

## 21<sup>st</sup> Century Skills-Based Learning at Nahdlatul Ulama Higher Education (Case Study of Islamic Education Program (PAI) at UNISNU Jepara)

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**Abstract.** *21<sup>st</sup>-century education demands a more innovative approach to prepare students for future challenges. This article explores the implementation of 21<sup>st</sup>-century skills-based learning in the Islamic Religious Education (PAI) Study Program at the Nahdlatul Ulama Islamic University (UNISNU) Jepara. This study uses qualitative methods to analyze how 21<sup>st</sup>-century skills are integrated into the PAI curriculum and their impact on student learning outcomes. Despite notable achievements in implementing 21<sup>st</sup>-century skills, the study findings identified significant weaknesses in critical thinking skills among female students at UNISNU Jepara. This study encourages educators to explore alternative methods to improve critical thinking skills, ensuring students can apply them efficiently in different academic contexts. In addition, students are expected to actively foster curiosity, collaborate with peers and lecturers, and improve literacy skills by exploring various sources of information. Collaborative efforts between educators and students are vital to creating an environment that supports the continuous improvement of critical thinking skills, reflecting a commitment to excellence in education and skills development. This article offers insights and recommendations for faith-based higher education institutions to integrate 21<sup>st</sup>-century skills effectively.*

**Keywords.** *21<sup>st</sup> Century Skills; Learning; Nahdlatul Ulama Higher Education; Nahdlatul Ulama*

**Abstrak.** Pendidikan abad ke-21 menuntut pendekatan yang lebih inovatif untuk mempersiapkan siswa menghadapi tantangan masa depan. Artikel ini mengeksplorasi penerapan pembelajaran berbasis keterampilan abad ke-21 di Program Studi Pendidikan Agama Islam (PAI) di Universitas Islam Nahdlatul Ulama (UNISNU) Jepara. Menggunakan metode kualitatif, penelitian ini menganalisis bagaimana keterampilan abad ke-21 diintegrasikan dalam kurikulum PAI dan dampaknya terhadap hasil pembelajaran mahasiswa. Meskipun terdapat pencapaian yang patut dicatat dalam implementasi keterampilan abad ke-21, temuan penelitian mengidentifikasi adanya kelemahan signifikan dalam keterampilan berpikir kritis di kalangan mahasiswi UNISNU Jepara. Sebagai tanggapan, penelitian ini mendorong para pendidik untuk mengeksplorasi metode alternatif untuk meningkatkan keterampilan berpikir kritis, memastikan bahwa mahasiswa dapat menerapkannya secara efisien dalam konteks akademis yang berbeda. Selain itu, mahasiswa diharapkan untuk aktif menumbuhkan rasa ingin tahu, berkolaborasi dengan teman sebaya dan dosen, serta meningkatkan keterampilan literasi melalui eksplorasi berbagai sumber informasi. Upaya kolaboratif antara pendidik dan mahasiswa menjadi kunci dalam menciptakan lingkungan yang mendukung peningkatan berkelanjutan keterampilan berpikir kritis, mencerminkan komitmen terhadap keunggulan dalam pendidikan dan pengembangan keterampilan. Artikel ini menawarkan wawasan dan rekomendasi untuk lembaga pendidikan tinggi berbasis agama dalam mengintegrasikan keterampilan abad ke-21 dengan efektif.

**Kata kunci.** Keterampilan Abad ke-21; Pembelajaran; Pendidikan Tinggi Nahdlatul Ulama; Nahdlatul Ulama.

## A. INTRODUCTION

The impact of globalization has been far-reaching, affecting various aspects of life, including the education sector. Universities have a crucial responsibility of producing competent graduates, and as such, they must ensure that the educational process is aligned with the competency demands of the 21<sup>st</sup> century (Arsanti, Zulaeha, Subiyantoro, & Haryati, 2021). The education system must focus on developing skills such as communication, collaboration, critical thinking, and creativity to ensure that graduates are equipped to meet the demands of the modern world. These skills are essential for success in the 21<sup>st</sup> century, and universities must prioritize them in their educational process to produce competent graduates (Anagün, 2018). A well-designed educational framework is crucial to support students in developing essential skills like critical thinking, effective communication, collaboration, and creativity. This should include practical experiences, hands-on learning, and exposure to diverse perspectives and cultures. Additionally, students should have access to mentors and resources that can guide them in their personal and professional growth (Destriani, 2023).

In the current era, technological advancements are happening at an unprecedented pace. These developments have penetrated various fields, including education. Educators need to be technologically literate and keep up with these changes. However, this is not limited to teachers and lecturers alone. Students and university students must also be able to keep up with technological developments to succeed in the modern world (Effendi & Wahidy, 2019).

The application of technology, innovation, and practical strategies in education significantly impacts the competitiveness of graduates. Universities can better prepare students for the modern world by incorporating these elements into the educational process. Graduates with technological and innovative skills are better equipped to succeed in their careers and contribute to their fields. Many higher education institutions have implemented programs to enhance education quality and prepare students for the workforce. These programs include Link And Match, which bridges the gap between study programs and the world of work. Institutions are also developing student competencies and increasing ICT-based infrastructure to support continuous learning. In Indonesia, universities prioritize preparing graduates to master 21<sup>st</sup>-century skills, including critical thinking, communication, collaboration, and creativity. Renovating the curriculum to include courses that improve soft skills is another initiative to prepare graduates for success. Skilled lecturers provide practical soft skills training to support this effort. By doing so, universities can produce competent and competitive graduates, contributing to national growth and development (Carneiro, 2000; Jufriadi, Huda, Aji, Pratiwi, & Ayu, 2022; Wahyuni, 2018).

The universities in Indonesia have created curricula that offer students the widest possible range of opportunities to acquire various types of knowledge necessary for success in the modern world. This is in line with the policy of the Minister of Education and Culture (Kemendikbud) called Merdeka Belajar Kampus Merdeka (MBKM). Through this policy, students are encouraged to pursue a more comprehensive and interdisciplinary education, with the freedom to choose courses across different fields of study. This approach is aimed at producing graduates who are well-rounded and equipped with the necessary knowledge and skills to succeed in their careers (Junaidi & Dkk, 2020). The

concept of freedom to learn is rooted in the educational philosophy of the founding fathers of Indonesia. They recognized the natural right of individuals to obtain knowledge and experience freely, to create individuals with exemplary character, and ultimately, a new society. This belief is reflected in the current educational system, which prioritizes the development of not only academic skills but also personal and social skills. By nurturing the whole individual, the education system aims to produce graduates who are not only competent in their respective fields but also have strong values and a sense of social responsibility (Pangestu & Rochmat, 2021)

The implementation of the MBKM platform in higher education institutions was initiated through various measures, such as the elaboration of study programs in line with the MBKM platform, codification of the internal quality assurance system, and increased collaboration. The study program utilizes the MBKM procedure (MBKM Curriculum) which has been optimized to create a range of learning activities or BKP outside the education area, including Student Exchange, Teaching Assistance, School Internships, Entrepreneurship Activities, Independent Projects, KKN to Build Villages, Research, and Humanitarian Programs (Jufriadi et al., 2022). Implementation of MBKM in higher education institutions, particularly at Nahdlatul Ulama Jepara Islamic University, can significantly contribute to honing students' skills in communication, collaboration, critical thinking, and creativity. The platform provides a range of learning activities that can help students develop these skills and prepare them for success in the modern world. By integrating MBKM into the curriculum, universities are taking a step towards producing competent and competitive graduates who can contribute to the growth and development of the nation.

Developing 21<sup>st</sup>-century skills in their learning can equip students with the ability to face diverse opportunities and challenges in a world filled with rapid advances in technology and information. Numerous experts have emphasized the importance of mastering various 21<sup>st</sup>-century skills to succeed in a rapidly evolving world. By prioritizing these skills, universities are enabling their students to acquire the knowledge and competencies required to thrive in the 21<sup>st</sup> century. This is critical as the ability to adapt and innovate is becoming increasingly important in a world that is developing quickly and dynamically (Septikasari, 2018).

Based on a study of previous research conducted by (Lutfiyana, 2023; Mariana, 2020) it is known that the 21<sup>st</sup>-century era demands significant changes in various fields, including education. This study emphasizes the importance of lecturers adopting skills-based learning methods to make teaching and learning more exciting and interactive for students. The similarity of this study with previous studies is the use of skills-based learning to solve the challenges of the 21<sup>st</sup> century. Quality education can develop the potential of the education system and components comprehensively, not only in quantity but also in producing quality graduates who can survive and adapt to developments in the era (Wahid & Hamami, 2021).

Meanwhile, according to (Priyanto, 2020) to face the era of 21<sup>st</sup>-century skills, education requires further, more in-depth steps in reviewing the curriculum according to the needs of the times. In this context, leaders of Higher Education, especially Nahdlatul Ulama Higher Education, need to pay special attention to efforts to internalize, actualize, and implement in education management (Palahudin, Hadiana, & Basri, 2020).

The research aims to investigate the integration of 21<sup>st</sup>-century skills-based learning within the context of Nahdlatul Ulama Higher Education, with a specific focus on the PAI UNISNU Jepara Study Program. The objectives include assessing current teaching practices, identifying key 21<sup>st</sup>-century skills relevant to Islamic Religious Education, evaluating student engagement, examining the impact on learning outcomes, understanding teacher

perspectives and preparedness, identifying barriers and facilitators, and providing recommendations for the enhancement of the curriculum. Through this case study, the goal is to contribute insights that can inform improvements in teaching methodologies and curriculum development for a more holistic and relevant educational experience.

This study significantly contributes to developing innovative learning methods by implementing 21<sup>st</sup>-century skills. With a focus on Islamic religious education, this study enriches insights into how religious subjects can be taught in a more relevant and contextual way that is relevant to the needs and challenges of the times. This study provides an in-depth evaluation of the implementation of 21<sup>st</sup>-century skills in the PAI study program of UNISNU Jepara. Educational policymakers can use the findings of this policymaker to sign curricula and policies that support the integration of the 21<sup>st</sup>-century Skills in the national education system, especially Nahdlatul Ulama Higher Education.

## **B. METHOD**

The research methodology employed in the article titled "21<sup>st</sup> Century Skills-Based Learning at Nahdlatul Ulama Higher Education (Case Study of the PAI UNISNU Jepara Study Program)" is a case study and uses a qualitative approach, characterized by a thorough approach to understanding the integration of 21<sup>st</sup>-century skills within the context of Nahdlatul Ulama Higher Education, with a specific focus on the PAI UNISNU Jepara Study Program. The study begins with an extensive review of pertinent literature on 21<sup>st</sup>-century skills in education, emphasizing the unique characteristics of Islamic Religious Education. Subsequently, a case study design is adopted to provide a nuanced exploration of the specified institution, allowing for an in-depth examination of the integration of 21<sup>st</sup>-century skills (Leavy, 2017; Yin, 2011).

Data collection involves a multifaceted approach. Interviews are conducted with teachers, students, and administrators involved in the PAI UNISNU Jepara Study Program, seeking insights into their perspectives on 21<sup>st</sup>-century skills, teaching methodologies, and challenges. Classroom observations are undertaken to observe teaching methods and assess student engagement directly. Additionally, document analysis is employed to scrutinize relevant materials such as curriculum documents and institutional policies.

The collected data is subjected to both qualitative. Qualitative data are analyzed thematically to identify patterns and themes, providing a rich understanding of the context. Ethical considerations are paramount, with the research adhering to ethical guidelines, including obtaining informed consent, ensuring confidentiality, and prioritizing the well-being of participants.

The article concludes by presenting the findings coherently, drawing connections between the data and the research objectives. Recommendations are provided for enhancing the integration of 21<sup>st</sup>-century skills in the PAI UNISNU Jepara Study Program, offering valuable insights for improving educational practices in this specific context and potentially influencing broader educational strategies. Through this meticulous and balanced research methodology, the study aims to contribute to the ongoing discourse on 21<sup>st</sup>-century skills in educational settings, particularly within the framework of Islamic Religious Education at Nahdlatul Ulama Higher Education.

## **C. RESULT AND DISCUSSION**

### **1. Critical Thinking and Problem Solving**

Critical thinking refers to the process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and evaluating information gathered through observation, experience, reflection, reasoning, or communication. The ultimate goal of critical thinking is to guide one's belief and action through a thorough understanding and

evaluation of information (Scriven & Paul, 1987). Problem-solving is the process of identifying and resolving existing problems or conflicts by finding the most appropriate and effective solution. It involves analyzing the problem, identifying potential solutions, evaluating the pros and cons of each option, and selecting the best course of action to address the issue at hand. Effective problem-solving requires critical thinking, creativity, and the ability to work collaboratively with others (Sulasamono, 2012). Problem-solving is the process of resolving existing problems by finding the right solution (Sole & Anggraeni, 2018). Mastering critical thinking skills is not merely an educational goal but also a fundamental process that enables students to confront and overcome uncertainties in the future. It's essential to cultivate critical thinking in students as it helps them analyze situations objectively, consider multiple perspectives, and make informed decisions. These skills are not only useful in academic settings but also in personal and professional life (Pahlevi., 2015).

Critical thinking is a crucial skill that has been refined and developed over time by scholars such as Dewey and Glaser. The Watson-Glaser Critical Thinking Appraisal is a widely used test that has contributed to the development of critical thinking. This high-level reasoning ability allows individuals to evaluate phenomena from multiple perspectives scientifically and intelligently to make informed decisions. Critical thinking also encourages individuals to challenge and reevaluate their assumptions and beliefs based on supporting evidence and conclusions. By utilizing cognitive skills and strategies, critical thinking can play a significant role in achieving learning objectives (Manurung, Fahrurrozi, Utomo, & Gumelar, 2023). The primary objective of critical thinking is to produce purposeful, reasoned, and goal-oriented thinking that can be applied to solve problems, draw valid conclusions, and make informed decisions. By utilizing critical thinking, individuals can make the most of their skills, wisely and effectively in specific contexts and types of tasks. This skill is particularly useful in situations where decision-making is complex or ambiguous, and where the consequences of decisions can be significant. Ultimately, critical thinking allows individuals to approach problems with a more analytical and strategic mindset, leading to more effective solutions and better outcomes (Firdaus, Suryanti, & Azizah, 2020).

Developing critical thinking skills is essential for students as it enables them to find effective solutions to a wide range of problems that they may encounter in life. Critical thinking helps students approach complex and uncertain situations with a rational and analytical mindset, enabling them to tackle problems with confidence. This skill is particularly valuable in situations where conditions and circumstances may be unpredictable or ambiguous. By applying critical thinking skills, students can analyze problems from various angles, evaluate information and evidence, and make informed decisions that lead to effective outcomes. Ultimately, the ability to think critically is one of the most important skills that students can acquire, as it can be applied to a wide range of challenges in both academic and real-world contexts (Jose M Ocampo, 2018).

During lectures, students acquire new knowledge and skills, applying them to various assignments. The learning process includes presentations and Q&A discussions where students engage in critical thinking through questions and answers related to the presented theme. These discussions provide a crucial opportunity for students to interact, ask challenging questions, and contribute to a dynamic learning atmosphere.

Students actively express critical thinking, respond to challenges, and enhance shared understanding during these discussions. They also have the chance to address difficult questions, aiming for a deeper understanding. The lecturer analyzes the discussion results to ensure alignment with the appropriate corridor of discussion, fostering a correct and in-

depth grasp of the concept. This interactive approach not only sharpens critical thinking skills but also deepens students' understanding of the studied material.

Based on the observations conducted on October 22, 2023, researchers concluded that although students engaged in active question-and-answer discussions, it was only the female students who communicated actively to express their thoughts. The researchers found that only a small portion of students were active participants, with the majority tending to be passive. These findings were further supported by interviews conducted with Mr. Darnoto, the lecturer informant.

It is important to consider these observations and interviews when designing effective teaching strategies. Teachers must work to encourage all students to participate actively in discussions and express their thoughts, regardless of their gender or personality. By doing so, teachers can help students develop critical thinking skills and gain a deeper understanding of the subject matter. It is also essential to create a safe and inclusive learning environment that fosters open communication and encourages all students to engage in discussions and express their views.

Darnoto highlighted that while critical thinking is emphasized as a learning orientation, the actual critical thinking skills of students appear to be lacking. Despite their capability to think critically, students often provide answers during class discussions that may not align with the theme or maybe superficial. Darnoto suggests that this may be attributed to a low level of interest in understanding the presented material. The reluctance to read is also noted, which is not solely the students' fault, as sometimes assignment files are sent late to the WhatsApp group, leaving the audience with insufficient time to prepare and engage with the material. This situation underscores the importance of addressing factors that impact students' readiness and interest in actively participating in discussions and fostering a more conducive learning environment.

From the statements obtained through interviews and observations, a conclusion can be drawn that the critical thinking skills of students in the UNISNU Jepara PAI study program are relatively low. This appears to be closely linked to the students' limited literacy skills, suggesting that improvements in literacy may contribute to enhancing their critical thinking abilities. The challenges mentioned, such as late submission of assignment files impacting students' preparation, indicate a need for interventions to address both literacy and logistical issues, aiming to cultivate a more conducive learning environment that fosters robust critical thinking skills among the students.

The development of critical thinking skills, often categorized as higher-level thinking, entails the capacity to analyze information, observations, and encountered problems, and make decisions grounded in logic. This skill is deemed highly significant, particularly in the context of academic lectures. Critical thinking allows individuals to engage with content at a deeper level, promoting a more thorough understanding of concepts and facilitating informed decision-making. In an academic setting, it empowers students to assess and interpret information critically, contributing to a more robust and comprehensive learning experience (Wahyudiono, 2023).

For students being researched as prospective teachers, the possession of critical thinking skills is crucial. This is particularly significant as these students are being prepared to actively engage in the educational process within schools or formal educational institutions. Critical thinking skills empower prospective teachers to navigate complex educational scenarios, analyze information, and make reasoned decisions. As educators, they play a pivotal role in shaping the learning experiences of their future students, and the cultivation of robust critical thinking skills equips them to approach teaching and problem-solving with depth and efficacy (Wahyudiono, 2023).

Based on the aforementioned theory, students at UNISNU JEPARA, especially in the PAI Study Program, are expected to actively engage in the development of critical thinking across all aspects of their education. This emphasis on critical thinking serves as a fundamental preparation for students as they transition into the role of educators upon graduation. Possessing critical thinking skills enables students not only to comprehend and apply knowledge effectively but also to impart these skills to their future students. By instilling critical thinking abilities, students can contribute to the cultivation of similar skills in their students, creating a cycle of thoughtful and analytical learning within the educational context.

## 2. Collaboration

The collaborative theory encompasses diverse concepts and principles aimed at facilitating a comprehensive understanding of teamwork. It involves key elements such as conflict management, creativity, problem-solving, and communication. Collaboration is defined as a pattern and a form of relationship established among individuals or organizations who aim to share, actively participate, and collectively agree to take joint action. This collaboration involves the sharing of information, resources, benefits, and responsibilities, as well as making joint decisions to attain a shared objective or address various challenges encountered by those involved in the collaboration. The essence of collaboration lies in the mutual commitment to achieving a common goal through collective efforts (Choirul, 2020).

PAI (Islamic Education) student-teacher candidates are required to possess collaboration skills. Understanding the essence of collaboration is crucial for these candidates as they enter schools or formal educational institutions. Proficient collaboration skills enable teaching staff to effectively work with students and cultivate creative and innovative capacities in them.

One effective strategy for teaching collaboration is through cooperative learning. This approach incorporates moral values, emphasizes respect for both individuals and groups, instills a sense of individual and group responsibility, and encourages pair and group work. Moral values form the foundation of this cooperative learning strategy, fostering an environment where students learn to work together harmoniously. Additionally, various learning strategies implemented within group settings contribute to the development of collaboration skills, preparing teacher candidates to engage in collaborative practices in their future roles (Wahyuni, 2018).

In an interview with PAI study program student, Yani, on November 8, 2023, the informant said, *"In lectures, a continuous collaboration dynamic exists between students and lecturers. This collaboration extends to problem-solving, generating ideas from questions during discussions, and engaging in ongoing lectures. Lecturers actively foster a cooperative environment, providing ample opportunities for student participation. Collaborative efforts take various forms, including technological adaptations such as crafting engaging PowerPoint presentations or simulating assignments for creating educational videos. This collaborative approach enhances the learning experience, leveraging both traditional and technology-driven methods to encourage active student involvement and a deeper understanding of the subject matter."*

Collaboration between students and lecturers at UNISNU Jepara, especially in the PAI Study Program, is notably strong. This highlights students' enthusiasm for collaborating in the integration of technology, guided by the expertise of lecturers in the classroom. The effectiveness of this collaboration also hinges on the technological literacy of lecturers; without such literacy, they would be unable to guide students in adapting to technology or participating in collaborative efforts.

The rapid progress in education is heavily reliant on teachers' ability to manage and innovate every aspect of the learning process they facilitate. The expectation is that prospective teaching staff will continue to actively strive for improvement and regularly update their skills. This commitment ensures the ongoing development of both educators and students, fostering an environment of continuous learning and adaptability to the evolving landscape of educational technology (Effendi & Wahidy, 2019).

Indeed, the role of a lecturer in guiding students to collaborate in learning and adapting technology in lectures is crucial for transitioning towards 21<sup>st</sup>-century learning. Beyond imparting essential skills to prospective teachers, lecturers play a pivotal role in fostering an environment where students can expand their knowledge and actively engage in collaborative efforts. This dynamic encourages students to contribute to new, creative, and innovative discoveries, laying the foundation for practical implementation when they eventually become teachers in formal educational institutions. The lecturer's guidance not only shapes future educators' abilities but also cultivates a culture of continuous learning and exploration, aligning with the demands of modern education.

### **3. Communication**

The communication skills of students can be trained and improved through the implementation of the MBKM Curriculum. Developing 21<sup>st</sup>-century skills such as communication is crucial for students to succeed in their future careers and personal lives. With the right training and support, students can become more effective communicators and better equipped to navigate the challenges of the modern world (Jufriadi et al., 2022). Communication is the dynamic process of language exchange that occurs within the human realm. It encompasses various contexts, including intrapersonal, group, and mass communication. Researchers in the field of communication have consistently demonstrated that language remains the most effective medium for facilitating interactions between individuals. This holds in various scenarios, including counseling and coaching activities, teaching and learning processes, workplace meetings, and beyond. Language serves as a fundamental tool for conveying thoughts, ideas, and information, playing a central role in human interaction and understanding across diverse settings (Septikasari, 2018).

The students at UNISNU Jepara's PAI Study Program actively engage in the lecture process, both within and outside the classroom. Communication involves various elements such as expressions, body language, intonation, pauses, and more, all of which contribute to conveying messages effectively. The appropriateness of these elements is crucial, as they impact the perceived value of the message by the recipient or interlocutor. Therefore, individuals must be mindful of context, attitudes, and language politeness, as communication skills reflect the quality of the communicator.

Observations on October 22, 2023, during the Educational Technology course at the PAI Study Program revealed active communication among students. The question-and-answer discussions saw students responding to each other, fostering a collaborative atmosphere. Lecturers also actively collaborated with students, breaking down barriers to create engaging lectures and a vibrant class environment. This approach aims to prevent monotony and ensure that students feel comfortable while comprehending the lecture material.

In an interview with student informant Maulana Andriansyah, it was highlighted that students communicate actively with each other, fostering harmonious dialogue. During question-and-answer discussions, language is tailored to the situation, ensuring easy understanding for all students. This approach underscores the importance of effective and comfortable communication in the learning process, " *In class lectures, classmates communicate with each other using everyday language, ensuring ease of understanding and*



*fostering a comfortable communication atmosphere. This communicative language is occasionally mixed with Indonesian, especially during question-and-answer discussions. When interacting with lecturers, students employ courteous language, recognizing the role of lecturers as guides in the learning process. Lecturers, in turn, actively engage in communication with students during lectures, contributing to an enthusiastic and non-monotonous class atmosphere. This two-way communication not only facilitates a dynamic learning environment but also strengthens the student-teacher relationship, enhancing the overall educational experience. The combination of everyday language use among peers and respectful communication with lecturers contributes to a positive and collaborative learning environment within the classroom."*

The key to engaging and interesting learning lies in interactive communication between lecturers and students. When there is a dynamic exchange of ideas, questions, and discussions, it not only enhances understanding but also keeps the learning process vibrant and stimulating. Interactive communication fosters active participation, encourages critical thinking, and allows students to feel more connected and engaged with the subject matter. This approach transforms learning from a passive experience to an interactive and collaborative journey, making the educational process more enjoyable and effective.

Successful communication goes beyond the mere transmission of information; it has the transformative power to influence and change the attitudes of individuals involved in the communication process. Effective communication entails a meaningful exchange of information, ideas, beliefs, feelings, and attitudes between two or more individuals. The ultimate measure of success in communication lies in whether the outcomes align with the expectations of those involved, reflecting a shared understanding and impact on attitudes or perspectives (Effendi & Wahidy, 2019).

The interactive communication between UNISNU Jepara students and lecturers in the Islamic Education Study Program is a notable feature of the learning environment. When students encounter unclear material, lecturers respond normatively. In lectures, students are given opportunities to ask questions about the material, specifically addressing parts they find challenging. The lecturer, acting as the course teacher, gradually answers these questions, often utilizing analogies to make abstract concepts more tangible.

A noteworthy aspect is the appreciation system employed by lecturers, where they add points to students' activeness scores. This approach serves as a motivational tool, encouraging students to actively participate in asking and answering questions during lectures. The effectiveness of this method is evident in the enhanced communication within the classroom, fostering enthusiasm among students. Importantly, this indirect outcome contributes to the improvement of students' overall communication skills. The interactive and encouraging teaching methods create a positive and engaging learning atmosphere.

#### **4. Creativity and Innovation**

Creativity, a distinctly human quality, embodies innovative, practical, and comprehensible ideas or thoughts. It is the prowess to craft novel forms within the realms of art or problem-solving using inventive approaches. The genesis of the creative process is contingent upon encountering a challenge that incites five distinctive types of creative behavior.

Firstly, there is Fluency, denoting the capacity to articulate analogous ideas to resolve a predicament. Secondly, Flexibility manifests as the adeptness to generate a spectrum of ideas for problem-solving, transcending customary categories. Thirdly, Originality, surfaces in the ability to proffer a response that is either unique or extraordinary. Fourthly, Elaboration (Detail) comes to the fore, exemplifying the proficiency to articulate intricate ideas and provide a clear direction for transforming concepts into reality. Lastly, Sensitivity

emerges as a responsiveness to perceive and generate solutions for problems within a given situation (Septikasari, 2018). The creativity is demonstrated by the ability to generate new ideas (Wahyuni, 2018).

In higher education, students are expected to cultivate creativity across various contexts, encompassing both academic and non-academic spheres. Academically, students are encouraged to not only grasp the content taught by lecturers but also to engage in experimentation and exploration of new ideas. This emphasis on creativity holds significant value in the professional world, where being innovative aids in problem-solving and introduces novel perspectives.

For prospective PAI (Islamic Religious Education) teachers, the mandate is to develop creative and innovative learning tools to enhance students' understanding and interest in the subjects. The ability to create engaging learning materials is seen as a crucial skill in facilitating effective education.

While the contemporary era facilitates creative and innovative thinking, it's underscored that belief and action are paramount for actualizing these ideas. Prospective teachers play a pivotal role in nurturing students' creative resources, ensuring their ability to compete in a broader professional landscape. The development of creative and innovative abilities is viewed as an ongoing process.

Observations conducted on October 22, 2023, in class 5AIA7 of the PAI study program revealed that lecturers effectively stimulated students' creativity through group assignments focused on crafting engaging learning media. The positive outcome of these assignments, evident in the creativity and innovation displayed by student groups, showcased the success of this approach.

Furthermore, audio-visual-based PAI learning media assignments challenged students to express their creativity in video production. The lecturer's satisfaction with the results indicated that students successfully harnessed their creative and innovative capacities in completing these assignments.

In an interview conducted on November 8, 2023, with the lecturer informant, Mr. Sofiyudin, it was emphasized that guiding students in expressing their creative and innovative potential involves continuous guidance to ensure optimal and satisfactory outputs in their assignments. This approach aligns with the commitment to foster and channel students' creativity effectively. *" By delving into the untapped potential of female students recognized for their capabilities, our approach involves guiding them through a project within their respective courses. The objective is to steer these students towards developing their ideas, fostering creativity and innovation, and transforming their projects into practical and beneficial products. This not only ensures that they receive a diploma upon graduation but also equips them with tangible and valuable work. The emphasis is on creating work that transcends academic requirements, offering students the opportunity to produce something meaningful and marketable. The goal is that, upon graduation, these students not only possess a diploma symbolizing their academic achievements but also have a valuable and marketable product resulting from their creative and innovative endeavors. This approach not only enhances their academic success but also empowers them with practical skills and assets for their future careers."*

## **5. 21<sup>st</sup> Century Skills for Islamic Education Students**

The challenges facing the education sector in implementing learning models that are more suited to the 21<sup>st</sup> century are quite significant. The education system needs to evolve along with the new technologies and advancements in the modern era. However, several hurdles need to be overcome, such as the lack of resources, outdated teaching methods, and resistance to change. It is important to find ways to adapt and innovate to provide the

best possible education to students in today's rapidly changing world (Reginata Jenike Mhb. & Muhammad Mukhlis, 2023). According to global standards, 21<sup>st</sup>-century skills can be divided into four categories. The first category is ways of thinking, which includes skills such as creative and innovative thinking, critical thinking, problem-solving, decision-making, and learning to learn. The second category is how to work, which involves skills such as communication and collaboration. The third category is tools for work, which includes having general knowledge and being skilled in operating science and technology. The fourth category is knowing how to live, which involves having a career, being personally and socially responsible, and having an awareness of cultural competence. These skills are crucial in preparing individuals for success in the modern world and should be emphasized in education systems globally (Prayogi & Estetika, 2019).

The 4C skills, namely Critical Thinking, Creativity, Communication, and Collaboration, are highly valuable as they integrate with traditional scientific disciplines. These skills provide a focused approach that aids students in comprehending and applying knowledge, aligning with the latest learning paradigms. The emphasis on these skills goes beyond rote memorization, fostering a holistic understanding that encourages critical thinking, creative problem-solving, effective communication, and collaborative teamwork. This approach reflects contemporary educational strategies that prioritize practical and applicable skills alongside traditional subject matter (Kivunja, 2015).

In the context of education in the 21<sup>st</sup> century, information and communication technology (ICT) is undergoing significant changes that have the potential to bring progress and growth. The advancements in ICT have transformed the way people communicate, learn, and access information. As a result of the upheaval and progress that occurred in the 21<sup>st</sup> century, the field of education has had to adjust so that students can learn effectively and teachers can convey their knowledge more engagingly and interactively. Incorporating technology into the classroom can help to enhance the learning experience and make it more relevant to the digital age. Educators need to stay up-to-date with the latest technological advancements and find innovative ways to incorporate them into their teaching methods. This will help to ensure that students are prepared for the challenges of the modern world and have the necessary skills to thrive in their future careers (Yusliani, Burhan, & Nafsih, 2019).

The goal of 21<sup>st</sup>-century education is to unlock and develop students' full potential while aligning with the demands of contemporary times. Educational programs are designed with a student-centric approach, emphasizing teamwork, guidance, and integration with society. (Ningrum, Khasani, Rosi, Priatmoko, & Sugiri, 2021) The emphasis on 21<sup>st</sup>-century learning is crucial for equipping students with the skills necessary for success in the present era. This approach prioritizes not only academic knowledge but also the development of practical and adaptable skills that are essential for navigating the complexities of the modern world (Wahyudiono, 2023).

Indeed, the current educational landscape is situated within the knowledge age, marked by rapid and expansive growth in knowledge. The significance of 21<sup>st</sup>-century education is escalating to guarantee that students acquire learning and innovative skills. This includes proficiency in utilizing technology and information media, along with the cultivation of essential life skills that enable them to work effectively and navigate various challenges successfully. The emphasis on 21<sup>st</sup>-century education acknowledges the evolving demands of the modern world, aiming to equip students with the tools and competencies necessary for both personal and professional success in an ever-changing global environment (Sole & Anggraeni, 2018)

The implementation of 21<sup>st</sup>-century skills at Nahdlatul Ulama Islamic University Jepara (UNISNU Jepara) involves the incorporation of technology-based learning methods.

This includes the use of tools such as PowerPoint and Canva for creating engaging presentations directly on laptops. The integration of technology in learning is viewed as more appealing to students compared to traditional models, emphasizing the importance of adapting to contemporary preferences.

Lecturers play a pivotal role in this process, serving as educators who not only prepare materials but also act as models and design strategies to ensure optimal learning outcomes. The technology-driven approach is further facilitated through Learning Management Systems (LMS), E-Learning platforms, and SIAMA. The My Unisnu application, accessible through Playstore, streamlines access to lecture materials, attendance records, and e-library resources, which include recommended e-books.

Even during the challenges posed by the COVID-19 pandemic, the PAI UNISNU JEPARA study program successfully adapted to technology-based lectures through platforms such as Google Meet, Zoom, and WhatsApp Group. This transition enabled continued learning during the pandemic, and it is anticipated that post-Covid, lectures will seamlessly resume both online and in-person, leveraging the benefits of technology-based learning methods. The utilization of these tools not only enhances the learning experience for students but also facilitates efficient recording, calculation, and assessment processes for lecturers.

#### **D. CONCLUSION**

The comprehensive discussion reveals a commendable state of 4C skills—communication, collaboration, critical thinking, creativity, and innovation—within the framework of 21<sup>st</sup>-century education at Nahdlatul Ulama Jepara Islamic University (UNISNU Jepara) during the era of Society 5.0. Particularly noteworthy is the robust development of these skills in the PAI program, where prospective teachers undergo thorough training provided by dedicated lecturers. This ensures a well-rounded acquisition of competencies essential for success.

Within the PAI program, students showcase not only proficiency in 4C skills but also an adaptive use of technology to foster active, innovative, and engaging learning experiences, preventing monotony. The readiness of prospective PAI teachers in the Islamic Religious Education study program at UNISNU Jepara is evident in their preparation for roles in formal educational institutions. Equipped with the necessary skills, they are poised to excel and enhance competitiveness upon graduation, aligning with the evolving demands of education and societal context.

While noteworthy achievements are acknowledged, there's recognition of areas for improvement, particularly in critical thinking, as evidenced by a lower level among female students at UNISNU Jepara. In response, educators are urged to explore alternative methods to enhance critical thinking skills, ensuring students can proficiently apply these skills across various academic contexts. Students also play a pivotal role in this continuous improvement journey. To avoid complacency, they are encouraged to foster curiosity, engage actively with peers and lecturers, and enhance literacy skills. Actively exploring diverse sources, including papers, articles, journals, and books, contributes significantly to expanding their knowledge base and fortifying a robust foundation for critical thinking.

The collaborative effort between educators and students is emphasized, creating an environment conducive to continuous improvement. This ensures that critical thinking skills are not only cultivated but also continually refined throughout the educational journey, reflecting a commitment to excellence in education and skill development.

The limitation of this research lies in its specific focus on the implementation of 21<sup>st</sup>-century skills-based learning in the context of Nahdlatul Ulama Higher Education, with a case study conducted in the PAI UNISNU Jepara. The study primarily emphasizes critical,

creative, innovative, and collaborative (4C) skills and their impact on students, particularly prospective PAI teachers. However, this research does not encompass a comprehensive evaluation of other aspects of the curriculum or factors beyond the scope of the learning environment.

For future research endeavors, it is recommended to broaden the scope by involving more study programs or courses within the same institution or even expanding to other institutions. Research could employ more intensive observation methods, in-depth interviews, and detailed qualitative analyses to understand the experiences and perceptions of students and faculty regarding 21<sup>st</sup>-century skills-based learning. Furthermore, future researchers might consider incorporating additional variables that could influence the implementation of this type of learning, such as environmental factors, institutional policies, or resource support. The development of more specific and valid measurement tools for assessing 4C skills could also be a significant contribution to future research in this domain.

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