

The Establishment of the "Pawon Bumi" Program to Improve Life Skills in the Agriculture/Plantation Sector for Salman Orphanage Students

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Abstract

This research aims to improve students' life skills at Salman Orphanage in plantation agriculture by implementing the Pawon Bumi Program. This program utilizes 350 m² of unused empty land to conduct training, planting, and harvesting. The Pawon Bumi program has a philosophy in the form of a kitchen of agricultural products, where this program utilizes the empty land as a routine and sustainable agenda for Salman students. This community service activity using PAR methods, using explanatory PAR to facilitate Salman orphanage students to participate in analyzing needs, problems, and solutions before planning transformative actions, includes activities starting from: (1) Planning; (2) Action; (3) Experimentation; and (4) Reflection. This program can improve the students' potential by maximizing the facilities of the boarding school through life skills training in the field of agriculture/plantations for orphanage students. The results showed the percentage increase measured using a gain score, where after conducting the training, there was a 70,2% increase in students' life skill knowledge (gain score value of 0.63 with a medium category). There was a 90,8% increase in students' knowledge of agriculture and plantations (gain score value of 0.87 with a high category), which shows that this program greatly influences students' abilities in agriculture/plantations.

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INTRODUCTION

Pondok Anak Yatim (PAY) Salman is one of the Islamic boarding schools in Malang City, which was established in 2003 and only had four students, and currently has 30 male students, consisting of orphans, half-sisters, and poor people. These students come from various regions, not only from Malang Regency/City but also from Lamongan, Jakarta, Kalimantan, Riau, NTT, and NTB, ranging from elementary school students to students already in college. Mr. Syaiful Arif, as the caretaker and head of the boarding school, has a noble goal during the establishment of PAY Salman, namely wanting to save the next generation of the nation who need help by highlighting not only faith but also the skills of students to face a better future that can be forged in the education at PAY Salman.

According to research from [Sundaram and Jayaraman, \(2023\)](#) & [Kesumadewi et al., \(2022\)](#), learning related to life skills is needed, especially if given to adolescents to improve psychosocial abilities and capabilities, and build various dimensions of well-being to help individuals become more adaptive in facing changes in times. It also stimulates student curiosity, increases student accuracy, objectivity, and honesty, and provides learning experiences in terms of how collaboration and interaction with fellow students in teamwork. [Nasheeda et al. \(2019\)](#) added that by providing learning related to life skills, an individual can develop the ability to behave more adaptively and positively to face the demands and challenges of everyday life effectively. The skills provided can be basic skills needed for survival, including building productive and constructive interpersonal relationships with other members of society. [Tabish & Geelani, \(2023\)](#) also added that life skills are related to abilities that can help someone to behave appropriately in certain situations that have an impact on improving the quality of life, where these skills are different from academic skills obtained from school, but in self-development by utilizing the surrounding environment and creative and critical thinking to solve a problem. Based on the results of observations and interviews at PAY Salman, until now there is still no routine agenda that is carried out to improve the skills of the students, currently the routine agenda of the students apart from going to school, is still focused on religious activities such as obligatory and sunnah prayers in congregation, dhikr and reciting the Al-Qur'an then morning duty in turns for the cleanliness of the pondok, so that many students still do not have activities during free time/school holidays as seen in Figure 1.



Figure 1 Salman boarding school activities with students

Students from other universities, such as PHBS socialization, joint study programs, etc., have done several previous activities. However, the majority of these activities do not have sustainability, even though education and ongoing beneficial activities can help prepare students for the future, also expanding the activity to increase both educators and learners is essential to guarantee sustainable development within educational establishments ([Azevedo, 2024](#); [Hamdani et al., 2024](#)). So, it is necessary to have ongoing education and beneficial activities to help prepare students to be future-oriented so that the vision of the pondok can also be fulfilled. Skills development, of course, also requires facilities that can support the process (Figure 2).

One of the facilities owned by PAY Salman is a 350m² empty land next to the PAY office that has not been used and has great potential to be utilized. Based on the interview results, it was revealed that it had previously been planted with peanuts but was not continued because the management was not optimal, due to the minimal involvement of the students, and because many students still did not understand farming skills. In addition,

its location, which is right on the side of the road, has great potential to be further developed for student entrepreneurship. The conditions and atmosphere of the PAY Salman area are presented in Figure 2.

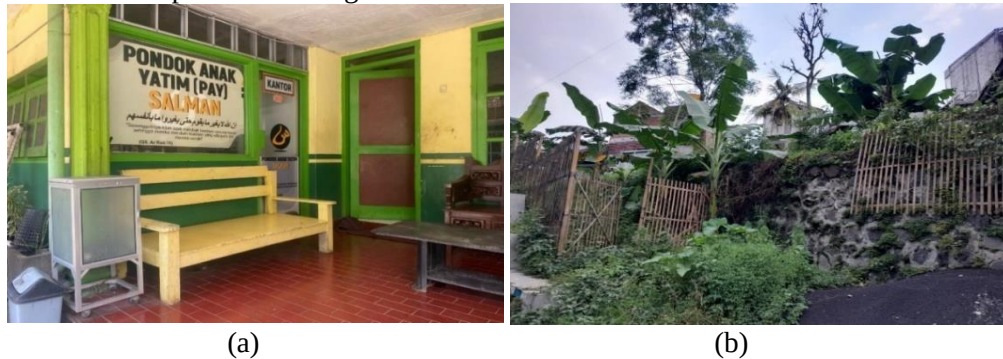


Figure 2 (a) PAY salman office (source: personal documentation) and (b) 350m² of land owned by PAY salman

The use of this land has the potential to help students develop skills, especially in the field of agriculture/ plantations. Also, understanding the future human resource needs in agricultural education allows for effective workforce planning. This skill is also one of the important life skills, considering that agriculture/ plantations are also one of the important sectors in the Indonesian economy ([Hasibuan & Nasution, 2022](#); [Tripathi et al., 2024](#)). Based on this, this service focuses on increasing the potential of students and boarding school facilities by creating a program called "Pawon Bumi," which can overcome all aspects of the problem, both by maximizing management, providing a routine agenda for students to improve their skills, and indirectly impacting income.

METHODS

This community service activity was conducted at the Salman Orphanage (PAY Salman) on Jl. Raya Candi VI/193 Gasek Karang Besuki - Sukun, Malang City, East Java. PAY Salman. This community service activity uses PAR methods because we started by analyzing needs, looking for problems and solutions to facilitate Salman Boarding School, so we used Explanatory PAR, it includes activities starting from: (1) Planning; (2) Action; (3) Experimentation; and (4) Reflection ([Elfayetti et al., 2023](#)). In the planning stage, the community service team started by conducting interviews and observations about what the orphanage students need and finding solutions. In the Action stage, the team explained the procedures/systematics carried out in the field to groups of students who had been divided into 3 (three) groups and explained the forms of critical land problems and how to overcome them, the diversity of plant species on degraded lands, and how to make vermicompost organic fertilizer of various types of different food.

The Experimentation Stage was carried out through 3 FGD stages: socialization, education, and justification ([Aldya et al., 2023](#)). At the socialization stage, 30 PAY Salman students were explained the importance of forming life skills, especially at a productive age to face the wider community, one of which is by forming life skills in the field of agriculture/ plantations by maximizing the function of the land available at PAY Salman, starting from how to plant, manage to harvest and process various agricultural products. Furthermore, at the education stage, land management training is carried out, both from nurseries, fertilization, making beds, installing plant polybags, seed distribution processes, planting processes, pest prevention, to the harvest process; and 2) training in processing harvested products, in this training the students learned the types and benefits, how to package raw harvested products so that they last longer, how to process the harvested

products into various products that are worth selling and the sales process both offline and online ([Andrian et al., 2023](#)). Then, it ends with the justification and follow-up stage through mentoring and evaluation by looking at the level of the students' skills, which are measured using *gain scores*. Lastly, the community service team carried out the reflection stage to measure the effectiveness of the program's implementation.

RESULT AND DISCUSSION

Implementing this community service activity seeks to equip the students with life skills by optimizing the facilities, such as the empty land at PAY Salman. This implementation uses PAR methods. The community service team interviewed and observed the orphanage students' needs and solutions in the planning stage. This boarding school has one plot of land with an area of 350 m² that has not been utilized optimally by the PAY Salman boarding school leaders. The interview results revealed that the land had previously been planted with peanuts, but was not continued because there were many problems, such as pest problems, land management that was not optimal, and minimal involvement of the students. This is because the planting activity is not a routine agenda for the students, so the students feel they have no obligation to manage the land. Besides that, many students still do not understand farming skills through the "Pawon Bumi" program (Figure 3).



Figure 3 The planning stage: information about pawon bumi program to orphanage students

In the Action stage, the team explained about the Pawon Bumi Program, as the name suggests, Pawon Bumi has a philosophy of being a kitchen of the earth's produce, where this program utilizes the empty land to become a routine and sustainable agenda for PAY Salman students. The procedures/ systematics carried out in the field with groups of students who had been divided into 3 (three) groups and explained the forms of critical land problems and how to overcome them, the diversity of plant species on degraded lands, and how to make vermicompost organic fertilizer of various types different food (Figure 4).



Figure 4 (a) Pawon bumi program and (b) Land management of pay salman students

The Experimentation Stage was carried out through 3 FGD stages: socialization, education, and justification. Up to the FGD stage with 30 PAY Salman students. At the socialization stage, it is hoped that the students began to pay attention to the importance of building skills/life skills, especially in the field of agriculture/ plantations by utilizing the land at PAY Salman so that the students have a routine agenda that is useful for improving the quality of life of the students in the future. Furthermore, at the education stage, training is carried out related to land management so that the students can carry out land management independently,, starting from seeding, fertilizing, making beds, installing polybags, the seed spreading process, the planting process, pest prevention, to the harvest process (Figure 5).



Figure 5 (a) Watering and irrigation and (b) Planting and seedling

The improvement in knowledge of life skills in the agriculture/ plantation sector has been measured using the *gain score*, as shown in Table 1.

Table 1 Measuring life skills knowledge in the field of plantation agriculture using gain score

Description	Knowledge about life skills		Knowledge of plantation agriculture	
	Pre	Post	Pre	Post
Sample	30	30	30	30
Lowest Score	15	35	10	35
High Score	45	50	25	50
Total	785	1240	806	979
Average	26.1	41.3	19.1	41.8
Gain Score		0.63		0.87
Category		moderate		High
Improvement		70.2%		90.8%

Before the program was implemented, students' initial knowledge regarding life skills was valued at 26.1 and after training it became 41.3 with a percentage increase of 70.2%, while students' initial knowledge in the field of plantation agriculture was valued at 19.1 and after training it became 41.8 with a percentage increase of 90.8%, which shows that this program can equip students if it is continued. The last stage is the Reflection stage by mentoring and evaluation stage starting from mentoring the planting process, harvesting, processing the harvest and the sales process to evaluation to see the extent of the students' expertise in the planting process to harvesting by looking at the level of the students' skills ([Widodo & Subositi, 2021](#)). The Pawon Bumi program that utilizes the surrounding land can be one of the approaches to improve the skills and productivity of students by utilizing local natural resources to achieve welfare ([Ramadani et al., 2023](#); [Ramadhan, 2021](#)). This special land are planted by students with various crops such as food crops, plantation crops, vegetables, secondary crops and medicinal plants ([Yurindra, 2015](#)), where the use of land and useful plants can improve the skills of students because they can do real learning in the surrounding environment ([Arifendi & Aldya, 2024](#)). In addition, the use of technology such as websites and online sales can help reach a wider and more diverse

audience ([Akbar et al., 2023](#)), and make it possible to increase independent finances for students and the boarding school apart from donor income. So, with the Pawon Bumi program, at least the students will have one provision in agriculture/plantations to mingle in the wider community. This life skill is important because it can give rise to adaptive and positive behavior that effectively allows students to overcome everyday life's demands and challenges ([Prajapati et al., 2016](#)).

CONCLUSION

The development of the Pawon Bumi Program is able to help students at PAY Salman develop life skills, especially in the field of agriculture/plantations. It began with socialization to 30 students regarding the importance of developing life skills, followed by education in the form of independent land management training starting from seeding, fertilization, making beds, installing polybags, seed distribution process, planting process, pest prevention, to processing the harvest process and selling the harvest through the PAY Salman website to increase finances independently for students and also the boarding school, the result showed that improvement with score 70,2% in students' life skill knowledge (gain score value of 0.63 with a medium category) and there was a 90,8% increase in students' knowledge of agriculture and plantations (gain score value of 0.87 with a high category). The last stage is the mentoring and evaluation stage, starting from mentoring to evaluation, to see the extent of the students' expertise in carrying out the routine agenda of the Pawon Bumi Program sustainably. It would be very good if this program were continued by utilizing not only the web but also online sales applications, where the large market interest would increase the willingness of the students to continue the program and improve the quality of the harvest from the Pawon Bumi program.

CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest.

AUTHOR CONTRIBUTIONS STATEMENT

RFA: designing the program and assisting in providing education related to the variety of agricultural crops and their benefits, also arranging the variety of agendas in the Pawon Bumi program. She also designing the huts, land areas and websites for PAY Salman; SRA: involved in providing education to students in the field of agriculture/plantations, and providing training in land management including planting methods, making fertilizers, maintaining about how to treats the plants and preventing pests; RFA, helped in educating students to improve creativity in product packaging and marketing and implementing it in social media and digital media.

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