

A Call to Action in Revolutionizing Student Mindsets: Empowering Environmental Consciousness Through Organic Farming Practices

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Abstract

This community service project was initiated in response to the growing concern about declining environmental awareness among high school students and the urgent need for sustainable practices. Given the limited study on effective interventions to foster environmental consciousness in this demographic, this study aimed to fill this gap by investigating the impact of a comprehensive organic farming program. The study employed a mixed-methods approach, combining quantitative surveys and qualitative interviews to assess changes in students' knowledge, attitudes, and behaviors. Results indicated a significant increase in students' understanding of organic farming principles, a positive shift in their attitudes towards sustainability, and a heightened sense of agency to implement sustainable practices daily. These findings highlight the potential of experiential learning and community engagement in promoting environmental stewardship among youth. Implications for educational policy, community development, and future study are discussed.

Keywords: community service, education, organic farming, sustainability, student engagement

INTRODUCTION

High school students, pivotal in future change, are crucial in promoting sustainable development amid pressing global climate change and environmental degradation challenges (Zarate et al., 2024). Nevertheless, environmental preservation awareness within this cohort often remains deficient, highlighting the need for targeted educational interventions (Cvetković et al., 2024). As influencers of tomorrow, empowering students with a heightened understanding of environmental stewardship is paramount for fostering a more conscientious and proactive approach towards sustainability (Maureen et al., 2024).

Organic farming, a sustainable agricultural practice, solves environmental challenges (Campera et al., 2021). Beyond yielding healthier, safer food products, it contributes to biodiversity preservation and environmental quality enhancement (Chávez-Dulanto et al., 2021). Organic agriculture's holistic approach prioritizes ecosystem health, fostering a symbiotic relationship with nature that benefits human well-being and the planet's ecological balance (Amankona & Kabenomuhangi, 2024).

High school students lack awareness regarding the importance of organic farming and its environmental impact. Their insufficient understanding of organic farming practices and implementation methods hinders progress. Limited engagement among high school students in activities related to organic farming and the environment underscores the need for enhanced education and involvement to cultivate a generation adept at sustainable agricultural practices for a greener future.

Current community empowerment initiatives exhibit gaps. Despite numerous engagements in organic farming, integrating these practices into high school education remains lacking. Community service primarily targeting behavioral changes in high school students through organic farming practices remains constrained, highlighting a need for more

comprehensive integration within educational frameworks to foster sustainable agricultural awareness effectively.

The community service initiative's challenge centers on enhancing student awareness and understanding of organic farming's significance while fostering active engagement in sustainable practices: "How might the team effectively elevate student awareness regarding organic farming's importance and encourage their enthusiastic involvement in sustainable activities?"

This community service is crucial due to its transformative potential in instilling sustainable values and practices among students. It is essential for cultivating a generation actively engaged in environmental stewardship and mindful of the interconnectedness between agriculture and ecological well-being. It serves as a pivotal avenue for empowering individuals to understand, appreciate, and embrace the significance of organic farming not just as a cultivation method but as a fundamental approach towards building a greener, healthier future for humanity and the planet. Based on this background, the team formulated the objectives of community service, namely:

- a. To enhance students' understanding of organic farming.
- b. To build students' positive attitudes towards organic farming.
- c. To encourage students' sustainable behavior through practical projects.
- d. To stimulate students' interest in sustainable activities.

This community service project presents a novel approach by enhancing students' awareness through holistic engagement. The initiative imparts theoretical knowledge about organic farming and involves students in practical, hands-on experiences. Participants perform several organic farming activities, allowing them to witness the benefits of sustainable agriculture firsthand. This dual-method strategy promotes deeper learning while fostering a strong connection between students and environmental practices. Engaging with real-life applications cultivates students' appreciation for organic farming and encourages them to adopt sustainable habits in their daily lives. Combining theory and practice creates a rich educational experience that resonates beyond the classroom.

The contribution of this community service initiative spans several dimensions: elevating higher education standards by incorporating environmental concerns and organic farming principles into the academic syllabus, nurturing a socially conscious youth cohort capable of enacting impactful transformations within society, and fostering a culture of organic farming adoption, thereby advancing environmental preservation efforts and sustainable practices for the betterment of our ecological landscape and the well-being of future generations.

METHOD

This community service activity occurs at SMK Negeri 2 Sukoharjo, focusing on organic farming and environmental education. The audience consists of 35 participants eager to learn about sustainable practices. The session begins by defining organic farming and discussing its core principles and necessary standards. Participants explore organic fertilization methods and pest control techniques, gaining insights into the role and benefits of organic agriculture. Additionally, the program addresses the opportunities and challenges within organic farming and highlights strategies for marketing organic produce, ultimately equipping students with knowledge essential for promoting sustainable agriculture.

The community service activity employs a workshop method utilizing PowerPoint presentations to convey key information. Following the presentation, participants engage in

discussions and Q&A sessions to deepen their understanding of organic farming concepts. This approach fosters participants' knowledge acquisition, positive attitudes, and behavioral changes. Ultimately, students develop a keen interest in applying organic farming practices in their daily lives, positioning themselves as agents of change within their communities.

Table 1. Method of measuring the success of community service program

Measured Aspects	Measurement Method		Expected Output
	Before	After	
Knowledge	Likert scale 1-5	Likert scale 1-5	Increased mean score on knowledge.
Attitudes	Likert scale 1-5	Likert scale 1-5	Increased mean score on positive attitude towards organic farming.
Behavior	Likert scale 1-5	Likert scale 1-5	Increased mean score on organic farming and food behavior.
Interest in Implementing	Likert scale 1-5	Likert scale 1-5	Increased mean score on interest in implementing organic farming practices.

The program's success assessment employs several methodologies to ensure a thorough evaluation. Quantitative analysis compares questionnaire results before and after the activities, highlighting knowledge, attitudes, behaviors, and implementation changes. Average score increases are calculated to quantify this progress. Qualitative analysis examines interview data to identify emerging themes and shifts in participants' narratives, revealing the reasons for behavioral changes. Data triangulation combines quantitative and qualitative findings, providing a comprehensive overview of the program's effectiveness and impact on the community.

RESULTS AND DISCUSSION

The results and discussions from this community service activity emphasize raising students' awareness of the importance of organic farming and encouraging their involvement in sustainable practices. Data analysis collected throughout the program reveals several key findings that are aligned with the primary objectives. Several interventions and strategies implemented by the team effectively identify methods to enhance student understanding and participation in organic farming practices. These insights provide a foundation for future initiatives to promote sustainability among students and the broader community.

4.1. Improve students' understanding of organic farming.

This community service initiative aims to enhance students' knowledge and competencies regarding organic farming, a sustainable agricultural method with positive environmental and health effects. As awareness of environmentally friendly practices increases, students are encouraged to apply this knowledge daily, contributing to environmental sustainability. The program includes informative sessions, discussions, and Q&A activities focusing on organic farming topics. Engaging students in these interactive formats fosters a deeper understanding and enthusiasm for sustainable agricultural practices.

The team effectively delivered materials on organic farming, ensuring that students received information and grasped the underlying concepts and principles. Several methods, including presentations, group discussions, and visual aids, enhanced student engagement and comprehension of the subject. This multifaceted approach allowed for a richer learning experience, enabling students to connect theoretical knowledge with practical applications. Additionally, the diverse teaching strategies catered to different learning styles, facilitating a deeper understanding of the importance of organic farming practices.



Figure 1. Delivering materials to improve organic farming knowledge

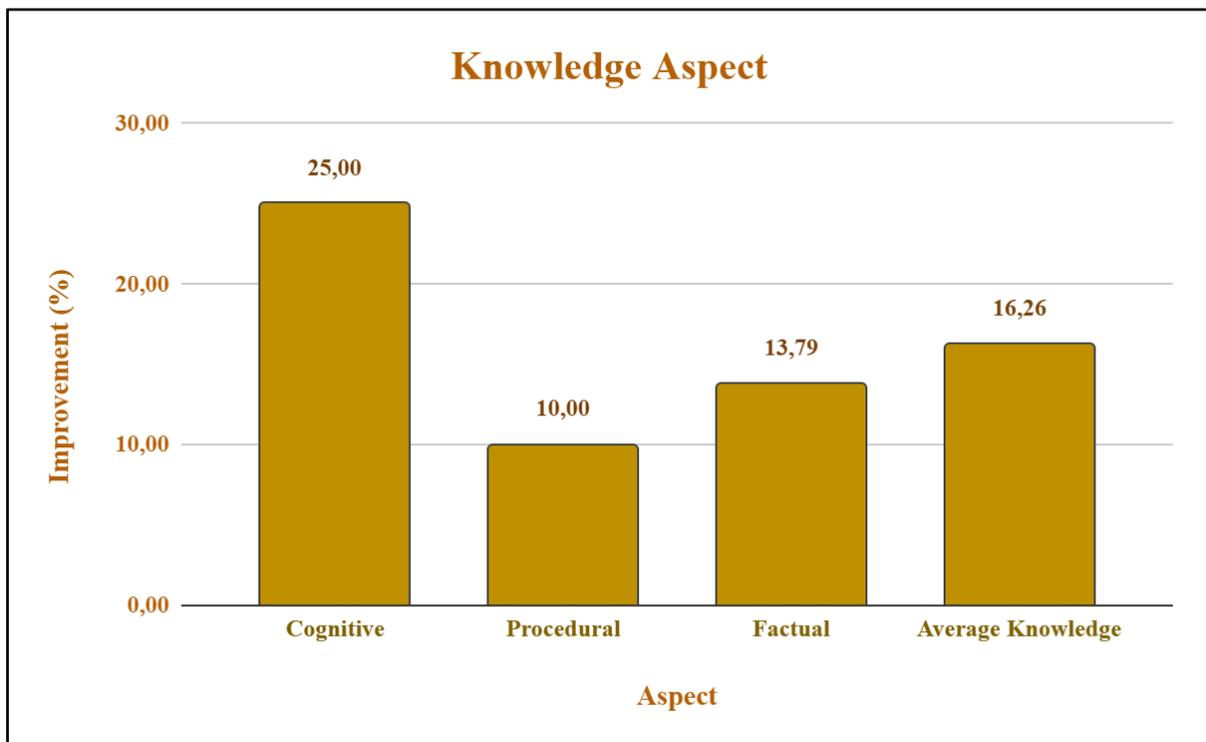


Figure 2. Evaluation results of community service activities on student knowledge

The materials presented covered several aspects of organic farming, including cultivation techniques, ecological benefits, health impacts, and the role of organic agriculture in the global food system (Agus et al., 2021). By providing comprehensive content, students gained insights into how organic farming contributes to environmental sustainability and human well-being (Sulfa et al., 2024). This holistic approach encouraged deeper exploration of the interconnectedness between agricultural practices and their broader implications for health and the ecosystem. Engaging in discussions facilitated critical thinking, allowing students to appreciate the importance of adopting organic methods in contemporary agriculture (Yuniwati & Arshad, 2024).

The analysis of pre-test and post-test data reveals that students significantly improved their understanding of the fundamental concepts of organic agriculture, its benefits to the environment and health, and the differences between organic and conventional farming. Cognitive factors experienced a notable increase of 25%, indicating a substantial deepening of students' comprehension. Procedural knowledge rose by 10%, showcasing that students absorbed theoretical information and gained practical skills in applying organic agricultural practices. Additionally, factual knowledge saw a 13.79% increase, reflecting enhanced awareness and retention of essential information about organic farming. These results exemplify the effectiveness of community service activities to educate participants about sustainable agricultural methods.

Prior publications present significant contradictions regarding organic farming's effectiveness and relevance. Panday et al. (2024) emphasized the efficiency of conventional farming practices, suggesting they optimize yield and resource use, thereby addressing immediate food shortages more effectively than organic methods. Liang et al. (2024) highlighted consumer attitudes, revealing that cost and availability often overshadow environmental concerns, leading to skepticism about the actual benefits of organic products. Putra et al. (2023) argued that while organic farming contributes to environmental sustainability, it frequently lacks direct economic benefits compared to conventional practices, which provide more significant employment opportunities in rural areas. These contrasting perspectives underscore the originality of this community service initiative and its potential to inform policy-making related to environmental curriculum development in high schools.

Field observations after community engagement activities revealed a notable increase in student interest in organic farming practices. Many students actively participated in hands-on activities, such as planting organic seeds and exploring eco-friendly pest control methods. Conversations with local farmers demonstrated a growing recognition of organic farming's potential benefits, as several expressed a willingness to adopt such methods in their practices. However, a significant gap in resources and access to organic materials emerged, indicating potential barriers to widespread adoption. The enthusiastic atmosphere during field activities showcased students asking insightful questions and demonstrating a strong commitment to applying their newfound knowledge in real-world contexts.

4.2. Build students' positive attitudes towards organic farming.

The community service team fosters a positive attitude toward organic farming among vocational high school students. This initiative emphasizes discussions that promote the importance of sustainable practices. Additionally, interactive workshops engage students, stimulating their interest in organic products. Furthermore, relevant educational materials facilitate a shift in perception, allowing students to recognize the benefits of organic farming. This comprehensive approach addresses the core aspects influencing students' attitudes toward sustainable agriculture.

The community service team has organized educational programs emphasizing sustainability and the importance of organic farming. Through collaborations, discussions, and presentations, students learn how organic farming contributes to environmental health and community well-being (N. Irawan & Widodo, 2024). This hands-on experience allows them to appreciate the fruits of their labor while understanding the significance of eco-friendly agricultural practices. These initiatives promote a lasting appreciation for organic farming and its role in fostering a more sustainable future.



Figure 3. Fostering a positive attitude among students toward organic farming

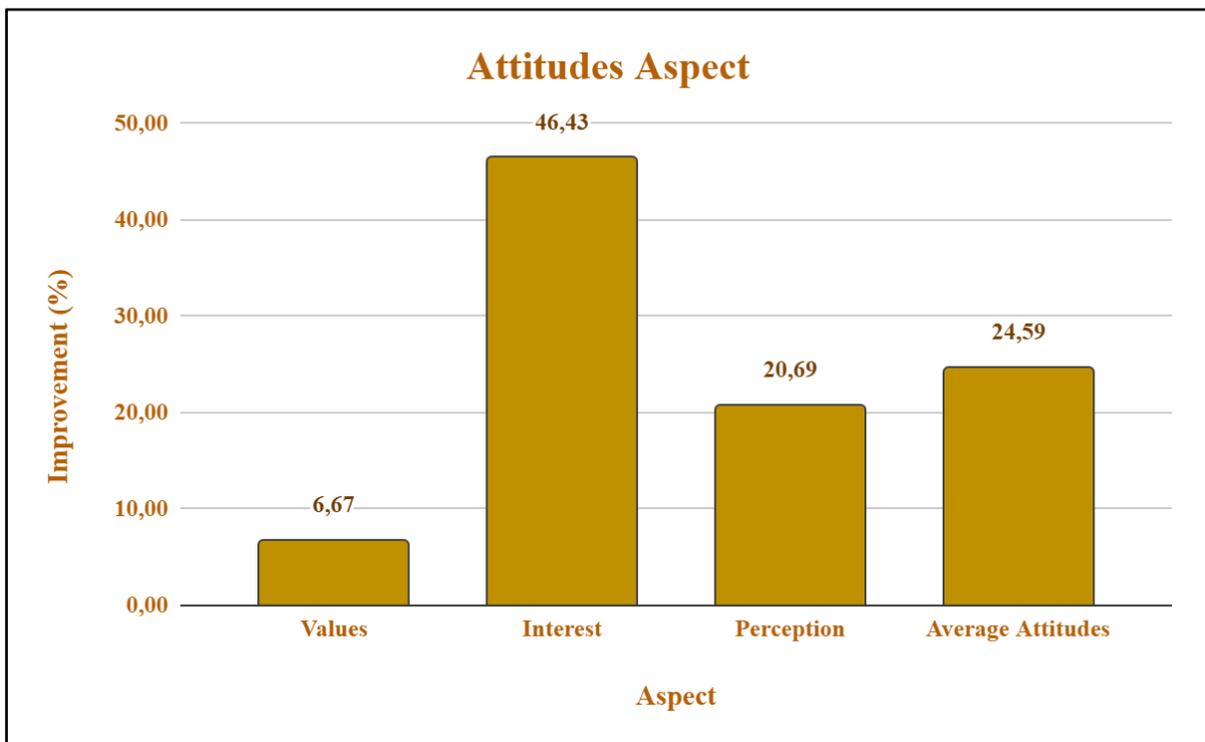


Figure 4. Evaluation results of community service activities on student attitudes

The community service team actively enhances interest in organic products by organizing exhibitions where students participate in production and marketing efforts. Such initiatives improve students' engagement with organic products while providing valuable hands-on experience in marketing techniques. Additionally, the team organizes visits to organic farms and sustainable agriculture sites, allowing students to witness organic farming processes firsthand. These direct interactions with faculty experts deepen students' understanding and appreciation of organic practices and products. By combining practical experiences and educational events, the community service team fosters a more significant commitment to sustainable agricultural practices among students.

The community service team actively transforms negative perceptions of organic farming into positive understandings. Experts in organic agriculture are invited to share their experiences and the latest study, providing students with credible information that challenges misconceptions. The team organizes discussion forums, allowing students to voice their views and questions and facilitating open dialogue about potential concerns regarding organic practices. Furthermore, awareness campaigns utilizing social media and school posters aim to enhance students' understanding of the positive impacts of organic farming on health and the environment. These multifaceted efforts engage students and foster a more informed perspective on sustainable agriculture.

A significant 6.67% increase demonstrates students' appreciation for the importance of organic farming within a sustainable lifestyle. Students develop a strong understanding of the interconnectedness between human well-being and environmental health. They embrace a sense of responsibility towards environmental stewardship, recognizing their role in promoting sustainability. Moreover, students value sustainable food systems' ethical and social dimensions, fostering a holistic approach to agriculture. These insights encourage engagement in practices that align with their newly cultivated values, reinforcing their commitment to a healthier planet (Irawan et al., 2024). By internalizing these concepts, students contribute to the growing recognition of organic farming's vital role in fostering a sustainable future.

A remarkable 46.43% improvement indicates a heightened interest among students in organic products and sustainable farming practices. Students exhibit genuine curiosity about organic farming and related sustainability issues, demonstrating a commitment to enhancing their knowledge. They actively seek information and resources about organic agriculture and sustainable living, engaging with several platforms and materials. Additionally, students strongly desire to contribute to a more sustainable food system, reflecting their understanding of the importance of ethical consumption. This growing interest fosters a proactive approach to environmental issues, encouraging students to become informed advocates for sustainable practices and products in their communities.

A significant 20.69% enhancement in student outlook reflects their ability to shift from negative to positive perceptions of organic farming. Students recognize the benefits of organic practices, enabling them to appreciate sustainable agriculture's value. This transition in perception stems from increased exposure to organic farming concepts and practices. As a result, students become more open to embracing sustainable approaches, fostering a supportive attitude towards environmental stewardship and responsible consumption. Such a change encourages a deeper engagement with organic farming initiatives.

4.3. Encourage students' sustainable behavior through practical projects.

Sustainable behavior encompasses actions that consider environmental, social, and economic impacts. Amid climate change and environmental degradation challenges, equipping students with the understanding and skills necessary for sustainable living becomes imperative. This initiative aims to instill sustainability principles into students' daily lives, fostering a culture of responsibility. Practical projects allow students to engage in interactive and applicable learning experiences. Students can observe the direct impact of their actions by participating in activities such as creating organic gardens, managing waste, or implementing reforestation programs. This approach enhances theoretical understanding and encourages applying knowledge in real-world contexts.

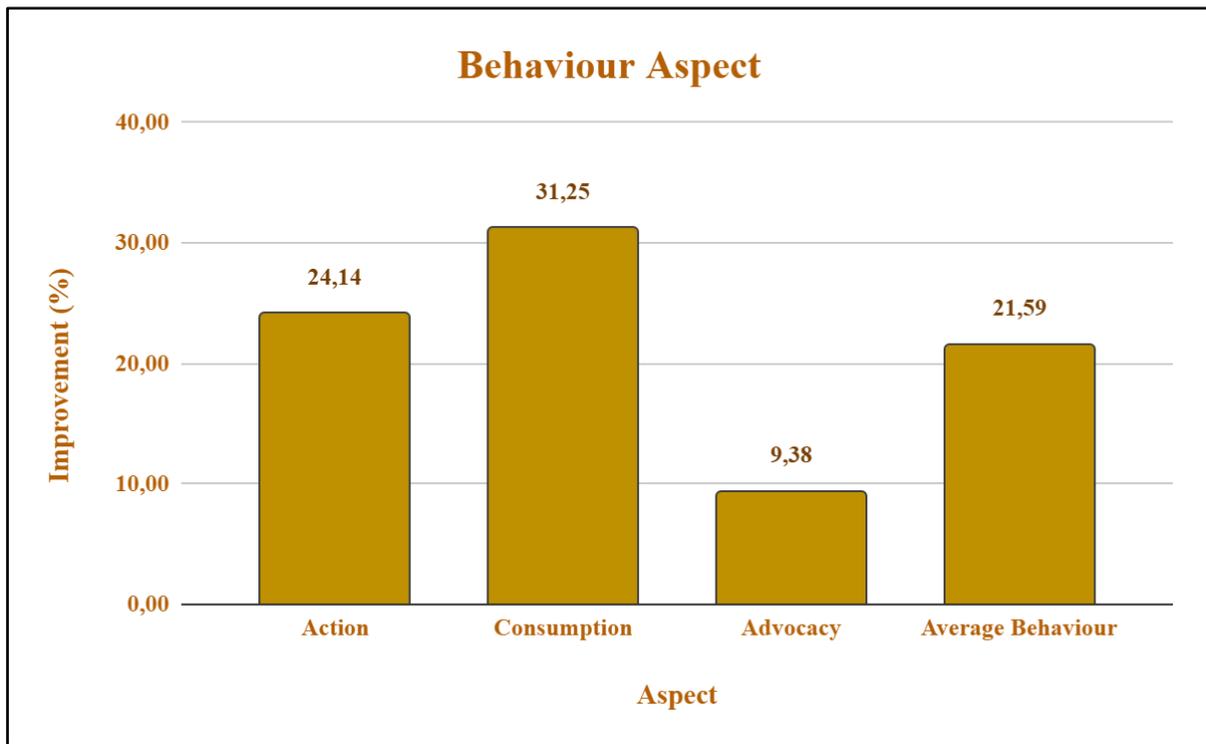


Figure 4. Evaluation results of Community Service activities on student behavior

The actions demonstrate a notable increase of 24.14 percent in student engagement with organic farming activities. Observations reveal that students willingly participate in several initiatives, including planting organic crops in their surroundings, engaging in composting programs, and joining local organic farming communities. This active involvement fosters a deeper connection between students and sustainable practices, encouraging them to adopt habits that prioritize organic and locally sourced food. Students also advocate for sustainable practices, effectively promoting awareness and environmentally friendly behaviors within their communities. Such collective efforts contribute significantly to advancing organic farming and sustainability initiatives.

Consumption patterns reflect a significant increase of 31.25 percent in students' preference for organic products in their daily lives. Students make conscious choices to reduce their environmental impact, prioritizing organic foods over conventional options. This shift in dietary habits showcases a commitment to healthier living and sustainable practices. Furthermore, students actively support local farmers and businesses, emphasizing organic and sustainable approaches fostering a sense of community and shared responsibility. Their choices reflect an awareness of the broader implications of consumption, contributing positively to personal health and environmental sustainability. Such behaviors enhance individual well-being and promote a more resilient food system.

Advocacy efforts demonstrate an increase of 9.38 percent in student engagement regarding organic farming awareness. Students actively disseminate information about the significance of organic farming to peers, families, and the broader community through several media platforms. This outreach enhances public understanding of sustainable practices and their benefits. Campaign participation further showcases students' commitment as they join movements supporting organic agriculture and environmental conservation. Their involvement underscores the importance of collective action in promoting sustainable agriculture and fostering responsible environmental stewardship among their communities.

The behavior aspect of this community service initiative (21.59 percent) reveals significant potential for transforming students' daily habits towards a more sustainable lifestyle. Expected outcomes include adopting new practices, such as choosing organic products, reducing food waste, and actively participating in organic farming activities. Changing behavior requires time and consistent support, as challenges may arise, including resistance to change, limited information, and lack of motivation. Therefore, designing engaging, relevant, and sustainable programs proves essential in encouraging students to integrate newly learned behaviors into their routines.

The results of this community service initiative address previous publications that reported conflicting findings. Arief et al. (2021) discovered that, despite adequate knowledge of organic farming, students' participation in related activities remained low due to limited access to necessary land and resources. Additionally, environmental support posed further challenges. Li et al. (2022) highlighted that students' food consumption patterns predominantly featured processed and fast foods, indicating that price and convenience heavily influence their choices despite awareness of healthy eating. Rahmania (2024) revealed that students' involvement in environmental activities often remained limited to ceremonial events, emphasizing the need for greater understanding and continuous engagement. Institutional support also emerges as a critical factor influencing student participation.

During the observation of the community service activities, several intriguing aspects emerged. Limited facilities, such as organic gardens or farmland on campus, hindered practical engagement. Students often face busy schedules, making it challenging to allocate time for extracurricular activities related to organic farming. Additionally, a noticeable lack of understanding among some students regarding the practical application of organic farming in daily life became evident. These observations prompt important discussions about fostering a campus environment that supports organic farming practices, discovering effective strategies to enhance student motivation, the role of faculty in integrating organic farming into the curriculum, barriers to accessing organic products, and the influence of social media in promoting sustainable lifestyles among students.

4.4. Stimulate students' interest in sustainable activities.

Interest in implementation refers to the willingness of individuals to translate acquired knowledge and skills into tangible actions. In the context of organic farming, this interest reflects the extent to which students are keen to practice organic farming principles in their daily lives, whether on a small or large scale. Such enthusiasm plays a crucial role in fostering sustainable behavior change, motivating students to adopt practices that align with environmentally friendly principles. Cultivating this interest enhances individual commitment to sustainability and contributes to a broader culture of responsible agricultural practices within the community. Engaging students effectively can impact their approach to food production and consumption.

The importance of interest in implementation lies in insufficient knowledge to drive behavior change. Individuals require a strong desire to apply their knowledge effectively. Several factors influence this interest, including personal values, past experiences, social support, and resource availability. Strong interest acts as a catalyst, motivating individuals to take action and adopt new practices. Engaging with supportive communities can further enhance this interest, fostering an environment conducive to implementing sustainable behaviors. Additionally, resource accessibility is critical, enabling individuals to transition from theoretical understanding to practical application successfully.

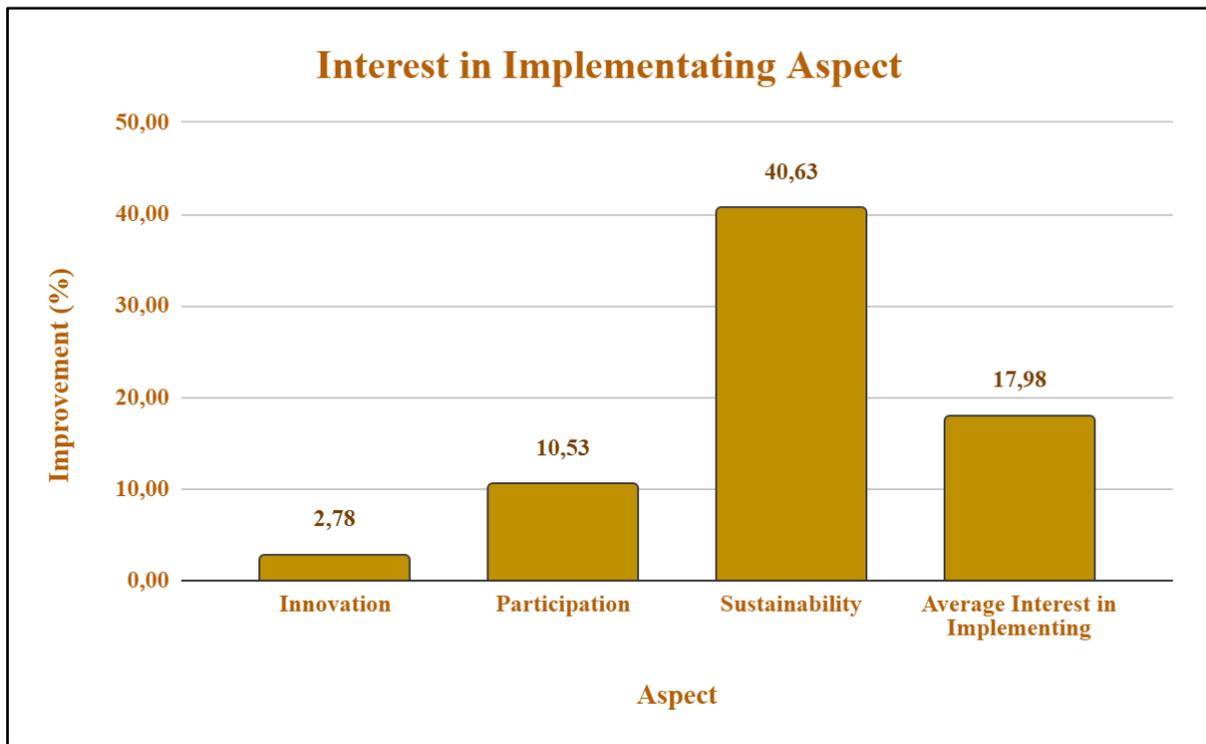


Figure 5. Evaluation results of community service activities on student interest in implementing

Innovation grew only 2.78 percent, forcing a fresh look at educational processes. Students struggle with internal issues such as a daily lack of innovation knowledge. Many lack self-esteem and feel unable to develop or generate ideas. Poor personal interests or long-term goals frequently lack intrinsic motivation. Learning environments without instructor and parent support hinder creativity. Resources, facilities, materials, and equipment limit innovation. Rigid memorization-focused curricula can also hinder critical and creative thinking, limiting students' originality and innovation prospects.

A 10.53% rise in interest shows the successful community service program. This number shows that students have changed from just knowing about organic farming to wanting to participate directly. Many things explain this increased interest. Relevant methods will likely show organic farming in an interesting way that relates to students' lives. Activities like hands-on tasks, field trips, and small projects help students learn about organic farming better and spark their interest. Support from teachers, parents, and friends helps students get more involved in organic farming. They are also motivated by perks like better air quality and health.

The rise in student knowledge and interest in organic farming and sustainability shows that the community service program has been successful. A 40.63% increase shows that students have significantly improved their knowledge and attitudes about environmental issues. Several things contribute to this interest. Through innovative teaching strategies, such as project-based learning and participation in activities, students can acquire knowledge about organic farming through firsthand experience. Focusing on sustainability helps people understand why it matters and how organic methods can help reach sustainability goals. Community engagement activities help students see how their actions make a difference, which builds a feeling of belonging to a solution. Experienced mentors help and motivate students, pushing them to keep learning.

An average rise of 17.98% in students' interest in organic farming shows that the program is successful. This result shows that students have changed their thoughts and feelings about

organic practices. This slight rise shows that more work is needed to improve engagement. Many things can lead to this growing interest, such as new teaching methods, hands-on activities, and help from schools and families. A thorough study is needed to pinpoint the factors that help improve student involvement in organic farming and any obstacles that prevent more students from participating.

This community service endeavor corrects earlier releases and adds new insights. Balestri et al. (2023) found that lacking instructor assistance, resources, and study experience kept students' inventive abilities low despite their enthusiasm for agriculture. Academic workload, disinterest, and limited parental support prohibited students from participating in extracurricular activities, including environmental projects, according to Setiawan et al. (2023). Escobar et al. (2024) found that school-based environmental programs struggle to persist due to school authority indifference, teacher turnover, and finance shortages. These problems show how difficult it is to promote agricultural and environmental education.

Field observations during the community service effort confirm earlier publishing discrepancies. Organic farming requires land, equipment, and organic materials, which many schools lack. The heavy curriculum inhibits students' recreational pursuits, especially organic agriculture. Insufficient teacher assistance hinders students' organic farming exploration. These problems emphasize the need for continued talks about keeping students interested in organic farming after the community service program. Identifying impediments to organic agriculture in school curricula is crucial. Effective ways to manage resource constraints in agriculture programs and actively involve more teachers in promoting organic projects in schools must be developed. The long-term effects of community service activities on student behavior modification must be measured to assess their efficacy and sustainability.

CONCLUSION

This community service project successfully achieved its primary objectives of enhancing students' understanding of organic farming, fostering positive attitudes toward sustainable practices, encouraging active participation in practical projects, and stimulating their interest in broader sustainability initiatives. By providing hands-on experiences, fostering a sense of community, and promoting critical thinking, the project demonstrated that young people are eager to contribute to a more sustainable future. Observations from the field revealed a significant shift in student attitudes and behaviors. Participants sincerely appreciated the connection between food, environment, and health. The project taught students about organic farming and inspired them to advocate for sustainable living within their communities. Several recommendations can be made to enhance the impact of such initiatives further. Firstly, integrating organic farming education into formal curricula can ensure that future generations develop a strong foundation in sustainable agriculture. Secondly, establishing partnerships with local farmers and organizations can provide students real-world experiences and mentorship opportunities. Additionally, creating a supportive policy environment that incentivizes sustainable practices, such as providing resources for school gardens or promoting locally sourced food in school cafeterias, can significantly amplify the impact of these efforts. Future community service projects could explore additional dimensions of sustainability, such as renewable energy, waste reduction, and social justice. For instance, a project focused on developing a school-based composting program could address waste management and resource conservation, while a project centered on urban gardening could provide fresh produce to local food banks and strengthen community ties. In conclusion, this community service project has demonstrated the potential to empower young people to become change agents. We can inspire future generations to create a more just and equitable world by fostering a deeper understanding of organic farming and sustainability.

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