials; 3) There is a smart TV in every classroom so that learning activities can be more effective at Kindergarten Plus Al Gebra; 4) TK Plus Al Gebra strengthens infrastructure in the form of stable internet access and continuous electricity supply during teaching and learning activities; 5) Kindergarten Plus Al Gebra Invites parents to participate in educating their children. Planning the steps necessary to achieve the goal. Concrete steps are designed to achieve the goals and objectives set above. This planning includes, among other things: 1) TK Plus Al Gebra creates a curriculum that can integrate the independent curriculum and internal technology and increase children's involvement in the learning process by designing and developing learning content that is in accordance with the independent curriculum by taking into account the child's growth and

characteristics; 2) TK Plus Al Gebra improves the skills of teaching staff in developing interesting learning materials through training related to the use of digital media; 3) TK Plus Al Gebra has added facilities in the form of smart TVs in each classroom so that learning activities can be more effective; 4) TK Plus Al Gebra allocates investment to move infrastructure in the form of unstable internet access because the reach is quite far from classrooms and electricity is always on; 5) TK Plus Al Gebra collaborates with parents to participate in educating their children through digital media. Collection of Relevant Data and Information. Data and related information will be collected through various methods, including observation, interviews and surveys. Data will be analyzed comprehensively to evaluate the effectiveness of implementing the planned steps. The data collected includes: 1) Creating a curriculum that can integrate the independent curriculum and technology media at Kindergarten Plus Al Gebra; 2) TK Plus Al Gebra provides training in the use of digital media for teaching staff to develop interesting learning materials; 3) The Head of Kindergarten Plus Al Gebra looks at the effectiveness of adding facilities in the form of smart TVs in each classroom so that learning activities can be more effective; 4) The Head of Kindergarten Plus Al Gebra monitors the extent to which stable internet access and continuous electricity ensures learning runs smoothly; 5) The Head of Kindergarten Plus Al Gebra invites parents to play a role in educating their children. In the planning process (Plan) for implementing the use of digital technology as a learning medium, researchers saw that the head of kindergarten, deputy head of kindergarten and the TK Plus Al Gebra curriculum team designed a curriculum that integrated digital technology in learning activities, created a teacher training schedule for operating digital tools and later apply it in the learning process and plan for the procurement and installation of the required technological infrastructure. The next step is for the Head of Kindergarten, deputy head of Kindergarten and the Kindergarten Plus Al Gebra curriculum team to choose the technology and digital learning content that best suits the goals and needs that have been identified. This technology can consist of software (such as educational games and learning applications) and hardware (such as tablets, smart TVs or computers).

b) Implementation (Do) of the use of digital technology as a learning medium in early childhood education at Kindergarten Plus Al Gebra. The implementation process (Do) related to the implementation of the use of digital technology as a learning medium in early childhood education includes three main stages, namely: a) Implementing the plans that have been made. The planning program that has been created is implemented in stages, starting from testing the learning materials that have been prepared to training teachers in the use of digital technology. This program was carried out carefully and planned to ensure the readiness of all elements involved in implementing the use of digital technology as a learning medium. The programs implemented are as follows: 1) Kindergarten Plus Al Gebra teaching staff carry out learning activities with learning materials using digital technology media; 2) TK Plus Al Gebra carries out regular training on the use of digital media for teaching staff to improve their skills and abilities; 3) TK Plus Al Gebra purchased facilities in the form of smart TVs in each classroom; 4) TK Plus Al Gebra is moving infrastructure in the form of internet access so that it is hoped that it will be stable and ensure that electricity continues to flow so that learning activities run smoothly; 5) TK Plus Al Gebra held a parenting event that explained the benefits and value of

technology in education and how to support children's learning at home. The aim is to help ensure a consistent and supportive environment for technology-mediated learning for children;

b) Make Necessary Changes or Actions. During the implementation process, there may be adjustments and changes to the plans that have been made. For this reason, Kindergarten Plus Al Gebra teaching staff must be responsive to the dynamics that occur and ready to make the necessary changes or actions to ensure smooth implementation. These adjustments and changes include:

- 1) Adjusting learning content according to children's responses and needs. Kindergarten Plus Al Gebra teaching staff must be ready to make changes and adjustments to learning materials according to children's responses, and make technical improvements to the digital learning platform;
- 2) Improving training methods for teaching staff, the Head of Kindergarten Plus Al Gebra must be able to see whether training for teaching staff is sufficient or needs to be improved;
- 3) TK Plus Al Gebra must optimize the use of hardware such as smart TVs and software such as applications used to support learning activities;
- 4) Increased parental involvement in supporting technology-based learning at Kindergarten Plus Al Gebra;

c) Monitoring and collecting data during the implementation process. Data collection and monitoring is carried out regularly to assess implementation progress and identify areas that require improvement. Monitoring is carried out to find problems or obstacles that may arise during implementation, while data collection is carried out to obtain information needed for further evaluation and improvement. This step is very important to ensure that implementation goes according to the plans and objectives that have been set. The data collected covers various aspects, namely:

- 1) TK Plus AL Gebra teaching staff must see how students participate, the level of understanding of the material and students' positive responses to the learning material provided by the teacher;
- 2) The principal of Al Gebra Kindergarten must see the teacher's response to the training provided, whether it is sufficient or not;
- 3) The Kindergarten Head monitors the use of smart TVs in each class and collects data related to obstacles that arise during the use of the smart TV;
- 4) The Kindergarten Head ensures that the internet signal and electricity supply are always stable.

From collecting data and monitoring the teaching and learning process, researchers see that the implementation of the use of digital technology as a learning medium has a significant impact on the learning process of early childhood. One of them is an increase in children's involvement in the learning process, which is proven through the high level of children's response and participation in learning materials presented through digital technology. The children were very enthusiastic about teaching and learning activities using smart TVs, laptops and tablets. Usually the use of in focus is used together with the use of a laptop. After being given training on the use of digital media, teaching staff also proved to have improved teachers' skills in managing digital learning. Kindergarten plus Al Gebra educators are increasingly skilled at creating various learning materials. The use of digital technology as a learning tool in PAUD includes the use of educational applications, interactive games, and digital learning materials. This tool is used by teachers to teach basic concepts such as numbers, letters, colors, and shapes. They also learn social skills through activities that involve collaboration with digital devices.

c) Examination or evaluation (Check) of the implementation of the use of digital technology as a learning medium in early childhood education at Kindergarten Plus Al Gebra. The evaluation process for implementing the use of digital technology as a learning medium at Kindergarten Plus Al Gebra is the key to assessing the effectiveness of the steps taken in the implementation process. This evaluation stage includes the following steps: a) Evaluate the results of the steps taken; b) After implementing various steps in using digital technology as a learning medium in early childhood education at Kindergarten Plus Al Gebra, it is necessary to evaluate the results that have been achieved. This evaluation will include: 1) Review of the concrete results of the application of digital technology as a learning medium which includes the level of children's participation, the response of teaching staff to enthusiasm for learning, and the effectiveness of the learning materials presented by teachers. The TK Plus Al Gebra teaching staff are enthusiastic about creating teaching materials using digital media because they see the enthusiasm of the children in learning activities at TK Plus AL Gebra. For example: students can see directly the life cycle of a butterfly through a video shown by their teacher via smart TV or tablet. There was a sense of amazement in their eyes when they saw the broadcast; 2) Evaluation and reflection are the end of the learning implementation process. Teachers assess how effectively technology is used to achieve learning goals and collect children's responses about their learning experiences. Furthermore, this data is used to change learning methods at the follow-up stage (Act). Kindergarten Plus Al Gebra educators take notes regarding learning activities to see to what extent the use of digital technology increases children's enthusiasm for learning; 2) Comparing actual results with predetermined goals. Comparing the results that have been achieved with the goals that have been set at the planning stage is very important to assess the extent to which the application of digital technology as a learning tool has succeeded in achieving the goals that have been set. This comparison helps assess whether the implementation has gone according to the plan that was made previously. Identify differences, problems, or obstacles that may arise. The Kindergarten Head, Deputy Kindergarten Head and the Al Gebra Kindergarten Curriculum Team compared the results of the Al Gebra Plus Kindergarten learning activities with the plans that had been made previously. From the results of this comparison, researchers can draw the conclusion that the implementation of the use of digital media for learning activities is in accordance with planning. Each AL Gebra Plus Kindergarten teacher gets the freedom from the school to create their own creativity to attract children's enthusiasm for learning; c) Analyze data and information to determine whether the changes that have been made are effective. To find out whether the use of digital technology as a learning tool is effective, the data and information collected during the evaluation process will be carefully analyzed. This analysis will be the basis for evaluating the success of the actions taken and making recommendations for future improvements.

d) The results of the evaluation of the implementation of the use of digital technology as a learning medium at TK Plus Al Gebra show that the corrective steps taken by the head of Kindergarten Plus Al Gebra were able to have a positive impact on the implementation of the use of digital technology as a learning medium. The changes that educators have made, such as adjusting learning materials, have increased children's enthusiasm for learning. Additional training for teachers has proven effective in improving the quality of teaching staff in the

teaching and learning process; d) Follow-up (Act) on the implementation of the use of digital technology as a learning medium in Early Childhood Education at Kindergarten Plus Al Gebra. After evaluating the implementation of the use of digital technology as a learning medium, the next step is to take action based on the results of the evaluation. This process includes the following four stages: Take action based on evaluation results. If the evaluation results show that the steps taken have succeeded in achieving the goals, these steps will be maintained and implemented regularly in early childhood learning. If the results meet the goals, maintain the steps that have been implemented. The evaluation results show that the teaching and learning activities carried out by educators using technology are in accordance with the plans made by the kindergarten principal, deputy kindergarten principal and the curriculum team. Evaluation includes: a) Kindergarten Plus Al Gebra teaching staff have created teaching materials with their creativity in making teaching materials using educational applications so that children are enthusiastic about learning using digital technology media; b) TK Plus Al Gebra develops and provides comprehensive training programs for teachers on the use of digital media for teaching staff to improve their skills and abilities. The professional training carried out includes pedagogical training, technical use of applications on laptops or tablets, and digital content development to ensure that teachers can integrate technology effectively in learning; c) TK Plus Al Gebra added infrastructure in the form of purchasing smart TVs in each classroom; d) TK Plus Al Gebra is also moving infrastructure in the form of modems used to provide internet access so that it is hoped that the signal received by each class will be stable and ensure that the electricity continues to flow so that learning activities run smoothly; e) TK Plus Al Gebra in collaboration with the Parents, Students and Teachers Association (POMG) held parenting regarding the importance of the benefits and value of technology in education as well as how to support children's learning at home.

If the results meet the goals, maintain the steps that have been implemented. If the evaluation results show that the implementation has achieved the objectives, the actions that have been taken can be maintained. This shows that the methods and strategies that have been implemented have proven effective in improving the quality of early childhood learning using digital technology. The results of the evaluation of the implementation of the use of digital technology as a learning medium at Kindergarten Plus Al Gebra show that teaching staff have had a positive impact on the implementation of the use of digital technology as a learning medium. The changes that educators have made, such as adjusting learning materials, have increased children's enthusiasm for learning. Additional training for teachers has proven effective in improving the quality of teaching staff in the teaching and learning process.

If results do not match goals, improve plans and processes. If the evaluation results show that implementation does not achieve planning objectives, the next step is to improve the plans and procedures that have been carried out. New strategies, better teacher training, or changed course materials are some examples of these improvements. From point (b) we see that the implementation of the use of digital technology as a learning medium for early childhood education at TK Plus AL Gebra is currently in accordance with the Merdeka curriculum which has been created by the Head of Kindergarten, deputy head of Kindergarten and the TK Plus Al Gebra Curriculum team. The use of digital media in teaching and learning activities will be

re-evaluated at the end of the 2024 academic year.

A cycle of continuous improvement will continue to be carried out to achieve goals and improve the quality of the implementation of digital technology as a learning medium in early childhood education. Once improvements are completed, the process will return to the initial stage of the PDCA cycle, which consists of re-planning, implementing revised corrective actions, evaluating results, and taking further actions as needed. The use of digital media as a learning medium at Kindergarten Plus Al Gebra is currently in accordance with planning and will be reviewed again at the end of the 2024 school year to see whether it needs to be adjusted again to the curriculum that will be created for the 2024-2025 school year. From the results of the follow-up (Act) implementation of the use of digital technology as a learning medium in Early Childhood Education at TK Plus Al Gebra, the author concludes that the implementation of the use of digital technology as a learning medium at Kindergarten Plus Al Gebra has been carried out according to plan. The evaluation will continue to be carried out until the end of the 2024 school year. The aim is to see whether digital media will continue to be developed to attract children to learn in order to improve the quality of education at Kindergarten Plus Al Gebra.

CONCLUSION AND SUGGESTIONS

1. Conclusion

The use of digital technology as a learning tool in early childhood education has great potential to improve the quality of education in the early stages of life. However, for successful implementation, careful preparation, infrastructure support, teacher training, and close supervision are required. To overcome challenges, all parties must work together and find new ways to solve them. To ensure balanced development, the involvement of technology in learning must be balanced with non-digital learning activities. In addition, the use of technology must be adjusted to the child's age and learning needs so that the benefits are maximized and the negative effects are minimized.

Overall, these results show that digital technology can be a useful learning tool in PAUD if used correctly. It can increase early childhood engagement, enhance learning experiences, and support the development of important skills. It cannot be ignored how important effective monitoring and follow-up is. This ensures that technology is used in the most beneficial way for children while also reducing risks. Because of their very important role in the learning process, teachers also need support and training. For technology to be used effectively in the curriculum, teachers must feel comfortable using it.

Educators, parents, and technology developers can work together to create engaging and relevant educational content. This includes creating apps and games that motivate children to learn.

2. Suggestion

- a. The quality management implemented at Kindergarten Plus Al Gebra regarding the implementation of the use of digital technology as a learning medium should emphasize how important it is to use a holistic approach that considers all aspects of technology implementation, from planning to evaluation, to ensure that children get maximum benefit from their learning experience.
- b. It is hoped that future research can examine in more detail and depth the implementation of the use of digital technology as a learning medium to improve the quality of education for early childhood so that the national education goals in accordance with the preamble to the 1945 Constitution to make the nation's life intelligent can be realized.

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