



## Implementation of 21st Century Learning at PAUDQU Daarul Fath Pengging in 2024



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### Abstrak

Penelitian ini bertujuan untuk menganalisis penerapan pembelajaran abad 21 di PAUDQU Daarul Fath Pengging Kabupaten Boyolali. Penelitian ini menggunakan pendekatan deskriptif kualitatif. Subjek penelitian ini yaitu kepala sekolah dan 3 guru yang mengajar di PAUDQU Daarul Fath. Sumber data berasal dari responden yaitu Kepala sekolah dan guru. Teknik pengumpulan data dilakukan dengan teknik observasi, wawancara dan dokumentasi. Sedangkan teknik analisis yang digunakan yaitu Teknik analisis data yang digunakan dalam penelitian ini yaitu model Miles dan Huberman. Hasil dalam penelitian ini menunjukkan bahwa PAUDQU Daarul Fath Pengging sudah menerapkan pembelajaran abad 21. Pembelajaran tidak hanya dilakukan dengan metode/strategi kepesantrenan saja namun juga mengikuti perkembangan zaman. Upaya yang dilakukan untuk mewujudkan ketrampilan abad 21 anak dilakukan dengan berbagai kegiatan, seperti: bermain balok, lego, puzzle secara mandiri atau berkelompok, bercerita/menceritakan kembali hal-hal yang diketahui anak, berkomunikasi pada saat anak-anak melakukan kegiatan, mengajarkan konsep fair play dan melakukan berbagai kegiatan secara bersama.

This research aims to analyze the application of 21st-century learning at PAUDQU Daarul Fath Pengging, Boyolali Regency. A qualitative descriptive approach was used, with the principal and three teachers from PAUDQU Daarul Fath serving as the subjects. Data was collected through observation, interviews, and documentation. The analysis was conducted using the Miles and Huberman model, which involves data reduction, data display, and conclusion drawing/verification. The results of this research indicate that PAUDQU Daarul Fath Pengging has effectively implemented 21st-century learning strategies. The learning approach integrates modern educational techniques with traditional Islamic boarding school methods, providing a comprehensive and balanced education to the students. This implementation reflects a commitment to preparing students with the necessary skills for the future while maintaining their cultural and religious foundations.



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## INTRODUCTION

The world is facing significant challenges in the 21st century. These challenges arise in all fields, including education. The world of education must be able to produce a resilient generation, literate in technology, and equipped with diverse skills. In this century, human resources are increasingly being replaced by technology. The rapid development of technology necessitates balanced changes in the education sector. To ensure that students acquire the various skills they will need in the future, continuous changes are required to keep up with current developments. Additionally, there is a pandemic in many parts of the world, including Indonesia, and most activities must be carried out online. This assumes that everyone is technologically literate.

The enhancement of educational quality as a response to the needs of the 21st century, particularly in early childhood education, requires learning practices that foster a variety of early childhood skills. The development of early childhood aspects includes six areas: religious and moral values, social, emotional, cognitive, language, physical motor, and artistic aspects. These six dimensions need to be developed at a fundamental and integrated level so that children acquire various skills that enable them to face future challenges. In addition to these six developmental aspects, educational institutions need to program learning that incorporates information technology components in early childhood education (PAUD). By integrating information technology into the learning process, it is expected that the learning implementation will become more engaging and enjoyable for children. Ultimately, through a learning process that utilizes information technology media, the developmental aspects of children will be able to develop optimally (Nasirun et al., 2021)

To develop the potential and skills of early childhood, strategies, methods, and learning models that align with the advancements of the 21st century are needed. 21st-century learning is characterized by the utilization of information and communication technology in the learning process. This learning approach also requires children to possess 21st-century skills, namely: critical thinking, communication skills, collaboration/team building, and creativity and innovation. Trilling and Fadel argue that the 4C skills are the key to unlocking lifelong learning and creative work (Arsanti et al., 2021)

Early childhood education (ECE) teachers play a crucial role in the development of children's skills. Therefore, ECE teachers should also possess strong skills when stimulating, guiding, and directing children. Additionally, ECE teachers are responsible for carrying out tasks and obligations to improve the quality of human resources, particularly for early childhood (Husain & Kaharu, 2020). ECE teachers who will pass on skills and culture are key components in determining the quality of future human resources. Teachers with these abilities are considered professional ECE teachers in the 21st century. Thus, ECE teachers must have the skills to develop 21st-century skills in their students.

The development of 21st-century skills in early childhood requires systematic and structured efforts from the school environment, family, and community. The role of schools in developing 21st-century skills is crucial for children who do not receive

optimal stimulation from their families. Therefore, schools become an important factor in enhancing the 21st-century skills of young children today. Schools must be able to design models, approaches, methods, strategies, and learning techniques that align with the characteristics of 21st-century learning, so that children's 21st-century skills can improve. By instilling 4C skills from an early age, it is hoped that early childhood will be equipped to navigate daily life and adapt to their surroundings. The 4C skills are also expected to serve as a foundation for overcoming increasingly complex challenges in their future. By planting and developing 4C skills early on, it is anticipated that children will be able to play a significant role in addressing societal issues.

Many models, approaches, strategies, and learning techniques are applied in early childhood education (ECE) to enhance children's 21st-century skills. The various efforts implemented in ECE units aim to improve children's skills as preparation for the future. Without the application of 21st-century learning efforts, children's skills are unlikely to improve.

PAUDQU Daarul Fath is an early childhood education institution based on Tahfidzul Qur'an that provides free play services for young children. As a pesantren-based PAUD, PAUDQU Daarul Fath Pengging conducts learning activities with Islamic materials. However, even though PAUDQU Daarul Fath is an Islamic school, it also incorporates the national curriculum, which is highly relevant to 21st-century learning. This research aims to identify and analyze the 21st-century learning strategies implemented at PAUDQU Daarul Fath Pengging to develop 4C skills in early childhood.

## LITERATURE REVIEWS

21st-century skills are crucial for students to possess due to the demands of the evolving times that require specific skills for navigating life in the 21st century. The 21st-century skills, known as the 21st-century knowledge-skill rainbow, include Life and Career Skills, Learning and Innovation Skills, and Information Media and Technology Skills (Yusri, 2021)

According to the Ministry of Education of the Republic of Indonesia, the following learning models/strategies need to be developed for the 21st century:

1. Communication Skill: This refers to the ability of children to express their ideas, both during discussions or communication with peers and when completing tasks assigned by teachers.
2. Collaboration Skill: This involves demonstrating the ability to work effectively in groups.
3. Critical Thinking and Problem-Solving Skill: In this context, children should be able to use logical reasoning and their own abilities to solve problems independently or in groups.
4. Creativity and Innovation Skill: Learning models, methods, strategies, and skills for the 21st century should be more multimodal, multimethodic, multistrategic, and focused on real-world problems. For example, project-based learning, which is child-centered and project-based, is an approach that meets these criteria.

Early childhood education is the initial stage that children must go through when entering the world of education. ECE teachers must be able to enhance learning skills in accordance with current developments. The various 21st-century skills that students need to possess place high demands on teachers and ECE institutions to be more discerning in selecting effective models, methods, and strategies for addressing the demands of the 21st century (Dhifa Noor Restya, Muthia Lestari, 2024)

ECE teachers must be able to manage learning activities effectively so that children's skills can be optimally stimulated. One of the efforts that teachers can undertake to enhance ECE children's skills in the 21st century is by integrating 21st-century skills into classroom learning, from initial activities, through core activities, to concluding activities (Marwahningsih, N., & Darsinah, 2023)

## METHODS

This research employs a qualitative approach. The focus of this study is on the implementation of 21st-century learning strategies that have been applied at PAUDQU Daarul Fath in 2024. The subjects of the research are the principal and three teachers at PAUDQU Daarul Fath. The data sources include the respondents, namely the principal and the teachers. Data collection techniques are conducted through observation, interviews, and documentation (Sugiyono, 2016) The preparation of observation and interview guidelines for this research involves data triangulation with professionals related to the research topic to verify the accuracy of the data. The data analysis technique used in this study is the Miles and Huberman model (Samsu, 2017) which consists of three activities: data reduction, data display, and data verification. The data reduction process in this study involves selecting and focusing on important data relevant to the research topic. Data display or presentation is The data in this study is presented in the form of documentation and inventory of the strategies and concrete actions that the school has undertaken to support the implementation of 21st-century learning. The conclusions in this study are based on new findings or conditions observed in the field, related to the implementation of 21st-century learning strategies that have been applied at the school throughout 2024.

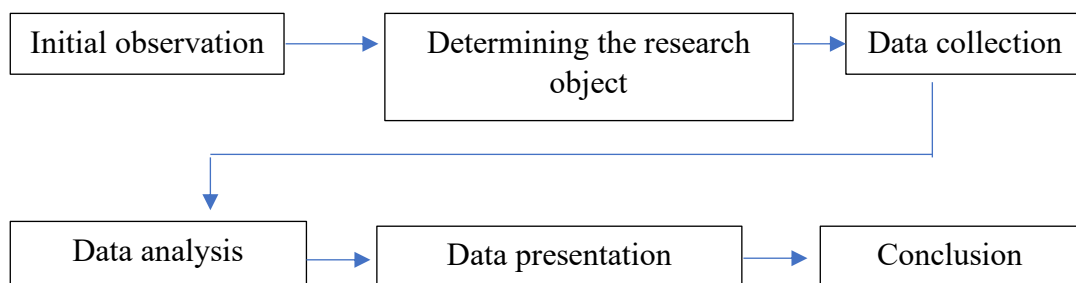


Figure 1. Research Design

## RESULT AND DISCUSSION

Based on interviews with various research subjects during data collection in the field, data from the interviews were found as shown in Table 1.

Table 1. Interview Results

Question	Subject	Interview Results
<ol style="list-style-type: none"> <li>1. What program plans have been made for 21st-century learning in early childhood education?</li> <li>2. What activities have been implemented?</li> <li>3. How do you evaluate the program?</li> </ol>	Principal	<ol style="list-style-type: none"> <li>1. Create a project-based learning program.</li> <li>2. Implement a literacy program by reading books in class every day.</li> <li>3. Conduct monthly monitoring with teachers to address challenges/obstacles during learning and follow-up actions.</li> </ol>
<ol style="list-style-type: none"> <li>1. Critical Thinking:               <ol style="list-style-type: none"> <li>a. How do teachers provide explanations to help children practice critical thinking?</li> <li>b. What activities have been conducted to train children's critical thinking skills?</li> </ol> </li> <li>2. Creative Thinking:               <ol style="list-style-type: none"> <li>a. How do teachers provide explanations to help children practice creative thinking?</li> <li>b. What activities have been conducted to train children's creative thinking skills?</li> </ol> </li> <li>3. Communication Skills:               <ol style="list-style-type: none"> <li>a. How do teachers provide stimulation to help children practice communication skills?</li> <li>b. What activities have been conducted to train children's communication skills?</li> </ol> </li> </ol>	Playgroup Teacher	<ol style="list-style-type: none"> <li>1. Critical Thinking:               <ul style="list-style-type: none"> <li>• Asking questions to children</li> <li>• Increasing conversation time with children</li> <li>• Fostering self-confidence in children</li> <li>• Providing interesting information/stories to stimulate thinking abilities</li> <li>• Setting a good example for children</li> <li>• Children are playing with blocks that are stacked high, then the blocks fall and the child becomes upset</li> <li>• Playing with puzzles</li> <li>• Reading books</li> </ul> </li> <li>2. Creative Thinking:               <ul style="list-style-type: none"> <li>• Asking questions and encouraging discussions</li> <li>• Inviting children to share ideas/opinions during activities</li> <li>• Encouraging children to try new things</li> <li>• Drawing what children observe and describe</li> <li>• Imitating animal sounds</li> <li>• Jumping, sticking, and cutting</li> </ul> </li> <li>3. Communication Skills:               <ul style="list-style-type: none"> <li>• Children's language ability to communicate with those around them</li> </ul> </li> </ol>


Question	Subject	Interview Results
<p>c. How do children respond during activities conducted by the teacher?</p> <p>4. Collaboration/Team Building:</p> <p>a. How do teachers provide stimulation to help children practice collaboration during activities?</p> <p>b. What activities have been conducted to train children's collaboration skills during activities?</p> <p>c. How do children respond during collaboration activities?</p>		<ul style="list-style-type: none"> <li>• Supporting children's social and emotional development</li> <li>• Enhancing children's logical thinking skills</li> <li>• Facial expressions and body language</li> <li>• Communicating with eye contact while speaking</li> <li>• Easily expressing themselves, which can boost their confidence</li> <li>• Practicing effective problem-solving</li> <li>• Improving social and emotional aspects in children</li> </ul> <p>4. Collaboration/Team Building:</p> <ul style="list-style-type: none"> <li>• Teaching listening skills</li> <li>• Organizing group work in the classroom</li> <li>• Creating a safe environment</li> <li>• Designing games with quiz variations</li> <li>• Conducting activities with group tasks</li> <li>• Children experience positive changes and show a willingness to interact when playing together</li> <li>• Effectively influencing the improvement of social behavior</li> </ul>
<p>1. Critical Thinking:</p> <p>a. How do teachers provide explanations to help children practice critical thinking?</p> <p>b. What activities have been conducted to train children's critical thinking skills?</p> <p>2. Thinking Creatively:</p> <p>a. How can teachers explain to children to help them practice creative thinking?</p>	<p>Group A Teacher</p>	<p>1. Critical Thinking: Give examples to children to explore an event or object with ideas, then invite them to think about the causes of the event and what alternatives can be done</p> <ul style="list-style-type: none"> <li>• Playing with building blocks</li> <li>• Playing with Lego</li> <li>• Playing with puzzles</li> </ul> <p>2. Creative Thinking: Give examples to children and encourage them to be open-minded and think broadly that events are not about right or</p>

Question	Subject	Interview Results
<p>b. What activities have been done to train children's creative thinking skills?</p> <p>3. Communication skills</p> <p>a. How do teachers stimulate children to practice their communication skills?</p> <p>b. What activities have been done to train children's communication skills?</p> <p>c. How do children respond when participating in activities conducted by the teacher?</p> <p>4. Collaboration/team building</p> <p>a. How do teachers stimulate children to practice collaboration during activities?</p>		<p>wrong; we can imagine our ideas.</p> <p>Drawing and coloring according to the child's imagination.</p> <p>Role-playing.</p> <p>3. Communication Skills: Encouraging children to retell stories from the teacher. Talking about their experiences during holidays. Already effective by understanding words like excuse me, sorry, please, and thank you.</p> <p>4. Collaboration/team building Working together is easier and tasks are completed faster.</p> <ul style="list-style-type: none"> <li>• Cleaning up toys together after playing</li> <li>• Building with blocks together</li> <li>• Assembling puzzles together</li> </ul>
<p>1. Critical Thinking:</p> <p>a. How do teachers explain so that children can practice critical thinking?</p> <p>b. What activities have been done to train children's critical thinking skills?</p> <p>2. Creative Thinking:</p> <p>a. How do teachers explain so that children can practice creative thinking?</p> <p>b. What activities have been done to train children's creative thinking skills?</p> <p>3. Communication skills</p> <p>a. How do teachers stimulate children to practice their communication skills?</p> <p>b. What activities have been done to train</p>	<p>Group B Teacher</p>	<p>1. Critical Thinking:</p> <ul style="list-style-type: none"> <li>• Setting a good example for children</li> <li>• Encouraging children's curiosity</li> <li>• Playing with children</li> <li>• Encouraging children to engage in literacy/reading books</li> <li>• Encouraging children to ask questions</li> <li>• Training children to make choices</li> </ul> <p>2. Creative Thinking:</p> <ul style="list-style-type: none"> <li>• Cultivate curiosity</li> <li>• Allow free playtime</li> <li>• Create an inspiring environment</li> <li>• Coloring</li> <li>• Cooking</li> <li>• Playing with playdough</li> </ul> <p>3. Communication Skills:</p>


Question	Subject	Interview Results
<p>children's communication skills?</p> <p>c. How do children respond when participating in activities conducted by the teacher?</p> <p>4. Collaboration/Team Building</p> <p>a. How do teachers stimulate children to practice collaboration during activities?</p> <p>b. What activities have been done to train children's collaboration skills during activities?</p> <p>c. How do children respond during collaboration activities?</p>		<ul style="list-style-type: none"> <li>• Encourage singing together with music</li> <li>• Make a habit of discussing the content of books/stories</li> <li>• Introduce musical instruments</li> <li>• Chat with children</li> <li>• Teach polite vocabulary</li> <li>• Develop non-verbal communication skills</li> <li>• Practice speaking in front of the class in turns</li> </ul> <p>4. Collaboration/Team Building: Through games that foster collaboration, such as discussions to solve problems through play and participating in competitions that match the child's interests, children can interact with their friends and learn how to help others achieve common goals.</p> <p>Group play Storytelling using the Zoon method Working on group projects</p> <p>Sense of togetherness Not feeling alone Teaching the concept of fair play/no cheating</p>


Meanwhile, the observational data collected by the researcher in the field about the 21st-century learning strategies implemented at PAUDQU Daarul Fath Pengging is shown in Table 2.

Table 2. Observation and Documentation Results

Activity	Observation	Documentation
<p>Playing with blocks independently</p>	<p>Critical Thinking: Children can recognize and identify different shapes of blocks.</p> <p>Creative Thinking: Children can create structures from blocks.</p>	



Activity	Observation	Documentation
	<p>Communicative: Children can express their opinions/ideas while playing with blocks.</p>	
<p><b>Assembling blocks in groups</b></p>	<p>Critical Thinking: Children can recognize and identify different shapes of blocks.</p> <p>Creative Thinking: Children can create structures from blocks.</p> <p>Communicative: Children can express their opinions/ideas while playing with blocks.</p> <p>Collaborative: Children can work together and engage in activities cooperatively.</p>	
<p><b>Playing with Lego independently</b></p>	<p>Critical Thinking: Children can recognize and identify different Lego shapes and the matching Lego pieces.</p> <p>Creative Thinking: Children can create various shapes using Lego.</p> <p>Communicative: Children can express their opinions/ideas while playing with Lego.</p> <p>Collaborative: -</p>	
<p><b>Playing with Lego in groups</b></p>	<p>Critical Thinking: Children can recognize and identify different Lego shapes and their matching pieces.</p> <p>Creative Thinking: Children can create various shapes using Lego.</p> <p>Communicative: Children can express their opinions/ideas while playing with Lego.</p> <p>Collaborative: Children can work together to create various objects from Lego with their peers.</p>	
<p><b>Playing with puzzle independently</b></p>	<p>Critical Thinking: Children can express ideas/thoughts on how to correctly assemble a puzzle.</p> <p>Creative Thinking: Children can try to solve problems when they</p>	

Activity	Observation	Documentation
	<p>have difficulty assembling puzzle pieces.</p> <p>Communicative: Children can share and communicate with friends/educators while working on assembling the puzzle.</p> <p>Collaborative: -</p>	
<b>Free drawing</b>	<p>Critical Thinking: Children can express ideas/thoughts about the image they will create.</p> <p>Creative Thinking: Children can draw various shapes according to their ideas/thoughts using the provided materials.</p> <p>Communicative: Children can describe the artwork/image they have created.</p> <p>Collaborative: Children work together with friends to create an image on a single sheet of paper.</p>	

Based on the data from interviews and observations above, it can be explained that although PAUDQU Daarul Fath Pengging is a pesantren-based early childhood education center, it has also implemented various 21st-century learning strategies. PAUDQU Daarul Fath Pengging not only teaches pesantren knowledge but also provides various play activities that align with the characteristics of 21st-century learning. The 21st-century learning activities that have been implemented at PAUDQU Daarul Fath Pengging are as shown in Table 3.

Table 3. Matrix of 21st-Century Learning Activities at PAUDQU Daarul Fath

Characteristics of 21st-Century Learning	Form of Activity
<b>Critical Thinking</b>	<ul style="list-style-type: none"> <li>- Playing with blocks, Lego, and puzzles independently or in groups</li> <li>- Storytelling and Q&amp;A using storybooks</li> <li>- Encouraging children to explore events, including their causes and effects.</li> </ul>
<b>Creative Thinking</b>	<ul style="list-style-type: none"> <li>- Playing with blocks, Lego, and puzzles independently or in groups</li> <li>- Free drawing and painting</li> <li>- Discussing and Q&amp;A to encourage children to try new things</li> </ul>

	<ul style="list-style-type: none"> <li>- Allowing children the freedom to create work according to their ideas and concepts</li> <li>- Creating an inspiring play environment</li> </ul>
<b>Communicative</b>	<ul style="list-style-type: none"> <li>- Storytelling, singing, and recounting experiences in front of the class</li> <li>- Q&amp;A, communicating, and discussing with children during activities</li> <li>- Teaching non-verbal communication skills</li> </ul>
<b>Collaborative</b>	<ul style="list-style-type: none"> <li>- Playing with blocks, Lego, and puzzles in groups</li> <li>- Teaching the concept of fair play</li> <li>- Engaging in competitive play in groups</li> <li>- Cleaning up toys together</li> </ul>

## CONCLUSION

Based on the results and discussion above, it can be concluded that PAUDQU Daarul Fath Pengging has implemented 21st-century learning. Learning is not only conducted using traditional pesantren methods/strategies but also adapts to current trends. The 21st-century learning strategies implemented at PAUDQU Daarul Fath Pengging involve various activities designed to enhance children's 21st-century skills, including critical thinking, creative thinking, communication, and collaboration. Efforts to develop these 21st-century skills are realized through activities such as: playing with blocks, Lego, and puzzles independently or in groups, storytelling/recounting known information, communicating during activities, teaching the concept of fair play, and engaging in various collaborative activities.

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