

FROM PLAY TO PROJECTS: A CREATIVE PBL MODEL FOR ADVANCING LITERACY IN EARLY CHILDHOOD

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Abstract :

This research aims to analyze the application of the Project Based Learning model to improve early childhood literacy. This study uses a qualitative case study type method where researchers explore phenomena related to the PBL learning model in improving children's literacy. Data collection techniques are carried out through interviews, observations and documentation. Data analysis is done through data display, reduction, and conclusion. The study results indicate that PBL learning in improving children's literacy is carried out in a planned and systematic manner with stages: enjoyable and contextual learning, use of technology in PBL, strengthening critical thinking skills and creativity, and involving parents in literacy projects. Parental involvement in literacy activities has also strengthened children's motivation and understanding of the material being studied. This study provides implications for developing early childhood education through implementing effective Project Based Learning (PBL) to improve literacy. Parental involvement and the use of technology strengthen children's motivation and understanding.

Keywords : *Contextual Learning, Critical Thinking, Creativity, Project Based Learning*

Abstrak :

Riset ini bertujuan untuk menganalisis tentang penerapan model Project Based Learning dapat meningkatkan literasi anak usia dini. Penelitian ini menggunakan metode kualitatif jenis studi kasus di mana peneliti berusaha mengeksplorasi fenomena terkait dengan model pembelajaran PBL dalam meningkatkan literasi anak. Teknik pengumpulan datanya dilakukan melalui wawancara, observasi dan dokumentasi. Analaisi datanya dilakukan melalui display data, reduksi data dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa pembelajaran PBL dalam meningkatkan literasi anak dilakukan secara terencana dan sistematis dengan tahapan; pembelajaran yang menarik dan kontekstual, penggunaan teknologi dalam pbl, penguatan kemampuan berpikir kritis dan kreativitas, melibatkan orang tua dalam proyek literasi. Keterlibatan orang tua dalam kegiatan literasi juga terbukti memperkuat motivasi dan pemahaman anak terhadap materi yang dipelajari. Penelitian ini memberikan implikasi dalam pengembangan pendidikan anak usia dini melalui penerapan Project Based Learning (PBL) yang efektif untuk meningkatkan literasi. Keterlibatan orang tua dan penggunaan teknologi memperkuat motivasi dan pemahaman anak.

Kata Kunci: *Pembelajaran Kontekstual, Berpikir Kritis, Kreativitas, Project Based Learning*

INTRODUCTION

Early childhood education (PAUD) plays a vital role in forming basic literacy skills that will affect the success of children's education in the future (Thümmeler et al., 2022; Choiriyah et al., 2023; Rumbidzai & Achebe, 2023). Literacy is one of the basic skills that must be mastered early because reading and writing are the main foundations of learning (Anwas et al., 2022; Fitria, 2023; Mokobe et al., 2025). Improving early childhood literacy is very important to prepare them to face the challenges of an increasingly competitive world (Purwanto et al., 2023; Maulidin et al., 2024). This research is very relevant because an effective learning model can significantly change children's literacy achievements at the PAUD level. One proven practical approach is the Project Based Learning (PBL) model, which allows children to learn more interactively and creatively (Elfeky et al., 2022; Suradika et al., 2023; Parwoto et al., 2024). Implementing this model in Kemala Bhayangkara 96 Kindergarten Bojonegoro is hoped to improve children's literacy skills while positively impacting the quality of education in the broader community.

One of the main problems many early childhood education institutions face, including Kemala Bhayangkari 96 Kindergarten, is the low literacy level in children. This phenomenon is caused by various factors, such as conventional learning methods, lack of facilities that support literacy activities, and limited training for teachers to adopt more innovative learning methods. This makes the literacy teaching process in kindergarten less than optimal, so children's literacy skills do not develop according to their potential. Therefore, developing a more creative and project-based learning model, such as Project Based Learning, is very important to answer this challenge.

In the field, many kindergartens still rely on lecture methods or learning that focuses more on memorization and letter recognition without involving children in a fun creative process. This makes children feel bored and less interested in developing their literacy skills. As a result, children do not gain a deep understanding of how to read and write in the context of everyday life. This phenomenon illustrates the mismatch between the teaching methods and children's developmental needs, which require a more fun and experience-based approach. This indicates the need for changes in the learning model applied in Kemala Bhayangkari 96 Kindergarten.

Research related to the application of Project Based Learning (PBL) in early childhood education has been conducted by several previous researchers. Several studies have shown that the PBL model effectively improves literacy skills because this approach actively involves children in the learning process through creative projects (Imbaquingo & Cárdenas, 2023; Parwoto et al., 2024; Purba et al., 2024). Researchers such as Zhang (2023) and Al-Thani & Ahmad (2025) stated that PBL allows children to understand literacy concepts more deeply because they are directly involved in real-life contexts. This model also encourages collaboration between children, which can improve social skills while strengthening their understanding of language and communication (Hatuwe et al., 2023; Song et al., 2024). However, although many studies show the success of PBL in improving literacy, few studies specifically focus on the implementation

of PBL in kindergartens with different local conditions, such as in Bojonegoro.

However, although there have been various studies on PBL, previous studies still have shortcomings. Several studies do not discuss how PBL can be adapted to meet the specific needs of early childhood in Indonesia, especially in schools in rural areas such as Bojonegoro. Many studies have also not assessed how teacher readiness and infrastructure in PAUD schools can support the optimal implementation of the PBL model. This study is expected to fill this gap by focusing on the implementation of PBL in Kemala Bhayangkari 96 Kindergarten, Bojonegoro, and how local factors, such as teacher training and available resources, influence the effectiveness of PBL in improving early childhood literacy. This study offers significant novelty in implementing PBL in Kemala Bhayangkari 96 Kindergarten, Bojonegoro. This will focus not only on the literacy aspect but also on adapting the PBL model according to local characteristics and challenges faced by schools in the area. This study also tries to integrate external factors such as teacher training, educational facilities, and parental involvement in supporting the implementation of PBL.

Thus, this study proposes a new approach to early childhood education and provides a deeper understanding of the importance of collaboration between various parties to improve children's literacy quality. This study aims to answer the central question: "How can implementing the Project Learning model improve early childhood literacy in Kemala Bhayangkari 96 Bojonegoro Kindergarten?" By adopting a project-based approach, children are expected to be more actively involved in the learning process that stimulates their creativity and literacy skills. This study argues that PBL will strengthen children's reading and writing skills because this approach involves practical experiences that are relevant to their daily lives. The contribution of this study is to provide a concrete picture of how PBL can be adapted to improve literacy at the PAUD level in the Bojonegoro area, as well as suggest ways to optimize training for teachers and facilities in schools.

RESEARCH METHOD

This study uses a qualitative research design with a case study approach (Cole, 2024; Im et al., 2023). The selection of this design is based on exploring the implementation of the Project Based Learning (PBL) model in improving early childhood literacy at Kemala Bhayangkari 96 Kindergarten, Bojonegoro. Case studies were chosen because they allow researchers to understand the local context and dynamics in the field more deeply. This approach is suitable for exploring the phenomena in the school, including the challenges, strategies, and successes experienced by teachers and children in implementing the project-based learning model. Qualitative research also provides flexibility in adjusting the methodology to the specific needs and conditions at Kemala Bhayangkari Kindergarten. It reveals more in-depth information related to aspects that may be missed in the quantitative approach.

This research was conducted at Kemala Bhayangkari 96 Kindergarten, Bojonegoro, which was chosen as the research location because it has characteristics relevant to the research objectives. This kindergarten is one of the

early childhood education institutions with great potential to implement the Project Based Learning model in literacy learning. The reason for choosing Kemala Bhayangkari 96 Kindergarten is because of the diversity of students' backgrounds from various social circles, as well as the school's efforts to improve the quality of education. In addition, Bojonegoro, as a rural area, has its challenges in terms of education development, so this study is expected to provide a significant contribution to improving the quality of literacy in early childhood in the area.

Data collection in this study was carried out using several techniques adjusted to the study's objectives (Karunarathna et al., 2024; Khoa et al., 2023). The primary technique used was in-depth interviews with the principal, teachers, and parents of students to obtain their perspectives on implementing the PBL model and its impact on children's literacy. In addition, direct observation of classroom learning activities was also carried out to see firsthand how the PBL model was applied in the teaching and learning process. Documentation, such as lesson plans and children's work, was also collected to provide concrete evidence of literacy development. The data obtained from these various sources will complement each other and provide a more holistic picture of the effectiveness of PBL in improving early childhood literacy.

The data collected will be analyzed using qualitative data analysis techniques consisting of several stages. First, the data will be condensed, and data reduction will be carried out, namely the sorting and filtering of information relevant to the research objectives. Furthermore, the selected data will be presented (data display) as a narrative that describes the study's main findings, such as the implementation of PBL, the obstacles faced, and its impact on children's literacy. The last process is data verification, ensuring the existing findings are accurate and consistent with the data sources obtained. This process is done by comparing data from various sources and ensuring conformity between interviews, observations, and existing documentation. This analysis will provide a deeper understanding of how PBL improves literacy at Kemala Bhayangkari 96 Kindergarten.

To ensure the validity of the data, this study will use triangulation techniques, namely comparing data obtained from various sources and data collection techniques. Triangulation is carried out between the results of interviews, observations, and documentation to see the conformity between data sources. In addition, member checking is also carried out by checking the validity of the data, namely reconfirming the findings to informants or participants to ensure that the interpretations made by the researcher are by their views. In addition, to increase credibility, the researcher will also conduct an audit trail, namely documenting the entire research process transparently so that it can be accounted for and checked by other interested parties.

RESULT AND DISCUSSION

Interesting and Contextual Learning

Enjoyable and contextual learning in this study refers to a learning approach that focuses on theory and involves children directly in activities relevant to their daily lives. This learning model emphasizes student

involvement in practical projects that connect learning with real experiences. At Kemala Bhayangkari 96 Kindergarten Bojonegoro, this kind of learning is implemented through activities such as making story books together, educational games, and literacy activities that involve the real world of children, such as getting to know the surrounding environment through picture books or stories. Contextual learning is expected to increase children's motivation and interest in learning, especially in literacy.

Ellis Sunarmi stated, "We try to make learning more interesting by connecting it to things close to children's lives, such as using stories about the natural world around them or making group projects about daily activities. We also involve them in making story books together." This shows that teachers are trying to create learning that is not only informative but also fun and relevant to children. With this approach, children can more easily understand the material because they are directly involved in a context that they are familiar with.

Sulastri added, "We see children are more interested and understand literacy materials faster when invited to collaborate on projects. Such as making posters or storybooks together, which they are proud of and show to their parents. This gives them a sense of achievement and makes them more enthusiastic about learning." This indicates that project-based learning that is contextual and relevant to children's lives has a positive impact on increasing their interest and involvement in learning. Thus, enjoyable learning improves their understanding of literacy and builds children's confidence in the learning process.

In class, children appear more active and enthusiastic when involved in activities that connect them to their environment, such as reading stories involving nature or illustrated stories about everyday life. Conversely, children tend to lose focus and be more passive when learning materials are more abstract and far from their lives, such as introducing letters or numbers without a clear context. This shows that children respond more positively to learning relevant to their real experiences, making learning more interesting and enjoyable. The data shows that engaging and contextual learning positively impacts children's interest and engagement in literacy learning. Children show a more positive response and high enthusiasm for learning when learning materials are directly related to their lives, such as through stories about the surrounding environment or activities they do every day. This proves that contextual learning makes the material easier to understand and increases children's motivation and engagement.

The pattern that emerges from the data above is that children are more interested and active in learning activities that connect theory with real practices that they encounter in everyday life. Contextual learning, such as making story books, group projects, and experience-based literacy activities, increases children's self-confidence and makes them more enthusiastic about learning. Conversely, when the material is not related to their experiences, children tend to be more passive and less involved. Thus, this pattern suggests that an interesting and relevant learning approach can improve early childhood literacy more effectively and enjoyably.

Use of Technology in PBL

In early childhood, technology in project-based learning (PBL) refers to applying digital tools and media that can support learning activities through projects relevant to children's lives. The technology in question can be devices such as tablets, computers, and educational applications that support exploring ideas, creativity, and interaction between children and the subject matter. Technology in PBL aims to bridge theory with real practice, allowing students to learn in a more interesting, interactive, and contextual way.

Table 1. Use of Technology in PBL in schools

Informant Position	Interview Excerpts	Indicators
Teacher	"We often use learning apps on tablets to introduce basic concepts to children."	Use of technology-based educational applications for basic learning.
Principal	"With the use of technology, children can collaborate on projects together, such as making educational videos."	Technology-based collaboration that enhances children's social skills and creativity.
Technology Teacher	"We use VR devices to transport children to a wider world, such as visiting a virtual zoo."	Use of VR devices to introduce immersive learning experiences.
Staff	"Technology allows us to integrate project-based learning with social media, where children can present their projects to their parents."	Use of social media for collaboration and presentation of project results to parents.

Table 1 shows that using technology in project-based learning (PBL) at Kemala Bhayangkari 96 Kindergarten involves various digital devices and media that support children's learning processes. Teachers use tablet learning applications to introduce fundamental concepts, such as numbers and letters, which have increased children's focus and enthusiasm. In addition, the principal emphasized the importance of technology in supporting collaboration through digital projects, such as making educational videos, which not only introduce learning materials but also improve children's social skills and creativity. In addition, two other informants also showed the use of more sophisticated technology. The technology teacher explained using Virtual Reality (VR) devices to bring children into immersive learning experiences, such as virtual visits to the zoo. This allows children to learn in a broader and more impressive context. Teaching staff also revealed that social media allows children to present their project results to parents, strengthening family involvement in learning. Technology is an educational tool to increase children's engagement, creativity, and social skills through fun and relevant project-based learning.

During classroom observations, researchers saw that children were enthusiastic when using technological devices such as tablets and computers to carry out learning activities. They were more actively involved in digital projects, such as making videos and posters, which gave them a sense of achievement and pride. Technology allows them to learn in a more fun and applicable way, increasing their motivation to learn and strengthening the connection between theory and practice.

The data obtained showed that using technology in project-based learning (PBL) significantly increases children's engagement. Technology helps children understand basic concepts and develop social skills, creativity, and digital literacy. Using digital devices relevant to children's lives makes the learning process more interesting and accelerates the understanding and application of materials in contexts they are familiar with. Thus, technology is a learning tool and enriches children's learning experiences, increasing their interest and engagement.

The use of technology in PBL makes learning more interactive and fun and has a positive impact on improving other skills, such as collaboration, creativity, and digital literacy. Children are more enthusiastic and active when involved in technology-based projects, such as making videos or posters, which bring them closer to the digital world they are familiar with. Technology-based learning also improves children's understanding and skills holistically, both in cognitive and social aspects.

Strengthening Critical Thinking and Creativity Skills

Strengthening critical thinking and creativity skills in early childhood refers to efforts to develop children's abilities to think analytically, logically, and creatively in dealing with problems and situations. In the context of learning, this means that children are taught not only to receive information but also to analyze, evaluate, and create new ideas based on their understanding. Strengthening critical thinking and creativity skills is done through a learning approach that provides space for children to experiment, ask questions, and collaborate with their friends to solve open-ended problems.

Table 2. Strengthening Critical Thinking and Creativity Skills

Interview Excerpts	Indicators	Informant
"We provide opportunities for children to imagine and find their own solutions through creative projects."	Development of children's creativity through creative projects.	Kindergarten Teacher
"Students are encouraged to ask questions, discuss, and find answers together, which trains them to think critically."	Strengthening critical thinking skills through discussions.	Principal
"Children are more likely to think critically when they are given tasks that require them to solve real problems."	Real problem solving to train critical thinking.	Education Teacher
"In every activity, we try to provide challenges that encourage them to think outside the box."	Provision of challenges to develop creativity.	Teaching Staff

Based on Table 2 above, strengthening critical thinking skills and creativity involves providing opportunities for children to engage in activities that stimulate their imagination and ability to solve problems. Kindergarten teachers and principals explained that creative projects and group discussions are the primary methods to improve creativity and critical thinking. Teachers provide space for children to express their ideas, while principals emphasize the importance of discussion and asking questions to strengthen critical thinking

skills.

In addition, tasks that involve solving real problems are important, as they allow children to apply critical thinking skills in situations that are relevant to their lives. Challenges given to children, which require them to think outside the box, are also effective ways to encourage the development of creativity. Overall, the data show that creativity-based projects and real problem-solving are influential in developing these skills.

Furthermore, researchers noted that children who engage in activities that challenge them to think critically and creatively tend to be more enthusiastic and active. For example, when given tasks that require them to solve problems or create something new, children show high interest and deeper involvement. Activities such as group project-making, where children are given the freedom to express ideas and work together to complete tasks, appear to give them a sense of accomplishment and confidence. This suggests that learning that involves real challenges can strengthen children's critical thinking skills and creativity. Based on the findings above, it can be concluded that strengthening children's critical thinking and creativity skills can be done by allowing them to engage in activities that require them to think deeply and creatively. Through creative projects and real problem-solving tasks, children are encouraged to develop their own ideas and learn how to analyze and evaluate information. Involvement in group discussions and challenges that encourage them to think outside the box helps them hone critical and creative skills essential for their development.

The pattern that emerges from these data is that strengthening critical thinking and creativity in children can be achieved through approaches that allow them to engage in activities that encourage deep thinking and the development of new ideas. Children who engage in creative projects and real-world problem-solving are likelier to demonstrate high engagement and a better understanding of the material. In addition, the involvement of others, such as teachers and peers, in discussing and solving problems also strengthens the development of these skills, ultimately enhancing their critical thinking and creativity.

Involving Parents in Literacy Projects

Involving parents in literacy projects refers to the active involvement of parents in supporting, monitoring, and participating in the learning activities carried out by children, especially in the context of literacy. This involvement can be in the form of assisting children in reading books, discussing stories that are read, or helping children in literacy projects based on daily activities. In addition, parents can also contribute to activities such as making story books together, educational games, or other projects that can develop children's literacy skills by involving them directly in the learning process.

Laili Hinayati stated, "We strongly encourage parents to be involved in literacy projects, for example, by reading books with their children at home or discussing stories they learn at school. Parental involvement has a positive impact on children's literacy development." Based on this interview, the researcher interpreted that parental involvement supports children's understanding of the material learned and creates a stronger relationship

between home and school, strengthening children's literacy development. Sulastrri added, "We also invite parents to participate in literacy activities at school, such as making story books together that involve children and parents directly." This shows that collaboration between parents and children in literacy activities increases children's learning motivation and strengthens family relationships. The researcher believes that parental involvement in this literacy project provides opportunities for children to get additional support outside of school, contributing to the learning process's success.

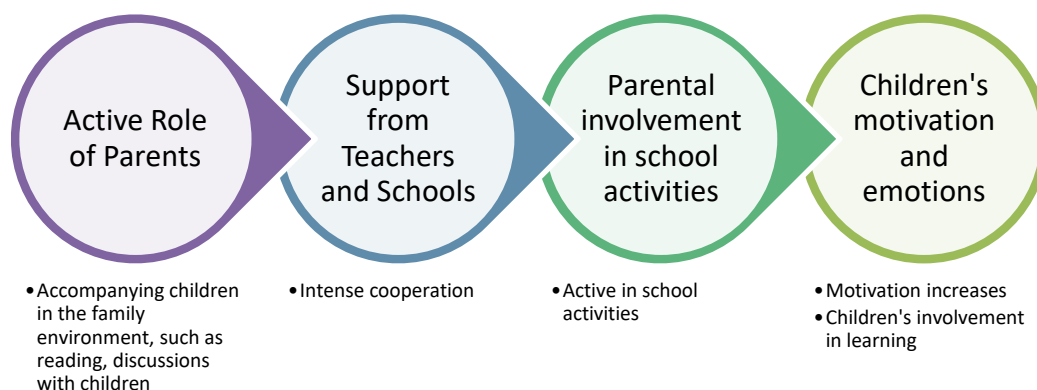


Figure 1. Parental Involvement in Literacy Projects

During classroom observations, researchers noted that children appeared more enthusiastic and motivated when their parents were directly involved in literacy projects, such as when parents accompanied them in making story books or when parents attended literacy activities at school. Children tended to participate more actively and showed pride when showing their project results to their parents. This parental involvement encouraged children to appreciate learning more and feel supported in their efforts to develop literacy skills.

The data obtained showed that parental involvement in literacy projects significantly impacted the development of children's literacy skills. Parental involvement both at home and at school helped improve children's understanding of the material being taught and build self-confidence and pride in their achievements. Through close collaboration between home and school, children gained a more holistic learning experience, which supported their success in developing literacy skills.

Parental involvement in literacy projects directly increased children's engagement and motivation in learning. Children who receive active support from parents at home and school show greater interest in literacy activities and are more actively involved in the learning process. Parental involvement in various activities, such as reading together, discussing materials, and participating in school projects, creates a more meaningful learning experience for children, ultimately improving their literacy skills.

Discussion

Enjoyable and contextual learning, the use of technology in project-based learning (PBL), strengthening critical thinking skills and creativity, and involving parents in literacy projects are important elements found in this study. The research findings indicate that a learning approach that is relevant to children's real lives can increase their involvement in the learning process, which is in line with the constructivist learning theory proposed by Piaget and Vygotsky, which suggests that learning is more effective when students are involved in experiences that are close to their lives (Nurhasnah et al., 2024; Wibowo et al., 2025). Contextual learning that involves practical activities and real-world applications does strengthen children's engagement, as stated by various researchers such as Violy (2024) and Wibowo et al. (2025), who stated that contextual learning increases students' interest and motivation. However, despite the fit with this theory, this study shows that not all children adapt easily to contextual learning, especially if they do not have sufficient experience with such situations.

The use of technology in PBL is an important aspect of increasing the interactivity and accessibility of learning materials. This study's findings also show that digital devices, such as tablets and educational applications, can improve children's understanding of basic concepts and make the learning process more interesting. This is in line with previous research conducted by Alzubi (2023) and Waang (2023), which stated that multimedia and technology can improve students' understanding by presenting information in a format that is easier to understand. However, there is a difference in this study, which reveals that although technology can increase engagement, some children are more likely to be distracted by technology if there is no proper guidance. Therefore, the application of technology must be made carefully by considering the context and needs of each student and accompanying them in the appropriate use of technology. Strengthening critical thinking skills and creativity is another goal raised in this study, which shows that creative projects and real problem-solving can stimulate children's analytical thinking skills.

This finding aligns with the critical thinking theory explained by Taherkhani & Gholizadeh (2023) and Yusuf et al. (2024), which emphasizes that learning that involves analyzing, synthesizing, and evaluating information can improve students' critical thinking skills. In addition, the study showed that children who were involved in creative activities, such as storybook creation or collaborative projects, were more likely to think outside the box and create new solutions. The theoretical implication of this finding is that early childhood education should focus more on developing critical thinking skills and creativity from an early age rather than just mastering information. Practically, this requires educators to design activities that allow children to actively participate in solving problems that are relevant to their lives. Involving parents in literacy projects is another important finding that collaboration between school and home can increase children's engagement in learning.

The study revealed that children who received active support from parents, such as reading together or discussing the material being studied,

showed greater interest in learning. This finding aligns with the literature emphasizing the importance of parental involvement in children's education, as Wang et al. (2023) explained, who emphasized that parental involvement can improve children's academic performance. However, the study also noted that not all parents have the time or skills to be directly involved in their children's learning. Therefore, schools must create programs facilitating parent participation by providing accessible resources and necessary training.

Overall, the findings of this study indicate the importance of a holistic approach to early childhood learning, involving elements such as contextual learning, technology, critical thinking and creativity development, and parental involvement. The theoretical implications of this study lead to the understanding that effective learning must pay attention to the child's social and cultural context and provide space for the development of greater cognitive skills. Practically, this study's results guide educators to design learning programs that focus on mastering academic material and developing social and creative skills that are important for children's overall development. Therefore, educators and education policymakers must consider integrating these aspects into curricula and approaches.

CONCLUSION

The conclusion of this study shows that engaging and contextual learning, using technology in PBL, strengthening critical thinking skills and creativity, and parental involvement in literacy projects are important factors that can improve the quality of early childhood learning. The main lesson from this study is the importance of a more holistic approach in education, which prioritizes mastery of material and the development of children's social skills, creativity, and critical thinking skills. These findings enrich the understanding of how various aspects of learning support each other to create a more meaningful and relevant learning experience for children. This study is hoped to inspire early childhood education to focus more on integrated learning and learning based on children's real-life contexts.

The strength of this paper lies in its contribution to developing early childhood education literature, especially in terms of applying contextual learning theory and technology and strengthening critical thinking skills and creativity. This contribution provides practical guidance for educators to develop more comprehensive and inclusive learning methods. However, this study has limitations, especially in terms of the limited scope of research locations and subjects, which may affect the generalizability of the findings. Therefore, for future research, it is recommended to expand the scope, involve more population variations, and consider the influence of external factors such as local culture or diverse educational policies.

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