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Epistemology of the Use of Technology in Child Character Development in Demaan Kudus Village

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Abstract: Epistemology of Technology Utilization in Child Character Development in Demaan Kudus Village. Objective: This study aims to explore the impact of technology utilization on the development of children's character in Demaan Village, Kudus, the role of parents in supervision, and recommend to parents and educational institutions in maximizing children's character development. **Methods:** This study uses a quantitative method, with a survey study approach through This research is carried out using a quantitative approach with a survey method. The research population is all residents of Demaan Kudus Village, sampling using the snowball sampling technique which includes 7 different RWs, from the total respondent data there are 55 respondents which include 23 female respondents, 32 male respondents. Questionnaires and interviews were used to collect data from research participants. The data was analyzed using a descriptive statistical method where questionnaires would be processed to determine the frequency and percentage, while the interviews would be analyzed qualitatively. **Findings:** In this digital age, children are exposed to a wide variety of technologies that not only affect the way they learn, but also shape their character and behavior. Demaan Village, as one of the areas in Kudus Regency that is adapting to technological advances, faces challenges and opportunities in utilizing technology to build the character of the younger generation. **Conclusion:** This study emphasizes that the use of technology can contribute positively to the development of children's character in Demaan Village, Kudus, as long as it is managed properly by parents and the community. An epistemological understanding of educational technology is needed to maximize the benefits while minimizing risks, so that children can grow into individuals of good character and ready to face challenges in the digital age.

Keywords: epistemology, utilization of technology, character education.

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◼ INTRODUCTION

In this digital era, everything is easily accessible through the internet without any limitations of space and time. The use of technology is very easy to use, not only adults but also children. Therefore, in this digital era, the need for character education even starts early in order to form a generation that is not only academically intelligent, but also has strong moral and ethical values (Kezia, 2021). In the midst of rapid technological advancements, character education serves as a solid foundation to help them sort and understand the information they receive, as well as develop a good attitude in interacting with others. In character education, not only teach values such as honesty, responsibility, and empathy, but also provide children with the ability to think critically and make

wise decisions. So that this can help children not only become smart technology users, but also become responsible and ethical individuals in interacting in the digital world.

Forming intelligent and responsible children in using technology requires efforts to develop children's character, in this case technological epistemology has an important role in character education in the digital era. Epistemology of technology, which discusses how to understand the spread of knowledge through technology, in order to provide valuable insights into how technology can be used as a means of supporting character education. By understanding how children acquire knowledge through various digital platforms, educators and parents can design more effective strategies in integrating character values into the learning process.

With epistemology as the study of knowledge and belief, it plays an important role in how technology is integrated into the practice of Education. This is also relevant to several studies such as those conducted, (Krumsvik, 2020; Yusuf & Haddade, 2021; and Schuhmacher et al., 2024) from the three researchers, they argue that technology can provide a variety of resources and provide interactive learning experiences, with quite diverse learning media, of course, there needs to be a special handler to equip educators and parents in accompanying the children's learning process. Like the epithelium of technology in research, it can support children's learning experiences and enrich knowledge and insights related to the use of technology. Through epistemology by utilizing technology can help children develop important skills, such as digital literacy, problem-solving, and collaboration.

The use of technology epistemology in education is not necessarily a means of measuring the usefulness of technology, but can also measure the barriers to the use of technology as done (Schuhmacher et al., 2024) in his research reveals epistemological barriers in the use of Information and Digital Communication Technology (DICT) in education, by focusing on Primary Education teachers in the context of the use of DICT, in order to identify the need to ongoing training for teachers to overcome challenges. As for this study to further examine the epistemology of technology in education by measuring its usefulness in the development of children's character, this research involves the interaction of children and parents as the main subject as well as several educators, this is to get a broader perspective on the impact of technology.

The epistemology of technology in education is not only to measure the level of obstacles but can also be a suggestion in finding solutions related to problems that exist in the use of technology in the world of education, this is relevant to research from (Yusuf & Haddade, 2021) The research reveals that Islamic epistemology can provide solutions to overcome the crisis of science and technology in the modern context, The study contains related to the negative impact of modern technological advances and finding solutions based on Islamic values and the context studied tends to be broader by discussing the impact of globalization and modernization on human civilization in general. However, this study focuses more on one issue, namely how technology can be used to develop children's character in the village environment, and focuses on the local context in Demaan Kudus Village, by examining the direct impact on the epistemology of the use of technology on the development of children's character, which includes moral and ethical values.

After knowing that epistemology can be a means in the research process related to obstacles and processes in finding solutions to several problems in the use of technology in the world of education. Technological epistemology in education can also play a role as a means of learning mediation, as was done (Krumsvik, 2020) in his research which revealed how

technological epistemology can be a learning mediator by examining the impact of educational technology in the context of a global crisis. The research tends to take a broader context by discussing the impact of globalization and crisis situations that are changing the way people learn and teach, through the ontological and epistemological effects of educational technology, as well as how social interactions can be affected by digital tools. Meanwhile, in this study, the epistemology of the use of technology for children's character development, focusing on the specific context of Demaan Kudus village, the pressure of local wisdom in character development in showing the positive impact of technology on children's character development through moral and ethical values. From the two, it can be concluded that the epistemology of technology in education has the potential to increase interaction and engagement, but also has a real impact on the surrounding environment.

The development of technology for the world of education makes epistemology continue to develop, with the development of technological epistemology it is hoped that it can be a means or provision for educators and parents in accompanying the process of teaching and learning children, just as epistemology is beginning to spread to character education. In this case, it is very relevant to strengthen the evidence of research conducted (Rahmadani et al., 2021; Putnarubun et al., 2021; Satria et al., 2023) explained that by integrating epistemological theories in solid character education, as well as in epistemology of the use of technology in the context of education, as well as analyzing the impact of the use of technology in education, this research will be more comprehensive and relevant for local needs in Demaan Village. Therefore, it will help in designing more effective strategies to develop children's character in the digital era, while still considering local values and local culture.

The use of epistemology in addition to providing how to maximize technology in the world of education, with provisions and insights from technological epistemology can make the use of technology wise. However, when epistemology penetrates the world of education such as character education, it will have a significant impact as in his research (Rahmadani et al., 2021) which explains the foundations of ontology, epistemology, and axiology in character education in general, the use of literature review analysis to formulate the theory of character education, so that the presentation of data is more theoretically dominant without focusing on a specific context. This study will examine how technology is used to develop the character of children in Demaan Kudus Village, focusing on moral and ethical values. This is focused on the use of technology and its impact on children's character, as well as the socio-cultural context in Demaan Village.

The sophistication of technology in this all-digital era has made a lot of significant impacts such as in children's character education, as a nation, of course there are various ways that are carried out in shaping the character of leaders in the future. This is relevant to the research conducted (Putnarubun et al., 2021) The research emphasizes the role of technology in building children's character in the modern era, which aims to enable children to become future leaders. By using socialization and training methods to provide an understanding of the influence of technology and the character environment on children, which is carried out at the Missio Dei Learning House with the participation of children and students, so that the children at the Missio Dei Learning House begin to understand how to make good use of technology and the importance of moral values. However, in this study, we will present research that focuses on epistemology or perspective in the use of technology for the development of children's character in the local

context (Demaan Kudus Village). By exploring the local community's views on technology and children's character, which focuses on the interaction between parents and children in Demaan Kudus Village, it provides a different cultural and social context in generating insights into how the use of technology can specifically affect children's character in the local environment.

In the digital era like today, there are many benefits, such as the use of educational technology in improving children's character. This is as explained by (Satria et al., 2023) in his research giving an emphasis on the integration of technology in education to improve children's character in general in the digital era, with the use of literature analysis to explore the role of technology in character education, but in the research the tendency is more global so the research location is not specific. However, in this study, the researcher will focus on the local context (Demaan Kudus Village) and the epistemology of technology use for children's character development, by using data mining in the form of questionnaires and interviews focusing on children in Demaan Kudus Village, it offers a more specific and relevant perspective locally, so that they can understand the context and in-depth experience related to the epistemology of the use of technology in character education.

With several comparisons of these studies, in order to be able to fill the gaps in these studies by contributing to a more holistic understanding of the epistemology of the use of technology in character education in children. Therefore, this study urges to conduct more in-depth research related to the use of epistemology of technology utilization in character development by presenting a more specific scope, it can understand the perspective and in-depth experience related to the epistemology of the use of technology in character education, especially in Demaan Village, Kudus.

Demaan Kudus Village, there needs to be a systematic effort to explore how technology can be used in children's character education. In this case, epistimology has an important role in the use of technology as a means of education and character development of children. By understanding the basics of knowledge and ways to acquire it, education can be carried out more effectively and meaningfully, as well as forming a good and responsible child character in the digital era. For this reason, this study is related to the public's understanding of epistemology that can affect the use of technology in children's education, by providing data-based recommendations for educators, parents, and policy makers on ways to increase the effectiveness of the use of technology in education as a means of increasing public awareness of the importance of technology integration in education and children's character development.

This study aims to explore the epistemological impact of the use of technology on the character development of children in Demaan Village, Kudus, the role of parents in supervision, and recommend to parents and educational institutions in maximizing children's character development. By collecting data from 55 parent respondents through questionnaires, researchers analyzed parents' perceptions of the positive and negative impacts of technology and their role in supervision and recommendations for character development. Therefore, in reviewing this study, the researcher uses educational technology epistemology with a focus on strategies and practices that can be applied to develop children's character.

By understanding the relationship between technology and character development, it is hoped that several epistemologies of technology in education can be implemented by educators, parents, and the community to create an environment that supports good character development among children. Through this

research, it is hoped that it can contribute to efforts to improve the quality of education in Demaan Kudus Village and provide insights for the development of more effective policies in integrating technology in character education. Therefore, this study urges a more in-depth research related to how the application of epistemology of the use of technology in education in Demaan Village can affect the development of children's character? And to what extent can the use of technology increase parental involvement in children's character education in Demaan Village? With this, they can understand the perspective and in-depth experience related to the application of technological epistemology in character education, especially in Demaan Village, Kudus.

■ METHOD

Participants

In this study, participants consisted of the entire population of Demaan Kudus Village by sampling using the snowball sampling technique which included 7 different RWs, from the total respondent data there were 55 respondents which included 23 female respondents, 32 male respondents based on the level of population of children's character development in Demaan Kudus Village, consisting of parents, children and several educators in Demaan Village.

Research Design and Procedures

As for the research design and procedures section, this study uses quantitative research through a survey study with the use of questionnaires and interviews, in its application the researcher randomly selects one respondent from the seven RW representatives to fill out the questionnaire that has been provided by the researcher then the respondent can randomly choose from several residents within the same RW scope. In addition to distributing questionnaires, the researcher also narrowed down from the 55 respondents, to 11 respondents

to be asked for their willingness to dig data with interviews, in this application the researcher took a sample consisting of 3 children, 5 parents, and 3 educators in Demaan Village. This was done in order to understand the perspective and in-depth experience related to the application of technology epistemology in character education, as well as the positive impact of the use of technology, especially in Demaan Village, Kudus.

While the details of the procedure in the interview include: the duration of the interview with the total time required for each interview is planned to last between 30 to 45 minutes, with the division of time including 10 minutes for introduction and explanation of research objectives, 20 to 30 minutes for the main question, 5 to 10 minutes for closing questions and additional discussions; The interview format uses a semi-structured interview type, which allows the researcher to follow the flow of questions but also provides space for the respondent to explain more deeply, the use of interview media is carried out face-to-face to deepen the interaction and to build a better relationship with the respondent as well as by taking notes manually with the permission of the respondent, and making audio recordings to ensure the accuracy of the information;

The main questions will be asked to each group of respondents which include: *Parents* (the question consists of: What kind of technology does your child often use? How often do you supervise your child's use of technology? Do you think the use of technological epistemology can have a positive impact on your child's character development? Have you noticed a change in the child's social traits after using technology? How important is the collaboration between you and the school in educating children's character? What are your expectations regarding the use of technology in children's character education?), *Children* (from the question: How often do you use technology, such as smartphones or computers? What is your main goal of using

technology? Do you feel that technological epistemology helps you become more empathetic towards others? Mention the positive character you feel after using technology. Do your parents discuss with you about the content you will access before using technology?), and educators (from the question: What kind of technology do you use in the learning process? How often do you use technology in teaching and learning activities? How do you think technological epistemology can affect the development of students' character in the classroom? Are there any positive influences you observe on students' social and moral traits after using technology? How important is collaboration with parents in supporting student character education? What are the challenges you face in using technology for character education?); The conduct of the interview includes: *Preparation*: The researcher will contact the respondent in advance to schedule an interview and explain the purpose of the research, *Implementation*: The interview will be conducted in a location that is convenient for the respondent, such as home or school, to create a conducive atmosphere, *Closing*: After the interview, the researcher will thank the respondents and provide an opportunity to ask them things they might want to know more about the research.

Instrument

The use of the instrument here the researcher uses a non-test instrument developed by the researcher himself based on the needs of effectiveness in the field and can also explain the validity and reliability of the non-test instrument. In the non-test instrument, there are 4 different indicators, such as the use of technology in children (which consists of 4 questions, how often the child uses technology, the type of technology used by the child, how long the child spends each time using technology, the purpose of using technology); impact on children's character (which consists of 4 questions, whether technology can have a positive effect on children's

character development, whether technology can affect children's social traits, whether children after using technology show empathy, mention the positive character of children after using technology develops); Limits and supervision (which consists of 3 questions, how often to apply supervision to children when using technology, discussing in advance the content that children will access, applying time limits for the use of technological devices); opinions and expectations (which consist of 5 questions, how important is collaboration between parents and schools for children's character education, after implementing limitations and monitoring how effective the use of technology is in influencing children's character education, the biggest challenges in the use of technology for children's character development, expectations and suggestions in recommending related to children's character development through the epistemology of the use of technology in education).

Data Analysis

The data analysis obtained from questionnaire and interview data by analyzing using descriptive statistical methods to provide an overview of the use of technology epistemology in education and its impact on children's character. The results of the questionnaire will be processed to determine the frequency and percentage, while the interviews will be analyzed qualitatively to explore the main themes that emerge from the respondents' experiences. With this structured research method, it is hoped that the research can provide in-depth insight into the use of technology in the development of children's character in Demaan Kudus Village.

■ **RESULT AND DISCUSSION**
Descriptive Statistics

The demographic distribution of respondents is detailed in Table 1, which consists of the population of all residents of Demaan

Kudus Village by covering 7 different RWs, from the total respondent data there are 55 respondents which include 23 female respondents, 32 male respondents based on the level of population of character development of children in Demaan Kudus Village, consisting of parents, children and several educators in Demaan Village.

Table 1. Descriptive statistics for respondents

Demorapic Indicators	Category	Frequency (n)	Percentage (%)
Total Sample Size	**-**	**55**	**100**
Respondent Participant	Parents	25	45%
	Child	10	20%
	Educators	20	35%
Gender	Male	32	64%
	Famale	23	36%

The majority of the respondents were parents and educators where there were 25 (45%) and 20 (35%) respondents respectively, this was to find out how massive the collaboration between parents and the school (in this case represented by educators) related to the application of technological epistemology in children's character education. While the child respondents were only 10% of the respondents, the data was used to measure the effectiveness of the application of technological epistemology in the development of children's character on a small scale, especially in the interaction of parents and children in Demaan Kudus Village. This shows a variety of samples studied by the researchers, with most of the respondent participants in the same scope as residents of Demaan Kudus Village. The distribution of respondents showed the dominant participation of male participants with 32 respondents (64%) and 23 women (36%) participating. This gender gap reflects a higher number of males than females, despite an unnatural balance between male and female respondents. Overall, this table illustrates the diversity of the sample in terms of participant type (in this case, including parents, children, and educators), and gender. Therefore, this shows that it will enrich the variable data studied in this study.

In this case, it ensures that the various perspectives of the driving forces of the educational element are represented in the findings of this study. The results of descriptive statistical data for respondents include 4 variables with different indicators but are related to each other, here is the description.

Correlation Between Variables

The data is divided into 4 main variables with several different indicators, such as the use of technology in children, which shows that the time of using technology in the majority of children in Demaan Kudus Village is less than 1 hour where the data shows 41.8% of respondents, and the purpose of using technology, the majority of the purpose of using technology as a means of education, as revealed by Raihan Riski Setiawan children with the age of 10 years (Setiawan, Interview, November 30, 2024) revealed that with technology, it can increase the spirit of learning because children have been equipped with adequate technological facilities so as to foster exploration (high curiosity). "when I learned about animals, from seeing interesting videos and pictures, so I was more interested. Not only that, I like to make my own pictures or videos using the application to draw, that step allows me to imagine more and create new things," he added;

Table 2. Hypothesis analysis

Variable	Indicator	Category	Frequency (N)	Percentage (%)
Total Sample Size		-	**55**	**100**
Use of Technology in Children	Time to Operationalize Technology	Less than 1 Hour	23	41.8%
		1-2 Jam	17	30.9%
		3-5 Jam	11	20%
		More than 5 Hours	4	7.3%
	Purpose of Using Technology in Children	Learning (Education)	33	57%
		Entertainment (Games & Movies)	20	26.5%
		Socialization	12	12.8%
		Education & Entertainment	2	3.7%
Impact on Children's Character	Forms of Positive Character Development of Children After Using Technology	Adaptability	13	20.13%
		Curiosities	10	17.40%
		Creativeness	8	12.81%
		Critical Thinking	6	10.08%
		Innovative	5	9.33%
		Productivity	4	8.23%
		Public Speaking	4	8.23%
		Looking for a Challenge	3	7.36%
		Social Week	2	6.43%
Limitations and Supervision	Discuss the content that children access	Yes	51	92.7%
		No	4	7.3%
	Implementing Time Limits for the Use of Technology Devices	Yes	51	92.7%
		No	4	7.3%
Opinions and Expectations	The Importance of Collaboration Between Parents and Schools on Children's Character Education	Very Important	43	78.2%
		Penting	11	20%
		Not Important	0%	0%
		Very unimportant	1	1.8%
	The Level of Effectiveness of the Use of Technology in Influencing Children's Character Education	Highly Effective	32	58.2%
		Effective	17	30.9%
		Ineffective	4	7.3%
		Highly Ineffective	2	3.6%

Based on the data on the use of technology, it turns out that there is an important role of parents in implementing the epistemology of technology in education in the form of limits and supervision, in this case including: discussing in advance the content that children will access and applying time limits for the use of technological devices, where from both data it shows that 92.7% of respondents who both stated that they agreed in the application of these limits and supervision; Apart from the role of parents, there is also cooperation between the school (educators) as expressed in the opinion and expectation data, including: the level of collaboration between parents and the school, the majority of respondents stated that it is very important that there is collaboration between parents and the school which must synergize together in the development of children's character education, and also the level of effectiveness of the application of technological epistemology in education in the form of limitations and this supervision is very relevant to this data where in the data there are 58.2% of respondents stating that it is very effective, that is, the application of technological epistemology in education in the form of limitations and supervision can affect children's character education;

After knowing the data on the use of technology, limitations and supervision, as well as the collaboration between parents and the school, of course there will be a correlation on the impact on the character in this there are several positive characteristics of children after using technology developing, such as: Adaptability (20.13% of respondents), Curiosity (17.40% of respondents), Creativity (12.81% of respondents), Critical Thinking (10.08%) respondents, Innovative (9.33% of respondents), and many more Positive character after children use technology has experienced significant development, of course, with the handling and application of technological epistemology in

character education and collaboration between parents and parties is a key factor in the development of children's character in Demaan Kudus Village.

The use of technology epistemology in education is immediately a means of measuring the usefulness of technology, but it can also measure the barriers to the use of technology as done (Schuhmacher et al., 2024) in his research reveals epistemological barriers in the use of Information and Digital Communication Technology (DICT) in education, by focusing on Basic Education teachers in the context of the use of DICT, in order to identify the need to ongoing training for teachers to overcome challenges.

In the statement, this study is to continue the research by further examining the epistemology of technology in education by measuring its usefulness in the development of children's character, by involving the interaction of children and parents as the main subject and several educators, this is to get a broader perspective on the impact of technology. Therefore, it can be seen that technology has great potential in supporting children's character development. To answer the concerns in the study, how important it is to provide education related to the epistemology of the use of technology that can help parents and the community in utilizing technology effectively. The following are some of the epistemological applications of technology utilization that can be applied to parents and educational institutions, in this case the application of epistemology includes such as, digital literacy training, creating a positive digital environment, collaboration between schools and parents, and periodic monitoring and evaluation. Here's the description.

Digital Literacy Training for Parents

The development of technology will of course lead to the emergence of content that contains violence, pornography, or negative values

that can affect the development of children's characters, which raises concerns to encourage parents to be more active in supervising and restricting children's access to certain platforms. Digital literacy training is essential for parents to understand how to use technology wisely.

According to Muhammad Zainuddin, who is a parent of vulnerable children aged 3-6 years and a teacher at MTs TBS Kudus, (Zainuddin, interview, November 30, 2024) explained that the purpose of this training is expected to provide parents with knowledge about various digital platforms, educational applications, and how to supervise the use of technology by children. This will help parents make informed decisions regarding the content their children access. As for the implementation of this training, such as holding workshops or seminars involving technology experts and educators to explain the importance of digital literacy and provide practical tips in supervising and choosing appropriate content.

Creating a Positive Digital Environment

A positive digital environment is very important in supporting the development of children's character. According to Elich Kusumawati, parents of vulnerable children over the age of 15 and teachers at TKIT Umar bin Khattab, Demaan Kudus, (Kusumawati, interview November 30, 2024) explained that with a healthy technology room, parents are advised to create a comfortable learning area and separate from the entertainment room, so that children can focus on learning while using technology.

Good arrangement can reduce distractions and increase productivity. By inviting children to interact and create social media content together, as well as directing children to access educational and positive content, such as learning videos, interactive applications, and e-books. Therefore, it will help children build good habits in using technology.

Collaboration between Schools and Parents

In supporting children's character education to be more optimal, there needs to be cooperation between the school and parents, this is an important factor in creating an environment that supports character development. According to Moh. Akhsin, who is a parent of a vulnerable child over the age of 15 and former Chairman of the PAI (Islamic Religious Education Teacher Working Group) of Kota District, Kudus, (Akhsin, interview November 30, 2024) explained that this collaboration can be implemented by holding a joint program involving parents and teachers to discuss the use of technology in education. Where the school can provide information about the technology used in learning and how parents can support it at home.

Open communication between the school and parents is expected to build effective communication, this is so that parents can provide input and get advice on children's behavior and character development bot at school and at home.

Periodic Monitoring and Evaluation

Regular monitoring and evaluation of children's use of technology is an important step to ensure that technology utilization remains on track. In the implementation of this monitoring schedule, Moh. Akhsin appealed to parents to make a clear schedule regarding the use of technology used by children, this is to monitor children's social media activities. This way, parents can be aware of the content being accessed and identify potential risks early.

Character development evaluation also needs to be implemented so that parents know the extent to which the use of technology can affect the development of children's characters. This was also revealed by Moh. Akhsin in an interview, November 30, 2024, revealed that conducting periodic evaluations of children's character development can be done either through direct observation or discussion with children about the

values they learn. This will help parents understand the impact of technology use on children's characters and make adjustments if necessary.

Epistemology in education can be applied, as well as in the use of technology. The presentation emphasized the importance of the use of technology in the world of education, such as digital literacy training, creating a positive digital environment, collaboration between schools and parents, and periodic monitoring and evaluation. With this, it is intended that parents and the community, especially in Demaan Village, Kudus and several educational institutions, can make optimal use of technology to support the development of children's character. Through a planned and collaborative approach, it is hoped that children can grow into individuals with strong character, able to adapt to changing times, and contribute positively to society.

The development of technology today has had a significant impact on various aspects of life, including in children's education and character development (Satria, et al., 2023). One of the impacts that can be felt today is the increasing prevalence of gadget users (*smartphones*) in daily life. Therefore, with such a significant impact, the use of gadgets is increasingly widespread and even spreads to the younger generation, especially children.

This statement is very relevant to the opinions of several respondents who have been studied by researchers based on data from a questionnaire with 55 elderly respondents in Demaan Village, 81.8% stated that the tendency of technology that is often used is in the form of *smartphones*, in addition to that there are several other technologies such as tablets (14.5% of respondents) and computers (3.6%).
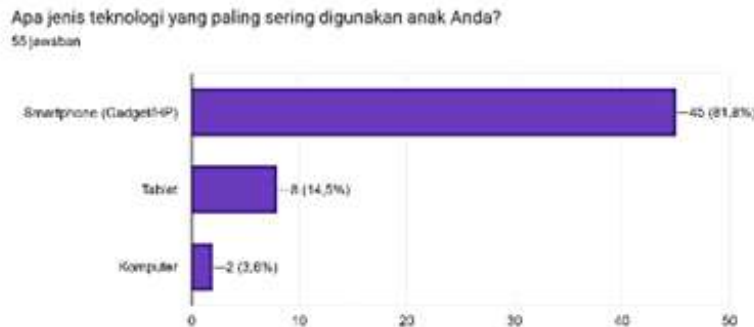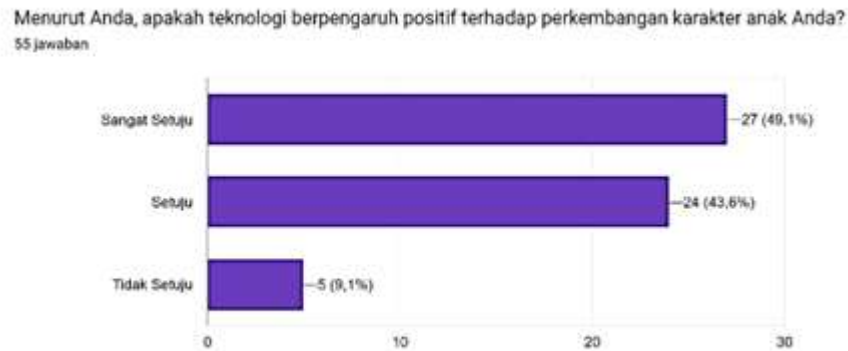

Figure 1. Researcher questionnaire data, *diagra*m of data on the type of technology used by children in Demaan Village, Kudus

Based on this data, it shows how rapid the use of technology is, especially in this digital era, children are increasingly exposed to various impacts of technology use that not only affect the way children learn, but also in shaping their character and behavior. Demaan Village, as one of the areas in Kudus Regency that is adapting to technological advances, faces challenges and opportunities in utilizing technology to build the character of the younger generation.

This statement is very relevant to the opinions of several respondents who have been studied by researchers based on data from a questionnaire with 55 parent respondents in Demaan Village who stated that 49.1% strongly agreed, and 43.6% stated that this shows that technology can affect character development in children.

Based on the diagram data, it can be said that character education is becoming increasingly

Figure 2. Researcher questionnaire data, data diagram of the level of positive impact of technology use on the development of children's character in Demaan Village, Kudus.

important, considering the many moral and social challenges faced by children in modern times (Rahmadani, 2021). Technology, if used wisely, can be an effective tool for teaching positive values, such as honesty, responsibility, and cooperation. However, the use of technology also requires the right approach so as not to cause negative impacts, such as dependence on gadgets or lack of social interaction.

The rapid development of technology will certainly have several significant impacts, including a positive impact on the development of children's character. Therefore, this study aims to explore the positive impact of the use of technology in the development of children's character in Demaan Village, Kudus. Through a questionnaire distributed to parents, researchers obtained data describing how technology can contribute to the formation of children's character. The following database that the researcher has summarized by combining it with interview data in the field in measuring the positive impact of the use of technology on character formation in children, here is a summary of the data.

Table 3. Summary of the researcher's database, the shape of children's character in Demaan Village, Kudus on the positive impact of technology based on the observation of their parents

Children's character forms	Percentage
Adaptability	20.13%
Curiosities	17.40%
Creativeness	12.81%
Think critically	10.08%
Innovative	9.33%
Productivity	8.23%
Public speaking	8.23%
Looking for a challenge	7.36%
Social Pride	6.43%

Based on the results of the database, researchers show that despite the challenges, technology also has many positive impacts that can be used to support the development of positive characters in children. Of these many characters, of course, there is no need for supporting factors in shaping these characters, here are some factors that support the positive impact of technology.

Access to Extensive Learning Resources

One of the main positive impacts of using technology is wider access to learning resources. The results of the database summary show that

many parents observe an increase in their children's knowledge thanks to the ease of access to information through the internet. Children can explore a variety of topics, deepen their interests, and enrich their insights. This not only improves the academic aspect but also broadens his critical and analytical way of thinking.

This factor is not only a support in shaping children's character in training children's curiosity and critical thinking, it is relevant to the argument of one of the parents in Demaan Village. According to Sufitno, one of the parents of vulnerable children aged 7-12 years, revealed that when children are trained to think critically in assessing and observing the information they encounter on the internet, it allows them to distinguish between factual information and *hoaxes*. In addition, the impact of technological development also penetrates character formation in early childhood, such as being able to count, getting to know animals, sometimes increasing English vocabulary, practicing patience (because sometimes signals are difficult, so children need to be patient), and being able to distinguish colors. Said Maulidil Faiz, a parent of a vulnerable child aged 3-6 years (Faiz, interview, November 30, 2024). Therefore, children's intelligence will increase with the presence of interactive content so that children will be more aware of new things that initially they did not know anything could know.

Social Skills Development

Technology also serves as a platform for the development of social skills. Many parents report that their children use apps and social media to interact with friends and family. These activities can help children learn how to communicate effectively, collaborate in groups, and build positive social networks. These interactions, if done wisely, can support the development of empathy and important social skills.

This factor shows that technology has an important role in the development of children's character, such as in social skills. Therefore, this factor can affect the development of children's character in terms of adaptability and also communication skills (*public speaking*). "Children who are used to using technology tend to adapt more quickly to changes and new environments." Said Kusumawati, in an interview, November 30, 2024. This is reinforced by "the more often children socialize with a new environment, the more children can improve their communication skills with the use of correct language and pleasant to hear." Said Putih Ariyani, a parent of a vulnerable child aged 13-15 years (Ariyani, interview, November 30, 2024). All of this is based on the fact that the child is easy to get along with, does not discriminate between friends and has the ability to imitate the behavior of friends well.

Increased Creativity and Innovation

The use of technology, especially in the form of educational applications and interactive games, can stimulate children's creativity. Based on the results of the database summary, it shows that children who are involved in creative activities, such as drawing, designing games, or creating digital content, show improvements in aspects of innovation and imagination. Technology provides space for children to experiment and express themselves, which is an important part of character development.

With increasingly developing technology giving a real impact, especially in terms of character education, with this development, children can create their imagination in creating something by utilizing technological sophistication. Therefore, with "technology can encourage children to think innovatively and find new solutions to existing problems. Children's mindset will develop more when given the right direction and provide freedom for children to explore something and need special assistance. Even though at that time the child was still a minor, when the use of technology in children is understood wisely, it can help improve the child's motor

development," said Muhammad Zainuddin (Zainuddin, interview, November 30, 2024).

Meanwhile, according to Mualim Zulmi, parents of vulnerable children aged 3-6 years (Zulmi, Interview, November 30, 2024) revealed that technology is a means that provides various tools for creativity, such as graphic design, music, and video, which can increase innovation in creating something. This was strengthened by an argument from Amelia Mufarrohah, a 19-year-old child (Mufarrohah, Interview, November 30, 2024) revealing that technology is very helpful in increasing my creativity. For example, with a drawing app on a tablet, you can experiment with different colors and techniques without having to buy a lot of art tools, and there are many online tutorials that teach new techniques that you can try. In addition, technology opens up many opportunities for innovation. For example, "I can use social media to promote my work and get feedback from others. It helps me to think more critically and improve my work. I am also inspired by other people's work that I see online," he added. So that it allows children to use technology wisely, such as in developing the ability to increase creativity, and problem-solving skills.

Independent Learning and Responsibility

Based on the results of the summary of the database, it shows that technology encourages children to learn independently. Many parents report that their children are more proactive in seeking information and completing schoolwork with the help of technology. This attitude helps children develop a sense of responsibility for their own learning, which is an important element in the formation of good character.

According to Moh. Akhsin, in an interview, November 30, 2024, revealed that children who learn to find information and solve problems independently by utilizing technology through online sources, can increase the level of children's productivity to develop, by participating in several competitions. Many apps and platforms encourage collaboration, so children learn to work together in groups and respect the opinions of others. He likes to find challenges by participating in various writing competitions.

Increased Social and Moral Awareness

Some parents stated that their children became more aware of social issues through the content they accessed online. Technology allows children to be exposed to a variety of perspectives and global issues, so they can develop a better understanding of the importance of social and moral values. This can shape the child's character to be more sensitive and concerned about the surrounding environment.

The sophistication of technology does not always make children become anti-social who tend to be indifferent to the surrounding environment. This is not the case as stated by Sripadmini, a parent of a vulnerable child aged 13-15 years (Sripadmini, interview, November 30, 2024) revealed that with global access to information makes children more aware of social and environmental issues, increasing empathy for the problems around them, "just like Putra (a 14-year-old child from Sripadmini) is easy to ask for help when I have difficulty using technology, " he added.

The argument was strengthened by a response from Putra, a 14-year-old child from Sripadmini (Putra, Interview, November 30, 2024) revealing that the use of technology is very helpful in daily life. For example, "when my parents have trouble using mobile phones, I feel the need to help them. It makes me more sensitive to their needs." In another story revealed, "Once, my mother wanted to send a message through an app, but she was confused. I immediately helped explain how to use it. After that, I saw how happy he was to be able to communicate with his friends. It feels good to be able to help," he added.

From the results of this study, it is clear that the application of technological epistemology in education has a significant positive impact on the

development of children's character in Demaan Village, Kudus. Through access to information, social skills development, increased creativity, independent learning, and social awareness, technology can be an effective tool in supporting good character growth. It is important for parents to use technology wisely and support their children in accessing positive content, so that these benefits can be maximized.

In the context of the development of children's character, the role of parents as supervisors of the use of technology is very crucial. This study aims to understand how parents in Demaan Village, Kudus, carry out the supervisory function in the use of technology by their children. Based on data from a questionnaire with 55 elderly respondents in Demaan Village. Of the 55 respondents, the majority agreed that they often apply supervision to the use of technology in their children. Where in the questionnaire data it was stated that 92.7% of respondents compared to 9.1% who stated that they had never implemented supervision.
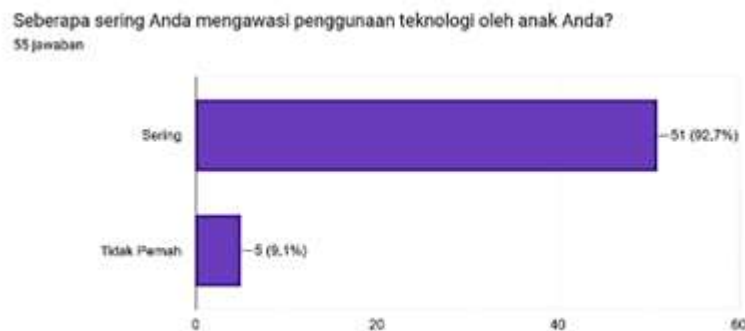
Figure 3. Researcher questionnaire data, Diagram of data on the level of parental supervision in their children related to the use of technology in Demaan Village, Kudus

Based on the results of the questionnaire, it shows that many parents are aware of the importance of the role of parents in supervising the use of technology by their children. Therefore, the researcher obtained data showing that the strengthening of the application of technological epistemology in children's character education, also needs support from parents. From this data, it can provide a clear picture of parents' attitudes and strategies in supervising the use of technology, in this case there are several strategies implemented by parents in Demaan Village, Kudus. Here's the description.

Time Restrictions

Many parents apply time limits for the use of technological devices. The majority of parents usually set specific times during which children are allowed to use gadgets, which helps prevent addiction and ensures that children have time for other activities, such as learning and playing outside. Parents who apply time limits on technology use tend to feel more calm about the impact of technology on their children.

Based on this argument, it is very relevant to the data from a questionnaire with 55 parent respondents in Demaan Village, revealing the tendency of parents in Demaan Village, that the majority of parents agree to set a limit on the time of using technology for their children, from the data shows at 92.7%. Meanwhile, another 7.3% showed disapproval of the implementation of time limits on technology use in children. The results show that parents in Demaan Village, Kudus revealed that almost the majority agreed in implementing time limits on the use of technology for their children. This is to prevent a high level of addiction to technology use in children, and

parents have enough time to interact socially with their children.

Diskusi Konten

Every parent has a tendency to choose educational applications and programs for their children. Parents tend to prefer to accompany their children in choosing content that is appropriate for their age and the values they want to teach. Discussing between parents and children about the content accessed increases children's awareness of good and bad values.

Based on the results of a questionnaire conducted by researchers in Demaan Village from 55 respondents, it showed that the majority of parents agreed to discuss the content that would be used by technology on their children at 92.7%. While the other 7.3% showed disagreement about discussing the content that would be used by technology on their children. Therefore, the data reveals that parents are actively involved in the process of discussing with their children about the content that will be accessed, where the tendency is more successful in supervising the use of technology. This discussion process includes discussions about moral values, ethics, and the impact of using technology. The results show that parents in Demaan Village, Kudus revealed that almost the majority agreed to implement discussing the content that would be used by technology on their children. This is intended so that parents can monitor the use of technology by discussing what content is allowed, and parents can also minimize the spread of negative content that influences their children.

Based on the elaboration of the two data, it shows that the role of parents in supervising the use of technology by children in Demaan Village, Kudus, is very important in supporting positive character development. Despite the challenges, with the implementation of the right strategies and awareness of the importance of supervision, parents can utilize technology as a tool that supports the formation of children's character. This research confirms that collaboration between parents, schools, and the community is indispensable to create a safe and educational environment for the younger generation.

Some of the results of the research data can be taken from several points that are the subject of discussion, in answering the anxiety in the research (Schuhmacher et al., 2024) which reveals the need for continuous training for teachers to overcome challenges. Therefore, in this research discussion, the results were found that the epistemology of technology in education can be applied, as well as in the impact of technology on the development of children's character. From some of these presentations, it was emphasized how important the application of epistemology in the use of technology in the world of education, especially as a means of supporting character development in children, in this case there are several things that can be applied such as: digital literacy training, creating a positive digital environment, collaboration between schools and parents, and periodic monitoring and evaluation. With this, it is intended that parents and the community, especially in Demaan Village, Kudus and several educational institutions, can make optimal use of technology to support the development of children's character. Through a planned and collaborative approach, it is hoped that children can grow into individuals with strong character, able to adapt to changing times, and contribute positively to society.

Based on the results of the discussion, it can provide a clear picture of the use of epistemology in the use of technology to have a positive impact on the development of children's character, especially in Demaan Village, Kudus. By involving parents in the supervision process and providing the right application of epistemology to the use of technology, it is hoped that it can be optimally utilized to support the development of children's character. This research also

emphasizes the importance of understanding epistemology in the use of educational technology to achieve desired goals.

■ **CONCLUSION**

Based on the results of a questionnaire distributed to children, parents, and educators from 55 respondents from the population of all residents of Demaan Village covering 7 different RWs, it can be concluded that the use of technology epistemology in education has a significant positive impact on the development of children's characters, such as adaptability, curiosity, creativity, and innovation are proven to increase with the right use of technology. So that children become more open to new experiences and able to think critically in dealing with information.

In the context of the development of children's character, the role of parents as supervisors of the use of technology is very crucial, by understanding how parents in Demaan Village, Kudus, carry out the supervisory function in the use of technology by their children. Therefore, the implementation of time restrictions and discussions about accessed content is a widely applied strategy to ensure children can use technology wisely.

Although there are many challenges in the application of technological epistemology in education, with the implementation of the right strategies and awareness of the importance of supervising the use of technology, as well as collaboration between schools and parents in creating a safe and educational environment for the younger generation, it can maximize the application of technological epistemology in education as a tool that supports the formation of children's character. Therefore, the use of technology can contribute positively to the development of children's character in Demaan Village, Kudus, as long as it is managed properly by parents and the community. With an understanding of the epistemology of technology in education, it can be maximized, so that children can grow into individuals with good character and ready to face challenges in the digital era.

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