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Junior Leadership Program: Empowering Elementary Students to Develop 4C Skills (Critical Thinking, Creativity, Communication, Collaboration)

Nurfadila MY ✉

✉ *Universitas Negeri Makassar, Makassar, Sulawesi Selatan, 90224, Indonesia*

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Corresponding author. Nurfadila MY
✉ *nurfadilamy@gmail.com*

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ABSTRACT

Purpose: The Junior Leadership Program aims to enhance 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—among elementary students, addressing the critical gap in traditional education that prioritizes rote learning over essential skills development.

Research Design and Methodology: Conducted at SDI BTN IKIP 1 in Makassar, this study involved 20 students (15 girls and five boys) employing Participatory Action Research (PAR) to integrate 4C skills into the curriculum. Data were collected through surveys, interviews, and SWOT analysis. Implementation included workshops, focus group discussions, and project-based learning activities.

Findings and Discussion: Findings indicate significant improvements in students' analytical and creative problem-solving abilities, communication skills, and teamwork. Teachers reported increased proficiency in integrating 4C skills, while parents observed enhanced confidence and problem-solving capabilities in their children. Challenges such as aligning new curricula with existing standards and securing consistent parental engagement were mitigated through targeted teacher training and parental workshops.

Implications: These findings underscore the need for educational reforms incorporating 4C skills and suggest that similar programs could be adapted to diverse educational contexts. Future research should explore the long-term impacts and strategies for broader implementation of 4C skill development in elementary education.

Introduction

In the contemporary educational landscape, developing 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—is paramount for preparing students to navigate the complexities of the 21st century. Despite the increasing recognition of these skills' importance, elementary education often fails to foster these competencies effectively (Siriwardhana & Moehler, 2023). Traditional curricula, prioritizing memorization and standardized testing, fall short of nurturing the critical and creative thinking, effective communication, and collaborative abilities required in modern society and work environments. Studies indicate a significant gap in integrating 4C skills into early education. The World Economic Forum (2020) reports that skills such as problem-solving and teamwork are crucial in today's job market but are insufficiently addressed in elementary education (Monahan et al., 2023). Traditional methods focusing on rote learning and standardized assessments do not

adequately cultivate these essential skills, leading to a disconnect between the competencies developed in school and those required in contemporary industries. An in-depth needs analysis highlights the deficiency of programs explicitly targeting 4C skill development at the elementary level. Educational models predominantly emphasize content delivery over skill development, resulting in students entering higher education or the workforce without the tools necessary for success. This gap is exacerbated by challenges faced by educators, including a lack of training and resources to integrate 4C skills into their pedagogical practices effectively. Furthermore, existing educational policies and assessment methods do not adequately support or incentivize the inclusion of 4C skills, complicating efforts to prioritize these competencies within standardized curricula constraints.

The primary issue identified is the lack of effective programs and curricula at the elementary level that explicitly integrate the development of 4C skills. The traditional focus on rote learning and standardized testing does not align with the need to develop critical and creative thinking, effective communication, and collaborative problem-solving skills (Eschenauer et al., 2023; Shehzad et al., 2023). Addressing this misalignment by incorporating 4C skills into early education is crucial for preparing students for future academic and professional challenges. The 'Junior Leadership Program' is designed to bridge this gap by integrating the development of 4C skills into the elementary curriculum. This initiative aims to foster a foundational proficiency in critical thinking, creativity, communication, and collaboration among young learners, equipping them with the capabilities needed for future success (Hu et al., 2022; Yesharim & Armoni, 2022).

Elementary education is a formative period where foundational skills are developed, making it an ideal stage to introduce and cultivate 4C competencies. Research indicates that early exposure to critical thinking, creativity, communication, and collaboration significantly enhances students' abilities to engage with complex problems and work effectively in team settings later in life (Nuraini et al., 2023). By focusing on elementary students, the program aims to build a strong foundation in these essential skills necessary for success in both academic and professional contexts. The involvement of teachers and parents in developing these skills is also crucial for creating a supportive learning environment that extends beyond the classroom (Ramadhan, 2023). Engaging educators and families in the learning process helps reinforce the development of 4C skills, ensuring a cohesive effort that supports continuous skill growth (Oktaviani & Dewi, 2023).

The expected outcomes of this community service project encompass benefits for students, educators, and the broader community. For students, the program aims to strengthen essential 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—that are indispensable for academic success and future professional achievement. By embedding these competencies in the elementary curriculum, students are better prepared to tackle complex challenges, innovate effectively, and engage meaningfully in their educational journey. This early development of 4C skills enhances academic performance. It fosters confidence and leadership potential from a young age, equipping students with the tools to effectively navigate and influence their future environments. For educators, the program offers a framework to enhance their teaching practices by integrating 4C skill development into daily instruction. This approach enriches the learning experience and fosters a more interactive and collaborative classroom environment. Teachers are empowered with the resources and methodologies needed to promote critical and creative thinking, effective communication, and teamwork among their students. This transition from traditional teaching methods to a skills-focused approach encourages greater engagement and collaboration between teachers and students, creating a dynamic learning atmosphere responsive to the needs of the 21st century. The broader community stands to gain significantly from the program's outcomes. By cultivating a generation of young individuals with 4c solid skills, the program contributes to developing a workforce ready to meet the challenges of a rapidly evolving global landscape. These skills are crucial for fostering a community of proactive, innovative, and communicative individuals who can positively contribute to their surroundings. The ripple effect of such educational interventions extends beyond individual achievement, promoting societal progress through enhanced collaboration, problem-solving capabilities, and leadership at various levels of community engagement.

The "Junior Leadership Program: Empowering Elementary Students to Develop 4C Skills" is strategically designed to align with the modern educational imperative of developing 4C skills, which

is essential for preparing students to meet the complexities of future academic and professional landscapes. The program addresses a fundamental gap in current educational practices by focusing on developing critical thinking, creativity, communication, and collaboration from an early age. It lays the groundwork for long-term educational enhancement, aiming to produce well-rounded individuals with the skills necessary to thrive in a rapidly evolving world. The anticipated long-term impact of this program includes elevated educational quality and a generation of student's adept at critical analysis, innovative thinking, effective communication, and collaborative problem-solving, thereby contributing positively to their communities and beyond. By bridging the current gap in skill development, the program ensures that educational practices align with the evolving demands of the 21st century, ultimately fostering a more competent and adaptable future workforce. The program addresses immediate educational needs and contributes to broader societal progress by cultivating a generation of well-prepared, proactive, innovative, and communicative individuals to meet the challenges of a globalized and technologically advanced society. Through this holistic approach, the "Junior Leadership Program" aspires to create a supportive environment that nurtures well-rounded, capable individuals ready to make meaningful contributions to their fields and communities.

Literature Review

4C Skills Theory in Education

Integrating 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—into education is pivotal for fostering well-rounded individuals capable of navigating the complexities of the modern world. Critical thinking, defined by its analysis, evaluation, and synthesis components, allows individuals to approach problems logically and independently, enhancing their ability to make informed decisions and solve complex issues. This skill is supported by models such as Ennis-Weir and Bloom's Taxonomy, which provide frameworks for developing critical thinking through structured questioning and hierarchical learning objectives. Creativity, involving divergent and lateral thinking, is essential for generating innovative ideas and solutions. It emphasizes the ability to think outside conventional boundaries, a capacity nurtured by theories such as Guilford's Structure of Intellect and Torrance Tests of Creative Thinking (TTCT), which assess and foster creative potential through varied problem-solving scenarios (Zhurbenko & Sheypak, 2023).

Effective communication encompasses verbal, non-verbal, and listening skills, enabling individuals to articulate ideas clearly and understand others effectively. Models like SAGE (Say, Ask, Give, Engage) and holistic approaches to communication education stress the importance of expressive and receptive communication skills, ensuring learners can convey and comprehend information proficiently. Collaboration, characterized by teamwork, interpersonal skills, and conflict resolution, is crucial for cooperative environments. This skill is underpinned by Cooperative Learning (Johnson & Johnson) and Collaborative Problem Solving (CPS) models, which promote shared responsibility and collective problem-solving in educational settings (Ye & Xu, 2023). Incorporating these 4C skills into elementary education requires innovative teaching strategies that transcend traditional content delivery methods. Implementing project-based and problem-based learning can effectively integrate 4C skills into the curriculum, providing practical and immersive learning experiences. However, challenges such as aligning 4C development with existing educational standards and providing adequate teacher training highlight the need for thoughtful integration and continuous adaptation of teaching methods to support 4C competency development comprehensively. By addressing these challenges, educators can create a curriculum that imparts knowledge and equips students with the essential skills needed for future success. (Nurlaela & Amiruddin, 2023; Thornhill-Miller et al., 2023)

Interactions Among 4C Skills and Junior Leadership Development

Integrating the 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—is a robust foundation for developing junior leadership abilities among elementary students. The synergy among these skills fosters a comprehensive leadership framework that enables students to think critically, generate innovative ideas, communicate effectively, and collaborate efficiently. This holistic development enhances students' ability to lead with confidence, adapt to various challenges, and inspire their peers through informed decision-making and creative problem-solving. Critical

thinking cultivates analytical and evaluative capacities essential for effective leadership (Pakalniņa et al., 2023; Thornhill-Miller et al., 2023; Ye & Xu, 2023). Leaders must assess complex situations, weigh alternatives, and make sound decisions, processes that are deeply rooted in critical thinking. Creativity contributes to leadership by enabling novel solutions and strategies, fostering a dynamic and forward-thinking approach to problem-solving. Effective communication is vital for articulating vision, motivating teams, and facilitating clear and constructive dialogue. In contrast, collaboration underpins the ability to work synergistically with others, leveraging diverse perspectives and skills to achieve common goals (Rudianto et al., 2022).

Transformational leadership, which emphasizes inspiring change through vision and motivation, benefits significantly from integrating 4C skills. Transformational leaders utilize critical thinking to formulate visionary goals, creativity to devise innovative approaches, communication to convey their vision compellingly, and collaboration to engage and mobilize their teams. Similarly, situational leadership, which involves adapting leadership styles to meet the needs of different situations and individuals, relies on the 4C skills to navigate varying contexts and respond effectively to dynamic challenges. The influence of 4C skills extends beyond leadership into broader social and academic contexts. Research demonstrates that these skills enhance students' engagement and effectiveness in learning environments and improve their social interactions. For instance, a study by Day and Zaccaro (2004) highlights that integrating 4C skills into educational settings supports cognitive and academic development and fosters interpersonal competencies crucial for effective leadership and social integration. Consequently, developing 4C skills in elementary students prepares them for leadership roles. It contributes to their overall social and educational growth, equipping them to thrive in diverse and complex environments. By embedding the 4C skills into leadership training for young students, educational programs can cultivate a new generation of leaders adept at navigating the challenges of the modern world. This approach aligns with contemporary educational goals and addresses the need for a more dynamic, adaptable, and collaborative future workforce. Through the integration of 4C skills, the Junior Leadership Program seeks to empower students with the tools necessary to lead effectively, innovate continually, and collaborate successfully, fostering individual and communal advancement (Apriliansyah, 2023).

Teaching Strategies and Implementation of the Junior Leadership Program

The "Junior Leadership Program" leverages a curriculum designed to cultivate 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—through innovative educational appr The "Junior Leadership Program" leverages a curriculum designed to cultivate 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—through innovative educational approaches. At its core, the program employs Project-Based Learning (PBL) and Problem-Based Learning (PBL) methodologies that engage students in active problem-solving and innovation. Project-Based Learning fosters a learning environment where students tackle real-world projects, applying critical thinking to devise solutions, harnessing creativity to approach challenges from various angles, and utilizing communication and collaboration to work effectively in teams. This approach encourages students to take ownership of their learning, promoting intrinsic motivation and deeper engagement with the subject matter. In parallel, Problem-Based Learning enhances students' critical and collaborative skills by presenting them with complex, real-life scenarios that require thoughtful analysis and team-based solutions. This method situates learning within practical contexts, making abstract concepts more tangible and relevant. Through case studies and situational analysis, students are prompted to use their critical thinking to dissect problems, their creativity to brainstorm innovative solutions, and their communication and collaboration skills to collectively discuss and refine their ideas. The program incorporates authentic assessment methods to assess and develop these 4C skills effectively. Authentic assessments involve tasks that reflect real-world applications, providing a more accurate measure of students' abilities to apply their skills in practical situations. Rubrics and portfolios are used as comprehensive tools to evaluate the progress and development of students' 4C competencies. Rubrics provide clear criteria for performance across various dimensions of the 4C skills. At the same time, portfolios allow students to document their work, reflect on their learning journey, and showcase their

growth over time. This dual approach to assessment ensures a holistic understanding of each student's capabilities, emphasizing ongoing development rather than isolated performance metrics.

The successful implementation of the Junior Leadership Program relies significantly on the active involvement of teachers and parents. Teacher training is crucial for equipping educators with the knowledge and skills to integrate 4C-focused instruction into their teaching practices. Comprehensive professional development sessions provide educators with strategies for embedding 4C skills into everyday lessons, fostering a classroom environment that supports critical thinking, creativity, communication, and collaboration. Additionally, parental involvement is vital in reinforcing these skills outside the classroom. Engaging parents through workshops and communication initiatives encourages them to support their children's learning and development of 4C skills at home. By creating a collaborative partnership between educators and parents, the program ensures a consistent and supportive framework for skill development, extending the learning experience beyond the school environment. Through its structured approach to curriculum design, authentic assessment, and collaborative implementation, the Junior Leadership Program aims to embed the 4C skills deeply into the educational experience of elementary students. This holistic methodology enhances academic and leadership capacities and prepares students for the dynamic challenges of the future, aligning educational outcomes with the evolving demands of the 21st century. oaches (Gunarathna et al., 2023; Tyurina et al., 2022). At its core, the program employs Project-Based Learning (PBL) and Problem-Based Learning (PBL) methodologies that engage students in active problem-solving and innovation. Project-Based Learning fosters a learning environment where students tackle real-world projects, applying critical thinking to devise solutions, harnessing creativity to approach challenges from various angles, and utilizing communication and collaboration to work effectively in teams. This approach encourages students to take ownership of their learning, promoting intrinsic motivation and deeper engagement with the subject matter. In parallel, Problem-Based Learning enhances students' critical and collaborative skills by presenting them with complex, real-life scenarios that require thoughtful analysis and team-based solutions. This method situates learning within practical contexts, making abstract concepts more tangible and relevant. Through case studies and situational analysis, students are prompted to use their critical thinking to dissect problems, their creativity to brainstorm innovative solutions, and their communication and collaboration skills to collectively discuss and refine their ideas. The program incorporates authentic assessment methods to assess and develop these 4C skills effectively. Authentic assessments involve tasks that reflect real-world applications, providing a more accurate measure of students' abilities to apply their skills in practical situations. Rubrics and portfolios are used as comprehensive tools to evaluate the progress and development of students' 4C competencies. Rubrics provide clear criteria for performance across various dimensions of the 4C skills. At the same time, portfolios allow students to document their work, reflect on their learning journey, and showcase their growth over time. This dual approach to assessment ensures a holistic understanding of each student's capabilities, emphasizing ongoing development rather than isolated performance metrics.

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educational outcomes with the evolving demands of the 21st century(Boryshkevych et al., 2022; Ikuabe et al., 2023).

Relevance of Theoretical Studies to the Development of 4C Skills in Education

The theoretical framework underpinning the development of 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—demonstrates substantial relevance to modern educational practices. Contemporary literature underscores these skills' critical role in fostering effective learning environments and preparing students for future challenges. Empirical studies reveal that integrating 4C skills into elementary education significantly enhances students' engagement, cognitive development, and social interactions. For instance, research by Saavedra and Opfer (2012) highlights that students who actively develop these skills show improved problem-solving abilities, higher academic achievement, and better readiness for the complexities of modern life. The practical application of these theoretical insights within the Junior Leadership Program is crucial for translating these benefits into tangible outcomes for students. Implementing 4C concepts into the curriculum involves creating interactive and dynamic learning experiences emphasizing real-world problem-solving, innovation, and collaborative efforts. This approach not only aligns with the theoretical foundations but also adapts them to the specific developmental needs of elementary students, fostering their growth as critical thinkers, creative problem solvers, effective communicators, and collaborative team members (Muchson, 2023).

The potential impact of applying 4C theories within the Junior Leadership Program is profound. Students exposed to a curriculum designed around these skills exhibit enhanced leadership capabilities, greater adaptability to new challenges, and improved academic performance. These outcomes are corroborated by studies such as that by Pellegrino and Hilton (2012), which emphasize that critical thinking and collaboration skills are essential for academic and life success. Moreover, the ongoing application and evaluation of 4C skills in educational settings suggest continuous research and program development are necessary. The theoretical foundation supports the need for iterative improvements based on feedback and evolving educational demands. This aligns with the insights of Dede (2010), who advocates for sustained innovation and assessment in education to keep pace with changing societal and technological landscapes. The integration of 4C skills within the Junior Leadership Program reflects a robust theoretical foundation and provides practical benefits that enhance student development and academic success. The alignment of theory with practice ensures that educational initiatives remain relevant, effective, and responsive to the needs of students and the broader educational context. This approach addresses immediate educational needs and lays a foundation for ongoing research and development, ensuring that the curriculum remains dynamic and capable of fostering well-rounded, future-ready individuals (Rudianto et al., 2022).

Research Design and Methodology

The planning process for the Junior Leadership Program at SDI BTN IKIP 1 in Makassar involves a collaborative community approach, engaging students, teachers, and parents in integrated activities. The project's focus is this elementary school in Makassar, chosen based on an analysis of local educational needs and community readiness. Initially, discussions with school leaders, teachers, and the parent committee set the stage for understanding program goals and community expectations. Surveys and in-depth interviews with students, teachers, and parents identify specific needs for developing 4C skills—Critical Thinking, Creativity, Communication, and Collaboration. These insights inform workshops and focus group discussions, enabling a co-design process for tailored activities. The research strategy employs Participatory Action Research (PAR), facilitating community involvement from data collection to program evaluation. Methods include surveys, interviews, and SWOT analysis to assess program implementation strengths, weaknesses, opportunities, and threats. The program progresses through stages: identifying and selecting the location via initial discussions and surveys, organizing and planning with stakeholders to develop the curriculum and resources, implementing the program with teacher training and project-based learning, and conducting community projects to solve real-world problems. Monitoring and evaluation use rubrics and portfolios to track 4C skill development, gathering feedback through questionnaires and interviews, and conducting evaluation

meetings to discuss findings and plan improvements. Reflection and continuous development involve analyzing evaluation results to identify successes and areas for improvement, ensuring the program is responsive to evolving needs. This process emphasizes active participation, alignment with local requirements, and sustained impact through ongoing evaluation and adaptation, illustrated by a flowchart depicting stages from location identification to reflection and further development.

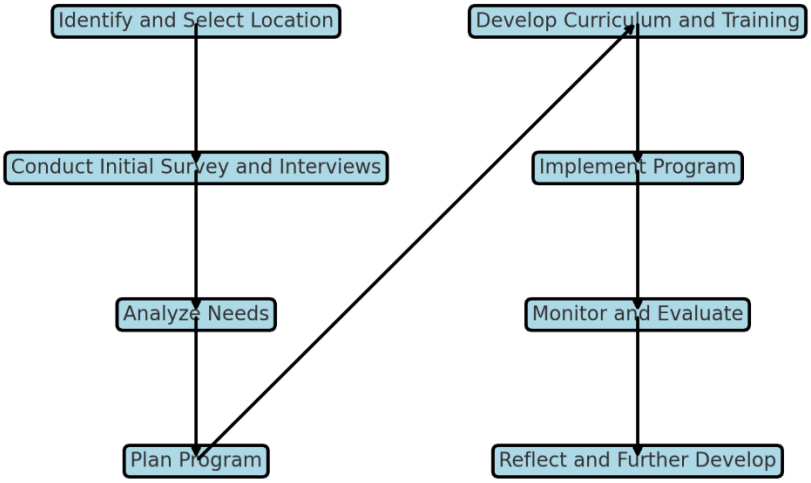

Figure 1. Flowchart For the Junior Leadership Program Planning and Implementation Process

Findings and Discussion

Findings

The Junior Leadership Program, aimed at fostering 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—among elementary students, represents a forward-thinking educational initiative designed to address the competencies essential for the 21st century. This program endeavors to equip young learners with the foundational abilities to navigate complex, dynamic environments and succeed in academic and professional settings. By integrating these critical skills into the elementary curriculum, the Junior Leadership Program seeks to bridge the gap between traditional educational practices and the demands of modern society. Thinking critically, generating creative solutions, communicating effectively, and collaborating with others are paramount in today's rapidly evolving world. Traditional education systems often emphasize memorization and standardized testing, which inadequately prepare students for their multifaceted challenges. The Junior Leadership Program responds to this shortfall by embedding 4C skill development into everyday learning experiences, thus fostering a more holistic and practical approach to education. These skills are not merely academic enhancements but fundamental competencies that enable students to analyze information critically, approach problems innovatively, articulate ideas clearly, and work effectively in teams.

The significance of the Junior Leadership Program extends beyond individual student development. It aligns with the broader educational imperative to create learning environments that are responsive to the needs of the 21st century. By focusing on developing 4C skills, the program addresses the pressing need for educational reform that transcends conventional teaching methodologies. This initiative is particularly relevant to the target community at SDI BTN IKIP 1 in Makassar, where integrating such competencies can profoundly impact students' student's readiness for future academic and career challenges. The program meets immediate educational needs and lays a foundation for ongoing community engagement and development, ultimately contributing to a more adaptable and innovative future workforce.

Planning and Community Engagement Process

The Junior Leadership Program's planning and community engagement process is meticulously structured to ensure that it aligns with the specific needs and dynamics of SDI BTN IKIP 1 in Makassar. The initial stages involve comprehensive location identification, where the school selection is based on a thorough analysis of educational needs and community readiness. This is followed by an extensive survey and interview phase, including students, teachers, and parents, to gather diverse perspectives and insights into the local educational landscape. These preliminary activities provide critical data that inform the program's design, ensuring that it is responsive and relevant to the specific context of the school community. Community involvement is integral to the planning process, positioning students, teachers, and parents as key stakeholders. Students participate actively in articulating their learning needs and preferences, teachers contribute their professional expertise to curriculum development, and parents offer valuable insights into their children's educational experiences and expectations. This collaborative approach fosters a sense of ownership and investment among all participants, which is crucial for the successful implementation and sustainability of the program.

The research design leverages Participatory Action Research (PAR), a methodological framework that emphasizes community participation at all stages of the research process. Data collection methods include structured surveys, in-depth interviews, and SWOT analysis to comprehensively assess the strengths, weaknesses, opportunities, and threats associated with implementing the program. These tools facilitate the gathering of quantitative and qualitative data and engage the community in reflective practices that enhance their understanding of the educational environment. The implementation phase encompasses several critical components: curriculum development, teacher training, and program execution. The curriculum is designed to integrate 4C skills seamlessly into the learning experiences, supported by targeted teacher training sessions that equip educators with the strategies and tools necessary for effective instruction. The program's execution involves dynamic, project-based learning activities that engage students actively, promoting practical application of the skills. Evaluation and monitoring are conducted through rubrics, portfolios, and feedback mechanisms. These tools provide a structured approach to assessing student progress in developing 4C skills and the program's overall effectiveness. Rubrics offer clear criteria for performance, while portfolios allow for a reflective assessment of student work overtime. Continuous feedback from students, teachers, and parents is solicited to refine and enhance the program's impact. This iterative process of reflection and improvement ensures that the Junior Leadership Program remains responsive to evolving educational needs, sustaining its relevance and effectiveness in fostering essential 4C competencies among elementary students.

Development and Implementation Outcomes

The Junior Leadership Program at SDI BTN IKIP 1 in Makassar demonstrates a robust framework for enhancing 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—through targeted activities and instructional strategies. The program's development phase included workshops, focus group discussions, and interactive classroom sessions designed to engage students and educators in a dynamic learning process. Workshops provided foundational training for teachers, equipping them with practical methodologies for integrating 4C skills into their pedagogy. Focus group discussions facilitated collaborative planning and feedback loops between educators and parents, ensuring the curriculum was relevant and adaptable to the student's needs. Classroom sessions then operationalized these strategies, using project-based and problem-based learning approaches to immerse students in practical applications of 4C competencies.

Figure 1. Focus Group Discussion during the Junior Leadership Program.

The effectiveness of the curriculum and training became evident through measurable impacts on both teachers and students. Teachers reported increased confidence and proficiency in delivering content that fosters critical thinking, encourages creativity, and enhances student communication and collaboration. This shift in teaching methodology improved classroom engagement and supported a more interactive and student-centered learning environment. On the other hand, students exhibited notable progress in their ability to analyze problems, generate innovative solutions, articulate ideas clearly, and work effectively in teams. These outcomes were assessed through rubrics, portfolios, and real-world problem-solving exercises, which provided comprehensive insights into the students' skill development.

Figure 2. Students participating in a workshop session during the Junior Leadership Program

The assessment of 4C skills development revealed significant gains across all competencies. Students demonstrated enhanced critical thinking through structured analytical tasks and creative problem-solving scenarios. Their creativity flourished in activities that required innovative thinking and artistic expression, while communication skills improved through presentations and group discussions. Collaboration was particularly strengthened through team-based projects, where students practiced effective teamwork and conflict resolution. Examples of student projects included designing community improvement plans and developing creative solutions for environmental challenges, showcasing their ability to apply 4C skills in real-world contexts.

Feedback from stakeholders, including students, teachers, and parents, highlighted the program's transformative impact. Students expressed increased engagement and enthusiasm for learning, attributing their improved skills to the hands-on and interactive nature of the activities. Teachers

noted a significant shift in their instructional approaches, which now prioritize the development of essential skills alongside traditional content delivery. Parents observed enhanced confidence and problem-solving abilities in their children, indicating the program's positive influence beyond the classroom. Testimonials from the school community underscored the program's success in fostering a supportive and stimulating educational environment while identifying areas for future enhancement, such as expanding the scope of project-based learning activities. This comprehensive feedback underscores the program's effectiveness. It provides valuable insights for continuous improvement, ensuring that the Junior Leadership Program remains a catalyst for student development in the modern educational landscape.

Discussion

The effectiveness of the Junior Leadership Program in fostering 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—was rigorously evaluated through a comparison of pre-program and post-program assessments. This evaluation revealed that the program substantially met its objectives by significantly enhancing these critical competencies among elementary students. Pre-program assessments indicated a baseline proficiency in 4C skills, with many students demonstrating limited engagement in activities requiring analytical thinking, creative problem-solving, effective communication, and teamwork. Post-program assessments, however, showcased remarkable improvements. Students displayed enhanced abilities to think critically, with an increased aptitude for analyzing complex problems, evaluating various solutions, and synthesizing information. Creativity flourished as students engaged in innovative projects, producing unique ideas and solutions that reflected advanced lateral and divergent thinking. Communication skills improved markedly, as evidenced by their ability to articulate thoughts clearly and engage in meaningful dialogue. Collaboration was also notably strengthened, with students showing improved interpersonal skills and a greater capacity for working effectively in teams.

Despite these successes, the program encountered several challenges during its planning and implementation phases. A primary difficulty was aligning the new curriculum with existing educational standards and ensuring teachers were adequately prepared to integrate 4C skills into their instruction. To address this, comprehensive training sessions were provided, equipping teachers with practical tools and strategies to incorporate these skills into their daily teaching practices. Another challenge was securing consistent engagement from parents, which was mitigated through regular communication and workshops designed to highlight the importance of 4C skills in their children's education.

The insights gained from the program's challenges and successes offer valuable implications for future educational practices. The integration of 4C skills into elementary education requires a shift from traditional content-focused teaching to a more skills-oriented approach that encourages active, student-centered learning. Lessons learned from this program underscore the importance of providing robust training and support for teachers, creating curricula that are adaptable and engaging, and fostering strong collaboration between educators and parents. Additionally, the program's framework can be adapted to different educational settings or age groups by tailoring the complexity and scope of activities to match the developmental stages and specific needs of students. This adaptability ensures that the foundational competencies of critical thinking, creativity, communication, and collaboration are nurtured across diverse learning environments, preparing students to meet the challenges of a rapidly changing world effectively. The Junior Leadership Program not only exemplifies the successful integration of 4C skills into elementary education but also serves as a model for ongoing innovation and adaptation in educational practices.

Conclusion

The Junior Leadership Program at SDI BTN IKIP 1 in Makassar has proven to be a significant educational intervention, effectively fostering 4C skills—Critical Thinking, Creativity, Communication, and Collaboration—among elementary students. This program has bridged the gap between traditional educational practices and the competencies required for navigating the complexities of the 21st century. Through a structured combination of workshops, focus group discussions, and classroom

sessions, the program has achieved its objective of enhancing foundational 4C skills, as evidenced by substantial improvements in students' abilities to think critically, solve problems creatively, communicate effectively, and collaborate with peers.

The success of the Junior Leadership Program underscores the theoretical premise that early integration of 4C skills into the curriculum significantly enhances students' overall cognitive and social development. Aligned with Bloom's Taxonomy, the program's focus on critical thinking has enabled students to analyze and synthesize information more effectively, laying a robust foundation for lifelong learning. Applying Guilford's and Torrance's theories on creativity has facilitated divergent thinking and problem-solving, empowering students to generate innovative solutions. Communication skills, grounded in the SAGE model, have improved students' abilities to articulate and understand complex ideas. At the same time, the collaborative frameworks of Johnson & Johnson's Cooperative Learning have enhanced teamwork and interpersonal skills. These theoretical models collectively demonstrate that embedding 4C skills in elementary education is feasible and essential for preparing students to thrive in modern academic and professional environments.

Curriculum integration is essential. 4C skills should be systematically incorporated into the elementary curriculum across diverse educational settings. This requires the development of adaptable, skills-focused learning modules that promote critical thinking, creativity, communication, and collaboration, going beyond rote learning. Continuous professional development for educators is crucial. Training should equip them with practical tools and methodologies for teaching 4C skills effectively, focusing on real-world applications, including project-based and problem-based learning strategies. Enhancing parental involvement is also necessary. Programs should include workshops and communication initiatives to educate parents about the importance of 4C skills and strategies to support their development at home. Authentic assessment tools, such as rubrics and portfolios, should be expanded to measure students' progress in 4C skills. Regular feedback mechanisms involving students, teachers, and parents will ensure continuous improvement and alignment with educational goals. The program's framework should be adapted to different educational contexts and age groups, tailoring the complexity of activities and assessments to match students' developmental stages and ensuring the accessibility and effectiveness of 4C skill development for all learners. Advocacy for educational policies supporting integrating 4C skills into standardized curricula is necessary. Promoting policy changes prioritizing skills development alongside traditional content delivery will enhance the educational system's responsiveness to modern demands. The Junior Leadership Program has demonstrated that a focused approach to developing 4C skills in elementary education significantly enhances students' readiness for future challenges. By reflecting on the program's theoretical underpinnings and practical outcomes, this community service initiative offers a replicable model for educational innovation. Implementing the recommendations will ensure that the benefits of 4C skill development are realized on a broader scale, contributing to a more competent, adaptable, and collaborative future workforce.

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