Improving Collaborative and Creative Skills of Elementary School Students Through Project-Based Learning in Thematic Community Service Assistant Teaching in The Bonoroto Village of Mojosongo District

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Abstract

Purpose: The purpose of this study is to explore the effectiveness of Project-Based Learning (PBL) and Community Service Learning (KKN) in enhancing the relevance of higher education to the development and needs of children in the field of education.

Method: The implementation of PBL and KKN is carried out through teaching assistance activities as a form of community service. The execution method involves the formulation and implementation of a work program designed to address the problems present in the community.

Practical Applications: The practical application of this method is that it allows children to conduct investigative problem-solving, both collaboratively and individually, and produce creative solutions. It also enables children to comprehend the material concepts presented effectively.

Conclusion: The success of these community service activities demonstrates the potential of PBL and KKN in fostering problem-solving skills and creativity among children, thereby making a significant contribution to their educational development. This suggests that such teaching models can be an effective tool in enhancing the learning experience for students.

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Introduction

Project-Based Learning, also known as Project-Based Learning, is a teaching model conducted by providing teachers with the opportunity to organize learning activities that involve project work (Garminah and Pudjawan, 2013; HANNY, 2018). In the implementation of this learning model, teachers encourage all students to be involved in project creation. It doesn't stop at project creation; after the project is completed, students are directed to provide feedback in the form of exams or presentations regarding the project creation. The focus on the implementation of the project-based learning model lies in the core principles and concepts of a taught discipline and involves students in having the ability to conduct problem-solving investigations both as a group and individually, resulting in a product using their creativity (Putri, 2016).

The advantage of project-based learning is that it involves a two-way process. (Lubis and Yusri, 2020). This learning process involves a two-way interaction between the teacher and the students. (Zekri, Ganefri and Anwar, 2020). Students take on the role of subjects in the learning process, while teachers act as facilitators. (Mustaghfiroh, 2020). Students play an active role in searching, processing, constructing, and discussing with group members. Through project-based learning, both teachers and students are required to develop collaborative skills, creative thinking, and critical thinking. (Fauzan, Gani and Syukri, 2017). According to Sardiman (2014), there is no learning without activity. Thus, students who are engaged in learning activities can develop learning methods, learn during the learning process, and improve learning outcomes.

The thematic community service teaching assistance program this time applies a project-based learning model as the main teaching model. Currently, many teachers conduct learning activities that are less than optimal. Teachers tend to want the taught material to be completed quickly and delivered, but they often fail to facilitate students' creative thinking abilities, resulting in suboptimal learning outcomes and experiences for the students (Siregar et al., 2022). We can see that sometimes students only memorize certain answers from the book without understanding the concepts or meanings of the memorized answers. This hinders the development of creative thinking skills in learning activities. Students learn by emphasizing experience and understanding of basic concepts through the projects conducted, not just by memorizing or calculating the material.

The key to the success of community service programs lies in the synergy between local government, universities, and the community. Through programs that involve this synergy, the three pillars of higher education, namely education, research, and community service, become the framework for teaching assistance activities within the Community Service Program (Rubaidi, Farisia, and Himami, 2020). The implementation of Community Service Learning (KKN) through teaching assistance activities is carried out to enhance the relevance of higher education to the development and needs of children in the Bonoroto Village of Mojosongo District, by providing additional learning hours outside of school. The Community Service Learning Program (KKN) serves as a platform for community service and empowerment carried out by students. Any form of community empowerment, including empowerment in the field of education, is a part of community service, including in the mandatory KKN course. Some of the objectives for students in organizing KKN activities include: implementing the knowledge they have acquired during KKN, fostering social awareness and responsibility towards social issues in the community, and enhancing the knowledge, skills, and creativity of students and learners as teachers through various work programs. In efforts to achieve the goals of conducting KKN activities, there are several benefits that students gain, including: learning to analyze issues in the community, particularly in the field of educating children and students, solving problems within the community, participating in educational development, and collaborating to provide meaningful learning experiences for children.

Method

  Community service activities, which are part of the KKN program, were carried out from July to August 2023 in the Bonoroto Area, Mojosongo Village. The primary target for disseminating information about the tutoring provided was the children of TPA (Alquran Education Park) Bonoroto, an institution that provides non-formal Islamic religious education. After the TPA children showed interest, the target expanded to include elementary to middle school-level children in the Bonoroto area, Mojosongo District.

Figure 1. Bonoroto KKN Location Map
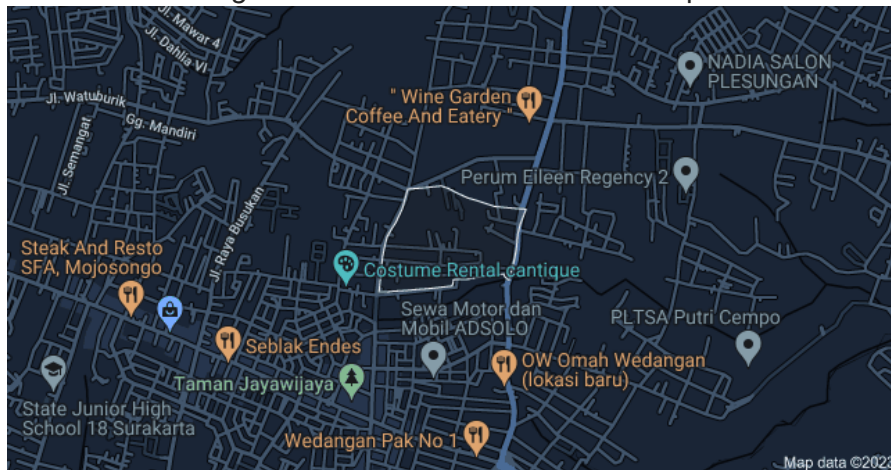
Source: maps.google.com, 2023.

  The community service activity began with observation and direct visits to the Bonoroto, Mojosongo location. Information about the surrounding conditions, addressable problems, and potential areas for development was gathered through observations and interviews with local authorities and residents. Several issues in the field of education were identified, including a lack of enthusiasm among children for complex subjects, insufficient additional learning hours, and a limited variety of teaching models and learning media.

  To address these issues, the community service method was designed and implemented through various work programs. These programs integrated teaching, demonstrations, and group mentoring. The success of these activities was evident from the positive response received from the local government and residents, as well as the active participation from the community, particularly the target participants, which included approximately 30 to 40 children and adolescents. The community service activities were deemed successful if the participation of children reached nearly 70% of the children from the Bonoroto, Mojosongo, and surrounding areas. Other success indicators included the outcomes produced, such as children's ability to use creative thinking skills, work together in groups, understand reading, writing and arithmetic, and differentiate needs and desires when spending their money (Sari and Wulanda, 2019; Magta, Ujianti and Permatasari, 2019; Yunus, Andriani and Nurhidayah, 2020; Fatimah, Tresnawati and Ma'rup, 2017; Lesmono and Mulyadi, 2019; Sudirman et al., 2022; Fitrianingtyas, 2017).

Result

  The work program carried out by members of KKN 31 Sebelas Maret University in the Bonoroto RT 04/ RW 25, Mojosongo area consists of programs in the fields of education (teaching assistance), entrepreneurship, and environmental empowerment. The work program was formulated and implemented as an effort to solve the existing problems in the community. Each field in the work program was planned and executed with different objectives, depending on their respective areas.

  Work program in the education field, includes teaching in Al-Qur'an Education Park/

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TPA, Tutoring "Seru", TERARAH "Skilled in Learning History", Calistung (Reading, Writing, Calculating), Introduction to Maps, Making "collages" from a natural material, Financial Literation for Children, and Science Dynamics. Almost all of the learning activities were organized by the work program implementing Project-Based Learning. The main goal of implementing project-based learning is to enhance children's collaborative and creative abilities. With the funding facilities provided by the university to support the learning environment, the learning outcomes of the projects produced will be maximized. Furthermore, another goal achieved was to increase students' interest in learning through enjoyable projects. This activity was highly appealing to both students and parents. This was evident from the positive responses of parents conveyed to the Community Service Program team and the increasing number of children counted from the first day the learning activities were held.

Figure 2. Results of Project Based Learning Work Program for (a)TERARAH, (b)Calistung (c Introduction to Maps, (d)Collages Making from Natural Material, (e)Financial Literation for Children, dan (f) Science Dynamics
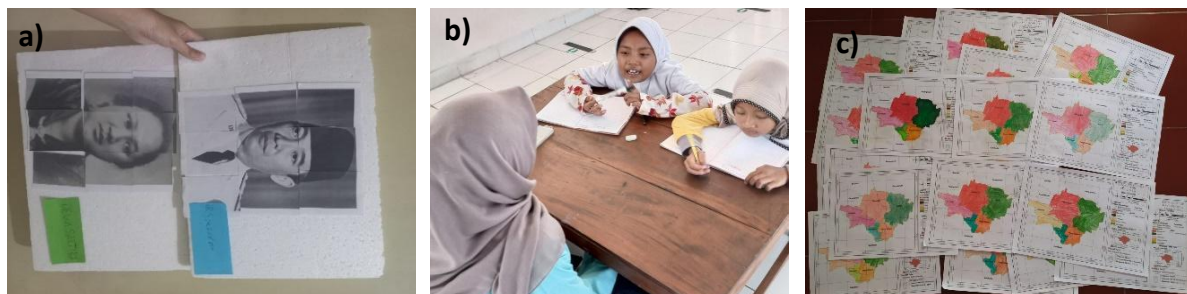
Source: Private Documentation, 2023.

The "Seru" tutoring program was the main tutoring program that encompasses several other educational programs. The "Seru" tutoring program served as an educational activity aimed at improving children's understanding of school subjects. This program was also conducted to foster children's enthusiasm for learning, literacy, and numeracy skills. The success of this program can be seen in the increasing number of children enrolling and the significant attendance of children every day. The success of this work program is also supported by funding from Sebelas Maret University to provide facilities and infrastructure during the tutoring sessions.

The "TERARAH" program, "Skilled in Learning History/Terampil Belajar Sejarah" was one of the work programs conducted under the "Seru" tutoring program. This program aimed to provide knowledge about national heroes so that students can better understand the heroes' struggles in their daily lives. Project-based learning in this work program involved using picture puzzles of heroes and identifying the heroes' names from the puzzle pieces arranged as a project undertaken by students. The success of the work program can be seen in the enthusiasm of the children when working together on the project. 70% of the children find it easy to recognize the national hero figure, while the remaining 30% may still have difficulty memorizing them from the given project due to differences in their intellectual abilities.

The "Calistung" work program, "Reading, Writing, and Calculating/Baca, Tulis, Hitung" focused on children in pre-school and elementary school grades 1, 2, and 3. This work program aimed to teach children how to read, write, and do arithmetic. By using pictures, coloring, and writing, these activities helped students better understand reading and counting. The success of this work program can be seen in the enthusiasm of the children participating. Although pictures are provided as a project in learning, some children still face difficulties and may need more time to understand due to their varying intellectual abilities. Some of these challenges can be overcome so that, in the end, the children can still grasp the material effectively.

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The "Map Introduction/Pengenalan Peta" work program was one of the programs in the 'Seru' tutoring center, implemented with the goal of teaching map components and introducing symbols found in maps so that they are capable of reading maps effectively. The project undertaken by the students involved adding marks and color symbols to the map. The success of the work program is demonstrated by all the children being able to use their creativity to provide marks and colors on the map under the material that was previously presented. It can be concluded that the project provided can enhance students' understanding of maps.

Another work program carried out under the "Seru" tutoring program was the "Collage Making from Natural Materials" program. This work program aimed to teach children how to create art and improve their fine motor skills. Students worked on projects using natural materials such as leaves, branches, dried flowers, shells, seeds, skins, stones, and more to create collage artworks. The success of this work program is demonstrated by the enthusiasm of the children in using their creativity to combine natural materials to create artworks.

The "Financial Literacy for Children/Literasi Keuangan untuk Anak" work program was held to provide knowledge and skills to influence attitudes and behaviors in improving decision-making and financial management. Projects undertaken in this program included children identifying their needs and desires on colorful paper. Children were also given positive examples of saving that can be applied in daily life. Through these projects, children can enhance their ability to analyze and manage basic finances using a priority scale.

The final educational work program under the tutoring program is the "Science Dynamics/Dinamika Sains" program. This work program aimed to provide an understanding of scientific concepts/phenomena that occur in daily life. After students gained an understanding of scientific concepts, they used their creativity and teamwork skills to produce works in line with the understanding they had received. The projects produced by the children in this work program included making a miniature solar system using plastilin as the main material and making colored candles. The first project showed that children can create arrangements of planets in the solar system and provide descriptions according to theory. Children used their creativity to combine colors and sizes of plasticine to create planet replicas in groups. For the second project, children could understand the process of making candles through the phenomenon of changing from liquid to solid and vice versa. Children used their creativity to make rainbow candles with colors according to their preferences. This project was done in groups.

Overall, each educational work program held in the Bonoroto RT 04/ RW 25 area can enhance the collaborative and creative abilities of children through project-based learning (PjBL). Children can understand the concept of the material taught through the learning experience of creating projects with their creativity. In its implementation, children play the role of subjects in learning, while students (teachers) act as facilitators, so through the projects created, learners can actively engage in seeking, processing, constructing, and discussing with group members.

As a follow-up to the educational work program, evaluation and monitoring are necessary to be done. The evaluation and monitoring process of the work program was carried out by the Neighborhood Association Chair and Neighborhood Committee Chair through joint discussions regarding the achievement of the objectives of each work program that has been implemented and the hindering factors of the work program. The comprehensive evaluation results of the work program held can have a positive impact, especially on the children of the Bonoroto area. Children gain a better understanding of the learning materials taught in school. Additionally, they also acquire additional knowledge beyond what is taught in school through project-based learning. The success of the work program is closely tied to the active participation of the children and the enthusiasm of both children and parents in attending each activity. Support from the local government also contributes to the achievement of each work program. It is hoped that the knowledge and skills acquired by the children can be preserved

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and implemented in their daily lives. Furthermore, children are expected to have an even stronger motivation to learn.

Discussion

The work program carried out by members of KKN 31 Sebelas Maret University in the Bonoroto RT 04/ RW 25, Mojosongo area has shown significant results in the fields of education, entrepreneurship, and environmental empowerment. The project-based learning approach used in educational programs has proven to be effective in enhancing children's collaborative and creative abilities. The success of the "Seru" tutoring program and its sub-programs such as "TERARAH", "Calistung", "Map Introduction", "Collage Making from Natural Materials", "Financial Literacy for Children", and "Science Dynamics" is evident in the increasing number of children enrolling and the significant attendance of children every day. These programs have not only improved children's understanding of various subjects but also fostered their enthusiasm for learning, literacy, and numeracy skills.

However, it is important to note that while the majority of the children found it easy to grasp the concepts taught through the projects, a small percentage still faced difficulties. This highlights the need for personalized attention and differentiated instruction to cater to the varying intellectual abilities of the children. Future work programs could consider incorporating strategies to address this issue. Moreover, the funding provided by Sebelas Maret University played a crucial role in the success of these programs. The availability of adequate facilities and infrastructure greatly contributed to the effective implementation of the tutoring sessions. In conclusion, the work program has made a significant impact on the community by addressing existing problems and enhancing the learning experience of the children. The project-based learning approach has proven to be a powerful tool in fostering creativity and collaboration among the children. Going forward, it would be beneficial to continue these efforts and explore additional strategies to further enhance the effectiveness of these programs. This could potentially include more personalized instruction methods, increased community involvement, and continuous evaluation and improvement of the programs.

Conclusion

Community service through KKN (Kuliah Kerja Nyata or Community Service Learning) can carry out work programs in the field of education as a learning place for the children of Bonoroto. In the implementation of these programs, the results show that the projects undertaken can enhance the collaborative and creative abilities of the children. The children can understand the concepts of the material presented effectively.

Acknowledgments

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