

Developing critical thinking, creativity, collaboration, and communication skills through islamic education: A study at sd negeri 78 bengkulu city

Yarsi Putri^{a1*}, Meldiana^{b2}, Fahrozi³, Andre Taulani⁴, Yosi Yulizah⁵

^{*abcd} Universitas Islam Negeri Fatmawati Sukarno Bengkulu, Indonesia

^e IAIN Curup, Bengkulu, Indonesia

yarsiputri84@gmail.com; ² mmeldiana931@gmail.com;

*Correspondent Author; yarsiputri84@gmail.com

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ABSTRACT

21st-century skills are essential competencies that students must possess to face the development of science, technology, and the dynamics of global life. One of the skills focused on in 21st-century learning is the 4C skills, which include critical thinking, creativity, collaboration, and communication. This study aims to describe teacher strategies in developing 4C skills in students at SD Negeri 78, Bengkulu City. The study used a qualitative approach with descriptive methods. The research subjects consisted of the principal, class teachers, and students. Data collection techniques were carried out through observation, interviews, and documentation. Data analysis used the Miles, Huberman, and Saldaña model, which includes data reduction, data presentation, and conclusion drawing. The results showed that teachers developed critical thinking skills through problem-based learning and providing contextual questions. Creativity skills were developed through project activities, making works, and utilizing digital media. Collaboration skills were developed through group discussions, teamwork, and project-based learning, while communication skills were developed through presentations, class discussions, questions and answers, and speaking activities in front of the class. Supporting factors included the support of the principal, teacher competence, the availability of learning resources, student enthusiasm, and school programs that support project-based learning. Inhibiting factors include differences in student academic ability, limited learning time, low self-confidence among some students, limited use of technology, and lack of parental learning support. This study concludes that teacher strategies play a crucial role in developing students' 4C skills, thereby supporting active, creative, collaborative, and communicative 21st-century learning.

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Introduction

Education in the 21st century has undergone significant changes along with the rapid development of science, technology, and globalization. These changes require the education system to focus not only on knowledge transfer but also on developing skills that can help students face the various challenges of life in the future. Schools, as formal educational institutions, have a responsibility to prepare students to adapt to current developments through learning that is relevant to the needs of the 21st century. Therefore, the current learning process no longer emphasizes only cognitive aspects, but also higher-order thinking skills, collaboration, communication, and the ability to innovate in solving various problems faced in everyday life.

Developments in information and communication technology have transformed the way people obtain information, interact, and work. Easy access to various sources of information requires students to have the ability to manage, analyze, and utilize information effectively. In this context, education must be able to produce graduates who not only master academic knowledge but also possess skills that support their success in the workplace and in society. According to the Partnership for 21st Century Learning (P21), 21st-century skills include critical thinking, creativity, collaboration, and communication, known as the 4C skills (Partnership for 21st Century Learning, 2019).

The 4C skills are one of the essential competencies that must be developed from elementary school. Critical thinking skills are necessary for students to analyze information, evaluate various alternative solutions, and make informed decisions based on available facts. Creativity is needed to generate new, innovative, and useful ideas in the face of changes occurring in the surrounding environment. Collaboration helps students develop the ability to work collaboratively with others to achieve common goals, while communication is a crucial means of effectively conveying ideas, concepts, and information to others. According to Trilling and Fadel (2009), the 4C skills are a set of competencies essential to facing the challenges of life and the workplace in the 21st century, as they require individuals to think flexibly, collaborate, and adapt to rapid change.

The importance of developing 4C skills is also aligned with national education policy through the implementation of the Independent Curriculum. The Independent Curriculum is designed to provide educational units and teachers with the flexibility to create more meaningful, contextual, and student-centered learning. Through this curriculum, students are encouraged to actively seek knowledge, solve problems, collaborate, and develop creativity according to their potential. The Ministry of Education, Culture, Research, and Technology explains that learning in the Independent Curriculum is directed at developing student competencies and character through more flexible and in-depth learning experiences (Kemendikbudristek, 2022).

In implementing learning, teachers play a crucial role in developing 4C skills in students. Teachers no longer function as the sole source of information, but rather as facilitators, motivators, and guides, helping students gain meaningful learning experiences. The success of 4C skills development is greatly influenced by teachers' ability to select learning strategies, methods, and models that are appropriate to student characteristics. According to Greenstein (2012), 21st century learning requires teachers to create a learning environment that allows students to be actively involved in the process of thinking, discussing, collaborating, and expressing their ideas openly.

One learning strategy considered effective in developing 4C skills is Project-Based Learning (PjBL). This learning model provides students with the opportunity to complete a project based on a real-world problem in their environment. Through project activities, students are trained to think critically in analyzing problems, creatively in generating solutions, collaborate with group members, and communicate their work to others. Research by Amroni et al. (2024) shows that implementing Project-Based Learning significantly improves elementary school students' critical thinking, creativity, collaboration, and communication skills.

In addition to Project-Based Learning, 4C skills can also be developed through group discussions, problem-based learning, cooperative learning, the use of digital media, and

classroom presentations. These strategies provide opportunities for students to actively participate in the learning process, allowing their thinking and social skills to develop optimally. Nurhayati, Pramono, and Farida (2024) explain that 4C skills cannot develop optimally if learning remains teacher-centered and emphasizes memorization. Therefore, learning innovations are needed that can encourage active student involvement in every learning activity.

Elementary School 78, Bengkulu City, is one of the elementary schools that has implemented the Independent Curriculum in its learning process. Based on initial observations by researchers, teachers at Elementary School 78, Bengkulu City, have strived to develop 4C skills through various learning activities such as group discussions, presentations of work results, project-based learning, and the use of digital media. These various activities demonstrate the school's commitment to preparing students to possess competencies appropriate to the demands of the 21st century.

However, the implementation of 4C skills development in elementary schools is not without challenges. Differences in student academic ability, limited learning support facilities, learning time management, and low self-confidence among some students are factors that can impact the success of these skills development. Therefore, appropriate strategies are needed from teachers to ensure that each student has equal opportunities to develop critical thinking, creativity, collaboration, and communication skills in the learning process.

Based on this description, this research is important to understand and describe in depth the teacher strategies used to develop the 4C skills (Critical Thinking, Creativity, Collaboration, and Communication) in students at SD Negeri 78, Bengkulu City. The research findings are expected to contribute to the development of 21st-century learning theory and practice, particularly in efforts to improve the quality of basic education through the implementation of innovative, effective learning strategies that align with the demands of the Merdeka Curriculum.

Method

This research used a qualitative approach with descriptive methods. The qualitative approach was chosen because the study aimed to describe in-depth teacher strategies in developing the 4C skills (Critical Thinking, Creativity, Collaboration, and Communication) in elementary school students. According to Sugiyono (2023), qualitative research is a research method used to examine natural conditions, where the researcher acts as the key instrument and data analysis is conducted inductively to gain a deep understanding of the phenomena being studied (Sugiyono, 2023: 9).

The research was conducted at SD Negeri 78, Bengkulu City, during the even semester of the 2025/2026 academic year. The research location was selected based on the consideration that the school had implemented the Independent Curriculum and developed various learning activities oriented towards strengthening 21st-century skills, particularly the 4C skills.

The research subjects consisted of the principal, class teachers, and students of SD Negeri 78, Bengkulu City. Research informants were selected using a purposive sampling technique, which selects informants based on specific considerations deemed to possess relevant information related to the research focus. According to Creswell (2023), purposive sampling is used in qualitative research to obtain rich data from individuals who understand the phenomenon being studied (Creswell, 2023: 186).

The data collection techniques used in this study included observation, interviews, and documentation. Observations were conducted to directly observe the learning process taking place in the classroom, particularly activities that demonstrated the development of students' critical thinking, creativity, collaboration, and communication skills. Semi-structured interviews were conducted with the principal, teachers, and several students to obtain information on the strategies teachers used to develop the 4C skills. Meanwhile, documentation was used to supplement the research data in the form of learning tools, teaching modules, activity photos, and other supporting documents related to the implementation of the learning.

The primary instrument in this study was the researcher herself (human instrument). Additionally, observation guidelines, interview guides, and documentation sheets were used as supporting instruments. The researcher's presence in the field served to collect data directly, interpret research findings, and ensure the accuracy of the data obtained.

Data analysis was conducted using the interactive analysis model of Miles, Huberman, and Saldaña, which includes three stages: data reduction, data presentation, and drawing conclusions or verification. Data reduction was performed by selecting and focusing data relevant to the research objectives. Data presentation was conducted in narrative form, making it easier for researchers to understand patterns and relationships between data. Furthermore, conclusions were drawn based on the results of the analysis, which was conducted continuously throughout the research process (Miles, Huberman, & Saldaña, 2020: 8).

To ensure data validity, this study employed source and technical triangulation techniques. Source triangulation was conducted by comparing data obtained from the principal, teachers, and students. Technical triangulation was conducted by comparing the results of observations, interviews, and documentation. The use of triangulation aims to increase the credibility and validity of research findings so that the results obtained can be scientifically accounted for.

Hasil dan Pembahasan

Based on observations, interviews, and documentation conducted at SD Negeri 78 in Bengkulu City, it was found that teachers have strived to implement learning oriented toward developing 21st-century skills, particularly the 4Cs (Critical Thinking, Creativity, Collaboration, and Communication). These skills development is implemented through various learning activities integrated into the Independent Curriculum. Teachers not only focus on achieving academic competencies but also strive to develop students' thinking, collaboration, communication, and creativity skills.

Interviews with the principal indicate that developing 4C skills is a school priority in supporting the implementation of the Independent Curriculum. The principal provides support through instructional supervision, provision of learning resources, and encouragement for teachers to participate in various training programs related to 21st-century learning. According to the principal, students in the digital age must not only be able to memorize lesson material but also be able to think critically, collaborate with others, and convey ideas effectively.

Based on observations during the learning process, it is evident that teachers strive to create an active and participatory learning environment. Teachers provide opportunities for students to ask questions, discuss, express opinions, and complete assignments in groups. These learning activities demonstrate a paradigm shift from teacher-centered to student-centered learning. Through this approach, students become more active in constructing their own knowledge and skills.

1. Teacher Strategies for Developing Critical Thinking Skills

Based on research findings, critical thinking skills are developed through the use of problem-based learning and project-based learning models. Teachers routinely pose provocative questions related to students' daily lives to encourage them to analyze a problem before providing an answer.

In science, teachers present a case study about a waste problem in the school environment. Students are asked to identify the cause of the problem, its impact, and possible alternative solutions. This activity encourages students to think logically and systematically in solving the problems they face.

Furthermore, teachers use an exploratory question-and-answer method. Teachers do not immediately provide answers to questions but instead provide opportunities for students to seek information from various sources, including books and their surroundings. This strategy aims to hone students' skills in gathering information, analyzing data, and drawing conclusions independently.

Observations show that students become more active in expressing their opinions when presented with problems related to their lives. Most students are able to explain the reasons for their answers and connect the subject matter to real-world conditions. These abilities demonstrate development in critical thinking, an indicator of 21st-century skills.

2. Teacher Strategies for Developing Creativity Skills

Creativity is developed through various project activities, product-based assignments, and the use of learning media that enable students to explore new ideas. Teachers provide students with the freedom to produce work according to their abilities and imagination.

Based on observations, in the Pancasila Student Profile Strengthening Project (P5), students were given the task of making crafts from recycled materials. During this activity, students were able to produce a variety of different products, despite using nearly identical materials. This demonstrates students' ability to develop creative ideas based on their experience and knowledge.

Teachers also utilize digital technology as a means to foster student creativity. In several learning activities, students are asked to create simple digital posters, illustrated stories, and visual presentations related to the learning material. These activities provide students with new experiences in utilizing technology as a medium for creative expression.

Interviews indicate that students feel more motivated when given the opportunity to create work that aligns with their own ideas. This freedom in creating makes students more confident and less afraid of making mistakes. In addition, teachers also provide appreciation for each work produced by students so that they are increasingly encouraged to develop their creativity.

3. Teacher Strategies for Developing Collaboration Skills

Collaboration skills are developed through group discussions, teamwork, class projects, and various activities that require students to collaborate with their peers. Teachers intentionally form heterogeneous groups so that students can learn to interact with students of varying characters and abilities.

Based on observations, students were seen actively discussing group assignments. Each group member was assigned specific responsibilities so that all students were involved in the learning process. The teacher acted as a facilitator, overseeing the discussion and assisting groups experiencing difficulties.

In class projects, students collaborated to collect data, compile reports, and present the results of their group work. These activities helped students understand the importance of cooperation, responsibility, and communication in achieving shared goals. Through group work, students also learned to respect the opinions of others and resolve conflicts that arose during discussions.

Interviews showed that most students found it easier to understand the material when studying with peers. They were able to help each other, share information, and exchange ideas while completing assignments assigned by the teacher. This demonstrated that collaborative learning can create a more interactive learning environment and support students' social development.

4. Teacher Strategies for Developing Communication Skills

Communication skills are developed through presentations, class discussions, question-and-answer sessions, reading aloud, and retelling previously learned material. Teachers provide ample opportunities for students to speak in front of the class and share their thoughts.

Based on observations, students are routinely asked to present their group work to the class. In these activities, students learn to convey information systematically, using language that is easy to understand, and answer questions from their peers. Teachers provide feedback on speaking style, intonation, eye contact, and clarity of information delivery.

In addition to presentations, teachers also employ classroom discussion methods that allow students to exchange opinions. Through discussions, students learn to express their ideas politely, respect the opinions of others, and provide logical arguments for a problem.

Interviews indicate that students who initially felt shy and lacked confidence began to speak confidently in front of the class after being given frequent opportunities to participate in discussions and presentations. This change demonstrates that the strategies implemented by teachers are able to gradually improve students' communication skills.

5. Factors Supporting the Development of 4C Skills

Based on research results, several factors support the successful development of 4C skills at SD Negeri 78 in Bengkulu City. The first factor is the principal's support, who provides opportunities for teachers to develop innovative learning. The second factor is teacher competence in understanding and implementing learning models that align with the demands of the Independent Curriculum. The third factor is the availability of adequate learning resources, such as comfortable classrooms, learning media, and simple technology devices that can be used in teaching and learning activities.

Furthermore, student enthusiasm in participating in learning is also an important factor supporting the development of 4C skills. Students show a high level of interest in discussions, projects, and presentations because these activities provide a more engaging learning experience than conventional learning. School programs that support project-based learning are also a factor that strengthens the implementation of 4C skills in schools.

6. Factors Inhibiting the Development of 4C Skills

Although various strategies have been implemented, teachers face several obstacles in developing 4C skills. One of the main obstacles is the significant differences in students' academic abilities. This situation requires teachers to adapt their learning strategies to accommodate the needs of all students.

Another obstacle is limited learning time. Developing the 4C skills requires a lengthy process because students must be given opportunities to discuss, collaborate, and present their work. Meanwhile, the allocated learning time is often insufficient to carry out all activities optimally.

Furthermore, some students still lack confidence in expressing their opinions in front of the class. The limited use of technology in some learning activities and the lack of learning support from some parents at home are also challenges that require attention.

The research results indicate that the teachers' strategies for developing the 4C skills at SD Negeri 78 in Bengkulu City align with the characteristics of 21st-century learning, which emphasizes active student involvement in the learning process. Student-centered learning provides students with broader opportunities to develop various skills needed for future life.

Developing critical thinking skills through problem-based learning indicates that students more easily grasp concepts when they are confronted with real-life situations relevant to their daily lives. This finding aligns with Facione's (2020) opinion, which explains that critical thinking is the ability to interpret, analyze, evaluate, and infer information before making decisions. When students are given the opportunity to solve problems independently, they not only gain new knowledge but also learn to use deeper thinking processes.

Regarding creativity, the research results indicate that providing projects and product-based assignments can improve students' ability to generate new ideas. This finding aligns with research by Amroni et al. (2024), which states that project-based learning provides ample space for students to explore creativity through designing, creating, and presenting a product. Creativity is a crucial skill in facing rapid technological developments and social change.

Developing collaborative skills through group work also shows positive results. Students learn to build cooperation, share responsibilities, and respect the opinions of others when completing shared tasks. This finding aligns with Trilling and Fadel (2009), who stated that collaboration is the ability to work effectively with others to achieve a common goal. Collaborative learning not only improves students' social skills but also helps them understand learning material more deeply through interactions with peers.

Meanwhile, developing communication skills through presentations and discussions has a positive impact on students' confidence in expressing ideas and opinions. Research findings indicate that students become more confident after becoming accustomed to speaking

in front of the class. This aligns with Greenstein's (2012) opinion, which explains that communication is an essential skill students must possess to convey information, build social relationships, and actively participate in community life.

Overall, the teachers' strategies for developing the 4C skills at SD Negeri 78 in Bengkulu City have shown positive results. The various learning activities implemented have created active, creative, collaborative, and communicative learning experiences. While implementation still faces some challenges, school support, teacher competence, and student enthusiasm are crucial for achieving quality 21st-century learning. Developing 4C skills from elementary school onward is expected to foster a generation that is critical, creative, collaborative, and has strong communication skills to face future global challenges.

Conclusion

Based on the results of research conducted at SD Negeri 78 Bengkulu City, it can be concluded that teachers have implemented various effective learning strategies to develop the 4C skills (Critical Thinking, Creativity, Collaboration, Communication) in elementary school students. Critical thinking skills are developed through problem-based learning and the provision of questions that encourage students to analyze, evaluate, and solve problems independently. Creativity skills are developed through project activities, product creation, the use of digital media, and giving students the freedom to explore new ideas. Collaboration skills are developed through group work, discussions, and joint projects that foster an attitude of responsibility, cooperation, and mutual respect. Meanwhile, communication skills are developed through presentations, class discussions, question and answer sessions, and various activities that provide opportunities for students to express their opinions openly. The success of the 4C skills development is supported by the school's commitment to implementing the Independent Curriculum, teacher competence in managing innovative learning, the availability of learning resources, and student enthusiasm in participating in learning activities. However, several obstacles remain, such as differences in student academic abilities, limited learning time, low self-confidence among some students, and limited use of technology and learning support from parents. Therefore, sustained efforts from schools, teachers, and parents are needed to create a learning environment that optimally supports the development of 21st-century skills. This will enable students to develop critical, creative, collaborative, and communicative thinking skills that will equip them to face the challenges of life in the future.

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