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Workshop on integrating biology instructional strategies with Al-Quran and As-Sunnah value for prospective biology teachers

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-02-01 Revised: 2023-07-09 Accepted: 2023-07-18 Published: 2023-09-07 Keywords Al-Qur'an and As-Sunnah Values Biology instructional strategy Integrating Training	The learning strategies carried out so far by biology teachers prioritize cognitive and psychomotor achievement targets so that affective aspects, especially the values of the Qur'an and As-Sunnah and the formation of Islamic character, tend to be neglected. As a result, it is necessary to provide prospective biology teachers with learning strategies that integrate the values of the Al-Qur'an and As-Sunnah in the hope that they can later be applied to their students. The learning strategies carried out so far by biology teachers prioritize cognitive and psychomotor achievement targets so that affective aspects, especially the values of the Qur'an and As-Sunnah and the formation of Islamic character, tend to be neglected. As a result, it is necessary to provide prospective biology teachers with learning strategies that integrate the values of the Al-Qur'an and As-Sunnah in the hope that they can later be applied to their students. The aim of this workshop is to equip Biology teacher candidates for Madrasah Aliyah and High School so that they have the knowledge and skills to apply Integrated Biology learning with the values of the Al-Qur'an and As-Sunnah. The method of this activity is through a workshop which consists of several activities, namely Product Knowledge debriefing activities, discussion of the stages of the Al-Qur'an and As-Sunnah integrated learning model, simulations and assignments. The workshop was attended by 72 prospective teachers.. Based on the assignment to practice applying the 6 Phases of learning integrated with the values of the Al-Qur'an and As-Sunnah, student skills are not very good. This could be due to several factors, including not being used to it.
Kata Kunci Al-Qur'an dan As-Sunnah Integrasi Nilai-nilai Pelatihan Startegi pembelajaran biologi	Pelatihan integrasi strategi pembelajaran biologi dengan nilai-nilai Al-Quran dan As-Sunnah bagi calon guru biologi. Strategi pembelajaran yang dilakukan oleh guru biologi selama ini lebih mengutamakan target capaian kognitif dan psikomotorik sehingga aspek afektif terutama nilai-nilai Al-Qur'an dan As-Sunnah dan pembentukan karakter islami cenderung terabaikan. Untuk itu perlu pembekalan strategi pembelajaran yang terintegrasi nilai-nilai Al-Qur'an dan As-Sunnah kepada calon guru biologi dengan harapan kelak dapat diterapkan kepada anak didiknya. Workshop ini bertujuan untuk membekali calon guru Biologi Madrasah Aliyah dan Sekolah Menengah Atas agar memiliki pengetahuan dan keterampilan untuk menerapkan pembelajaran Biologi terintegrasi dengan nilai-nilai Al-Qur'an dan As-Sunnah. Metode kegiatan ini melalui workshop yang terdiri dari beberapa kegiatan yaitu kegiatan pembekalan Product Knowledge, pembahasan tahapan model pembelajaran terpadu Al-Qur'an dan As-Sunnah, simulasi dan penugasan. Workshop diikuti oleh 72 calon guru. Berdasarkan penugasan untuk latihan menerapkan 6 Phase pembelajaran terintegrasi nilai-nilai Al-Qur'an dan As-Sunnah, keterampilan mahasiswa belum begitu baik. Hal ini bisa disebabkan beberapa faktor diantaranya karena belum terbiasa.

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INTRODUCTION

Islam is a religion which has been advocated to have divinity beneficial values for all humanity. For its benefit to all creatures, the value of the religion must be integrated into the national curriculum (Sulayman, 2014). Islamic education has a long purpose and a short purpose. The national standard curriculum is insufficient to achieve the goal, both short and long term. That is, an integrating curriculum model should model science and Islam in a manner proportional to needs developed and accommodated by the national system (Hamami & Nuryana, 2022). Integrating Islamic values into the curriculum is a discourse that has been put forward for a long time by educational experts because it is one of the goals of Islamic education.

Islamic education aims to produce capable human resources with holistic (whole) competence, namely knowledge, skills, faith, and piety toward God Almighty, noble character, Islamic personality, mercy to the universe, Qur'anic character, and awareness of its function as a servant of Allah and representative of God on earth (Hamami & Nuryana, 2022; Sulayman, 2014; Agusti et al., 2019; Robiah, Alwizar & Darus, 2017). To produce human resources with comprehensive competence (integral-holistic), it requires the integration of knowledge because in Islam every piece of knowledge learned, no matter how late, is sourced from Allah subhanahu wa ta'ala, and most importantly, integrating Islamic knowledge will anticipate the issue of knowledge as value-free (Abdullah, 2015; Hassan, 2012; Mustafa et al., 2021; Hamami & Nuryana, 2022; Hassan et al., 2010). It is also argued that Islamic value integration can foster enthusiasm for learning (Anshori, 2021). Students have factual and cultural experiences that correlate with the miracles of the Qur'an (Fahyuni et al., 2020). Al-Qur'an and Sunnah are sources of Islamic sciences, which for social sciences and natural sciences are the basic elements of both grand concepts and grand theories (Mufid, 2014). Scientific cues are used to study empirical science, especially scientific perspectives in discussing the verses of the Qur'an (Saputro et al., 2019). Likewise, in learning natural sciences (IPA), especially biology, students are not only required to know their knowledge but also must understand that order in the universe cannot be separated from the power of God Almighty so that they realize the majesty and admiration for Allah, adding faith and piety as well as forming an Islamic personality in students (Latifah, 2015; Hamzah, 2015; Khoiri et al., 2017; Robiah, S., Alwizar, Vebrian, 2017). There is a need to revise science learning about religion so that it allows students to make cross-disciplinary connections and the curriculum is more meaningful (Torres et al., 2021). Likewise, in the field of biology, Ramadhan et al., (2021) argue that learning biology has the potential to be integrated with the Qur'an and Sunnah.

However, the facts in the learning process starting from tertiary institutions to elementary level schools are still partial, including teacher education institutions, especially biology education study programs whose output is prospective biology teachers who will teach in schools. As seen by Hamami & Nuryana, (2022), the education system has not been successful in forming an ideal human because the educational process is partial, and besides that, it has not been able to facilitate the holistic development of students' potential. With a partial higher education system, the output produced, especially in the form of biology teachers, is also partial in terms of educating their students at school. As the facts on the ground show, teachers in the learning process prioritize target achievement cognitively so that aspects effective specifically in embedding values of the Qur'an and Sunnah for building the Islamic personality of students tend to be neglected that the education system has not been successful forming an ideal human because the educational process is partial, besides that, it has not been able to facilitate the development of students' potential holistically (Latifah, 2015; Hamzah, 2015; Khoiri et al., 2017; Sholichah et al., 2017).

Apart from that, the reason is also traced as the cause of the lack of training carried out at the partner school for biology teachers (Nurhadi et al., 2017). One of the quick solutions that can be implemented in anticipating the weaknesses of the current curriculum is to provide provisions to prospective biology teachers through workshops on the application of integrated biology instruction on the values of the Qur'an and Sunnah with the hope that they can be applied when carrying out practical field work (school-based practice) or at any school only then will they work.

Based on the background and problems above, this community service aims to equip prospective biology teachers with the skills to apply biology learning strategies integrated with the values of the Qur'an and As-Sunnah. This is in line with one of the Sustainable Development Goals (SDGs), namely quality education. SDG 4 is to "provide quality education for all", according to the United Nations (Our World in Data team, 2023). The SDGs are primarily concerned with promoting sustainable growth via ensuring wellbeing, economic growth, environmental legislation, and academic advancement. One of the most prominent goals of the SDG is to provide learners with high-quality education (SDG 4) (Saini et al., 2023).

METHOD

The workshop was conducted for students of the Biology Education Study Program, Faculty of Teaching and Education, Islamic University of Riau. Workshop participants were 72 who were the prospective high school and Madrasah Aliyah biology teachers: The following were the stages of the workshop conducted (Figure 1).

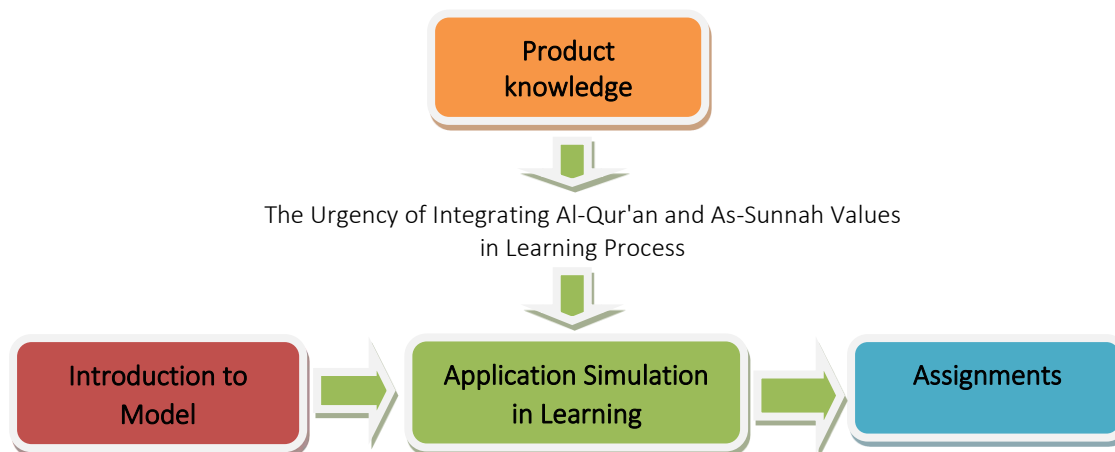


Figure 1. Stages of training activities on the application of integrated biology instruction to values of the Al-Qur'an and As-Sunnah

Explanation of Stage of Workshop Activities carried out in Figure 1 are as follows: **Product Knowledge**, prospective teachers were given an understanding regarding the urgency of integrating Al-Qur'an and As-Sunnah values in the learning process. **Introduction** to the Phases of the Ulul Albab Instructional Model consists of six phases: giving motivation to students, conducting initial meditation, observing or reviewing of literature or material, core reflection, reflection, and finally the Closing Phase. **Simulation**: a simulation is carried out on how to apply it in learning, but the simulation is only carried out for several learning objectives due to time constraints. **Assignments**. Assignments to practice at home were collected in the form of video recordings.

RESULTS AND DISCUSSION

The community service has been carried out well. Workshop activities can be seen in Figure 2. In Figure 2, it is seen that the workshop activities had been carried out, where the initial stages of prospective teachers are provided with Product knowledge and prospective teachers are given an understanding regarding the urgency of integrating the values of the Qur'an and As-Sunnah in the learning process.



Figure 2. Participants are listening attentively to the speaker in the workshop.

Prospective teachers are also conveyed that all biology material has the opportunity to be integrated with the values of the Qur'an and As-Sunnah, as is the view of Ramadhan et al (2021) that learning biology has the potential to be integrated with the Al-Qur'an and As-Sunnah. However, given the limited time, this workshop only used one teaching

material, namely food materials and the human digestive system. The teaching materials used are also the result of research results that have been validated by lecturers of biologists, learning experts, experts on the Qur'an and hadith, and a team of biology teachers. Teaching materials have been tried out in a limited way in three schools and received very positive responses from students. Introduction to the Phases of the Ulul Albab Instructional Model consists of six phases. Simulation: After the introduction of the phases of the Ulul Albab Instructional Model, a simulation is carried out regarding these phases using the teaching materials that have been prepared. Giving Assignments, prospective teachers are given the task of practicing them at home and collecting them in the form of video recordings after the 3rd day of for evaluation.

Figure 3 is the phases of the ulul albab learning model resulting from research results that have been validated by learning experts and Islamic Religious Education. **Phase 1, *Motivating students***, where in this phase even though it is an introductory stage it is very important to implement, where prospective teachers are expected to motivate students not only referring to the material to be taught at that time but also with various forms of motivation such as various aspects of the Prophet's life SAW and his friends and tabi'in, or the enthusiasm and piety of Islamic warriors who can be taken as role models, or the motivation given can be in the form of words of wisdom that are full of meaning, or videos of success and struggle and so on. By providing such motivation, it is hoped that students will not only be enthusiastic about learning that day but, hopefully, can be motivated again to organize their lives in the future to become successful Muslim generations and have strong Muslim personalities. For this reason, it is hoped that prospective teachers will have high enough creativity to prepare various forms of motivation that will be given to their students at the beginning of each lesson. In **Phase 2**, the teacher guides students to do ***Early Tafakkur***. In this phase, the teacher invites students to contemplate the material to be studied that day. This can be done after the teacher delivers perceptions. **Phase 3**: The teacher guides students to ***Observe*** or ***review the literature*** or material being studied that day. **Phase 4**: The teacher guides students to do ***Core Tafakkur***, which can be done during the observation process or at the end of the observation. **Phase 5**: The teacher ***Reflects*** to evaluate all the activities that have been carried out and can also carry out learning achievement tests. **Phase 6, *Closing*** The teacher gives assignments to the students, and the activity ends with prayer. The next activity is conducting.

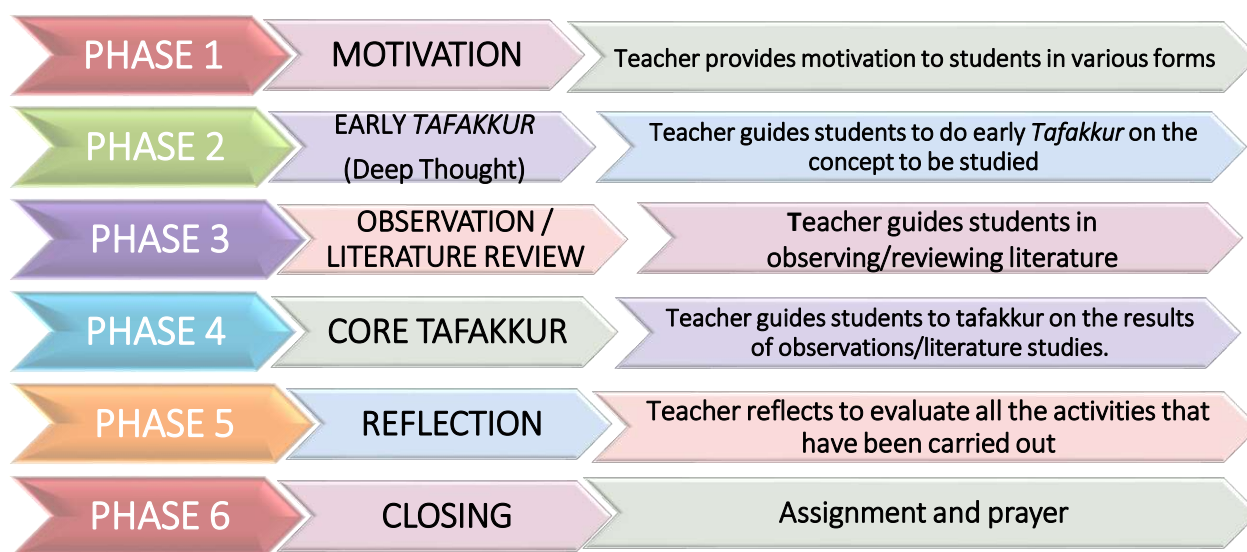


Figure 3. The learning phase integrates the values of the Quran and As-Sunnah.

Based on the assignment of integrated learning implementation practices 6 Phases of the values of the Qur'an and As-Sunnah as shown in Figure 3, the skills of prospective teachers are not good. This can be caused by several factors, including not being used to it considering that the learning carried out so far is still partial, there is no balance of 3 aspects namely intellectual, emotional and spiritual. According to Hanif et al., (2016) and Robiah, S., Suryanti,, & Ferazona, S. (2022), the education that is developed should be balanced between intellectual, emotional and spiritual intelligence. Presenting spirituality in education will give great meaning to the life of the nation. Confidence will God will lead to a strong commitment to always provide the best for the nation. Another factor is that prospective teachers are still not skilled because the integration of the values of the Qur'an and as-sunnah in the curriculum is still a discourse, (Abdullah, 2015; Hassan, 2012; Mustafa et al., 2021; Hamami & Nuryana, 2022; Hassan et al., 2010). Because of that, it is necessary to review the curriculum until evaluation, and a short-term solution that needs to be done more intensive workshops with sufficient time and it would be even better if there were courses related to biology material that integrates the values of the Qur'an and As-Sunnah and optimizes their practice in microteaching courses.

CONCLUSION

Community service has been carried out well. Given the large number of participants and limited time for the workshop activities, prospective teachers were assigned to practice them at home and record them using video. The results of the practice evaluation carried out by prospective teachers needs to be improved. Intensive and repetitive training needs to be carried out so that prospective teachers become accustomed to and skilled at applying learning that integrates the values of the Qur'an and Sunnah. It is expected that there will be a further policy to have biology courses that integrate the values of the Qur'an and Sunnah, and biology students practice them in microteaching courses so they get used to them. In addition, it is necessary to conduct more intensive workshops on other biological materials.

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Youth empowerment against poverty in Yobe State, Northern Nigeria

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-06-09 Revised: 2023-06-27 Accepted: 2023-08-14 Published: 2023-09-07 Keywords Empowerment Government Poverty Yobe State Nigeria Youth	Global efforts to end poverty and unfair development should focus on the empowered youth as the cornerstone. In Nigeria, the youth form 60 percent of the population. The majority of them are unemployed and ultimately poor. Poverty reduction requires empowerment to overcome the barriers to a better life. This study examined the nature of youth empowerment and its impact on the well-being of the youth in Yobe State, Nigeria. It used a quantitative method and administered questionnaires to 393 randomly selected respondents. Data was collected on youth's attitudes, views and experiences on various aspects of their lives and well-being and the nature of empowerment programmes in Yobe State. The study findings show that many empowerment programmes have been implemented but have had low impact on the youth. Poverty and unemployment remain high, mainly among the youth. In addition, youth attitudes and experiences show a lack of satisfaction with the nature of youth empowerment. Disempowered youth lack the confidence and belief that they have the opportunities to develop themselves or escape poverty and such disempowerment compromises their citizenry roles as the youth. Therefore, there is a need to improve the infrastructure and strengthen empowerment programmes to improve the well-being of the youth.
Kata Kunci Anak muda Kemiskinan Negara Bagian Yobe Nigeria Pemberdayaan Pemerintah	Pemberdayaan pemuda melawan kemiskinan di Negara Bagian Yobe, Nigeria Utara. Upaya global untuk mengakhiri kemiskinan dan pembangunan yang tidak adil harus berfokus pada pemuda yang berdaya sebagai landasannya. Di Nigeria, kaum muda merupakan 60 persen dari populasi. Mayoritas dari mereka adalah pengangguran dan pada akhirnya miskin. Pengentasan kemiskinan memerlukan pemberdayaan untuk mengatasi hambatan menuju kehidupan yang lebih baik. Studi ini mengkaji sifat pemberdayaan pemuda dan dampaknya terhadap kesejahteraan pemuda di Negara Bagian Yobe, Nigeria. Penelitian ini menggunakan metode kuantitatif dan menyebarkan kuesioner kepada 393 responden yang dipilih secara acak. Data dikumpulkan mengenai sikap, pandangan dan pengalaman remaja mengenai berbagai aspek kehidupan dan kesejahteraan mereka serta sifat program pemberdayaan di Negara Bagian Yobe. Temuan studi menunjukkan bahwa banyak program pemberdayaan telah dilaksanakan namun berdampak rendah terhadap generasi muda. Kemiskinan dan pengangguran masih tinggi, terutama di kalangan generasi muda. Selain itu, sikap dan pengalaman remaja menunjukkan kurangnya kepuasan terhadap hakikat pemberdayaan remaja. Kaum muda yang tidak berdaya kurang memiliki rasa percaya diri dan keyakinan bahwa mereka mempunyai peluang untuk mengembangkan diri atau keluar dari kemiskinan dan ketidakberdayaan seperti ini membahayakan peran mereka sebagai warga negara sebagai kaum muda. Oleh karena itu, perlu adanya perbaikan infrastruktur dan penguatan program pemberdayaan untuk meningkatkan kesejahteraan generasi muda. Copyright © 2023, Ibrahim, et al., This is an open access article under the CC-BY-SA

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INTRODUCTION

The proportion of youth in global unemployment is 47 percent while developing countries like Africa are projected to rise to 89.5 percent by 2025 (International Labour Organization, 2008). In Nigeria, the youth constitute 60 percent of the 160 million national population (Adebowale, 2015). Nevertheless, these youths are more vulnerable to poverty and unemployment (Bello, 2008; Akande, 2014; Jega, 2017). Nigerian youths face enormous challenges such as unemployment, underemployment, poverty, hunger and diseases, especially sexually transmitted diseases (STDs), and a higher rate of immune deficiency virus (HIV) infection (Jega, 2017; Bello, 2008). Other vulnerability indicators are lack of appropriate self-sustenance skills, primary education, and access to information communication technology (ICT) facilities. These challenges threaten the Nigerian youth to adapt to contemporary realities, leading to increased crime such as armed robbery, thuggery, and insurgency, among other crimes. This contradicts their expected citizenry roles enshrined in being responsible and law-abiding citizens. Therefore, to overcome these challenges, the Nigerian youth need to be educated, employed and have relevant skills for jobs and capital for businesses for their self-reliance and well-being (Bello, 2008; Jega, 2017; Omeje, Jideofor, & Ugwu, 2020). Since its independence, the Nigerian government has designed and implemented various poverty alleviation programmes to empower the youth and promote national development. However, there is a disconnect between the various empowerment programmes, the desire to provide youth employment, relevant skills, education, and poverty alleviation for the youth and other Nigerians to be empowered and self-reliant (Omeje, Jideofor, & Ugwu, 2020). However, the purpose of these programmes for alleviating poverty is arguably failing, considering the high level of 21 percent of youth underemployment and 42.5 percent of general unemployment in Nigeria, and 72.3 percent of poor people in Yobe State, respectively (Nigeria Bureau of Statistics 2021).

Empowerment has no single accepted definition because various scholars define it differently. At the same time, the various empowerment programmes of the Nigerian government focus on different empowerment strategies. For example, the Directorate of Food Road and Rural Infrastructure (DFRRI) targets rural areas focusing on Feeder Roads, Rural Water Supply, and Electrification. At the same time, the National Directorate of Employment (NDE) targets youths focusing on training, finance, and guidance. Furthermore, Better Life Program (BLP) targets women and focuses on Self-help and rural development programmes, skill acquisition, and health care. In addition, the Peoples Bank of Nigeria (PBN) targets the underprivileged in urban and rural areas focusing on encouraging savings and credit facilities.

In contrast, the Family Support Program (FSP) targets families in rural areas, focusing on Health care delivery, child welfare, youth development, and other programmes (Fidelis, 2002). Zimmerman (2000) and Reininger et al. (2001) consider empowerment strategies a multi-faceted and complex phenomenon and Zimmerman (2000) further posits that the concept of empowerment has two components of theory and value. The theory identifies many social problems due to structural differentiations, while the value orientation component promotes goals, aims, and strategies for implementing change. Therefore, defining empowerment as a multidimensional concept is about both individual and collective capacities and actions to solve inequalities that cause poverty.

Furthermore, empowerment stresses that the causes of poverty are social exclusion and lack of access to power, voice and security, rather than only low incomes (Luttrell et al. 2009). Effective empowerment is a societal process allowing people to control their own lives. This process develops people's ability to participate in decisions that affect their lives, communities, and society by allowing them to act on issues that they deem essential (Page and Czuba, 1999). In his theory of empowerment, Zimmerman (1995; 2000) argues that policy measures taken by the state determine youth empowerment programmes that encourage youth participation, enhance decision-making and increase their opportunities for learning and skills acquisition. In addition, the neo-theory of empowerment adopted and reviewed by Reischl et al. (2011) argues that engaging youth in community-oriented programmes enhances decisions making and provides the platform that ensures active participation of youths in decisions that affect their lives, employment, relevant skills and a sense of security and belonging.

The youth empowerment approach develops a positive and stable identity where youths take societal roles. It also aims at transforming risky youth behaviours into positive and meaningful skills and competence for self-empowerment to improve their livelihoods and promote economic growth and development (Maigida, Saba, & Namkere, 2013). However, Nigeria's definition of youth has changed from citizens aged 18-35 to those aged 15-29 (Nigeria, 2019; 2021). Furthermore, Nigeria's Government defined youth empowerment as providing employment or jobs to the youth through large-scale and relevant skills acquisition and development to fix inadequate public services, which enhanced the economy, or as creating youth employment through education, relevant skills acquisition, training, and providing an enabling environment for entrepreneurship, and the quality of work available for young people (Federal Government of Nigeria, 2019; 2021).

Since 1977, Nigeria has implemented 15 different Poverty Alleviation Programmes. These programmes included National Accelerated Food Production and Operation Feed the Nation (OFN) in 1977, the Green Revolution of 1980, the Directorate for Food, Roads and Rural Infrastructure (DFFRI) in 1986, the National Directorate of Employment (NDE) in 1987, and Community Bank in 1988. Also, the Better Life Programme (BLP) in 1989. People's Bank of Nigeria (PBN) in 1989. In 1996 Family Economic Advancement Programme (FEAP) and Poverty Alleviation Programme in 2000. Others

are the National Poverty Eradication Programme (NAPEP) of 2001, which is divided into four parts as follows; Youth Empowerment Scheme (YES), Rural Infrastructure Development Scheme (RIDS), Social Welfare Service Scheme (SOWESS), and Natural Resources Development and Conservative Scheme (NRDCS)—the National Economic Empowerment and Development Strategy (NEEDS) in 2003 and the Seven-Point Agenda of 2007. In 2008 Micro-Credit Fund, You-Win, Sure-P in 2010, and N- Power was introduced in 2015 and is ongoing (Ugoh & Ukpere, 2009; Taiwo & Agwu, 2016). These empowerment programmes aim to enable the youth to fight unemployment, poverty, and deprivation to different degrees (Reininger et al., 2001). However, poverty and unemployment remain high despite implementing such poverty programmes.

Globally, world leaders through the United Nations adopted the Millenium Development Goals (MDGs) in 2000 to address various environmental, social, and economic challenges manifested in inequality, poverty, unemployment and lack of sustainability that threatened humanity (Sianes et al., 2022). The MDGs aimed at cutting poverty by half by 2015, and each country was supposed to allocate at least 0.7% of its Gross Domestic Product (GDP) towards poverty alleviation. By the end of 2015, most of the MDGs had not been achieved hence the need to review them (Sianes et al., 2022) and introduced a different development agenda. Consequently, the 2030 Agenda of 17 Sustainable Development Goals (SDGs) for Sustainable Development was adopted with formal endorsement by the UN General Assembly (United Nations, 2015). The SDGs aim to inform and guide government and non-government initiatives in various areas, including birth rates, intelligent cities, and labour markets, among many others, to address global concerns and build a more sustainable and better future for all nations (United Nations, 2015). The United Nations (2017) provided indicators for each target to track progress towards their attainment. The SDGs and their distinct objectives impact one another and are interconnected. Each objective of the SDGs tackles issues related to the environment, society and the economy (Kleespies & Dierkes, 2022). Operations of the 2030 Agenda are based on the "5 Ps", i.e. people, planet, prosperity, peace, and partnerships (Sianes et al., 2022). The Agenda, which will be pursued over 15 years, has defined 169 specific goals and 17 Sustainable Development Goals (SDGs), reflecting this new Agenda's scope and deep aspiration (United Nations, 2017).

Since ratifying the 2030 Agenda for the SDGs in 2015, Nigeria has mainstreamed its poverty alleviation efforts to include the 17 SDGs in its National Development Plan (NDP). Though efficient budget execution is essential to realising the NDP and accomplishing the SDGs, the budget reality and credibility remain problematic since the government of Nigeria does not consistently implement its budget as authorised by the legislature (Olaniyi, 2022). The analysis of the federal budget of Nigeria's execution of seven crucial areas linked to ten SDGs implemented from 2018 to 2020 shows that the seven sectors of agribusiness and food production, education, the environment, gender issues, health, social protection, and water and sanitation are affected (Olaniyi, 2022). Furthermore, there is a difference between the budget authorised for the government to spend and what is spent. On average, over the three years, the government underspent and, by implication, under-implemented its budget by 32 per cent. Comparatively, there was higher underspending in agriculture, water and sanitation, and the environment than the overall budget. Hence, as Olaniyi (2022) argues, the SDGs in these sectors may not be achieved without a reasonable budget and when the legislature's plans and priorities are disregarded. In addition, over the years, there may be a shift in the government's priorities from the SDG-related targets and goals outlined in development plans and budgets. Therefore, this article examines the nature and impact of various poverty alleviation programmes on youth and how they have addressed the magnitude and intensity of youth unemployment and poverty in Yobe State, Nigeria.

METHOD

This article is based on a study that collected quantitative data on the nature of youth empowerment in Yobe State from a randomly selected sample of 393 respondents using a semi-structured questionnaire. Qualitative data on the youth's perceptions of the empowerment programmes' effectiveness was collected using Focus Group Discussions (FGDs) and Key Informant Interviews (KII). The 17 local government areas in the three geo-political zones containing the 17 Local Government Areas are clustered and chosen randomly. The zoning criterion on the ethnic and cultural disposition is contained in the state constitution for political and policy implementation purposes. The youth population in Yobe State as of 2020 is 25,925 (International Organization of Migration, 2017). We used an average confidence level of 95% error tolerance of 0.05% to determine the sample based on Yamane's (1973) statistical formula. The secondary data was drawn from a critical review of scholarly articles, youth policies, reports, and government publications to support the findings. In order to analyse the results, we coded the quantitative data and analysed it using Statistical Package for Social Science (SPSS) version 24 to derive the frequencies and percentages from generating the mean and cumulative average for the social indicators of the rating for the youth empowerment and status for youth employment. Pie charts, Tables, and correlations were also generated to analyse the needs of unemployed youth and the relationship between their marital status and employment, among other indices, to describe and analyse the impact of youth empowerment programmes on youth in Yobe State. The qualitative data collected was prepared and organised into themes and categories. After a careful review, the relevant themes are coded and presented coherently in line with the study's objective: the nature and impact of various poverty alleviation programmes on youth and how

they have addressed the magnitude and intensity of youth unemployment and poverty in Yobe State, Nigeria. Q-D Miner generated the ideas and information to write the article. The Yobe State University Centre for Research, Innovation, and Linkages approved the Survey RN-YSU/REC/00037-18/19 ethics.

RESULTS AND DISCUSSION

In this section, we present the findings, interpretation, and discussion on the nature of youth empowerment programmes to make sense of the collected data and give insight into youth empowerment against poverty in Yobe State, Nigeria. These include youths' social and economic well-being and access to education. In addition, other indicators such as youth awareness of the empowerment programmes, the orientation of the programmes, the contribution of youth and communities to the programmes, youth income, access to education, and skills are also examined. Examining these indicators would determine the extent of the disconnect between the various youth empowerment programmes and rising poverty and unemployment and the successes recorded from the programmes. Understanding the nature of youth empowerment is crucial to understanding the relevance of the implemented content to the needs of the youth in the state. It also helps to understand whether the implemented programmes meet their needs and aspiration hence the state's level of program success. This section of results helps shed light on the findings concerning that aspect. The Nigerian government has implemented several developments or intervention programmes since the 1970s to improve welfare and empower its citizens, especially the youth. However, poverty and unemployment remain high despite implementing various empowerment programmes, especially in Yobe State.

Youth Perceptions of Benefits from The Empowerment Programmes

Various poverty alleviation programmes were implemented in Yobe State from 2000 to 2020, which aimed at poverty reduction among the citizens through employment, skills acquisition and access to capital to start a business. Understanding the impact of these programmes on the individual youth helps in understanding the program that works best for the youth over time. The empowerment programmes include the National Directorate of Employment (NDE), National Poverty Eradication Programmes (NAPEP), Micro Credit Scheme (You Win), Sure P and N- Power, respectively. The NDE was established in 1986 by Laws of the Federal Republic of Nigeria, Act CAP 250, to deal with mass unemployment under the auspices of the Federal Ministry of Employment, labour and Productivity with the technical support of the International Labour Organization (NDE, 2000; 2001). The directorate's goal was to concentrate its efforts on reactivating public works, promoting self-employment, organising artisans into co-operatives, and encouraging a maintenance and repair culture (NDE, 2000; 2001).

The directorate's responsibilities include developing and implementing programs to combat unemployment, articulating policies for work programs with the potential to be labour-intensive, gathering and maintaining data on employment and vacancies in the nation, acting as a clearing house by connecting job seekers with open positions in collaboration with other government agencies, and implementing any other policies that may be established from time to time (Afolabi, 2016). NAPEP was established in 2001 by the stakeholders in Nigeria's poverty eradication: the federal, state and local governments, civil society organisations, research institutions, the organised private sector, women groups and concerned individuals (Ugoh & Ukpere, 2009). NAPEP is divided into four parts: Youth Empowerment Scheme (YES), Rural Infrastructure Development Scheme (RIDS), Social Welfare Service Scheme (SOWESS), and Natural Resources Development and Conservative Scheme (NRDCS). The program aimed to address and eradicate all aspects of absolute poverty. The stakeholders recognised certain fundamentals.

The inadequacy of anti-poverty initiatives has been blamed on various factors, including insufficient involvement, lack of a policy framework, weak implementation arrangements and a lack of stakeholders' insufficient coordination (Ugoh & Ukpere, 2009). Subsidy Reinvestment and Empowerment Programme (SURE-P), on the other hand, was introduced in 2012 to cushion the effect of Petrol subsidy removal in Nigeria by the federal government. (Amakom, 2013). SURE-P was designed to complement all the other development programmes in the three tiers of government, namely, federal, state and local governments. SURE- P's goals are to mitigate the immediate impact of the removal of petroleum subsidies on the population, particularly the poor and vulnerable; accelerate economic transformation by investing in critical infrastructure projects to drive economic growth and achieve Vision 20:2020; and lay the groundwork for the successful development of a national safety net program that is better targeted at the poor and vulnerable (Amakom, 2013).

The qualitative findings show that most youth have benefited directly or know some people who benefitted from such programmes. In addition, most youth benefitted from the N-Power program, which took off in 2015. N-Power Programme is the Federal Government's National Social Investment Program, which focuses on employment creation and youth empowerment through human capital development. One of the program's goals was to improve the Nigerian labour force's human capital (N-Power Information Guide, 2017; Odey & Sambe, 2019). The increase in human capital appears to be in youth employment, addressed through youth empowerment. The acquisition of skills and development of the young in vital sectors such as education, health, and agriculture was to assure youth empowerment. The program's primary goal was to acquire and develop skills among educated and uneducated

Nigerian youth with little hope of finding work, even at the minimum of survival and raising a family. The Federal Government has introduced N-Power as a structure for large-scale and relevant work skill training and development and for utilising a large volunteer workforce to address some of the problems in public services while also boosting the economy. The Federal Government of Nigeria engaged and deployed 200,000 young Nigerians in public primary schools and primary healthcare facilities across Nigeria in 2016 under the N-Power programme (N-Power Information Guide 2017). While answering the question on the poverty alleviation programme from which they have benefited, one participant said,

Yes, to some extent, because I have seen many programmes being undertaken by the government that youths are benefiting directly from them. First, there is this youth empowerment Programme through N-Power, a government initiative in which the government pays monthly stipends to unemployed youths and assigns them to various jobs like teaching, traffic, etc. The government would pay the youth stipends while tapping their talents (IDI 8 Male Youth Participant).

Another participant also said,

I benefitted from a government program through NAPEP. During this conditional cash transfer, beneficiaries receive money to invest and give back a certain percentage to the government after a certain period. They remain with the largest share of the investment to sustain them (IDI 10 Male Youth Participant).

In the FGD of the youth from Zone A, *“There are few people in my LGA. I know that benefits from the N power. Some of them are employed to teach while some enrol for computer repair and other skills under monthly stipend”* (Youth FGD 9 of Zone A).

From the qualitative findings, most youth participants acknowledge the impact of some of the poverty alleviation programmes. Most youth agree that N- Power has benefitted many youths in the state. At the same time, few other youth mention the NDE and Sure P as programmes that some youth benefitted from. The result could be attributed to the focus on the various poverty alleviation programmes. While other programmes generally focus on the citizens, the N Power Programme focuses on the youth. The nature of youth empowerment programmes assesses the perception and experiences of the youth being the target audience. The social indicators used are the expectation of the youth from the government, the content of the programmes, youth and communities' contribution as beneficiaries, and how the government manages the programmes generally. Table 1 shows the Likert scale rating of the youth on the nature of the empowerment programmes.

Table 1. Rating of the Nature of Youth Empowerment in Yobe State

Indicators for Nature of Youth Empowerment Programmes	Youth Empowerment Rating (<i>Freq and Percent</i>)					Mean	Average rating
	SA	A	NS	D	SD		
The Youth know what to expect from the state	99(32.8)	102(33.8)	45(14.9)	31(10.3)	25(8.3)	2.27	Agree
State empowerment programmes are youth-oriented	73(24.2)	109(36.1)	47(15.6)	57(18.9)	16(5.3)	2.44	Agree
Youth contributed to the success of the empowerment programmes	77(25.5)	93 (30.8)	72(23.8)	40(13.2)	20(6.6)	2.44	Agree
Many youth benefited from the state empowerment programmes	62(20.5)	97(32.1)	61(20.2)	56(18.5)	26(8.6)	2.63	Not sure
Government solves managerial problems in the course of programmes implementation	50(16.5)	85(28.1)	70 (23.1)	59 (19.5)	38(12.6)	2.83	Not sure
Government perform well for the programmes to be a success	42 (13.9)	98 (32.3)	63 (20.9)	66 (21.9)	33(10.9)	2.83	Not sure
Communities contributed to the success of the empowerment programmes	46 (15.2)	96 (31.8)	56(18.5)	49(16.2)	55(18.2)	2.90	Not sure

KEY: SA= Strongly Agreed A=Agree NS= Not Sure D=Disagree SD=Strongly Disagree

The findings in Table 1 show that the youth agree to three facts: i) the youth in Yobe state are aware of government obligations. Secondly, the state empowerment programmes are youth-oriented, and thirdly, the youth contributed to the success of the various empowerment programmes by the government. However, the findings reveal that many youth are unsure of how they have benefited from the empowerment programmes implemented by the government. The youth are unsure if the government can solve managerial problems by implementing various programmes and if the government is committed to the success of the various programmes. The youth are unsure about the contribution of the respective communities where the programmes were implemented. Despite the perception that most of the state's youth know what to expect from the government and that the empowerment programmes are youth-oriented, their expectations are often unmet. Especially in implementing youth empowerment programmes that can help improve their livelihoods in the state. The youth knowing well what to expect from the state implies that they are aware of their needs and aspirations even though they fall short of realising them in implementing the various government empowerment programmes. However, the findings that many youth have not benefited from the empowerment programmes explained the consistent rise in unemployment and poverty among the state's youth, despite implementing various poverty alleviation programmes from 2000 to 2020.

These findings relate to Banks (2015), who argues that it is not about solving the difficulties that youth face but about successfully identifying the resources and support they require at various times and enhancing their access to them. Cunningham & Villasenor (2016) also stress that youth need empowerment by developing their soft skills and space for autonomous decision-making, creativity, and self-advocacy. Sometimes, soft skills development conflicts with traditions, especially in autocratic patriarchal societies stratified by age. Conservative societies tend to put barriers against young women stressing goal orientation and self-assertiveness but are more liberal with young men. Involving youths in designing and implementing empowerment programmes ensures their success. Wit & Orvis (2010) assert that comprehensive or multi-component youth empowerment programmes on soft skills development are more effective than other skills. However, due to the structure of the evaluations, no evidence exclusively attributes success to soft skills intermediation. Consistent with other meta-analyses of skills training programmes that connote social skills interventions are more effective in low-income nations and female participants. This analysis also shows more significant effects on employment versus income outcomes. In addition, the inability of the government to solve managerial problems regarding the implementation of empowerment programmes implies that the implementation of poverty alleviation programmes yields the less desired result of youth empowerment. Trucco & Ullmann (2016) argue that it is crucial to acknowledge youth as key players in the measures taken and play decisive roles in the design and implementation to take ownership of those actions to achieve any desired results.

The qualitative results, on the other hand, reveal that the poverty alleviation programmes are youth-oriented and have helped many youth to start businesses for self-reliance, as one of the respondents explained in the FGD of the youth from Zone B.

In my community, poverty alleviation programmes such as the N-Power have helped many people find jobs and become self-reliant. However, before this intervention, many people, especially the youth, were jobless and could not afford to start any business due to lacking capital or skills (**Youth FGD 4 of Zone B**).

Another youth FGD from Zone A also explained,

I am aware of quite some people that were empowered. For example, about 20 of my friends were jobless before introducing the poverty programmes. However, after implementing them, they were empowered with at least one skill that made them self-employed (**Youth FGD 11 of Zone A**).

This finding implies that many people find it helpful due to the poverty alleviation programmes in the state. However, hitherto implementing these programmes, many youths could not start any business since many had no skills to start and sustain such businesses. However, government programmes' intervention helped the youth attain economic empowerment and self-reliance. Abdussalam (2015), empowerment means extending socioeconomic and political development benefits to the poorest rural dwellers. Furthermore, empowerment is a socioeconomic or political action taken by the government or its agencies, private persons, or corporations to improve the socioeconomic well-being of the disempowered. This group includes the rural-urban poor, small-scale farmers, landless people, and the unemployed, whose wages are insufficient to cover basic needs. In addition, the sick and maimed who cannot access excellent treatment, the uneducated who do not have access to educational institutions, and the destitute who cannot afford adequate meals and shelter are all included in the group. More so, the above findings also imply that some youths in the state are out of poverty due to the state's implementation of various poverty alleviation programmes. Moreover, the skills acquired to enable them to be self-employed help them earn some economic empowerment, improving their lives.

Abdussalam (2015) explains that poverty alleviation programmes implemented in Nigeria, like Youth Empowerment Scheme (YES), have a statistically significant impact on people's standard of living and equally reduce their poverty level.

The qualitative findings also reveal that youths access start-up capital and skills through poverty alleviation programmes, as explained by one of the Participants,

Here in Yobe State, the government empowers youths through skills acquisition. For example, when the government took hundreds of youth to a skill acquisition centre in Kano, they were trained in various skills such as carpentry, welding, electrician and furniture making. In addition, all the trainees were supported with starter kits and money to start their businesses in their chosen careers. The government also distributed livestock and cash to support people that chose to farm **(KII 7 Male Participant)**.

This finding implies that the youth are greatly empowered by providing start-up kits and capital for those trained in various skills and ones that go into farming. Training the youth in different skills and farming will help the youth of the poverty hook have a job and be self-reliant. Many youths are also trained to improve their capacity to sustain the ventures they started. According to Odeh & Okoye (2014), one of the economic features of the poor and poverty is that they are younger than older individuals. As a result, young empowerment is critical in any economy. One of the issues facing many developing countries' governments is to reduce economic disparities between haves and have-nots rather than high- and low-income earners and alleviate poverty in their societies. The Nigerian government has made numerous efforts to address the problem of poverty in society through various programmes and institutions.

The Qualitative findings on the youth contribution to the success of the programmes reveal that the implementation of youth empowerment programmes decreases the rate of crime, as explained by one respondent,

Poverty alleviation programmes help many youths, particularly in our community, because most of the youths living in that community are youths, but they are jobless. There are many crimes in that community, including prostitution, armed robbery, and kidnapping, among other crimes. The people responsible for these crimes are the youths. However, due to these poverty alleviation programmes, they started looking at the youths given these programmes or jobs to accept that program to depend on themselves and stop going to other people **(KII 12 Female Participant)**.

This implies that many idle youths commit crimes due to poverty and unemployment before implementing the youth empowerment program. However, with the implementation of the youth empowerment interventions, many youth have changed for the better, embracing the youth empowerment programmes for self-reliance. Moreover, the available empowerment programmes have enabled the youth to understand that it is their responsibility to participate in the empowerment intervention meant for them instead of resorting to crimes and relying on others for their development. Gergis (1999) says that nations must first identify the varying demands and then concentrate on creating more complex policy responses to address them. The era of "one size fits all" solutions are long gone. It is suggested that government empowerment should not be imposed from above as a top-down strategy. Equal access to economic possibilities must instead be presented to each person as a goal to work toward, with the will and interest of the populace serving as the foundation. On government solving the managerial problems, the qualitative findings revealed some challenges of originality with the implementation of the empowerment programmes, as explained by one of the respondents,

No, youth are not involved in the design of the programmes. Most programmes are armchair, copied from elsewhere, which is unsuitable for our societal context. The youth are only involved in implementation, whether it suits our needs or not **(IDI 9 Female Participant)**.

Another KII participant also said,

Poverty alleviation managers always come in handy with their designed programmes and implement them without considering whether the young man is interested in undertaking the program. Left to me, any program designed to help a young man should be designed from the input of the young man himself because interest matters in everything you do **(KII 3 Male Participants)**.

This implies that despite implementing youth empowerment programmes, the youth are not part of designing such programmes. Failure to involve the youth in designing empowerment programmes implies that critical views that reflect their needs are neglected. This causes a mismatch of what the youth in the community want vis a vis the government presents for implementation. Suhaimi et al. (2020) argue that youth decision-making leads to better results by protecting the youth, promoting the well-being of the youth in society, and leading to more effective empowerment of such youth. If the youth collaborate in nation-building, it is critical to empower them with decision-making skills and opportunities in development programmes (Meng, 2017). The youth stage of growth and development is transitioning from adolescence to adulthood. Therefore, youth need empowerment for confidence building and enhancing decision-making abilities so their needs fit into the policy development processes.

Moreso, it implies that the government implements empowerment programmes for the youth and other poor citizens, using the top-to-bottom approach, where state officials decide on their behalf. This is challenging because some programmes are irrelevant to some youth, and this does not solve the empowerment challenges of the youth. Nevertheless, on the other hand, the youth believe that programmes that benefit them should involve them in the planning and implementation process. Meng (2017). explains that active, informed, and voluntary involvement of youth in decision-making and the life of their communities is vital if this is to be achieved. Youth can participate as beneficiaries, partners, and leaders. Participation means working with and by youth, not merely working for them. To be able to participate, youth need to be empowered. It involves developing group work, public speaking skills, and confidence to communicate and interact with various stakeholders. The process of participation and empowerment is not about actions prescribed by others. Instead, it cultivates opportunities for youth to develop skills and competencies in a mutual respect and understanding climate. The above findings reveal the nature of youth empowerment in Yobe State, which is skills acquisition centred with few mentions of agro empowerment. One respondent believes that alleviation programmes are euro-centric, which means they are not indigenous-oriented policies, so they can hardly empower them. This relates to Mohammed & Ibrahim (2011), who explains that youth empowerment is essential to economic growth and development. Youth represents a significant number of Nigeria's population with a limited portion of life; effectively harnessing their skills can expand its production possibilities immensely. However, it is worth mentioning that the unchangeable youth age is only a tiny part of life (Jimba, 2007). Unlike capital productivity, human capability diminishes with age; as a result, if not previously utilised. The previous productivity cannot be used afterwards, resulting in an increase in undesirable social disorders such as political thuggery, kidnapping, delinquency, and prostitution, among other things (Mohammed & Ibrahim, 2011).

Many respondents lament non-involvement in designing and implementing poverty alleviation programmes. This indicates the imposition of poverty alleviation programmes on the youths without their input on decisions shaping their lives. Moreover, the implication is that the program's success is compromised if the stakeholders do not meet their needs. On the other hand, involving youth in decision-making provide contexts for the development of competencies that will help youth succeed in today's world, including those referred to as twenty-first-century skills, social-emotional skills, and non-cognitive skills (Durlak et al. 2011; National Research Council, 2012; Meng, 2017). For example, program decision-making could serve as a springboard for establishing strategic thinking, defined as proactive planning and regulation of actions to attain objectives (Larson & Angus, 2011). Youth learn how to get things done in an organisational context by participating in program decision-making activities, providing powerful contexts for developing strategic thinking abilities. The findings also reveal that all the youths engaged in the interview and FGD have not benefitted from any youth empowerment programmes under review. However, despite the youths' involvement in designing and implementing the poverty packages and not being beneficiaries, they agreed that the programmes' results helped their empowerment in their respective communities. This could be attributed to the high and ever-growing population of the state resulting in the number of empowered youth being insignificant in raising the empowered youths' level.

Vansteenkiste et al. (2004) posit that youth intervention policies and decision-making practices may affect youth's motivation and learning in the empowerment processes. Mitra (2004) also found that several skills are learned through participation in youth problem-solving, facilitation, social, and public speaking. Larson and Angus (2011) found that youth reported developing leadership, planning, and self-confidence skills. In terms of communities' cooperation in the success of the poverty alleviation programmes, the findings indicate a success story due to the community's cooperation towards the programmes' success because of their roles in various stages to aid the program implementers. Generally, these are the nature of the poverty alleviation programmes in Yobe State. This relates to O'Higgins (2017), who explains that community systems are not always stable enough to respond to youth demands. Even with helpful information about youth's needs and wants, adult allies in power positions cannot make meaningful changes. Long-term funding is rarely secure in neighbourhoods with a long poverty history, and administrations often change yearly. Thus, while youth voice can make many adults' work more manageable, the funding structures are not supporting the required long-term vision and planning.

Impact of Yobe State Empowerments Programmes on Youth Well-Being

It is vital to assess the impact of the state's empowerment programmes on the youth through various interventions aimed at their empowerment for self-reliance. When youths are self-reliant and financially independent, they are out of

poverty. Therefore, various social and economic indicators are used to assess the impact of empowerment programmes on youth in Yobe State. These indicators include the youth's source of income, employment status, the ability of the employed youths to meet basic needs and employ others, and unemployed youth dependence. Other indicators include access to education, an obstacle to self-reliance, roles of relevant education, and vocational training centres. Undoubtedly, assessing these indicators will give an insight into the impact of the empowerment programmes on the youth in Yobe State.

Impact on Youth Employment

The youth's income sources depend on their status in terms of whether they are formally employed, self-employed or unemployed. These indicators reveal the number of employed and unemployed youth concerning the impact of the implemented empowerment programmes. Table 2 shows the youth's employment status and subsequent source of income.

Table 2. Status of Youth Employment

What is Your Status of Employment?	Frequency	Percentage	Cum. Percentage
Formal Employment	114	37.6%	37.6%
Self Employed	120	39.6%	77.2%
Unemployed	69	22.8%	100%
TOTAL	303	100.0%	

Table 2 shows that most youth are self-employed, followed by those formally employed. Those who are unemployed are 23 percent. The findings also reveal that despite the substantial investment in empowerment programmes, gaps still leave some youth unemployed and others self-employed. The findings further reveal a lack of enough formal jobs due to a lack of large-scale institutional job creation. The informal sector, which includes trading, street hawking, farming, livestock rearing, and working for micro or small businesses, remains the primary source of economic engagement. Many young individuals begin these economic activities while still in school, which could have affected their further education and formal employment opportunities. In Yobe State, the youth consider empowerment as being formally employed rather than engaging in other work due to a lack of formal employment. The education of the youth facilitates them to have the right qualifications to get the required formal jobs. Education promotes peace and social cohesion and instils knowledge and skills that enhance empowerment in the youth. The knowledge that they acquire enables them to get employment hence self-independence. According to the International Labour Organization research, 75 percent of youth aged 15 to 29 work in the informal sector. Working in the informal economy is the only alternative for most youth in Sub-Saharan Africa (World Bank, 2013; Shenu & Nilsson, 2014; Elder & Kone, 2014, cited in Mastercard Foundation, 2015). Youth engaged in some form of employment are active members of society and no longer idle. Skills are essential in facilitating self-reliance in the youth through self-employment. Vocational training institutions such as polytechnics are necessary for imparting practical skills to the youth. The findings also show a significant relationship between the marital and employment statuses of the youth (see Table 3),

Table 3. Relationship between Marital Status and Employment Status

Marital Status of the Respondents	What is your Status of Employment?						Total	
	Formal Employment		Self Employed		Unemployed		Freq	Percent
	Freq	Percent	Freq	Percent	Freq	Percent		
Single	61	38.9	59	37.6	37	23.6	157	100.0
Married	46	36.5	53	42.1	27	21.4	126	100.0
Widowed	4	36.4	3	27.3	4	36.4	11	100.0
Separated	2	22.2	6	66.7	1	11.1	9	100.0
Total	113	37.3	121	39.9	69	22.8	303	100.0

The results in Table 3 show a significant relationship between employment and the marital statuses of the youth. The relationship indicates that most formally employed youth are single, while those in self-employment are married. However, the unemployed are still single and widowed. Most youth prefer to have employment before having a family. Most youth, especially the male youth who are not employed, may not get a spouse because they believe they can not cater to their needs. Likewise, most married men are either employed or self-employed because of the responsibility of taking care of their families. The widows and separated, as breadwinners, have sources of income through formal or self-employment to take care of the families under their care. Most formally employed single youth work in various civil service sectors, while the single and married, self-employed youth are into farming, businesses, trading, or other menial works.

During the Focus Group Discussion with youth in Zone C, a participant said,

I am aware of quite some people that were empowered. For example, about 20 of my friends were jobless before introducing the N-Power poverty programmes. However, after implementing the program, they were empowered with at least one skill that made them self-employed (Youth FGD 20 of Zone C).

Another female youth participant explained,

The Yobe State Government empowers youths through skills acquisition. The government took hundreds of youth to a skill acquisition centre in Kano, where they were trained in various trades and soft skills such as painting, plumbing and carpentry. At the end of the training, they were handed some starter kits and money to invest in their chosen businesses. The government also gave the farmers free livestock and other farm implements, giving them cash ranging from N5,000 to 50,000 to take care of their lives (IDI 5 Female Participant).

Hence, although many youths may not feel the positive impact of the empowerment programmes, their ability to be self-employed implies that they have acquired the necessary survival and resource-harnessing skills that other disempowered youth may not have.

Impact on the Ability of Employed Youths to Meet their Basic Needs

Addressing the ability of the employed youth to meet their basic needs determines the impact of the various empowerment programmes on the empowerment of the youth in the state. It is common to find youth in Yobe State depending on their parents, siblings, or guardians, even when employed or self-employed. The culture in the state encourages youth to remain under their parents' care, pending when they will get married and own their family. Even if youth are employed but cannot meet their basic needs, they may not be considered empowered. Out of 303 respondents, only 123 youth are formally employed.

Empowered youths are either employed or self-employed and can meet their basic needs. Study findings revealed that most formally employed youth could meet their basic needs, such as food, clothing, shelter and other social needs. However, despite implementing youth empowerment programmes between 2000 to 2020, 26.8 percent of the youth cannot afford basic needs despite being employed or self-employed. Eberhard et al. (2019) assert that the empowerment process encourages economic and social involvement by the vulnerable and marginalised groups to meet their basic needs like shelter, food, and medical supplies. Therefore, empowering youths provides a platform to easily take advantage of opportunities to be self-reliant. Utilising such opportunities give room for additional sources for households. This increased income flow to households helps people meet their basic needs, eradicating poverty. In addition, empowered persons make better decisions in deploying their individual and collective assets. However, there is no correlation between the ability of youth to meet their basic needs and their demographic features.

Impact on the Ability of Self-Employed Youth to Employ other Youth

The ability of self-employed youth to employ others gives an insight into the impact of the poverty alleviation programmes on the youth in the state. The multiplier effect of self-employment through providing opportunities to others shows the impact of the empowerment programmes in the state. If these are improved, the multiplier effect will reduce unemployed youth in the state. The study revealed that most of the 108 self-employed youth had employed other people. This implies that most self-employed youth have employed fellow youth, reducing the state's unemployment. Thus, if the state government could effectively implement youth empowerment programmes to empower youth to be self-employed, the multiplier effect of employing other youths by the self-employed youth will drastically reduce poverty and unemployment, hence complementing government efforts to improve the well-being of the youth. Bennell (2007) explains how disempowered individuals lack the courage to express their abilities or opportunities necessary to overcome poverty or that they have the potential to improve themselves. They also lack the self-belief that change is possible. As a result, youth in yobe are trapped in a vicious cycle of dependency, disempowerment, and poverty. The first step in achieving permanent poverty reduction is to assist youth in growing their sense of self-worth, valuing themselves, recognising their abilities and resources, and see a world where they are not living in poverty. Empowered people can utilise their skills to gain self-employment and access their rights. They may also advocate for their neighbourhoods by organising young people to lobby and pressure the government to set up social infrastructures that will enable them to escape poverty. Youth who feel empowered may recognise the resources in their community and use them to pursue their goals. There is no correlation between the demographic features of the respondents and their ability to employ others.

Basic Needs of Unemployed Youth and Dependency Status in Yobe State

The basic needs and level of dependence of the unemployed youth are one of the social indicators to determine the impact of the empowerment programmes. Therefore, it is essential to understand the level of unemployed youth dependence and perspective on the factors that hinder their empowerment from understanding the impact of the various youth empowerment programmes. When youths are unemployed, they depend on others to fend for a living in their society. The pie chart in Figure 1 presents the response of seventy unemployed youth out of the 303 samples on their sources of basic needs.

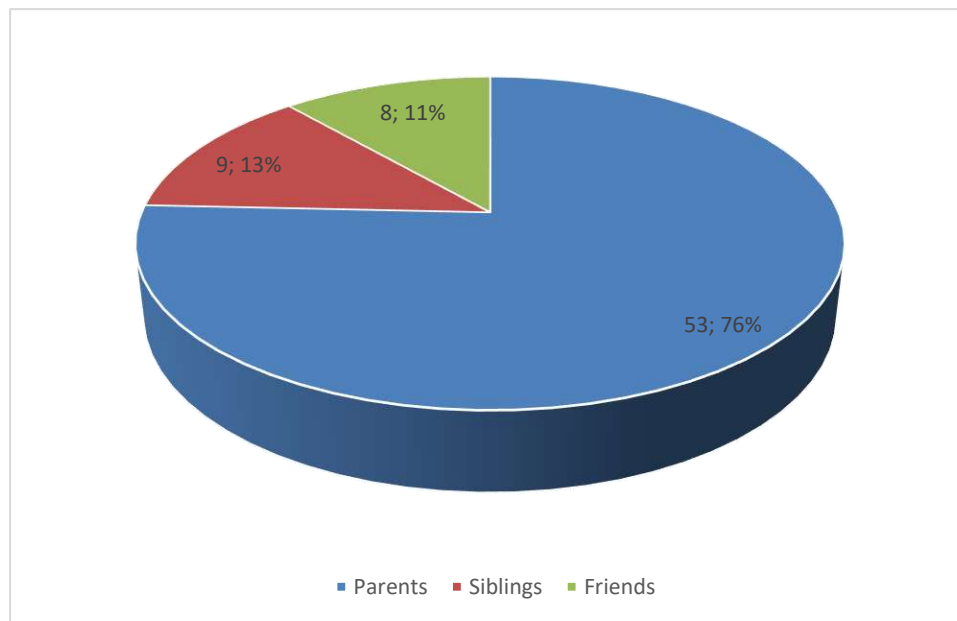


Figure 1. Source of Basic Needs for the Unemployed Youth

Findings in Fig 1 show that most unemployed youth participants solely depend on their parents for their basic needs, while others depend on siblings and friends. Thus, from most participants, the result shows a high level of dependency on parents. By implication, despite the many programmes implemented in the state, many youths are still poverty-dependent on their parents for survival. This also puts more pressure on the family economy, affecting the upbringing of their younger ones in terms of feeding, school fees, and other basic needs. Therefore, as a matter of priority, the government needs to devise more programmes towards creating more employment and revamp the youth empowerment programmes to discourage youths' culture of dependence on their basic needs and contribute to the development of their community. Griffin (2001) asserts that giving more attention to and prioritising the basic needs of vulnerable people and families affected by poverty, hunger, and unemployment from society's basic units and economy in developing countries is handy. Education in home economics skills, like resource management, time management and household finances, combined with the family's psychosocial stabilisation, leads to the productive and regenerative capacity of the otherwise disenfranchised. Well-being and regeneration in the private area at home is a fundamental social goal to use one's potential for education and paid work. The finding also shows a significant relationship between the marital status of respondents and the 70 unemployed youth basic needs and dependence (see Table 4).

Table 4. Relationship between Marital Status and Unemployment Dependence

Marital Status of the Respondents	If Unemployed, on whom do you depend for your Basic Needs?						Total	
	Parents		Siblings		Friends		Freq	Percent
	Freq	Percent	Freq	Percent	Freq	Percent		
Single	31	83.8	4	10.8	2	5.4	37	100.0
Married	19	67.9	4	14.3	5	17.8	28	100.0
Widowed	3	75	1	25	0	0.0	4	100.0
Separated	0	0.0	0	0.0	1	100	1	100.0
Total	53	75.7	9	12.9	8	11.4	70	100.0

In Table 4, findings show a significant correlation between marital status and dependence on parents and relatives for securing basic needs. It is mainly the single unemployed youth who depend on their parent on their parents

compared to other marital statuses. This is because, based on the tradition in northern Nigeria, young people are cared for by their parents until they find a livelihood. In some cases, parents take responsibility to the extent of marrying a spouse to their wards while still under their care. Furthermore, it is interesting to note that the unemployed youth who depend on siblings are mainly the married and widowed, while the married and separated depend on friends.

Perception of Unemployed Youth on the Factors that Hinders their Empowerment

Understanding the perception of unemployed youth regarding their long-term experiences will give insights into the impact of the implemented empowerment programmes as an indicator. Moreover, understanding the youth's perception will allow the adjustment in the empowerment policies to consider their concerns. Table 5 depicts the perception of the unemployed youth on what they understand as their hindrance to self-reliance.

Table 5. Perception of Unemployed Youth on Obstacles to Self-reliance

Obstacles of Unemployed Youth to Self-Reliance	Frequency	Percent	Cumulative Percent
Lack of Funds to start Business	44	62.9	62.9
Lack of Relevant Education and Skills	7	10.0	72.9
Lack of Employment Opportunities	19	27.1	100.0
Total	70	100.0	

Table 5 reveals that most unemployed youth participants believe that lack of funds or capital to start a business hinders their desire for employment or self-employment to attain self-reliance. At the same time, others believe that the lack of relevant educational skills to empower them to be either employed or self-employed hinders their chances of being self-reliant. Other categories of unemployed youth participants report that lacking employment opportunities hinders them from being self-reliant. Therefore, unemployed youth in Yobe State are unemployed or self-employed to attain self-reliance because there is a lack of funds to start a business, relevant education and skills, and employment opportunities. Therefore, the findings concerning the source of basic needs and obstacles to youth self-reliance indicate no significant impact of the various empowerment programmes implemented by the government on youth in the state. Maclean, Jagannathan and Sarvi (2013) emphasise robust policies that ensure education and skills development among vulnerable youth empowerment.

Furthermore, the author affirms that valuing everyone for their talents and skills creates a society where everyone can be creative and participate in nation-building. Elders are honoured and seen as contributors. Youth aged 12 to 14 can be empowered through Junior Youth Empowerment and unleash their need to improve the world and contribute to the spirit of service. The youth needs to be taught and honoured so that society can benefit from that outlook instead of eradicating traditional values and culture and forcing people to fit into a monoculture whole. Let the real benefit from the diversity of the parts rather than eradicating differences. The findings also show a significant relationship between the marital status of the respondents and the perception of the unemployed youth on what hinders them from becoming empowered and self-reliant, as presented in Table 6.

Table 6. Relationship Between Marital Status and Obstacle to Being Self-reliant

Marital Status of the Respondents	If unemployed, what obstacles hinder you from being Self-reliant						Total	
	Lack of Funds to start Business		Lack of Relevant Education and Skills		Lack of Employment Opportunities			
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent
Single	22	59.5	3	8.1	12	32.4	37	100.0
Married	19	67.9	3	10.7	6	21.4	28	100.0
Widowed	2	50	1	25	1	25	4	100.0
Separated	1	100.0	0	0.0	0	0.0	1	100.0
Total	44	63	7	10	19	27	70	100.0

Table 6 indicates that most youth who acknowledge a lack of capital to start a business and lack relevant education and skills are obstacles to their self-reliance attainment. This could be attributed to how women are married off in their early stages and that most men do not allow their wives to work, go to school, or enrol as apprentices in the state. While the married men could not wait endlessly to get formal employment because of the responsibility they are shouldering, they resort to capital to start a business or farming or have the skills to ensure their daily sustenance. The result also indicates that most youth agreed that the lack of employment opportunities and obstacles are single. In most cases, they prefer to wait for formal employment instead of engaging in skills acquisition or capital to start a business; because they depend on parents or relatives, they have no responsibility that forces them to look for whatever option is available to them.

Education as a Strategy for Youth Empowerment

Undoubtedly, education is one of the most vital strategies for youth empowerment. It is critical to assess the role of education concerning its ability to empower youth interns in their employability in the labour market and measures to be taken by the government to make it relevant and competitive in the labour market. The government must convince the youth that education is vital for empowerment. However, some people in the state did not believe in Western education, while others avoided schools out of fear because of Boko Haram's ideology prohibiting circular education. The results of Boko Haram prohibiting secular education are the killings of many school teachers, destroying schools, and abducting of students in their schools. This has affected the rate of enrolling in schools. Understanding the youth's perception of the education strategy for empowerment is vital to guide the government in improving the role of education in the state. Therefore, Table 6 below shows the youth rating on education and employability in Yobe State.

Table 7. The Education and Youth Employability

Is Education System Empowering Youth to be Employable?	Frequency	Valid Percent	Cumulative Percent
Strongly Agree	52	17.2	17.2
Agree	154	50.8	60.0
Undecided	44	14.5	82.5
Disagree	47	15.5	98.0
Strongly Disagree	6	2.0	100.0
Total	303	100.0	

Findings in Table 7 show that many youth participants agree that the education system in Yobe State empowers youth to be employable. In contrast, other youth respondents disagree that the education system empowers the youths to be employable, whereas few other respondents are unsure about the statement. The results mean that the state's education system trains youth for employment and self-reliance. The education system's content is vital in preparing the youths for the role that awaits them after graduation. Implementing youth empowerment through education will enable the youth to acquire essential skills in ensuring youth employability in this state. Okeke et al. (2013), youth empowerment through higher education achieves through teaching, research, creation, dissemination, and services to the community. They further elaborate that this can be possible if successfully pursued and complete actualisation of youth empowerment is always assured. Therefore, the educational usefulness of youths should cover intellectual and practical uses such as the attainment of knowledge, attitudes, behaviours, and skills that ensure competence and self-reliance and improve economic progress and personality development (Okpete, 2005).

Education is one tool that empowers youth to be either employed or self-employed to achieve self-reliance and contribute to nation-building. However, when education is not affordable to most youths, no significant impact of any empowerment program could be achieved, especially by the youth in the state. This section addresses the youth's rating of the availability and affordability of education as a tool of empowerment to understand the impact of the various empowerment programmes implemented in yobe State—also youth's perception of measures to take by the government to improve education affordability and youth participation. Table 8 below depicts the youth rating of access to education and how to make it affordable for youth empowerment in Yobe State.

Table 8. Youth's Rating of Access to Education

Do You Agree that Education is Affordable for Youths?	Frequency	Valid Percent	Cumulative Percent
Strongly Agree	62	20.5	20.5
Agree	133	43.9	64.4
Undecided	43	14.2	78.6
Disagree	49	16.1	94.7
Strongly Disagree	16	5.3	100
Total	303	100.0	

Findings from Table 8 reveal that most youth participants from the 303 sample agree that education is affordable. In contrast, few youth participants disagree with the affordability of education in the state others are not sure about the statement. Most respondents' affirmation of education affordability could be attributed to some youth empowerment interventions implemented by the state government. However, the reports by other youth participants in disagreement and not sure about the affordability of education in the state are also a pointer to challenges in implementing the various youth empowerment programmes, especially regarding education, its access, and youth involvement in the design and implementation of such empowerment programmes. Achor (2015) argues that education is critical to global development and improving young people's lives. It has been designated a priority area in international development goals such as the UN Sustainable Development Goals (SDGs) and the World Programme of Action for Youth. Education

is critical for reducing poverty and hunger and supporting long-term, inclusive, equitable economic growth and development. Access to, quality, and education affordability are critical components of global development efforts. Therefore, empowering youths who live in poverty through education and training takes charge of their journey out of poverty's cobwebs and inspires others to follow suit in the community. People take action by themselves and become active in the change, not just a help subject, contributing to their empowerment process. To make people realise their strength and potential to solve their problems, they can improve their lifestyle by increasing their income. Through training for income-generating activities, orient them to profit from Government schemes and resource mobilisation. However, the finding did not show any significant relationship between the demographic features of the respondents and their rating of access to education.

Education is critical to any youth empowerment scheme to attain employment and self-reliance. Therefore, education affordability to youth undoubtedly determines the impact of every empowerment program by the government and other donor agencies. Therefore, the pie chart in Figure 3 below shows the perception of the fifty-nine youth who disagree with education affordability and how the government can make education affordable for every youth in yobe State to benefit from empowerment and self-reliance.

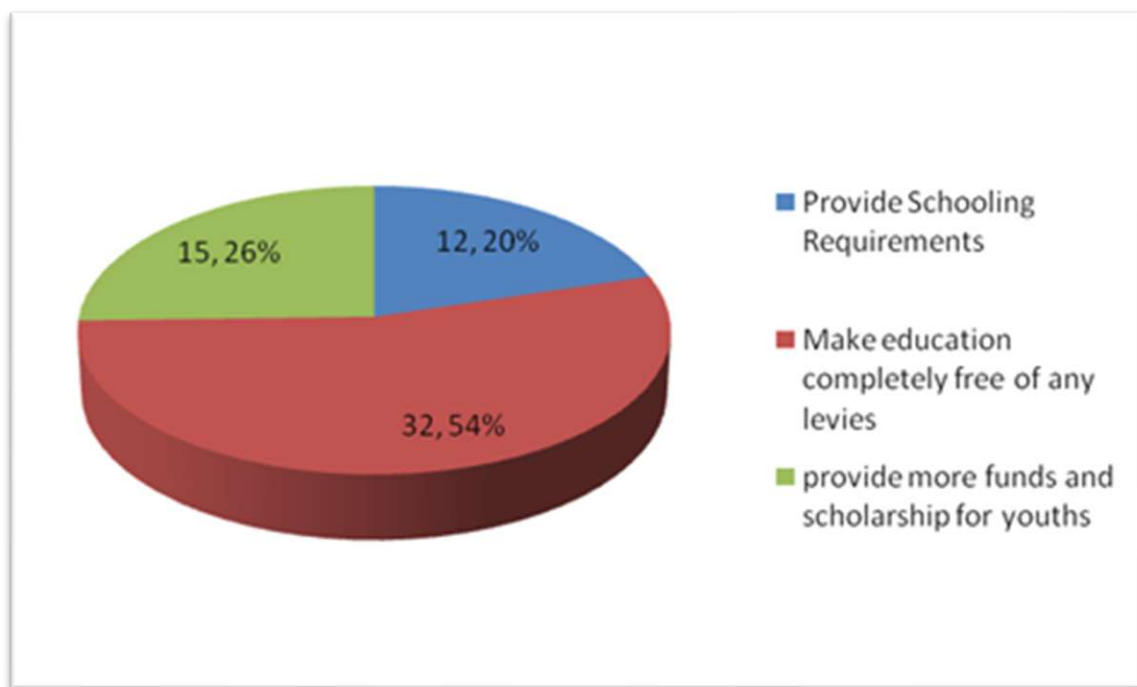


Figure 2. How Government can make Education Affordable in Yobe State

Figure 2 reveals that most youth participants suggest making education accessible and affordable. In contrast, some suggest the need that there is a need to provide more funds and scholarships for youth. Moreover, few others recommend providing schooling equipment to all learners in the state. However, this emphasises the need to make education entirely free to ensure that all youth and children can access education in the state. Making education accessible while providing school requirements will enable education to be accessed by all more affordably. Ekpiken et al. (2015) argue that education is a crucial tool that drives youth empowerment. It helps the youth gain skills used to attain survival skills, for example, entrepreneurship education. Entrepreneurship education contributes to nation-building through its ability to provide training that will develop individuals to adjust and cope in their immediate communities, appreciating and understanding the operation and functions of the economic system as a result of its proficiency-based nature. Entrepreneurship education introduces Nigerian higher institutions, particularly in the business education program. Business education is education about business and training in business and entrepreneur skills. Therefore, business education graduates acquire business competencies from these courses. These competencies enable them to set up and manage their own business effectively. However, the result did not significantly relate to the youth's choice of options and demographic features.

CONCLUSION

The youth, who are males and females within the age bracket of 15 to 29, are citizens of a state. Empowerment aims to gain power and mastery individually and collectively to make positive changes in a given society. Youth empowerment means wealth creation and employment development through education, relevant skills acquisition,

training, job creation, enabling an atmosphere for entrepreneurship, and the quality of jobs available to young persons. For nations to prosper, they need to consider future generations' requirements, such as youth empowerment and utilising the increasing size of the working-age population. Despite the youth's contributions to the growth and accomplishments of the country, their contributions to society are sometimes overlooked, and they are not given enough voice or participation in decision-making processes. In addition, most young people frequently lack access to school for basic functional education. Subsequently, such youth face high rates of unemployment and prejudice. They will be severely impacted by the climate catastrophe and environmental deterioration in the future. However, drawn from their attitudes, opinions and experiences, the youth in Yobe State have not appreciated the positive impact of the empowerment programmes to improve their well-being despite the government's implementation of various empowerment programmes. The well-being of youth cannot improve unless they are empowered. Lack of empowerment implies social exclusion and discontent, which are further responsible for most social crimes young people commit. The prevalence and consequences of unemployment and poverty might be directly linked to the rise in insurgency, kidnapping for ransom, prostitution, armed robberies, rape, and other forms of violence. Therefore, to reverse these ugly trends, the government needs to prioritise the laws and policies that promote conditions where youth may reach their full potential, fulfil their ambitions, and help Agenda 2030 and the Sustainable Development Goals to succeed. The government should also prioritise access to affordable education, seed capital provision to unemployed youth and training on soft skills/ICT. These measures will undoubtedly give the youth access to relevant skills, affordable education, and sources of jobs that will make them self-reliant and responsible citizens. In addition, the government should also strengthen the empowerment programmes' policy guidelines to achieve effective service delivery and youth involvement in designing and implementing the programmes. In order to get a broader picture of the situation in the country, similar or related research is recommended in other federation states.

DECLARATION OF CONFLICTING INTERESTS

The author(s) declared no potential conflicts concerning this article's research, authorship, and publication.

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Increasing English teachers' innovation through training on teaching modules development with digital technology integration

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-07-03 Revised: 2023-07-24 Accepted: 2023-08-14 Published: 2023-09-09 Keywords EdPuzzle English Teaching modules Technology integration	<i>In order to achieve quality learning in accordance with the aspirations and the fourth goal of SDGs, teachers need to create learning that is complete and in accordance with the needs of students. This complete and appropriate learning can be demonstrated by the teaching modules used by the teacher. In fact, teachers still encounter problems in compiling teaching modules that suit the needs of students in the current era of digital technology. This obstacle is also experienced by high school English teachers in Sidoarjo. One of the challenges is the lack of innovation in using and implementing information and technology-based English learning media. Therefore, with this community service, the authors aim to increase the high school English teachers' innovation through training on teaching module development with EdPuzzle integration. The success of this program was measured from a questionnaire filled out by the teachers. As a result, teachers who previously did not know what EdPuzzle was were finally able to create and implement it in class. They argue that digital media such as EdPuzzle is very useful for teaching and learning English. Thus, this community service has been carried out properly and succeeded in achieving the planned goals.</i>
Kata Kunci Bahasa Inggris EdPuzzle Integrasi teknologi Modul ajar	Peningkatan kemampuan inovasi guru melalui pelatihan pengembangan modul ajar dengan integrasi teknologi digital. Untuk mencapai pembelajaran yang berkualitas sesuai dengan aspirasi dan tujuan keempat SDGs, guru perlu menciptakan pembelajaran yang tuntas dan sesuai dengan kebutuhan siswa. Pembelajaran yang lengkap dan tepat tersebut dapat ditunjukkan melalui modul pengajaran yang digunakan guru. Faktanya, guru masih menemui kendala dalam menyusun modul pengajaran yang sesuai dengan kebutuhan siswa di era teknologi digital saat ini. Kendala ini juga dialami oleh guru bahasa Inggris SMA di Sidoarjo. Salah satu tantangannya adalah kurangnya inovasi dalam penggunaan dan penerapan media pembelajaran bahasa Inggris berbasis informasi dan teknologi. Oleh karena itu, dengan pengabdian masyarakat ini, penulis bertujuan untuk meningkatkan inovasi guru bahasa Inggris SMA melalui pelatihan pengembangan modul pengajaran dengan integrasi EdPuzzle. Keberhasilan program ini diukur dari angket yang diisi oleh para guru. Alhasil, para guru yang sebelumnya tidak mengetahui apa itu EdPuzzle, akhirnya bisa membuat dan mengimplementasikannya di kelas. Mereka berpendapat bahwa media digital seperti EdPuzzle sangat berguna untuk belajar mengajar bahasa Inggris. Dengan demikian, pengabdian kepada masyarakat ini telah terlaksana dengan baik dan berhasil mencapai tujuan yang direncanakan.

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INTRODUCTION

It cannot be denied that education is a basic human need. In this era, education is the spearhead to prepare the younger generation to become a generation that is ready to face all the problems in the future. In general, education's functions and objectives include developing students' potential through increasing knowledge and thinking skills, interests, and attitudes, as well as motor skills to form students into knowledgeable, moral, and responsible citizens (Michael Adam, 2020; Moran, 2018). Thus, it is hoped that the series of education in Indonesia will be able to meet the needs of these students. Through education, people carry out cultural transformations, create workforces, create tools of social control, and so on (Sujana, 2019).

In order to realize the ideals of education, the Indonesian government designed a curriculum to direct education toward the desired direction and goals in learning activities as a whole. The curriculum is a design and framework that contains learning objectives, competencies, materials, and learning assessments which are the reference for education providers to determine the implementation of learning outcomes (Habiburrahim, 2021). This curriculum will later be developed by the teacher into another written form that will be used as a learning guide in class or called a teaching module. However, several previous curricula designed by the government were considered unable to accommodate the needs of students who had varied backgrounds.

In the previous curriculum, namely Kurikulum 2013 (K13), learning activities were centered on learning outcomes. It makes many students burdened because of the large amount of material that must be mastered. The Minister of Education conveyed several weaknesses of Kurikulum 2013, including very dense material, limited study time, less flexible learning, and inaccuracies in the assessment process (Lestari, 2023; Mutmainna et al., 2022). Therefore, since February 2022, the government has introduced a new Kurikulum Merdeka curriculum. This curriculum aims to accommodate the needs of students to get an education according to the potential of each student without burdening them with an imbalance between material and study time (Pratikno et al., 2022).

The birth of Kurikulum Merdeka is believed to be able to answer strategic issues about multiple intelligences that each student has. The theory of multiple intelligences states that every child is born with various intelligence potentials, and these potentials have an effect on the learning success of individuals (Lei et al., 2021; Pratiwi et al., 2018; Shearer, 2018). In relation to Kurikulum Merdeka, it is then emphasized that this curriculum offers freedom to students to explore their talents and interests further (Rahayu et al., 2022).

Kurikulum Merdeka has several advantages over the previous curriculum (Fahmi et al., 2022; Kurniawan et al., 2022), one of which is a subject matter that is more relevant and concise. The policy for implementing learning is not centralized, meaning that schools are given the flexibility to manage the curriculum according to the character of students. In addition, the curriculum also provides opportunities for students to develop themselves referring to the character of Pancasila students. Therefore, Kurikulum Merdeka is considered good enough to be implemented in school learning.

One form of implementing Kurikulum Merdeka is differentiated learning. Differentiated learning is learning that aims to meet the different needs of students through different learning experiences (Astuti & Afendi, 2022; Pozas et al., 2021; Sahril et al., 2021). Differentiated learning includes differences in material content, differences in learning processes, and differences in learning outcomes. The characteristics of differentiated learning are that the teacher conducts a diagnostic test before the start of learning to measure students' interests and talents. After that, the teacher adjusts the material, media, and methods based on the results of the pre-learning assessment. Here, the teacher will provide learning activities that are varied, tiered and tend to be individual or small group for students. Furthermore, to evaluate student learning outcomes, teachers apply project-based learning products, where students can present their learning outcomes in any form according to their potential. As a result, a student will experience a different learning experience from other students. However, in reality, there are several problems in implementing differentiated learning.

Some of the obstacles in the implementation of differentiated learning include the lack of references for teachers to make teaching modules that suit the needs of each student and the lack of teacher readiness to develop authentic and interactive learning innovations (Al & Abutayeh, 2022; Gibbs, 2022; Grecu, 2022; Manivannan & Nor, 2020). Another obstacle to implementing a new curriculum is the teacher's limitations in using information and technology-based learning media which can eventually lead to a decrease in teachers' teaching performance

With the existence of technology, teachers should be expected to be more advanced in mastering and presenting learning through digital media. With the help of digital media, students can access a lot of information as a learning support. Students can also take advantage of technology to work on questions and absorb the material in a more enjoyable way (Abu Bakar & Khalid, 2021). Therefore, teachers' digital literacy needs to be increased from time to time to keep up with the needs in the field. Teachers' adaptability also needs to be strengthened so that teachers can be open and selective when accepting existing changes for the progress of students, one of which is using information and technology-based learning media optimally.

In this community service program, the authors found similar problems faced by teachers. Based on brief interviews and observations with the potential target community, the many obstacles in implementing the new curriculum were also experienced by English teachers at the senior high school level in Sidoarjo. The teachers have problems related to

the implementation of a differentiated curriculum, especially in developing teaching modules that are integrated with innovative learning media. Challenges faced by the teachers include the lack of skills in developing teaching materials that are relevant and interactive to facilitate students and the lack of innovation in using and implementing technology-based English learning media for learning at the high school level.

Several community services have been carried out to improve teachers' abilities in developing teaching modules (Araiku et al., 2021; Choiriyah et al., 2022), teaching modules with differentiated learning content (Maulana et al., 2023; Mukhlishina et al., 2023), as well as teaching modules with technology integration (ARFA et al., 2022; Basuki et al., 2022; Bentri et al., 2019; Qadriani et al., 2021). However, almost none focused on teaching modules with EdPuzzle integration specifically for high school English teachers. In fact, there are many benefits from the EdPuzzle application that can be obtained by high school English teachers.

Edpuzzle allows teachers to improve the way students use online videos for learning. It also enables teachers to check that pupils have seen the entire session and assess their comprehension of the material. After taking embedded quizzes, students who used Edpuzzle were better able to concentrate on the key elements of the videos and were more secure about their understanding (Mischel, 2018). Additionally, EdPuzzle learning is extremely successful for online learning and statistically quite important in enhancing students' problem-solving abilities (Giyanto et al., 2020).

Referring to the analysis of the situation faced by high school English teachers in Sidoarjo, and in order to realize the fourth goal of SDGs, namely quality education, the authors are interested in facilitating training and mentoring through a community service program that aims to increase the high school English teachers' innovation through training on teaching module development with digital technology integration. On this occasion, the authors propose the use of EdPuzzle in English teaching and learning.

METHOD

The object or target community of this community service is the high school English subject teachers in Sidoarjo who are affiliated with an English teacher working group called Musyawarah Guru Mata Pelajaran (MGMP) in Sidoarjo. MGMP is a forum that facilitates the gathering of English subject teachers to develop work professionalism. In implementing the community service program, MGMP contributes to mobilizing their members, in this case, teachers, to become participants and fully participate in workshops, training, and mentoring activities. During the community service program, as many as 43 teachers took part in the series of activities.

In implementing the community service program, there are several stages of activities carried out by the authors to overcome partner problems. In the preparatory stage, the service team establishes contact with the target community, identifies the problems and coordinates plans for workshops, training, and mentoring activities. The service team communicated with the representatives of the community to agree on a schedule and location for the workshop. After that, the service team prepares materials and other equipment to support the workshop.

At the implementation stage, the service team will carry out workshop activities followed by training and mentoring. Overall, the workshop activities aim to provide theoretical material regarding differentiated curricula, teaching modules, and IT-based learning media to the teachers. In training activities, partners will be given the opportunity to independently design teaching modules and media based on workshop material. Furthermore, in mentoring activities, the teachers will use teaching modules that have been prepared to convey material to students in class.

Finally, at the evaluation stage, the service team will also distribute questionnaires to the teachers containing the satisfaction and success of learning after applying the pre-designed teaching modules and media. The results of the questionnaire distribution will be interpreted and rewritten into activity results reports. Thus, the success of this community service program was measured through a survey using a questionnaire distributed after the program was completed. The questionnaire itself contains several closed and open questions which are expected to be able to explore teachers' opinions and perceptions of the use of EdPuzzle in learning English in class.

RESULTS AND DISCUSSION

After completing the community service program, the following is an analysis of the results of the activities obtained from interpreting the questionnaire contents by the English teachers. First, the MGMP English teachers who attended the workshops and training came from various public and private high schools in Sidoarjo (Figure 1). These teachers teach senior high school students at various levels of educational units and with varying lengths of teaching experience. Some teachers have teaching experience for 3 years, and some others have teaching experience for more than 20 years.

After going through a series of community service programs, these teachers benefited from making teaching modules based on differentiated learning with the integration of EdPuzzle as a source and learning media. Comparison of the use of EdPuzzle before the program and after the program is shown in Table 1.



Figure 1. Workshop on Developing Teaching Modules and Integrating Technology

Table 1. Comparison of the Use of EdPuzzle in Teaching and Learning

No.	Aspect	Number of participants (out of 43)	
		Before the Program	After the Program
1	Understanding EdPuzzle and its features	4	43
2	Using EdPuzzle	2	41
3	Implementing Edpuzzle in classrooms	2	41

Based on Table 1, it can be seen that the number of participants who were finally able to understand, use, and apply Edpuzzle in classroom learning increased very significantly. Initially, only 4 out of 43 teachers, or 9% of participants, knew about EdPuzzle and its features. Meanwhile, of the 4 teachers, only 2 had actually created and utilized EdPuzzle in classroom learning. On the other hand, after receiving materials and training about Edpuzzle, all participants understood what EdPuzzle was and its features. However, of all the participants who knew about Edpuzzle, 41 of them, or 95% of the participants, were finally able to use and apply it as a medium and learning resource for their students. They also argue that EdPuzzle is quite effective during learning (Figure 2).

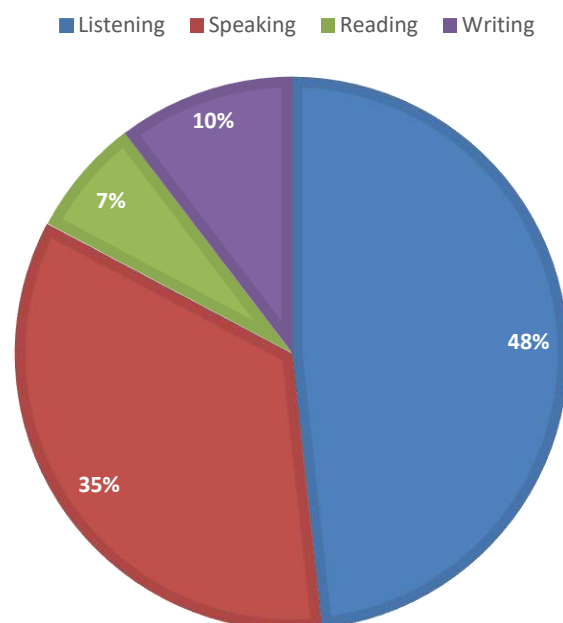


Figure 2. The Effectiveness of Edpuzzle for English Language Skills

From Figure 2 above, it can be seen that the participants saw the use of EdPuzzle in learning English as very effective. Going deeper, opinions regarding the effectiveness of EdPuzzle based on language skills vary quite a bit. The majority of participants, or 48% of them, thought that EdPuzzle was most effectively used in learning that focused on students' listening skills. 35% of participants thought that Edpuzzle was suitable for honing speaking skills. Meanwhile, a small number of participants thought that EdPuzzle was also suitable for use in improving writing and reading skills. In addition, the participants also spoke about the usefulness of EdPuzzle to support the increase in digital literacy of teachers and students. According to the results of the questionnaire, all participants agreed that the use of EdPuzzle during English learning in the classroom was able to improve digital literacy skills in teachers and students. Not only did they agree, but the participants also described the role of technology-based learning media, such as EdPuzzle, in the implementation of Kurikulum Merdeka (Figure 3).

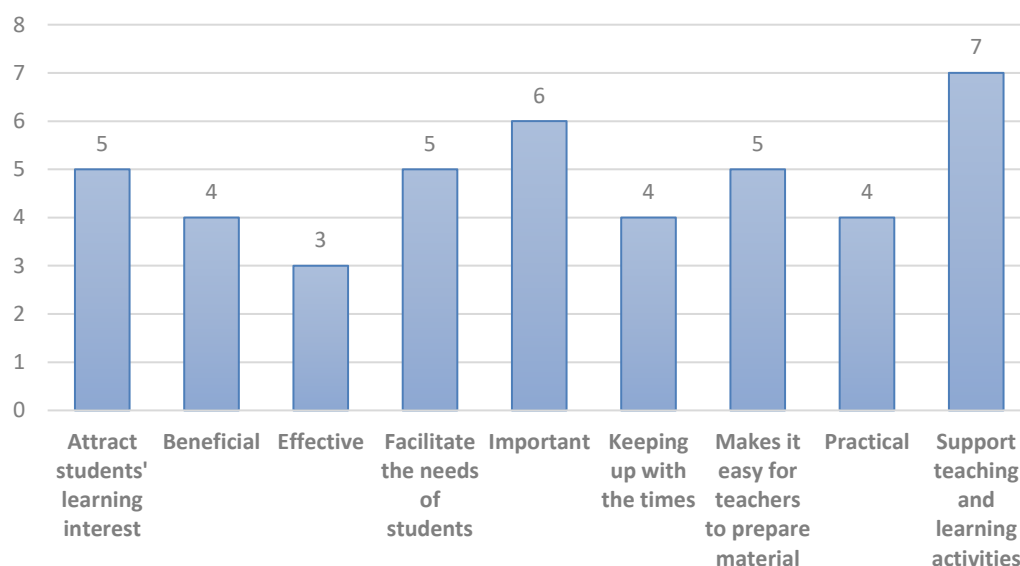


Figure 3. The Role of Technology-based Media in the Implementation of Kurikulum Merdeka

Figure 3 above illustrates the participants' statements when asked to describe the role of technology-based learning media in a few words. As a result, as many as 7 participants stated that technology-based learning media was able to help teachers in the process of teaching and learning activities. 6 participants considered it important. Each of the other 5 participants revealed that the media was able to attract students' interest in learning, facilitate student needs, and make it easier for teachers to prepare lessons. Meanwhile, other participants described the role of technology-based learning media as something beneficial, important, and practical. In fact, some participants said that the use of media like that encourages students to always keep up with the times, which is currently the era of technology. However, apart from the many benefits derived from using EdPuzzle in learning, there are also several obstacles faced by the participants when implementing it in class, which is illustrated in Figure 4 below.

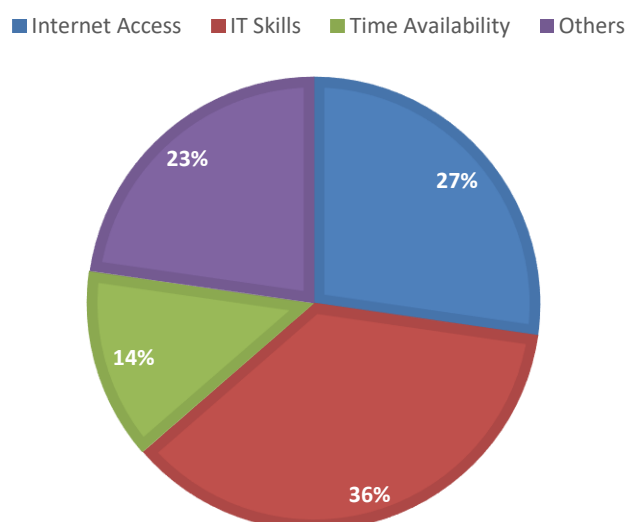


Figure 4. Difficulties encountered when developing technology-based learning media

Even though technology-based learning media is considered important and useful, many participants still encounter problems with its use. Figure 4 shows that the biggest obstacle that can be faced by teachers is the lack of technological capabilities they have. 36% of participants admitted that their IT skills were not qualified. One participant even called himself technologically illiterate. The second problem is poor internet access or network. 27% of participants complained about these technical problems. The participants came from different areas in Sidoarjo, so the possibility of getting access and a stable internet network varied. Furthermore, there were also constraints on time availability experienced by 14% of the participants. These participants are hampered by the limited time they have for self-development, for example, to improve their digital literacy and explore digital media for use in learning. Finally, other reasons that become obstacles include laziness and lack of ideas to build materials, faced by 23% of participants. However, the many obstacles faced by the participants did not dampen their enthusiasm to try to create and implement EdPuzzle integrated learning. A total of 22 participants shared the teaching modules they had developed and used EdPuzzle as a medium and source of learning English for students.

• Unsur Kebahasaan : Menggunakan simple present tense, menggunakan adjective (kata sifat), menggunakan relative verb (kata kerja penghubung).

TUJUAN PEMBELAJARAN- Reading And Viewing (Membaca dan Meminta)

- 10.B.1. Menganalisis, menangkap makna dan mengevaluasi fungsi sosial, struktur teks, dan unsur kebahasaan descriptive text secara kritis, kreatif dan jujur terkait topik fenomena alam dan sosial dengan tingkat kelancaran dan ketepatan yang optimal.

• Indikator

- membaca dan merespon berbagai macam teks descriptive text secara mandiri;
- menunjukkan keterampilan merespon teks yang semakin kompleks;
- menulis melalui aktivitas yang dipandu dan menyampaikan ide kompleks dan menggunakan berbagai kosakata dan kata kerja dalam tulisannya.

URUTAN KEGIATAN PEMBELAJARAN :

PERTEMUAN 1

Langkah Pembelajaran:

Kegiatan awal:

Kegiatan Awal (5 menit)

- Menyiapkan peserta didik untuk mengikuti proses pembelajaran seperti berdoa, absensi, menyiapkan buku pelajaran;
- Guru menyampaikan bahwa mereka akan mempelajari tentang descriptive text dan bagaimana membuat descriptive text serta bagaimana menggambarkan, mengungkapkan, seseorang atau suatu objek baik abstrak maupun konkrit;
- Guru menanyakan apakah di antara siswa ada yang sudah pernah menerima atau membuat descriptive text dan diminta memberikan contoh.

Kegiatan Inti (75 menit)

- Guru menanyakan apakah di antara siswa ada yang sudah pernah membuat descriptive text dan diminta memberikan contoh.
- Kemudian guru meminta siswa memahami descriptive text yang dijelaskan oleh guru. Guru memperkuat pemahaman siswa dengan pertanyaan-pertanyaan dan penjelasan tentang descriptive text dan cara membuat descriptive text.
- Mengkondisikan siswa untuk siap mengikuti pelajaran dengan menunjukkan descriptive text sederhana.
- Memberikan sejumlah pertanyaan berkaitan dengan descriptive text.
- Meminta siswa untuk membaca dengan seksama dan menuliskan ungkapan yang digunakan dalam descriptive text sederhana yang digunakan.
- Mengajukan siswa menganalisa tujuan, struktur teks, dan unsur kebahasaan descriptive text sederhana secara berkelompok.
- Memberi kesempatan pada tiap kelompok untuk memperlihatkan hasil analisa.
- Meminta siswa untuk membaca dan melihat sebuah video descriptive text dan menjawab soal tentang descriptive text tersebut melalui situs Ed-Puzzle:

<https://edpuzzle.com/media/640104b11d98742c3eb75dc>

Kegiatan Akhir (10 menit)

- Memberikan umpan balik terhadap proses pembelajaran: Well, class, you have done a very good job today. Most of you are active. I hope next time, all of you involve in the interaction. How do you feel during the lesson? Is there anyone want to say something?
- Menyimpulkan apa yang dipelajari hari ini.
- Berdoa

• Memberikan sejumlah pertanyaan berkaitan dengan narrative text.

- Meminta siswa untuk membaca dengan seksama dan menuliskan ungkapan yang digunakan dalam narrative text sederhana yang digunakan.
- Mengajukan siswa menganalisa tujuan, struktur teks, dan unsur kebahasaan narrative text sederhana secara berkelompok.
- Memberi kesempatan pada tiap kelompok untuk memperlihatkan hasil analisa. Meminta siswa untuk membaca sebuah narrative text dan menjawab soal tentang narrative text tersebut melalui media ed-puzzle:

<https://edpuzzle.com/media/640105344c47a142a3c9c945>

Kegiatan Akhir (10 menit)

- Memberikan umpan balik terhadap proses pembelajaran: Well, class, you have done a very good job today. Most of you are active. I hope next time, all of you involve in the interaction. How do you feel during the lesson? Is there anyone want to say something?
- Menyimpulkan apa yang dipelajari hari ini.
- Berdoa

REFLEKSI GURU :

- Keberhasilan apa saja yang dicapai pada bab ini?
- Apa yang harus menjadi perhatian khusus dalam pelaksanaan pembelajaran pada materi ini?
- Apa yang harus diperbaiki?
- Siswa mana yang membutuhkan perhatian khusus?

REFERENSI :

- Situs Web Ed-Puzzle: <https://edpuzzle.com/media/640105344c47a142a3c9c945>
- Surat guru
- Komunitas bahasa Inggris http://americanenglish.state.gov/files/ae/resource_files
- <http://learnenglish.britishcouncil.org/en>

ASSESSMENT :

PEDOMAN PENSKORAN

- Jawaban singkat
- Penskoran instrument dilakukan dengan memberikan skor 2 untuk setiap jawaban benar dan 0 untuk jawaban salah.
- Urutan singkat/uraian objektif
- Penskoran instrument dilakukan dengan memberikan skor 2 untuk setiap jawaban benar dan 0 untuk jawaban salah.

REMEDIAL :

- Peserta didik yang belum mencapai KKM (75) diberi tugas untuk membaca beberapa narrative text dan atau menuliskan sesuai dengan situasi yang diberikan selama dua minggu. Setelah dua minggu guru mengevaluasi kemajuan kompetensi peserta didik dalam menangkap makna dan atau menyusun narrative text. Kemudian guru melaksanakan penilaian remedial.

Figure 5. Samples of Teaching Modules with EdPuzzle Integration

Figure 5 is an example of the display of teaching modules developed by participants by utilizing EdPuzzle as a learning medium and clearly recording them in the module. In general, the participants succeeded in making material with the application of EdPuzzle. The majority of participants raised text-based learning, such as narrative text, descriptive text, or recount text to be integrated with EdPuzzle with open-ended questions being the most favorite.

CONCLUSION

Based on the results and discussion, it is known that all English teachers participating in the workshop finally know the features of the Edpuzzle application which is one of the English language learning media applications, and have implemented Edpuzzle in learning. All English teachers, as the workshop participants, considered the material regarding the Edpuzzle application very useful to support the teacher and student digital literacy. However, the majority of participants face technical obstacles such as poor internet networks and limited data packages when developing technology-based learning media. In addition, according to the participants, the role of technology-based learning media in the implementation of Kurikulum Merdeka is very important because it is effective, practical, and interesting. Supported by these facts, it can be concluded that this community service program has been implemented properly and successfully, and is able to bring tangible results to high school-level English teachers in Sidoarjo as the target community, namely increasing learning innovation by utilizing EdPuzzle as a technology-based media.

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Training on making handicrafts from natural materials and plastic waste for child activists and educators

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-06-26 Revised: 2023-09-09 Accepted: 2023-09-14 Published: 2023-09-19 Keywords Descriptive quantitative Evaluation Stone blocks Synthetic dyes Webinar	<i>Ecobrick and ecoprint are one of several solutions that can be used to reduce plastic waste through making crafts resembling stone blocks and synthetic dyes. The aims of the training on handicrafts of natural materials and plastic waste are participant can understand the content and purpose of this webinar, able to provide an evaluation for the entire webinar activity as part of the role of humans who are the crown of God's creation in carrying out cultural mandates, able to increase commitment participants in contributing to share this webinar activity with the public, and also to participate in supporting the SDGs program especially on minimizing the disposal of chemicals and hazardous materials and increasing recycling such as recycling single-use plastics into Ecobricks. Activities are carried out in five stages, observation and problem identification, preparation, work, webinar, and evaluation. The analysis method used is descriptive quantitative. The evaluation results were given to participants after the event and calculated using Ms. Excel. The evaluation is carried out by providing nine questions that will be answered by training participants. The results of the evaluation show that participants become more educated about the use of natural materials and used plastics to be used as handicrafts. The results were 5% neutral answers, 25% answered affirmatively, and 70% answered strongly agreed about the success of the activity.</i>
Kata Kunci Balok batu Evaluasi Kuantitatif deskriptif Pewarna sintetis Webinar	Pelatihan pembuatan kerajinan dari bahan alam dan sampah plastik untuk pegiat anak dan pendidik. Ecobrick dan ecoprint adalah satu dari beberapa solusi yang dapat digunakan untuk mengurangi sampah plastik melalui pembuatan kerajinan menyerupai balok batu dan pewarna sintetis. Tujuan dari pelatihan kerajinan bahan alam dan sampah plastik adalah peserta dapat memahami isi dan tujuan webinar ini, mampu memberikan evaluasi untuk seluruh kegiatan webinar sebagai bagian dari peran manusia yang merupakan mahkota ciptaan Tuhan dalam menjalankan mandat budaya, mampu meningkatkan komitmen Peserta dalam berkontribusi berbagi kegiatan webinar ini kepada publik serta ikut berpartisipasi dalam program SDGs khususnya dalam meminimalisir pembuangan bahan kimia dan materi berbahaya dan meningkatkan kegiatan daur ulang seperti daur ulang sampah sekali pakai menjadi Ecobrick. Kegiatan dilakukan dalam lima tahap, observasi dan identifikasi masalah, persiapan, pekerjaan, webinar, dan evaluasi. Metode analisis yang digunakan adalah kuantitatif deskriptif. Hasil evaluasi diberikan kepada peserta setelah acara dan dihitung menggunakan Ms. Excel. Evaluasi dilakukan dengan memberikan sembilan pertanyaan yang akan dijawab oleh peserta pelatihan. Hasil evaluasi menunjukkan bahwa peserta menjadi lebih teredukasi tentang penggunaan bahan alam dan plastik bekas untuk dijadikan kerajinan tangan. Hasilnya 5% jawaban netral, 25% menjawab setuju, dan 70% menjawab sangat setuju tentang keberhasilan kegiatan. Copyright © 2023, Bermuli et al This is an open access article under the CC-BY-SA 

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INTRODUCTION

Nature is a place for humans and other living things to live and carry out various activities. Nature and man are two inseparable components. Nature can provide various sources of needs for humans, while humans who have been given a mandate by God are required to be able to manage the earth and everything in it. For example, natural materials, that is, something derived from plants (Kusumaningrum et al., 2021). Natural materials can be processed into a handicraft. Hotima (2019) explained that craft is an activity to produce a product related to hand skills. This statement is in line with the opinion of Sumanto and Sukamti (2018) that handicraft or commonly referred to as *kria* art is an activity related to hand skills in producing a product or item. The materials used to make crafts can be obtained anywhere, one of which is from nature.

Nature plays an important role in the sustainability of living things and is a source of inspiration in developing creative skills or works. Inspiration in designing a fashion product is one of them by utilizing natural wealth, such as making ecoprint products. Ecoprint comes from two syllables, namely *eco* means nature and *print* means printing (Asmara, 2020). Ecoprint has long been known and in demand by the public. The increasing public interest is caused by its production which is considered easy and economically valuable (Irmayanti et al., 2020). The ecoprint method is generally done by tracing or transferring the original color and shape of plants as coloring materials to the media used directly (Kusumaningrum et al., 2021). The ecoprint method utilizes many natural elements to support the best results so that the type of waste generated from the ecoprint process also includes waste that does not harm the environment because it comes from nature (Octaviano & Hartanto, 2022). The most waste produced from the ecoprint method is liquid natural dyes from plants. In addition, there are also chemicals such as aluminum sulfate and lime in good quantities (Salim, 2021). The application of ecoprint is very good because the waste does not harm the environment, unlike textile waste derived from the dyeing process which has a high potential to pollute the environment because it contains chemical compounds that are toxic, carcinogenic, and mutagenic (Haryono et al., 2018).

Apart from natural materials, crafts can also utilize plastic waste produced by humans. One way to use it is by ecobrick. Ecobrick is one way to process plastic waste that has been troubling and has become the most waste in the world. The nature of plastic that is not easily decomposed is a problem that needs to be overcome by every human being. Plastic waste deposits in Indonesia are counted as the third largest country in the world. Plastic has long been known by the public (Ramadani, 2019), because it is cheap and has characteristics that are considered good, such as efficient, flexible, lightweight, compact, cheap, and waterproof (Putra & Yuriandala, 2010). These things have an impact on increasing the number of requests from the community, until finally now it has become a pile that worries every circle.

Various treatments have been taken to overcome this problem. Not a few activities have been promoted around us, one of which is reducing the use of single-use plastic waste by using your own shopping bags when shopping or plastic that is now paid (Ekawati, 2016). However, this method looks less effective. Until finally ideas emerged in plastic waste management, one of which was ecobrick. Ecobrick comes from the word “eco” which means nature and “brick” which means brick (stone). Thus, ecobrick can be interpreted as an arrangement of bricks (stones) that come from nature. In addition, ecobrick can also be defined as the packaging of used plastics that are clean and compacted in bottles (containers) to a certain density, which can then be used as building materials by forming ecobrick such as stone blocks. (Ramadani, 2019). Ecoprint and ecobricks can be a solution to reduce craft waste and reduce plastic waste in the surrounding environment. In addition, it is hoped that each participant can understand how to manage and process things in the surrounding environment including waste and reduce the waste generated.

Following the discussion with the Abar Foundation, the priority problem being faced by the Abar Indonesia Foundation is the limitation to still be able to provide education to child activists and education, especially during the post-pandemic period which is still not possible to gather people and conduct seminars offline as usual. Therefore, these activities need to be shifted to online to reduce the risk of spreading Covid-19. Webinar activities held online can increase participants' interest in participating in activities, foster a desire to learn, and add knowledge that leads to business opportunities (Saefullah et al., 2023). In addition, the advantage of implementing online activities is that it facilitates mobilization, only requires a small committee, and can be attended from various places (Kusumadinata et al., 2023). The Foundation needs assistance in the form of media that can be used for education and manpower to help prepare and implement education. Not only that, but the Abar Foundation also has difficulty in finding suitable speakers because in the online education held, speakers who are experts in certain fields are needed. Speakers or resource persons must have sufficient knowledge and experience to share information related to the topics discussed (Sinaga et al., 2023).

Based on the problems that exist at the Abar Foundation, a collaboration was carried out between the Biology Education Study Program, Faculty of Education, Universitas Pelita Harapan (UPH) to hold community service activities in the form of training on crafts from natural materials and plastic waste for child activists and educators. In the context of the problems that have been presented in the partner problems section, the Biology Education Study Program, UPH Faculty of Education can be one of the right partners for the Abar Foundation because it has an aligned vision and mission. The vision and mission of UPH Faculty of Education is to develop transformative and holistic learning based on Biblical Christian Insight, by producing reflective, responsive, and responsible Christian teachers with international standards, who can teach in the context of Indonesian culture, as well as have a transformative understanding and holistic based on Biblical Christian Insight. The vision of FIP UPH is the basis of the vision and mission of the Biology Education Study

Program to produce prospective teachers with graduate profiles who have the character of an adult Christian, have a vocation as a Christian teacher, especially in the field of biology, have international standard competencies, and have concern for the community where they are in the context of society, nation and state (Universitas Pelita Harapan, 2023).

The aims in this training activity are (1) Through the presentation of the material, each participant was able to understand the content and purpose of the material given by the speaker regarding handicrafts from natural materials and plastic waste; (2) Each participant was able to provide an evaluation for the entire webinar activity carried out as part of the role of humans who are God's crown creation in carrying out cultural mandates; and (3) Through the presentation of the material, he was able to increase his commitment in contributing to sharing this webinar activity with the public.

Hopefully, through training activities in the form of webinars can help each participant to understand their role in this world, namely protecting and preserving nature and its surroundings and to participate in supporting the SDGs program point no. 6 on clean water and sanitation, especially on minimizing the disposal of chemicals and hazardous materials and increasing recycling such as recycling single-use plastics into Ecobricks.

METHOD

This activity is carried out online or in a network that utilizes the *Zoom Meeting* platform. The Community Service (PkM) activities are carried out in five stages (Figure 1), namely: 1) the observation stage and problem identification. At this stage, a screening process is carried out through literature study activities, observation, and identification of problems that exist in the environment around the residence (Aryana et al., 2023). 2) the preparatory stage which includes the preparation of materials and tools used to work on ecoprint and ecobrick as crafts from natural materials research as well as from used plastic. Preparation includes preparing the things needed to be used to make products (Purwanty et al., 2023). 3) The work stage is the process of implementing activities using materials and tools prepared in advance (Sine et al., 2023). This activity is divided into the process of working on ecoprint and ecobrick. 4) The education stage is the provision of socialization to others online (Pasalina et al., 2023). In this case, education is carried out by presenting the results of handicrafts of natural materials and used plastics to all webinar participants who have registered. At the education stage, there is also a question-and-answer session that can be used to facilitate the curiosity of webinar participants. 5) The evaluation stage is carried out by distributing an evaluation questionnaire containing 9 questions and 1 question to fill out criticism and suggestions for webinar activities through the disseminated link. The analysis method used is quantitative descriptive which is carried out using the results of the evaluation. The evaluation results were given to participants after the event and calculated using Ms. Excel. Evaluation is an effort to measure the achievement of activity targets using surveys (Karliani et al., 2023).

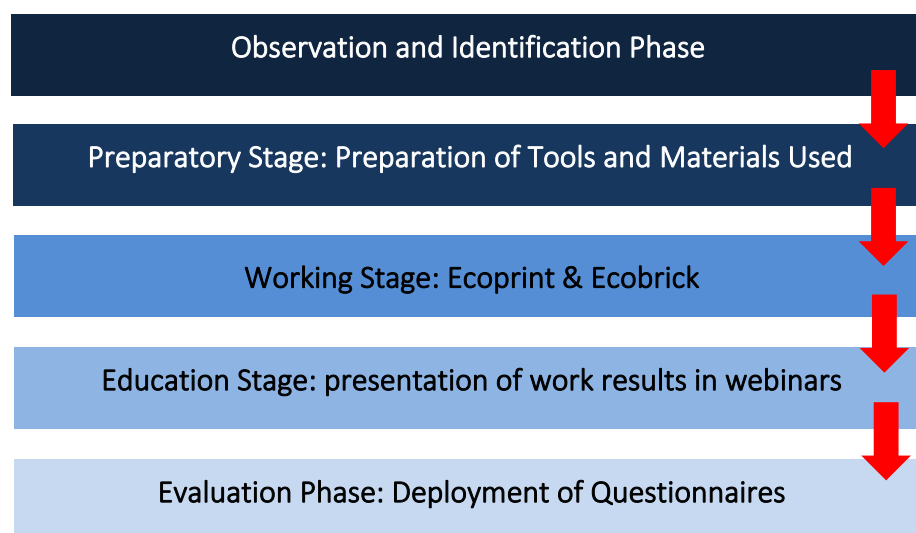


Figure 1. Stages in carrying out Community Service's activities for Natural Material Crafts and Plastic Waste for Child Activists and Educators.

Based on Figure 1, community service's activities with the topic of "Natural Material Crafts and Plastic Waste for Child Activists and Educators" were carried out in five stages. The five stages will be described as follows:

Observation and Identification Phase

The observation and identification phase of the problem is an important first step in the problem-solving process. At this stage, the main goal is to observe the situation or problem that is happening carefully by collecting data and information relevant to the problem. After that, the data and information will be analyzed to identify the root of the

problem that is happening. The first stage is carried out by observing the environment around the high place (Budiana et al., 2023).

Preparatory Stage: Preparation of Tools and Materials Used

The preparatory stage in an activity is very important to ensure that everything is ready to be used properly and appropriately. This also applies to the preparation of tools and materials used in various types of activities, including ecoprint and ecobrick. Preparation in ecoprint is done by choosing the type of plant to be used, choosing the type of fabric or print media, selecting the fixation stage, fixation material and the concentration of fixation material used (Tsabbita et al., 2022). Preparation in making ecobricks is preparing the necessary tools and materials, such as scissors, plastic waste, plastic bottles, and bamboo or wood (Suidarma & Antini, 2023). The preparation stage of tools and materials that are carried out properly is expected to facilitate the implementation of activities and avoid errors that can interfere with the quality of the result.

Working Stage: Ecoprint and Ecobrick

Ecoprint

The ecoprint stage starts from Mordanting or soaking the cloth into a solution of alum water and / or lime so that the color given is more visible. The process of soaking water is carried out for 12 hours. After that, the soaked cloth is dried by aerating it until the moisture content absorbed in the fabric decreases. Then, dyes are removed from plants and plants by placing them on cloth and coated with cloth, then beaten with a beating tool. The cloth that has been beaten is aerated until it dries enough. Fixation is carried out using alum and chalk.

Ecobrick

Ecobricks are one way that can be done to reduce the amount of plastic waste that does not decompose in the environment. The steps in ecobrick are quite simple and easy to do. First, collect used plastic bottles of the same brand and filling tools such as sticks or wood. Then, clean the plastic bottle of any dirt and cut off the label or sticker if any. Cut the plastic into small sizes and place it in a plastic bottle until the bottle is fully filled and tight. Be sure to press each piece of plastic firmly and tightly so that there are no empty gaps in the bottle. Weigh bottles to ensure ecobricks reach minimum standards. Close and close the bottle tightly and write identification tags on the bottle such as ecobrick weight, date of manufacture, type of plastic, and name of maker. Finally, store ecobricks in a dry place away from direct sunlight (Ramadani, 2019).

Education Stage: Presentation of work results in webinars

The education stage in the webinar is the stage of providing or delivering information to participants about the topics discussed in the webinar, namely crafts from natural materials and plastic waste. This stage is very important because the purpose of the webinar is to provide useful information or knowledge for participants, especially child activists and educators. Webinars that are held for dissemination of information using digital media are Zoom Meeting which has the advantage of making it easier for participants to access webinars, is not limited by distance, and can be followed in all situations with an adequate internet network (Ifroh & Alamsyah, 2021).

Evaluation Phase: Questionnaire dissemination

The evaluation stage in an event is the stage when participants are asked to provide feedback or assessment about the webinar has participated in, aims to find out participants' understanding of the material (Susanto & Kusumaningrum, 2021) that has been delivered, participants' assessment of event coordination, explanation of the material provided by the speaker, to find out the advantages and disadvantages of the event. One method to conduct an evaluation is to use questionnaires. This questionnaire can contain questions related to the topic that has been delivered, the use of media, clarity of presentation, as well as the performance of the facilitator or speaker to see the success rate of the program (Pateda et al., 2020).

RESULTS AND DISCUSSION

Based on the draft problems and plans, community service activities entitled "Training on Crafts from Natural Materials and Plastic Waste for Child Activists and Educators" were carried out with the following activity details:

Observation and Identification Phase

Observation activities and requests for willingness to collaborate with these partners were carried out in July 2022 to coordinate the implementation of community service activities. This coordination process is followed up by a willingness to cooperate with partners as a forum for implementing service activities. While the observation activity aims to identify the needs and constraints faced in the utilization of plastic waste and the use of natural materials as handicrafts.

Preparatory Stage: Preparation of Tools and Materials Used

Tools that need to be prepared to work on ecoprint are plastic basins as a container for soaking fabric, strong beating tools to remove dyes from plants, such as hammers, clear plastic to coat fabrics when beating wild plant organs or ornamental plants so that the pattern can be printed properly. The materials needed to be prepared before ecoprint work are water to soak fabrics, natural fiber fabrics, such as *blacu*, linen, cotton, or silk, wild plants or ornamental plants which include plant parts that will be transferred dyes to fabrics, such as leaves, stems, and flowers, and fixators, namely alum and lime.

Working Stage

Ecoprint

Ecoprint is one way to print living materials onto a medium. Examples of media that can be used are *blacu* cloth and tote bags while for living material that can be used, for example leaves, plant stems and flowers from a plant (Figure 2). There are two techniques that can be used to make ecoprint, namely steaming and pounding (Arif & Marsudi, 2019). The technique used in this ecoprint work is the pounding technique. The pounding technique applied to ecoprint manufacturing consists of the following steps: (1) Mordanting is cleaning the cloth of dirt by soaking the cloth in a mixture of water and alum or chalk for 12 hours; (2) The mordanted fabric is then aerated until the moisture content inside the fabric decreases and becomes damp; (3) Plant parts are arranged on fabric media according to the desired pattern; (4) Plant parts are beaten using a bat or hammer until the dye on the desired plant part sticks to the fabric; (5) The plant parts are removed slowly and then the cloth that already contains dye plant parts is dried by aerating at room temperature for 12 hours; (6) The color of the plant is tied to the fabric through a fixation process carried out by blowing the cloth into a mixture of 4 L of water and 20 grams of lime or alum for 15 minutes; and (7) Fabrics that have been fixed are dried by aerating in a place that is protected from sunlight.



Figure 2. The final result of making Ecoprint.

Ecobrick

Ecobricks are an alternative to reducing plastic pollution by cutting plastic packaging into small pieces and putting it into a plastic bottle of drinking water (Figure 3). Ecobricks are often used to make equipment such as furniture or as a substitute for bricks to make buildings (Ramadani, 2019). Ecobrick consists of several steps, which are as follows: (1) Tools and materials are prepared, namely scissors, plastic bottles, and plastic waste that has been cleaned. Plastics that can be

used include crackled plastic bags, food wrappers, plastic straws, and non-degradable waste, such as Styrofoam; (2) Cleaned plastic is confirmed to be dry; (3) Plastic waste is cut to a small size; (4) The cutouts from the plastic are put into the bottle and closed until there is no empty space on the bottle; and (5) Plastic waste can be compacted into bottles using bamboo or wood by pressing (Suidarma & Antini, 2023).



Figure 3. The plastic pieces of packaging have been compacted into mineral water bottles and become Ecobricks.

Education Stage: Presentation of Work Results in Webinars

After initiation and discussion on partner's problem, steps were prepared to overcome needs and constraints, as well as the implementation of the formulation of activities in the form of craft training from natural materials and plastic waste for child activists and educators. The webinar activity was held on Monday, October 3, 2022, at 19.00 – 21.00 WIB online through the Zoom Meeting platform (Figure 4). Through the webinar, participants were explained and directed about crafts from natural materials and plastic waste. Participants were also explained about the tools, materials, and work steps of the ecoprint and ecobrick manufacturing process. In making ecoprint, participants were also explained about the types of natural materials and organs from plants that can be used to make ecoprint. During the presentation session, participants were also explained about how to use ecobrick and register ecobricks with official bodies to label ecobrick that have been made. Thus, through this webinar activity, participants get information that can be applied and developed for daily activities and generate love to protect the surrounding ecosystem by designing a handicraft product made from natural materials and plastic waste.

Event Evaluation

The participants who attended this activity amounted to 16 people. Participants consisted of three male participants and thirteen female participants. To evaluate the activities that have been carried out, participants are given 10 questions that must be answered. Questions 1-9 are answered using a Likert scale of 1-5 to facilitate the mapping of participants' opinions from each question item given, while the 10th question is a fill-in question regarding criticism and suggestions for training activities in the form of this webinar (Table 1). The number 1 on the Likert scale expresses "strongly disagree" with the question given; number 2 expresses "disagree" with the question given; number 3 states "neutral" or ordinary to the question given; number 4 states "agree" to the question given; and number 5 states "strongly agree" with the question given.

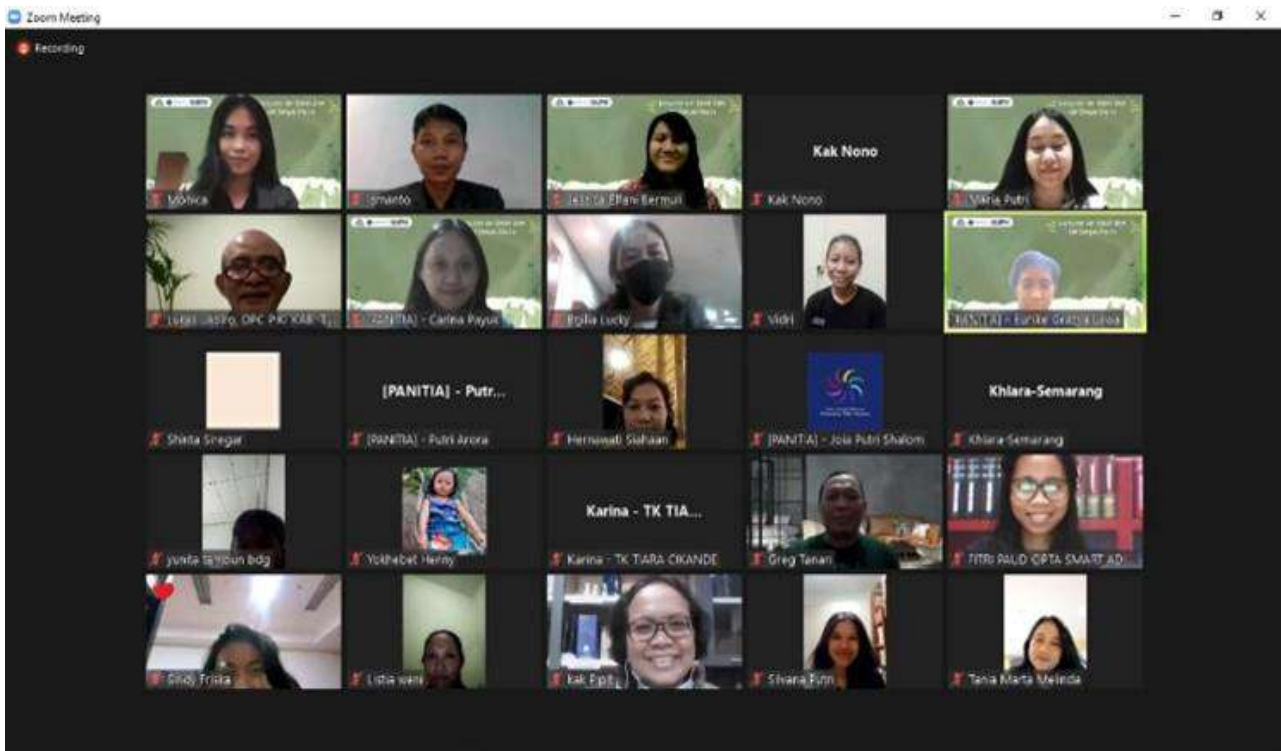


Figure 4. Documentation of webinar events held online.

Table 1. List of Evaluation Questions for Participants

No	List of Evaluation Questions
1	Is the content of the webinar material well received by participants?
2	Is the achievement of program goals on target?
3	Does the efficiency of time use good?
4	Is the webinar method used good?
5	Is the speaker's ability to master and deliver the material good?
6	Is the speaker's ability to answer questions good?"
7	Is the ability of the MC to host the show good?
8	Has the committee's response in serving participants to get in touch with the webinar program been good?
9	Do you recommend that this program be held regularly?
10	Write critiques and suggestions for training activities in the form of this webinar!

Table 1 shows the list of questions given to training participants. The number of questions presented is 10 questions. Each question given, aims to measure matters related to the training activities provided. Questions 1 and 2 contain questions aimed at measuring the content and purpose of the webinar material. Questions 3 and 4 contain questions about the efficient use of time and methods used in this training. Questions 5 and 6 contain questions aimed at measuring the speaker's ability to convey and answer each participant's question. The 7th question is to measure the ability of reporters when guiding webinar activities. Question 8 to measure the performance of the event committee. The 9th question is to measure participants' interest in sharing information about activity programs such as training on making crafts from natural materials and plastic waste to others, while the 10th question is a question that must be filled with sentences to convey criticism and suggestions from training activities. The answers from questions 1 to 9 of the trainees regarding the evaluation questions can be seen in Figure 5.

Based on Figure 5, the first question showed that 25% of participants agreed and 75% of participants strongly agreed that the content of the webinar material could be well received by each participant. This shows that each participant is able to receive the material message delivered by the speaker. Somethings that affect the material can be received by the listener, namely through body language, choice of words, and volume of voice. When delivering the content of the material, it should be delivered simply, with light language, basic level language, and not complicated rules so that it is difficult to understand, using everyday words and encouraging (Setyawati & Ambarwati, 2020). If the participant is unable to interpret the information received, it may be indicated that the communication did not take place properly. The ability to deliver material by the speaker can influence the listener to receive the material well so that it is important for the speaker to equip themselves in conveying information both material and responses (Rombean et al., 2021).

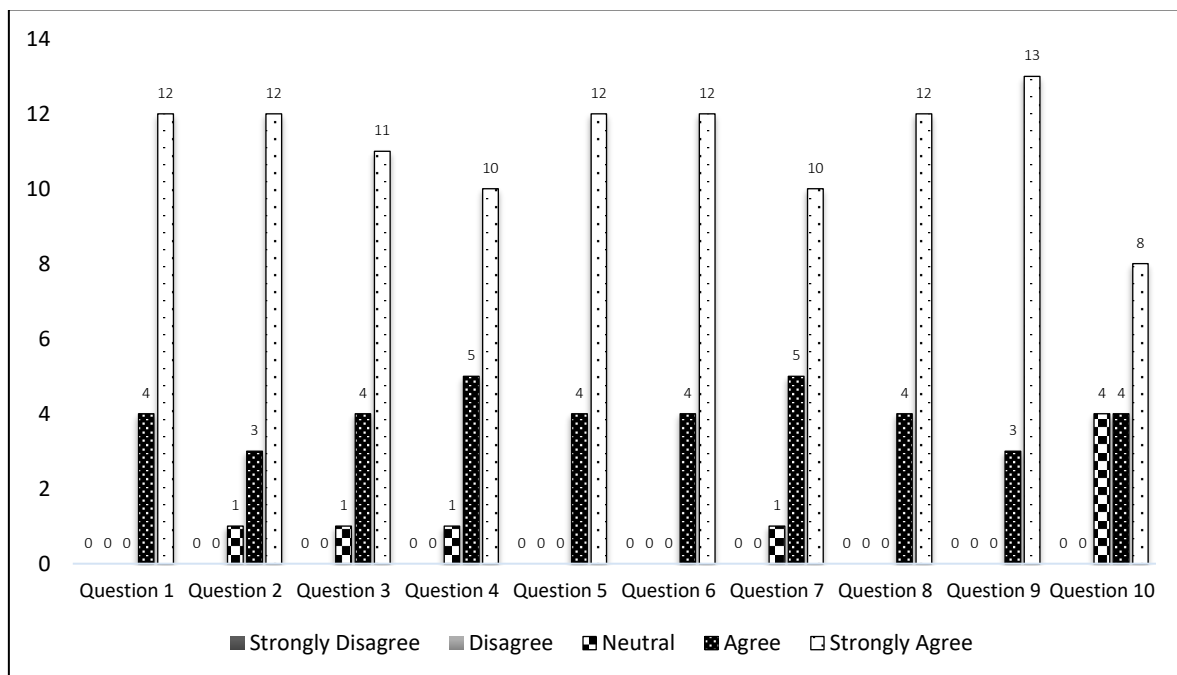


Figure 5. Participants' answers to questions number 1-9 use a Likert Scale to evaluate training activities for crafts from natural materials and plastic waste for child activists and educators.

The results of the second question, namely 6.25% of participants answered neutrally, 18.75% of participants answered agreed, and 75% of participants answered strongly agreed (Figure 5). The percentage of the results can show that the target of the program implemented is right on target in accordance with the objectives and topics presented to participants. Inside is a determinant of the effectiveness of a program that can be seen from the suitability of targets that have been set based on agreed rules or criteria (Princess et al., 2021). Based on the purpose of this webinar, training in the form of this webinar is categorized as having fulfilled the first goal, namely "through the presentation of the material, each participant is able to understand the content and purpose of the material given by the speaker about handicrafts from natural materials and plastic waste". This can be seen from the responses of participants who answered questions 1 and 2 respectively as much as 25% and 18.75% "agreed" and 75% and 75% "strongly agreed" regarding the webinar material was well received by participants and the webinar was right in achieving the program targets.

The results obtained for the third question, namely 6.25% of participants answered neutrally, 25% of participants answered agreed, and 68.75% of participants answered strongly agreed (Figure 5). The differences of opinion expressed by participants indicated a difference in the duration of receiving information to each participant. A student can maximally absorb information with a duration of about 20 minutes (Utami, 2016) while in this webinar activity, the presenter provides explanations to participants for a maximum of 50 minutes. The difference in duration in absorbing information can be the basis for variations in answers given by participants. However, if calculated as a whole, based on the results of affirmative and strongly agreed answers from participants with a total of 93.75%, it can be interpreted that the use of time during the webinar has taken place is quite good.

Figure 5 shows the results of the answer to question number 4 with a percentage of 6.25% of participants answering neutrally, 31.25% of participants answering agreed, and 62.50% of participants answering strongly agreed. This training is conducted online or online. Considering that activities were carried out during a pandemic, training and material delivery were quite limited. In delivering information, it can be done orally (presentations, discussions), visuals (images, graphics, films), and practice (demonstrations, simulations, role plays). The choice of delivery method also needs to be adjusted to the type of event, the number of participants, the purpose of the event, and the context of the event. All selection of event concepts to the delivery of information need to be considered more clearly so that the event can run well and give meaning to each participant. In this training activity, based on existing data, the webinar method used is considered to be good enough. Thus, regarding the use of time and webinar methods, overall it has been able to achieve good activity standards according to the feedback from each participant.

In questions number 5 and number 6, statements are addressed to the speaker. Speakers are evaluated based on their ability to master, deliver material, and answer questions from participants (Figure 5). There is question number 5, showing results of 25% of participants answering agreed and 75% of participants answering strongly agreed about the speaker's ability to master and deliver material. In an event, this condition shows that the speaker can convey and master the material delivered well. A good speaker is a speaker who has the ability to say words in order to convey or state the message needed

by the listener so that what is conveyed can interpret the message (Basuki et al., 2019). Correspondingly, the speaker is said to have to understand the message to be conveyed or communicated in order to be understood by every participant listening (Yanti et al., 2018). Based on these two theories and connected with the results of the evaluation filled in by the participants, it can be concluded that the speaker has been able to master and deliver material about crafts from natural materials and plastic waste well.

The results of the gymnastics evaluation questions showed that 25% of participants answered in the agreed and 75% of participants answered strongly agreed (Figure 5). This result informs that all participants agree that each question can be answered by the speaker properly during the activity. In an information delivery activity, participants can respond to the speaker as a reaction to the message that has been given by the speaker (Yanti et al., 2018). Giving responses from participants to speakers is generally in the form of questions or in the form of appreciation. Good answering ability is shown through the suitability of the answers given with the questions asked by the party asking (Rohita, 2021). Thus, it can be concluded that the speaker has been able to answer the question well from the questions given based on the percentage of affirmative and strongly agreed answers.

The seventh question discusses the ability of the MC to host the event. Based on Figure 5, 6.25% of participants answered neutrally, 31.25% of participants agreed, and 62.50% of participants answered strongly agreed. This means that the MC or wara is quite capable of guiding the event well during the activity based on the responses given by the participants. In everyday life, the ability to speak is an ability that everyone needs to have (Kulsum, 2017). The MC also needs to improve their public speaking skills as a way to develop their abilities. The role of a journalist's speaking ability can be an ability that supports his self-development, influences the world around him, to improve his career (Kulsum, 2017). During the event, the MC has been seen to have good mastery of the event as seen from the smoothness of the MC in leading the course of the event and interacting with participants and speakers. In addition, wara also needs to pay attention to activities related to verbal communication, especially those related to giving messages through the media and the message can be received by listeners (Basuki et al., 2019).

The committee's response when serving participants can be observed in the evaluation results on the seventh question. Figure 5 shows the results regarding the response of participants with a total of 18.75% of participants agreed and 81.25% of participants answering strongly agreed. These results show that the committee's performance is classified as good, because the committee is able to respond well to every participant who will participate in training activities through the implementation of webinars. A good committee is a committee that serves participants to get in touch with the webinar program and is shown through the committee that can receive suggestions, opinions, and ideas from participants. (Saputri et al., 2022) This means that the training committee in this webinar is in accordance with the criteria mentioned by Saputri et al. (2022) because the committee has responded well to proposals from participants by agreeing if the program is possible to do.

Question 10 is a question that needs to be answered by participants directly by writing the answer in the column provided. The results shown in Figure 5 are results that have been classified based on the answers from participants, namely 25% of participants provide input for adding media when explaining so that the explanation is better understood (classified as answering neutrally with point 3), 25% of participants answer that the provision of material is very good and useful for listeners or classified into point 4, namely agreed, and 50% answered the webinar was very useful and hope that there is further practice onsite and classified into point 5. This is a very good condition because most or almost all participants recommend this activity to be held regularly. When the participant recommends that the program be held again regularly, it shows that the program has been implemented successfully and shows the level of satisfaction from the participants. In addition, based on the answers from the participants who recommend the implementation of a program regularly, it shows curiosity about the topics discussed based on the answers on the evaluation sheet and is also supported by questions related to the material presented during the question and answer session. The responses given by participants showed that participants had fulfilled the objectives of this activity, namely through the presentation of material were able to increase their commitment in contributing to sharing this webinar activity with the public.

Questions 1-10 on the evaluation sheet showed excellent results and satisfied responses from participants. Overall, the evaluation given by participants shows that this webinar activity has been able to meet three activity objectives, namely: (1) Through the presentation of the material, each participant was able to understand the content and purpose of the material given by the speaker regarding handicrafts from natural materials and plastic waste; (2) Each participant was able to provide an evaluation for the entire webinar activity carried out as part of the role of humans who are God's crown creation in carrying out cultural mandates; and (3) Through the presentation of the material, he was able to increase his commitment in contributing to sharing this webinar activity with the public. Thus, training activities through this webinar have run well and on target.

CONCLUSION

The conclusion obtained from PKM activities that have been carried out is that education for child activists and education in the post-pandemic period can be carried out online on October 3, 2022. Based on the evaluation given by participants regarding training activities through this webinar, overall results were obtained 5% answered neutrally, 25%

agreed, and 70% answered strongly agreed about the success of the activity. Participants became more interested in the use of natural materials and used plastics to be used as handicrafts that are useful and have selling value as seen from the success in fulfilling all formulations of objectives of the activities carried out.

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Natural sciences and social sciences learning in school garden, Indonesian School of the Haque, Netherlands

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-07-09 Revised: 2023-09-09 Accepted: 2023-09-11 Published: 2023-09-19 Keywords Indonesia School of the Hague Natural sciences School gardens Social sciences	School gardens can be used as a source of student learning for various subjects in an integrated manner to improve student' academic, personal, awareness, and social abilities. By implementing gardening activities students are trained to design, build and develop agricultural hustles at school through cultivating and harvesting the plants that may be consumed and added economic value. The service activity aims to utilize the school garden as a medium for learning natural science and social Science at the Indonesian school of the Hague. Methods of implementing activities consist of preparing materials tools, preparing seeds, clearing land, planting, caring for plants, observing the students' behavior toward school gardens, and evaluating students' understanding of school subject matter based on learning resources in the school garden. Based on students' responses in answering questions related to science material and social science impacts, it shows that both science and social science learning activities in school gardens may assist in an in-depth understanding of the concept of agriculture skills and behaviors of the students.
Kata Kunci IPA IPS Kebun sekolah SIDH	Pembelajaran ilmu pengetahuan alam dan ilmu sosial di kebun sekolah, Sekolah Indonesia Den Haag, Belanda. Kebun sekolah dapat dimanfaatkan sebagai sumber belajar siswa berbagai mata pelajaran secara terpadu untuk meningkatkan kemampuan akademik, pribadi, kesadaran dan sosial siswa. Dengan melaksanakan kegiatan berkebun siswa dilatih merancang, membangun dan mengembangkan usaha pertanian di sekolah melalui budidaya dan pemanenan tanaman yang dapat dikonsumsi dan bernilai ekonomi. Kegiatan pengabdian ini bertujuan untuk memanfaatkan taman sekolah sebagai media pembelajaran IPA dan IPS di Sekolah Indonesia Den Haag. Metode pelaksanaan kegiatan terdiri dari menyiapkan alat bahan, menyiapkan bibit, membuka lahan, menanam, merawat tanaman, mengamati perilaku siswa terhadap taman sekolah dan mengevaluasi pemahaman siswa terhadap materi pelajaran sekolah berdasarkan sumber belajar yang ada di taman sekolah. Berdasarkan respon siswa dalam menjawab pertanyaan terkait materi IPA dan dampak IPS menunjukkan bahwa kegiatan pembelajaran IPA dan IPS di taman sekolah dapat membantu pemahaman mendalam tentang konsep pertanian dan perilaku siswa. Copyright © 2023, Syamsia et al., This is an open access article under the CC-BY-SA
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INTRODUCTION

The learning method with school gardens was known in America in 1891 but experienced a decline in the 1950s and now school gardens are starting to be used again as a medium for educating school children (FAO, 2006); (Wiradnyani et al., 2018). According to (Chan et al., 2022), the effectiveness of using school gardens in increasing knowledge about nutrition, and cultivating students' attitudes and interest in vegetables depends on the type, extent, and duration of the activity.

The school garden is the right place for active learning for various subjects where teachers can use the school garden as a laboratory for conducting experiments and can also be used to study mathematics, English, and art so that the teaching and learning process becomes more interesting (CSGN, 2010; Wiradnyani et al., 2018). School gardens have the potential to improve student learning outcomes (Lohr et al., 2023)

Gardening activities at school can develop children's physical and motor skills, explore objects around them, and learn while playing so that children are active and don't feel bored (Sutrisno, 2005; Windarto et al., 2020). School gardens provide an active learning atmosphere that strengthens academic, personal, and social abilities (Kammar et al., 2017; Wiradnyani et al., 2018) Planting activities in school gardens in addition to increasing accessibility and availability of fruits and vegetables also encourage children to appreciate the products they produce. School garden-based learning can increase environmental awareness, health and welfare of the entire school community and its surroundings (Alexander et al., 2021).

School gardens integrate a hands-on experimental approach and active involvement of students in designing, building maintaining, and developing school gardens with edible plants (Chan et al., 2022). According to (FAO, 2004), school gardens have the main goals for education, economy, and food security. The aim of education is to active learning by linking plants with other subjects, such as mathematics, biology, reading, and writing, teaching environmental issues, including how to grow crops safely without using pesticides. The goal of economics and food security is to accustom students to applying sustainable food production methods that can be applied at home for household food security.

Based on observations, the Indonesian School of the Hague (SIDH) has quite a large area of land and can be used as a school garden to be used as a place of study for SIDH students for science subjects. This service activity aims to train students to understand school subject matter in an integrated manner by utilizing the SIDH school garden. The use of school gardens in science and social studies learning is in line with sustainable development goals (SDGs), especially the goal of ensuring inclusive and quality education throughout life (Gardner et al., 2023), ending hunger, achieving food security, improving nutrition as well as encouraging sustainable agriculture (Lapau, 2015; Kuntariningsih, 2018).

METHODS

This service activity was carried out from March to May 2023 in the backyard garden of Indonesia School of the Hague (SIDH). The stages of implementing the activities were carried out as follows:

Preparation of Materials and Tools

Materials needed for gardening activities include shovels, brooms, water hoses, plastic baskets, plastic, machetes. Materials used in the activity include plant seeds, soil, compost, plant seeds (fruits, vegetables and spices), bamboo sticks, neat ropes.

Land clearing

The location that had been determined for the construction of the school garden that cleaned and then a fence was installed using bamboo strips.

Seeding the seeds

Vegetable seeds that were planted in the school garden were already sown in containers filled with fertile soil.

Planting

Vegetable seeds that had grown in plastic tubs are transferred to the school garden. The seeds that had been planted are labelled and posted on school garden boards.

Maintenance

Plant maintenance was carried out every day by watering, removing grass or weeds that grow around the plants.

Interview

The interview approach was used as a qualitative method to observe the comprehensive information from Indonesian School of the Hague on the impact of the benefits of school garden in the social science aspects.

RESULT AND DISCUSSION

SIDH School Garden

Indonesian School of the Hague (SIDH) is an Indonesian National Education institution in the city of The Hague which is located at Rijksweg 679, 2245 CB, Wassenaar, The Netherlands. SIDH organizes Education Programs at 3 levels of Education namely Elementary School, Junior High School and Senior High School. The SIDH Education Process uses the National Education curriculum so that students who will continue their education in Indonesia can adapt to the conditions of education in Indonesia.

SIDH has a school garden in the backyard of the school building which is planted with various types of vegetable plants and a composting site for organic waste. The types of vegetables planted in the school garden consist of: fruit, vegetable and spice plants. Dried leaves from the school yard are composted using earthworms.



Figure 1. School Garden of SIDH

Natural Sciences Learning Media

Sciences learning materials that can be taught in school gardens such as: green plants, introduction to plant species, plant parts, forms and functions of plant body parts, changes in living things (growth) and plant maintenance. According to (Nurwidodo et al., 2022), school gardens can be used as natural science learning resources, related to material on classification, the structure of plant functions.

Material Types of plants

The types of plants in the SIDH garden are divided into 3 groups, namely: fruit vegetables, vegetables and spices. Fruit plants such as strawberries (Figure 2), vegetable plants such as tomatoes and peas (Figure 3), spice plants such as garlic, mint, raspberries, thyme (Figure 4). The selection of these plants is based on the consideration that plants are harvested faster and easy to maintain. This is almost the same as in school gardens in Bangladesh where vegetables such as tomatoes, onions, broccoli are planted and the selection of plant species is based on considerations of easy maintenance, nutritional content and plant availability (Wiradnyani et al., 2018).



Figure 2. Strawberry



Figure 3. Lettuce, Tomato and Peas



Figure 4. Garlic, Mint, Raspberry, and Thyme

Lessons in the School Garden do not only provide learning experiences about plant types. According to Pollin S and Retzlaff-Furst, (2021), learning in school gardens also provides basic experience about plant cultivation and accidental contact with animals such as soil organisms (earthworms, spiders and woodlice).

Material Parts of Plants

Students study the parts of plants by directly observing the parts of fruit, vegetable and spice plants that have grown in the school garden. The plant parts consist of: leaves, stems, roots, flowers, fruits and seeds. Each plant has a different leaf shape, some have broad leaves like lettuce, some have narrow leaves like rosemary. There are 2 kinds of plant stems, namely: soft stems such as mint and lettuce, hard stems such as raspberries (Figure 5).



Figure 5. Introduction to plant parts

Plant Breeding Materials

Plant reproduction was observed based on the parts of the plants planted in the SIDH school garden. Plants grown by seeds, such as lettuce, tomato, peas, rosmerry, mint, raspberries, thyme are included in generative propagation, while potatoes and garlic grown by tubers are included in vegetative propagation of plants.

Plant Growth and Maintenance Materials

Lessons about changes in living things, plant growth and care by watering are carried out from the beginning until just before harvest. Seeds and tubers planted in plastic containers filled with soil and compost germinate and grow into small plants.



Figure 6. Seed Growth

Small plants that already have several leaves are transferred to the garden and plant maintenance is carried out by watering and weed control, as well as installing stakes for vines such as peas is a lesson related to plant growth and care.



Figure 7. Watering Plant

Direct practical activities in plant maintenance such as watering, controlling weeds and harvesting vegetables in the school garden teach students to be disciplined and patient. According to (Story et al., 2008; Cristian et al., 2014; Chang et al., 2014), maintaining and harvesting plants in school gardens can encourage students to appreciate and value garden products.

Social Science Aspect

Anthropology

As the research observation in this study, school garden may create conducive environment for the students to gain social interaction of learning process and experience in nature and agriculture at school. The existence of school garden program provides the sense of understanding in life associated with gaining student's social development. For instance, the students gather with their peers in learning together in the field, interacting with other members, communicating in the discussion and helping each other to the agricultural activities as planting, cultivating and harvesting the crops. Moreover, the school may conduct any community events as joining field trip and promoting local food to the society surrounding the school.

Learning in school gardens that is designed according to needs can improve social learning because social interaction occurs which can increase emotional competence and asocial skills regarding communication and cooperation, the ability to relate to other people and teamwork (Pollin S and Retziaff-Furst C., 2021), increasing students' cognitive and emotional abilities (Dettweiler et al., 2017; Mason et al., 2022), a calmer environment and student involvement directly impacts academic success, attitudes towards the environment and being able to act ecologically (Rutter, 2000; Kuo et al., 2019).

Phycology

In term of benefits on phycology of school garden that the study observed, the students may develop good attitude, mental tension and anxiety among peers. The student's knowledge on food would be more in depth since the students will understand how the food is processed from the farm and the importance of food nutrition. Hence, their attitude toward food would be very concerned, as they will appreciate the food, and ignore to waste it. Indeed, the aggregation of managing positively the food waste that is started from the small communities, would contribute to the food security and sovereignty.

The results of research by Emily et al., (2021), the use of school gardens in learning has a positive impact on student teamwork and leadership abilities. Likewise, the results of research by Schultz (2022), the implementation of gardens in schools has an impact on the availability, access and consumption of fresh fruit and vegetables as well as students' social and emotional well-being. According to Rabiner et al., (2016), having learning activities in school gardens can provide opportunities and experiences for students to interact with nature which can support the attention process and become the basis for students' academic development.

Economics

Besides the social value and phycological behavior, the role of school garden may also contribute to the student's knowledge in economics. Although, the production of crops planted in the schoolyard is limited and only for student's consumption. However, the teacher also provides the knowledge how agricultural product may generate income or cash. It is very important to gain student's intention to value the food in agriculture. Specifically, students may start to assess the cost of agricultural inputs, determine selling price, market the product to consumer and attain profit. Hence, the students will be more eager to participate in the school garden activity.

Cultivating vegetables in school gardens is very useful for reducing expenses for buying nutritious food (Latifa E. et al., 2014). Outdoor learning specific to nature has measurable socio-emotional, academic and welfare benefits (Mann J, et al., 2022).

CONCLUSION

School gardens can be useful to provide an active and cheerful atmosphere for students in natural sciences and social science subjects. In the science benefits, the study obtained the practical approach on basic agricultural cultivation related to material; green plants, plant types (plant classification), plant parts, forms and functions of plant body parts, plant growth and plant maintenance which includes: watering, fertilizing and pest control. While, the enhancement of social interaction among the students, attitude toward food, and knowledge in marketing economics has received among the students as the contribution in the social science subject.

ACKNOWLEDGEMENTS

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Delivering online community service from community perspective: A critical review

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Article history Received: 2023-07-12 Revised: 2023-09-09 Accepted: 2023-09-11 Published: 2023-09-19 Keywords Community engagement Community service Innovation University community-engagement	<i>This study presents a sharp and critical analysis of community service activities conducted by Indonesian university actors through zoom platform. Since the onset of the 2020 pandemic, community service activities have been compelled to transition to online platforms due to the necessity of maintaining social distancing. Even after the pandemic subsides, some campuses continue to engage in these activities. The research question addressed in this study is whether these methods align with the needs of the community. To answer this question, the study critically analyzes various scholarly articles that explore the implementation of community service through online teaching methods. The use of online media, such as Zoom, for community service training poses challenges from a community perspective. Firstly, it primarily benefits middle to upper-class communities who have the necessary equipment like smartphones or laptops with internet access, which contradicts the goal of reaching marginalized communities with limited resources. Secondly, the online format hinders active participation from both university and community actors, raising concerns about meaningful engagement. Moreover, selecting only a few individuals as representatives of the entire community further complicates community representation in online community service. The case studies lack clarity on how these participants effectively represent their communities and address their needs.</i>
Kata Kunci Keterlibatan komunitas universitas Inovasi Pengabdian masyarakat Perjanjian Komunitas	Pemberian pengabdian masyarakat secara online dari perspektif komunitas: Sebuah tinjauan kritis. Kajian ini menyajikan analisis yang tajam dan kritis terhadap kegiatan pengabdian kepada masyarakat yang dilakukan oleh para pelaku perguruan tinggi Indonesia melalui platform zoom. Sejak awal pandemi tahun 2020, kegiatan pengabdian masyarakat terpaksa beralih ke platform online karena perlunya menjaga jarak sosial. Bahkan setelah pandemi mereda, beberapa kampus tetap melakukan kegiatan tersebut. Pertanyaan penelitian yang diajukan dalam penelitian ini adalah apakah metode ini sejalan dengan kebutuhan masyarakat. Untuk menjawab pertanyaan tersebut, penelitian ini menganalisis secara kritis berbagai artikel ilmiah yang mendalami pelaksanaan pengabdian masyarakat melalui metode pengajaran daring. Penggunaan media online seperti Zoom untuk pelatihan pengabdian masyarakat menimbulkan tantangan dari sudut pandang masyarakat. Pertama, program ini terutama memberikan manfaat bagi masyarakat kelas menengah dan atas yang memiliki peralatan yang diperlukan seperti ponsel pintar atau laptop dengan akses internet, yang bertentangan dengan tujuan menjangkau masyarakat marginal dengan sumber daya terbatas. Kedua, format online menghambat partisipasi aktif dari pihak universitas dan masyarakat, sehingga menimbulkan kekhawatiran mengenai keterlibatan yang bermakna. Selain itu, memilih hanya beberapa individu sebagai perwakilan dari keseluruhan komunitas semakin mempersulit keterwakilan komunitas dalam layanan komunitas online. Studi kasus yang ada kurang jelas mengenai bagaimana para peserta ini secara efektif mewakili komunitas mereka dan memenuhi kebutuhan mereka.

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INTRODUCTION

The implementation of community service as part of university-community engagement (UCE) has been increasingly prevalent at the university and national levels worldwide (Benneworth & Osborne, 2014; Bhagwan, 2018; Koekkoek et al., 2021). This is primarily aimed at reducing barriers between universities and the surrounding communities (Bruning et al., 2006; Chupp et al., 2021; Patsarika & Townsend, 2022). However, when the pandemic occurred in 2020, it became challenging to carry out community service programs that typically involved university actors working and learning directly with the community. Social distancing measures and health concerns during the pandemic have made community service as a part of university program and activities difficult to implement (Rahimah et al., 2020). Similar to the shift from traditional classroom teaching to online platforms (Jin et al., 2021; Mishra et al., 2020), community service activities have also moved online (Ngibad, 2020; Waldner et al., 2012).

However, the implementation of community service in online platform have some barriers (Sumalinog, 2022). Firstly, there are technological barriers, which encompass challenges such as inadequate internet connectivity, limited access to devices, and a lack of technical skills in navigating online platforms. Secondly, attitudinal barriers arise, including issues like procrastination in completing school tasks promptly, difficulties in managing time effectively, and a lack of motivation. Lastly, environmental barriers come into play, involving factors such as disruptive background noise, a scarcity of suitable workspaces, and distractions within the online environment (Sumalinog, 2022).

As a concrete example, community engagement initiatives are undertaken by a healthcare team affiliated with one of the universities in Java Island, Indonesia (Sarilita et al., 2022). The primary objective of these initiatives is to disseminate biological knowledge to educators via the Zoom platform. While these activities have garnered positive feedback from some participants, it is essential to acknowledge that they have also elicited negative responses. Notably, certain participants perceive significant limitations in these initiatives, particularly concerning the restricted interaction between participants and instructors. These limitations have the potential to impede participants' comprehensive understanding of the subject matter (Sarilita et al., 2022).

Moreover, online platform appears to deviate from its ideal mission when considering the objectives of community service itself (Dailey-Hebert et al., 2008). The execution becomes distanced, and the direct interaction between university actors and the community is lost. The essence of community service seems to disappear (Dailey-Hebert et al., 2008).

This study aims to delve deeper into the issue of effectiveness of using online platform to conduct a community service. It seeks to answer the main research question: is the online community service platform aligned with the needs of the community in providing community service? To address this question, the study employs critical and in-depth reflection on cases of community service programs conducted through online teaching.

The study commences with an introduction that sets the stage for the study by providing context and background information, following the research method used. Subsequently, the study proceeds with the presentation of results and discussion sections, which operate in tandem to explore the findings and their implications. Finally, the research culminates with a conclusion that synthesizes the key takeaways.

METHOD

Review studies have been extensively conducted and can serve as standalone research (Boell & Cecez-Kecmanovic, 2015; Knopf, 2006; Kraus et al., 2022). Review studies are typically categorized into two types: systematic and non-systematic (Kraus et al., 2022) or systematic and narrative review (Rother, 2007). Systematic reviews are carried out using rigorous procedures, such as following the PRISMA guidelines (Haddaway et al., 2022; Rother, 2007). Additionally, systematic reviews often employ analytical tools like "Rayyan" and "Publish or Perish" software to aid in the analysis process (Jacsó, 2009; Kraus et al., 2022; Waddington et al., 2012).

Non-systematic literature reviews (non-SLRs) are characterized by the absence of a systematic procedure or protocol (Kraus et al., 2022; Rother, 2007). Instead, these reviews bring together pertinent literature by relying on the author(s)' critical evaluations and subjective choices (Kraus et al., 2022). Through a process of discovery and critique, non-SLRs examine the literature, highlighting inconsistencies, questioning assertions, and challenging beliefs. These reviews are influenced by the author(s)' exposure, expertise, and experience, which shape their judgment calls (referred to as the "3Es") (Kraus et al., 2022). Consequently, non-SLRs essentially serve as critical evaluations of the existing literature (Kraus et al., 2022).

This study adopted a non-systematic review approach to critically examine the implementation of online community service through the analysis of previous articles. To fulfill the judgment *experience* criterion, the author has actively engaged in community service as part of UCE for over 7 years since the inception of this study. Additionally, to meet the judgment *expertise* requirement, the author has published several scholarly articles on community service [see, for example, (Wahyuni & Chariri, 2019)]. Currently, the author is pursuing doctoral studies focusing on UCE, and over the past two years, has extensively reviewed hundreds of scholarly articles on UCE.

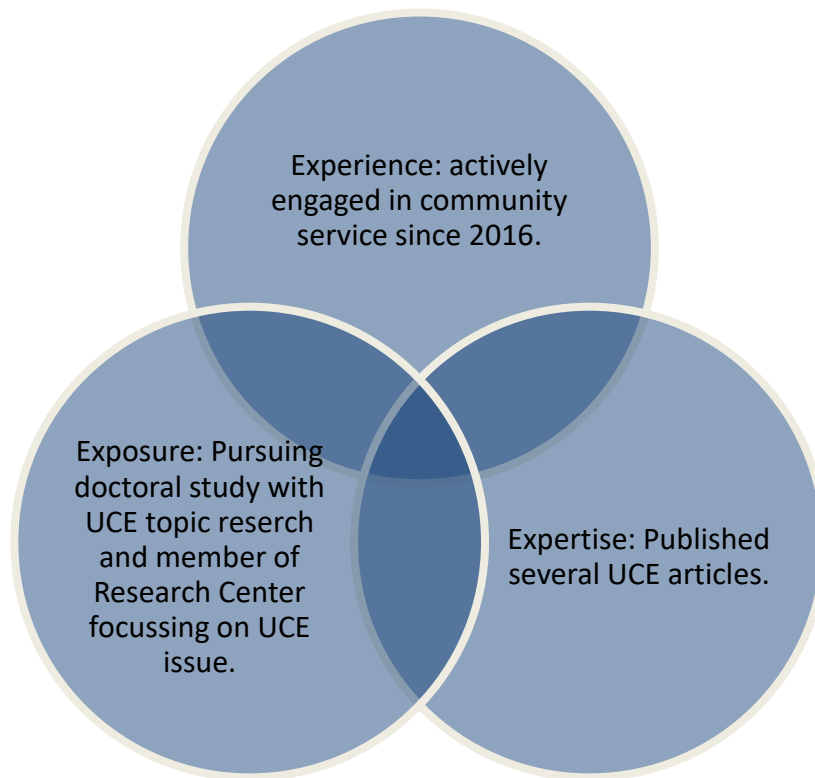


Figure 1. 3Es Judgement of the Author

Furthermore, the author serves as a research member in the Research Center, Faculty of Economics and Business Administration, University of Szeged (see <https://eco.u-szeged.hu/english/faculty/organizational-structure/research-centre/research-centre>). One of the key areas of focus within the research team is the institutionalization of UCE. Through extensive exposure to relevant literature on community service, particularly UCE, as well as collaborations with fellow researchers within the research center specializing in UCE, the author fulfills the judgment *exposure* component (see Fig. 1).

RESULTS AND DISCUSSION

In this section, the data extracted from articles discussing online community service is presented in the results. Subsequently, a critical analysis of the data is elaborated upon in the discussion section. All online training sessions included in this study were conducted using the Zoom platform (Aslamiyah & Dzulquarnain, 2020; Budiarti et al., 2022; Dasmen et al., 2021; Fauziah et al., 2020; Hadiwidodo et al., 2020; Madi et al., 2020; Perkasa & Apriani, 2021; Sarilita et al., 2022; Wulandari et al., 2022). Online training sessions primarily targeted individuals from various organizations, institutions, and government bodies (Budiarti et al., 2022; Dasmen et al., 2021; Sarilita et al., 2022). For example, there were training sessions on ensuring internet security for employees in companies (Dasmen et al., 2021), enhancing specific knowledge for teachers (Sarilita et al., 2022), and improving technology-related skills (Budiarti et al., 2022; Hadiwidodo et al., 2020; Madi et al., 2020).

In one case, a training session on plastic waste management involved independent learning by the community, who were provided with a guidebook by the academic actors (Fauziah et al., 2020). Subsequently, online guidance and discussions were conducted via Zoom, focusing on the community's achievements and challenges. However, the article does not elaborate on whether the academic actors provided solutions to the community's challenges in online meeting (Fauziah et al., 2020).

In another training session (Aslamiyah & Dzulquarnain, 2020), only two individuals representing the target village community participated out of a total of 22 Zoom participants. These two individuals were members of the local youth organization, *Karang Taruna*, while the backgrounds of the other 20 participants were not specified (Aslamiyah & Dzulquarnain, 2020). This imbalance in community representation raises questions about the effectiveness of their representation and the overall community engagement in the training session.

Additionally, in a different training session (Perkasa & Apriani, 2021), 25 participants attended an informative session on waste management. However, no details were provided regarding the participants' age, gender, or their roles within the community (Perkasa & Apriani, 2021). Thus, the article lacks clarity on community representation in both of these community service cases.

In another training session conducted via Zoom, a hybrid community service approach was adopted (online and in-person method) (Wulandari et al., 2022). Three university lecturers engaged in community service for a small-scale shoe production business. However, all three lecturers were not physically present at the company's location during the community service activities. Consequently, the training on calculating the cost price of the shoe products was conducted online. The article did not include screenshots of the company employees participating in the Zoom training session; only two screenshots of the lecturers' faces were provided. Towards the end of the mentoring period, one of the lecturers visited the shoe company to teach the owner how to calculate the cost price of their products. The evaluation indicated that the owner, who had previously been selling shoes based on market prices without accounting principles, learned to calculate the cost price of shoes following the training. However, it was not explained why the existing method, which allowed the business to survive for more than 30 years (1990-2022), needed to be changed to align with the "academic knowledge" possessed by the university actors. The authors stated that the business had been operating smoothly with a continuous cash flow (Wulandari et al., 2022), raising further questions about the need for a change in methodology.

The participants of the online training sessions were individuals who were already employed and had better abilities, educational levels, and economic status compared to marginalized communities such as beggars and street children. See, for example the online training of community service: (Budiarti et al., 2022; Dasmen et al., 2021; Hadiwidodo et al., 2020; Madi et al., 2020). From the cases, online training requires specific resources and facilities. At the very least, participants must have a laptop or smartphone and internet access to participate in and apply the outcomes of the training (Budiarti et al., 2022; Hadiwidodo et al., 2020; Madi et al., 2020). Therefore, the criteria for online training participants, who are from middle to upper-class communities, align with the online medium that requires the availability of online equipment.

This indicates that these online training as a part of community service program, are conditional. In other words, online community service is inaccessible to poor communities that do not have access to laptops, smartphones, and internet access. This means that community service activities are only suitable for certain communities: those that have the means to access online resources.

However, one of the main objectives of community service itself is to empower urban poor communities (Benneworth & Osborne, 2014; Research and Community Service Team, Directorate of Research, Technology, and Community Service, Academic Directorate of Vocational Higher Education, 2023). Community service programs as part of UCE are expected to empower the surrounding communities, particularly those who have limited access or are considered hard to reach (Benneworth & Osborne, 2014). This becomes challenging, if not impossible, for impoverished communities if they need to provide their own laptops or smartphones to participate in the training programs.

For some communities in Indonesia, affording daily meals is a struggle (Mukhtar et al., 2019; Suyanto, 2001). They even have to borrow money to meet their daily needs (Suyanto, 2001). This means some Indonesian society still face the poverty problems until now. Therefore, advanced smartphones, let alone laptops, are luxury items for impoverished communities in Indonesia, where the average daily expenditure is 17,851 IDR (1 USD) (Alaydrus, 2023).

Furthermore, a critical observation of all these online community service activities is that there is a lack of active participation from both actors: the community and the university side. In one community service activity, the university team only provided a guidebook to the community and expected them to carry out the training independently (Fauziah et al., 2020). The university team evaluated the outcomes of the community's work through Zoom meetings (Fauziah et al., 2020).

In another online training session, out of the three lecturers involved in the community service team, all of them were located in different places from the target community (Wulandari et al., 2022). One of the lecturers then made a single visit to the community. The limited active involvement like this contradicts the best practices of community service, which recommend active engagement in the program. Active participation is even emphasized by many researchers as a key to the success of community service programs (Frank & Sieh, 2016; Lewis et al., 2016; Petersen & Kruss, 2021).

Furthermore, in terms of community representation, it is fragile to include only two individuals and label them as representatives of an entire village (Aslamiyah & Dzulquarnain, 2020). The needs and desires of a group are diverse, especially in cases where the target is not a small group but a larger community, such as a village. In another case involving 25 participants (Perkasa & Apriani, 2021), specific information about their identities and roles was not provided, making it difficult to understand how these 25 individuals represented their community.

The issue of community representation is complex (Málovics et al., 2021). Those who represent the community may not necessarily voice the needs of the community (Málovics et al., 2021). It is important to carefully select individuals, if necessary, to be included in community service activities and refer to them as "representatives." The best approach is to involve all members of the targeted community to ensure that all voices are heard. However, this is not easy and requires significant effort from academic actors, especially when the representation needs to be achieved through online means.

CONCLUSION

The use of online media, such as Zoom, as a platform for conducting training as part of community service activities presents challenges, particularly from the community perspective. Firstly, this approach is only suitable for middle to upper-class communities in Indonesia who can afford the necessary equipment to participate in Zoom meetings. Community actors need to have smartphones or laptops with internet access. This misaligns with the goal of community engagement, which aims to reach marginalized communities with limited access to such resources. Secondly, there is an issue regarding the level of engagement in the program. Online implementation limits the active participation of both university and

community actors. It is difficult to imagine active engagement in activities that rely solely on Zoom meetings, especially when only a portion of individuals is considered as representatives of the entire community. This leads to the third issue concerning the representation of the community in online community service. The included case studies do not clearly demonstrate how the participants in the online meetings can effectively represent a specific community. There is a lack of explanation regarding the characteristics of the participants and how their representation adequately reflects the needs of the community.

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The effect of the marketing mix on purchase decisions and customer satisfaction

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-09-08 Revised: 2023-09-18 Accepted: 2023-09-19 Published: 2023-09-20 Keywords Customer satisfaction Marketing mix Purchase decision	<i>Purchasing decisions and customer satisfaction are what determine marketing. This study aimed to analyze the effect of marketing mix variables of price, place, and promotion on purchase decisions and customer satisfaction at SDS Nusantara of Batam City. The research method used was quantitative method with data collected using questionnaires distributed directly to 150 respondents and using accidental sampling. The data processing analysis used in this research was SemPLS 3.2.9 application. The results of this study found that the price, place and promotion variables had a positive and significant effect, then the price, place and promotion variables also had significant and positive effect on customer satisfaction, finally the purchase decision had a positive and significant effect on customer satisfaction.</i>
Kata Kunci Bauran pemasaran Kepuasan pelanggan Keputusan pembelian	Pengaruh bauran pemasaran terhadap keputusan pembelian dan kepuasan pelanggan. Keputusan pembelian serta kepuasan pelanggan merupakan hal yang menentukan pemasaran. Penelitian ini bertujuan untuk melihat pengaruh marketing mix variable price, place, dan promotion terhadap keputusan pembelian serta kepuasan pelanggan di SDS Nusantara Batam. Metode penelitian yang digunakan metode kuantitatif dengan data yang di kumpulkan menggunakan kuesioner di sebarakan secara langsung kepada 150 responden dan menggunakan accidental sampling. Analisis olah data yang digunakan dalam penelitian ini aplikasi SemPLS 3.2.9. Hasil penelitian ini menyatakan bahwa variabel harga, tempat dan promosi berpengaruh positif dan signifikan kepuasan pelanggan. Variabel harga, tempat dan promosi juga berpengaruh signifikan dan positif pada kepuasan pelanggan. Keputusan pembelian memiliki pengaruh positif dan signifikan pada kepuasan pelanggan.

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INTRODUCTION

In general, the term marketing is familiar in the business world, such as in office companies, online or offline shop businesses, and many others, and where there is a target market that you want to achieve in order to create a good marketing strategy to compete and survive. In addition to the fact that this business sector is marketable, the large number of primary school educational institutions, both private and public, creates intense competition (Appel et al., 2020; Dwivedi et al., 2021; Lockett & Lockett, 2018). To address this issue, every educational institution, particularly elementary schools, must develop an effective marketing strategy to entice prospective students' parents to enroll in the appropriate school (Li & Hung, 2009; Tah & Knutes-Nyqvist, 2022; Uchendu et al., 2015).

In Indonesia, formal education is divided into three levels: primary education, secondary education, and higher education. Basic education is the most important phase of a child's education because children who are entrusted to elementary school do not yet have knowledge or experience, and it is also where children are first taught to be brave, speak up, and be responsible for themselves (Kusumo et al., 2022; Munro, 2013; Wahyudi & Che Noh, 2019). Whereas in primary school, children are taught to read, count, and train students' psychometrics. Students, parents, and the community all use educational services in the world of education. The marketing mix, which includes the product, promotional price, location, process, physical evidence, people, references, family, institutional image, and culture, influences the decision to choose a school (Asiah et al., 2022; Iskandar et al., 2021; Wati & Satrio, 2015).

Furthermore, marketing mix as a marketing tool used to achieve company targets or goals, which means that there are variables or elements in the marketing mix that companies use to attract potential buyers to use the services or products offered by the company so that the company's target market or goals are implemented (Ellitan, 2021; Sohrabi et al., 2017). The first marketing mix variable examined in this study is price, which includes the match between service rates and affordability or suitability for the services you want to get. So, when companies or institutions set prices for consumers, they can guarantee the quality of the products or services offered, ensuring that customers are satisfied with what is being offered (Jindo et al., 2020).

The company has decided on a strategic location for offering products or services to consumers. A convenient location supports the company's buying and selling process, makes it easy to find school locations, provides a sense of security for students attending school, and provides supporting facilities at school locations such as parking lots and seating for parents when picking up her child (Marendra, 2018). Promotion is one of the variables, particularly in the marketing mix for industry in marketing products and services. Promotional activities are not only used to communicate between consumers and industry, but can also influence consumers to carry out purchasing activities that meet their needs and desire (Al Badi, 2018; Jaya et al., 2020; Karsono & Salma, 2023; Putra et al., 2020).

Customers' purchase decisions are expected to result in customer satisfaction with the products and services they have purchased. Because customer satisfaction is felt when the results perceived or obtained meet or exceed the customer's expectations. The company's customer satisfaction is capable of eliciting a positive response from customers. This can benefit the company because it creates a favorable image in the customers' eyes. If parents or the community are interested in enrolling their children at SDS Nusantara for various reasons such as price, location, and promotions offered by the school, they will buy it; however, if the price, location, and promotions do not meet the criteria, they will not register their child. After they register their children, the school must meet the expectations of the people or the community so that they feel satisfied and decide to buy back or advise others about SDS Nusantara.

The marketing concept that has been used so far needs to be redefined. This is the marketing era of 2030, which will play an important role on the Indonesian marketing stage and is related to Sustainable Development Goals (SDGs), generation Z, and metaverse technology. The interaction of these three issues will be the driving force for a new era of marketing in 2030 (Kartajaya, 2022). This aspect needs attention in the field of education (Galiano-Coronil et al., 2023). Social marketing interventions are effective in solving social problems and the deadline for achieving the SDGs is approaching, it is important to see the extent of the contribution of the marketing sector in achieving the SDGs by 2030 (Delvaux & Van den Broeck, 2023).

Based on the background above, the researcher limited the problem in order to avoid expanding the discussion or problems in this research in order to achieve the desired results. This allows researchers to concentrated solely on the effects of price, location, and promotion on customer satisfaction through purchasing decisions. Therefore, this research aims to see the influence of the marketing mix variables price, place and promotion on purchasing decisions and customer satisfaction at SDS Nusantara Batam.

METHOD

This research uses descriptive qualitative research design, to look at the influence of sales, sales, marketing, promotions on purchasing decisions and customer sales and to describe the factors of sales in the objects studied by the researcher. The descriptive qualitative research method which is usually used is a survey research method in the library which is usually used to collect data by using a questionnaire to 150 respondents directly in the questionnaire and also by using Structural Equality Modeling (SEM) and Partial Least Square (PLS). This research site was carried out at SDS Nusantara Tanjung Uncang, Batu Alji, Batam. This school is located in Perumahan Putera Jaya C/20-30. The data collection technique in this research uses accidental sampling.

The researcher used a descriptive qualitative research design in this study to analyze the influence of sales, marketing, marketing, promotion, purchasing decisions, and customer satisfaction, as well as to describe the sales and marketing factors of the object being studied. The descriptive qualitative research method that was commonly used in the library was a survey research method in which data was collected by using a questionnaire to 150 respondents directly in the questionnaire and also by using Structural Equality Modeling or SEM based on Partial Least Square (PLS). This study was conducted at SDS Nusantara Tanjung Uncang, Batu Aji District, Batam. This school is in Putera Jaya Block C, numbers 20 and 30. The data collection technique used in this research was sampling samples.

The questionnaire for this study was distributed to students and alumni of SDS Nusantara. The total population in this research was 235 people based on this distribution, and the researchers used the Slovin formula in the sample, totaling 150 respondents. The Partial Least Square (PLS) method and the SmartPLS 3.0 software support tool were used to

analyze the research model. There were two basic model evaluations in this test, namely the outer model and the inner model.

RESULTS AND DISCUSSION

Discriminant validity

Measurement of cross loading factors can reveal discriminant validity; if the correlation of the construct with the main measurement (each indicator) is greater than the size of other constructs, the variable is said to have high discriminant validity. The Table 1 illustrates the discriminant validity test. Comparing the square root of the average variance extracted (AVE) for each variable with the correlation between the variable and other variables in the model is one method for assessing discriminant validity. If the square root of AVE for each variable is greater than the correlation between the variable and other variables, the model has sufficient discriminant validity.

Table 1. Result of discriminant validity

Research Variable	AVE	Correlation				
		Price (X ₁)	Place (X ₂)	Promotion (X ₃)	Purchase Decision (Y ₁)	Customer Satisfaction (Z)
Price (X ₁)	0.653	0.808				
Place (X ₂)	0.635	0.741	0.797			
Promotion (X ₃)	0.650	0.422	0.551	0.806		
Purchase Decision (Y)	0.568	0.606	0.624	0.601	0.753	
Customer Satisfaction (Z)	0.589	0.601	0.697	0.604	0.652	0.768

All variables in the model tested met the discriminant validity criteria, which can be explained. Assessing the validity of the variables in the AVE value showed discriminant validity testing. If the AVE of each variable was greater than 0.50, the model was said to be good.

Composite reliability

The Composite Reliability (CR) value and Cronbach's Alpha can be used for reliability testing in Partial Least Square (PLS). The Table 2 are the results of the reliability tests recapitulation.

Table 2. Result of instrument reliability research

Variable	Composite Reliability	Cronbach's Alpha
Price (X ₁)	0.944	0.933
Place (X ₂)	0.940	0.928
Promotion (X ₃)	0.943	0.932
Purchase Decision (Y)	0.940	0.931
Customer Satisfaction (Z)	0.953	0.946

The Composite Reliability (CR) value was > 0.7, and the Cronbach's Alpha value was > 0.6, indicating that the test was reliable. The composite reliability and Cronbach's alpha output resulted for the variables price, place, promotion, purchasing decisions, and customer satisfaction were all greater than 0.70. As a result, it was possible to explain why all variables were reliable. As a result of the validity and reliability tests performed on indicators on five variables, it was concluded that all instruments used passed the validity and reliability tests.

R – square

There were two dependent variables in this structural model: purchase decision (Z) and customer satisfaction (Y). Table 3 shows the determination coefficient (R²) for each dependent variable.

Table 3. R-square value of dependent variable

Variable	R-square	R-square Adjusted
Purchase Decision (Y)	0.954	0.953
Customer Satisfaction (Z)	0.868	0.865

According to Table 1.3, the model of the impact of price, location, and promotion on purchasing decisions had an R-square value of 0.954, indicating that the variability of the purchasing decision variable can be explained by the variability of the price and place variables. Place and promotion accounted for 95.4 percent of the variance, with the remaining 4.6 percent explained by variables other than those studied. Furthermore, the model of the influence of price, place, promotion, and purchasing decisions on customer satisfaction yielded an R-square value of 0.868, indicating that the variability of the price and place variables can explain the variability of the customer satisfaction variable. Place, promotion, and purchasing decisions accounted for 86.8 percent of the total, with other variables other than those studied accounting for 13.2 percent.

Q – square

Q-square analysis was used to determine whether the observed values were correctly reconstructed and whether the model had predictive relevance. To assess how well the model produced observation values as well as estimated parameters, Q-square must be calculated as follows:

$$\begin{aligned} Q^2 &= 1 - (1 - (R_1)^2) (1 - (R_2)^2) \\ &= 1 - (1 - 0,954) (1 - 0,868) \\ &= 1 - (0,046) (0,132) \\ &= 1 - 0,006 \\ &= 0,994 \end{aligned}$$

Q2 value had value with range of $0 < Q2 < 1$, where the closer it is to one, the more accurate the model. The outcomes of these calculations obtained Q2 value was 0,994 as a result, it can be concluded that the model has good predictive relevance.

Result of Goodness of Fit (GoF) Test

Table 4 shows that the average value of R Square is 0.911, and the average value of communality is 0.619, so the Goodness of Fit calculation yields the following results (Formula 1).

Table 4. Result of goodness of fit test

	Average Variance Extracted (AVE)	R Square
X1 (Price)	0.653	
X2 (Place)	0.635	
X3 (Promotion)	0.650	
Y (Customer Satisfaction)	0.568	0.954
Z (Purchase Decision)	0.589	0.868
Average	0.619	0.911

$$\begin{aligned} GoF &= \sqrt{Communality \times R^2} \\ &= \sqrt{0.619 \times 0.911} = 0.751 \end{aligned}$$

Based on the above Goodness of Fit (GoF) calculation results, a GoF value of 0.751 was obtained, implying that the model that can be used in this research had a relatively high suitability for the research model.

Results of Direct Effect Test

The relationship between variable x and the purchasing decision variable z is shown by 0.318 x1, 0.578 x2, and 0.151 x3, and the value is positive, indicating that the 3P variable has an influence on purchasing decisions, for the r square value between variables x and z. of 0.868, then the r square value between price, place, and promotion and purchasing decisions has an effect on customer satisfaction of 0.954 (Figure 1).

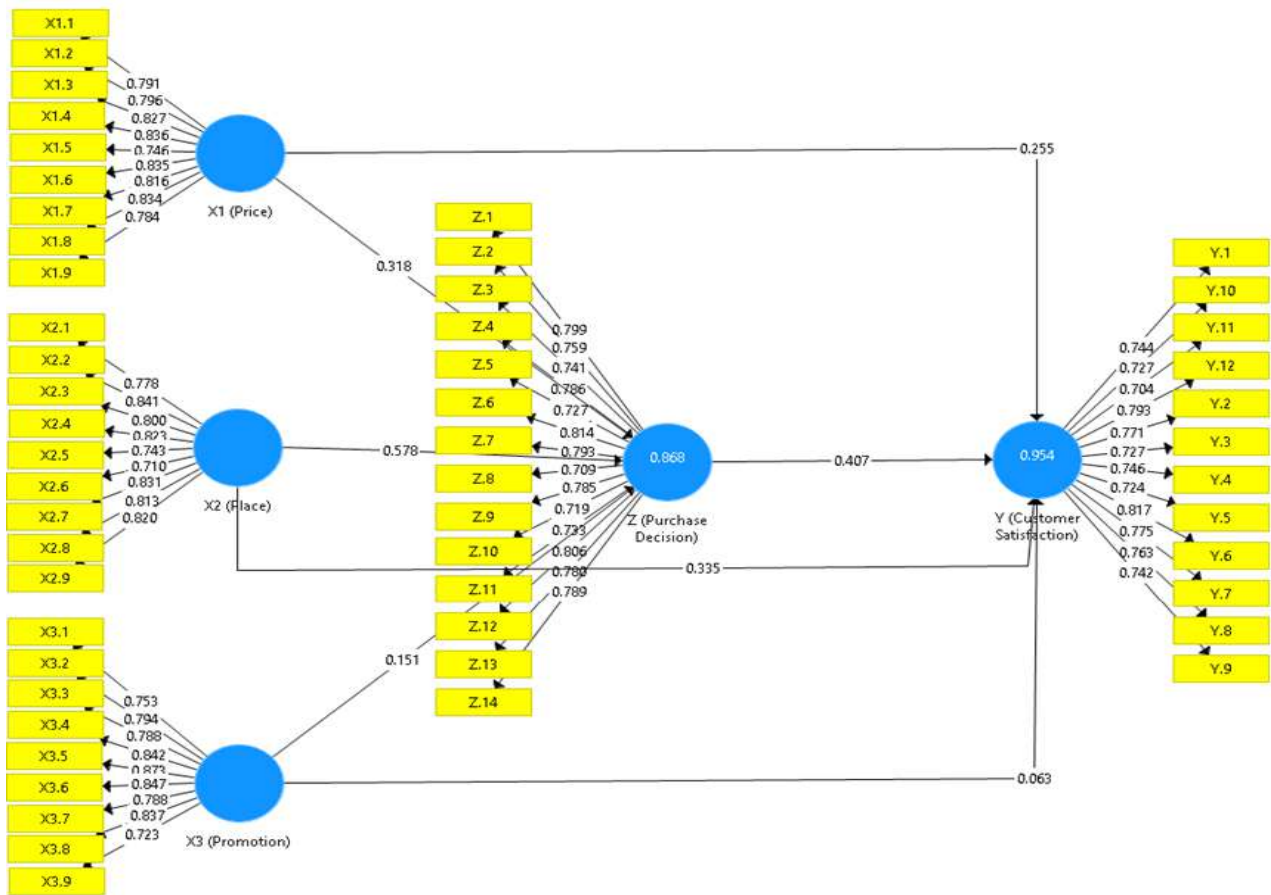


Figure 1. Empirical model of PLS algorithm

The results of the path coefficient validation test on each path for direct influence are shown in the Table 5.

Table 5. Result of direct effect test (path coefficient)

No.	Relationship Between Variables	Path Coefficient (Bootstrapping)	T Statistic	P Value	Description
1	X1 (Price) -> Y (Customer Satisfaction)	0.255	7.968	0.000	Significant
2	X1 (Price) -> Z (Purchase Decision)	0.318	5.782	0.000	Significant
3	X2 (Place) -> Y (Customer Satisfaction)	0.335	6.817	0.000	Significant
4	X2 (Place) -> Z (Purchase Decision)	0.578	12.462	0.000	Significant
5	X3 (Promotion) -> Y (Customer Satisfaction)	0.063	2.027	0.043	Significant
6	X3 (Promotion) -> Z (Purchase Decision)	0.151	4.114	0.000	Significant
7	Z (Purchase Decision) -> Y (Customer Satisfaction)	0.407	6.774	0.000	Significant

The effect of price on purchase decisions

The results of table 1.3 show a positive path coefficient of 0.318 with a t-statistic of 5.782 (t-statistic > 1.96) and a p value of $0.000 < 0.050$, proving hypothesis 1 (H1). The findings can be interpreted to mean that the better consumers' price perception, the more purchasing decisions they will make. Previous research has found that the price variable has a significant impact on purchasing decisions (Oktavianus, 2022). If the income of the respondents' data answers is Rp. 2,600,000-4,000,000, then the selling price at SDS Nusantara is in line with the economic situation of the parents there, so they decide to enroll their child.

The effect of place on purchase decisions

This was showed by a positive path coefficient of 0.578, a t-statistic of 12.462 (t-statistic > 1.96) and a p value of 0.000 < 0.050, proving hypothesis 2 (H2). The findings can be interpreted to mean that the better the consumer's perception of available locations, the more purchasing decisions would be made. Previous research also indicated that this location variable had a significant and widely accepted influence on purchasing decisions (Pramisti, 2022). Looking at the responses, we can see that they see a large school parking area. It can be assumed that if the school had a large parking area, when parents wanted to bring their children, they felt safe, it was not complicated, and students could exercise freely.

The effect of promotions on purchase decisions

This was showed by a positive path coefficient of 0.151, a t-statistic of 4.114 (t-statistic > 1.96) and a p value of 0.000 < 0.050, proving hypothesis 3 (H3). The findings can be interpreted to mean that the better the respondent's perception of the promotion, the more purchasing decisions they would make. Previous studies found that promotions had a significant and positive influence on purchasing decisions (Vincencia & Christiani, 2021). If we look at the respondents' responses to the promotion variable, which indicated that SDS Nusantara's promotions made it easier for them to learn about this school, we can conclude that SDS Nusantara did a good job of promoting so that parents decided to enroll their children in this school.

The effect of price on customer satisfaction

This was showed by a positive path coefficient of 0.255, a t-statistic of 7.968 (t-statistic > 1.96) and a p value of 0.000 < 0.050, proving hypothesis 4 (H4). The findings can be interpreted to mean that the better consumers' price perception, the higher their customer satisfaction. Previous research by Aisyah et al (2022) found that price has a significant impact on customer satisfaction. So, if the SDS Nusantara school has implemented prices that are in line with customer expectations, they will be pleased.

The effect of place on customer satisfaction

This was showed by a positive path coefficient of 0.335, a t-statistic of 6.817 (t-statistic > 1.96) and a p value of 0.000 < 0.050, proving hypothesis 5 (H5). The findings can be interpreted to mean that the better the consumer's perception of the available options, the higher the level of customer satisfaction. According to previous research, identifying place variables on customer satisfaction had a significant influence, with the results stating that variable x and variable y had a significant influence (Nisa, 2020). Given that the respondents were pleased with the facilities and the SDS Nusantara Building, it can be assumed that SDS Nusantara could provide good premises or facilities.

The effect of promotions on customer satisfaction

This was showed by a positive path coefficient of 0.063, a t-statistic of 2.027 (t-statistic > 1.96) and a p value of 0.0430 < 0.050, proving hypothesis 6 (H6). The findings can be interpreted to mean that the higher the respondent's perception of the promotion, the higher the customer satisfaction. Previous research found that promotional variables had a positive and significant impact on customer satisfaction (Setiawan & Suparto, 2020). Based on the responses of the respondents, we can conclude that parents are satisfied with the distribution of brochures by SDS Nusantara so that they can see and learn about the information.

The effect of purchase decisions on customer satisfaction

This was showed by a positive path coefficient of 0.407, a t-statistic of 6.774 (t-statistic > 1.96) and a p value of 0.000 < 0.050, indicating that hypothesis 7 (H7) can be proven. The findings can be interpreted to mean that the higher the level of purchasing decisions, the higher the level of customer satisfaction. Earlier research found that purchasing decisions had a significant impact on customer satisfaction (Nurakhmawati et al., 2022). According to the data responses of the respondents, parents have decided to enroll their next child at SDS Nusantara Batam.

CONCLUSION

This research provides an illustration that (1) Price is proven to have a positive and significant effect on purchase decisions; (2) Place has a positive and significant effect on purchasing decisions; (3) Promotion is proven to have a positive and significant effect on purchase decisions; (4) Price is proven to have a positive and significant effect on customer satisfaction; (5) Place is proven to have a positive and significant effect on customer satisfaction; (6) Promotion has a significant effect on customer satisfaction; (7) Purchase decision is proven to have an effect on customer satisfaction. So, based on the hypothesis testing results, it can be concluded that the variables x1 price, x2 place, and x3 promotion had a positive and significant influence on purchasing decisions at SDS Nusantara Batam, and that the variable customer satisfaction also had a positive and significant influence on purchase decisions, price, place, and promotion.

Based on the research findings and conclusions, the following suggestion can be given: SDS Nusantara must keep and improve prices, locations, and promotions. In terms of price, it is better to keep it and adjust it to the economic conditions

of the community as time passes. For the SDS Nusantara site, it can improve school facilities and conditions, increasing the confidence of parents or the surrounding community that their children are entrusted to a safe school, and then it can be more effective for promotion. Because technological advancements have advanced, schools can also use other social media and rely on activities that make the school known outside of the area.

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Teacher professional development: "Be a force for good"

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-07-27 Revised: 2023-09-19 Accepted: 2023-09-20 Published: 2023-09-21 Keywords Canva Learning Media Training Teacher	<i>The teacher's lack of understanding of the use of technology in the classroom seems to be inversely proportional to the Merdeka Curriculum which requires teachers and students to be able to keep up with technological developments. Therefore, training on the use of the Canva application as a learning medium for elementary school teachers in Magelang was carried out as teacher professional development effort. The aim of this community service is to train elementary school teachers so they can develop their professionalism in developing interactive learning media that suits students' needs in the current era. By carrying out this community service in three different schools with a total of 22 participants, several stages were carried out. These stages consist of analyzing community problems, identifying problems, finding solutions to problems, preparing activities, implementing activities, evaluating activities and results. The evaluation results of this training activity showed that not only can the participants become more familiar with the Canva application, they are also trained to be able to design learning media in the form of presentations and videos using Canva. The participant satisfaction survey also showed positive results, in fact all participants agreed that they would continue to use Canva as a technology for designing learning media in the future. The root of this solution will certainly have an effect on the students' understanding of the participants later. If students have good academic achievements, they will become the next generation of the nation who can solve problems in this country, including poverty. However, this study was also conducted as a form of community service report which hopefully still can be a guideline and reading material for researchers regarding community service out there.</i>
Kata Kunci Canva Guru Media Pembelajaran Pelatihan	Pengembangan profesi guru: "Jadilah kekuatan untuk kebaikan". Kurangnya pemahaman guru terhadap pemanfaatan teknologi di kelas rupanya berbanding terbalik dengan Kurikulum Merdeka yang menuntut guru dan siswa untuk mampu mengikuti perkembangan teknologi. Oleh karena itu, pelatihan penggunaan aplikasi Canva sebagai media pembelajaran bagi guru SD di Magelang dilaksanakan sebagai upaya pengembangan profesi guru. Tujuan dari pengabdian kepada masyarakat ini adalah untuk melatih guru-guru sekolah dasar agar dapat mengembangkan profesionalismenya dalam mengembangkan media pembelajaran interaktif yang sesuai dengan kebutuhan siswa di era saat ini. Dengan dilaksanakannya pengabdian masyarakat ini di tiga sekolah berbeda dengan jumlah 22 peserta, dilakukanlah beberapa tahapan. Tahapan tersebut terdiri dari menganalisis permasalahan masyarakat, mengidentifikasi permasalahan, mencari solusi permasalahan, mempersiapkan kegiatan, melaksanakan kegiatan, mengevaluasi kegiatan dan hasilnya. Hasil evaluasi kegiatan pelatihan ini menunjukkan bahwa peserta tidak hanya dapat lebih mengenal aplikasi Canva, namun juga terlatih untuk mampu merancang media pembelajaran berupa presentasi dan video dengan menggunakan Canva. Survei kepuasan peserta juga menunjukkan hasil yang positif, bahkan seluruh peserta sepakat akan terus menggunakan Canva sebagai teknologi perancangan media pembelajaran di masa yang akan datang. Akar dari penyelesaian ini tentu akan berpengaruh pada pemahaman siswa dari para peserta nantinya. Jika siswa mempunyai prestasi akademik yang baik, maka mereka akan menjadi generasi penerus bangsa yang mampu menyelesaikan permasalahan di negeri ini, termasuk kemiskinan. Namun, penelitian ini juga dilakukan sebagai bentuk laporan pengabdian kepada masyarakat yang tetap diharapkan dapat menjadi pedoman dan bahan bacaan bagi para peneliti mengenai pengabdian kepada masyarakat di luar sana.

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INTRODUCTION

The best vehicle to end poverty and create a prosperous community is education. According to Indonesian Minister of National Development Planning/Head of BAPPENAS, Mr Suharso Monoarfa, the poverty rate decreased in 2015–2019; however, the Covid-19 Pandemic caused it to spike in 2020 (Antara, 2022). The goal of the Indonesian president is to eradicate extreme poverty by 2030. The poverty rate did decline between 2015 and 2019 but climbed in 2020 as a result of Covid-19. It is in line with the Sustainable Development Goals (SDGs), also known as the Global Goals, which were created in response to the Millennium Development Goals (MDGs) and aim to eradicate all forms of poverty. The new Goals are distinctive in that they urge action from all nations, rich and poor alike, to advance development while preserving the environment. They understand that in order to alleviate poverty, policies that promote economic growth and provide for a variety of social needs, including education, are required (United Nations, 2015). Consequently, one of the most crucial methods to achieve that goal is through high-quality education. It is clear that education may help the poor have higher earning potential and become more productive (Nasir & Nazli, 2000). According to Thapa (2015), education is a tool that empowers all people, but the poor particularly need it. By combating illiteracy, fostering positive attitudes, and increasing their level of productivity, it empowers them. The end consequence is an improvement in production and, consequently, the earning potential of the poor. As a result, the most crucial element in reducing poverty is education. Education increases a person's earning capacity, and higher earnings will unquestionably assist a person in escaping poverty (Awan et al., 2011). However, the SDGs Report (2016) states that the 2030 agenda contains targets on preliminary, secondary, vocational, and university education as well as youth and adult reading and numeracy realizes that elementary education is far from sufficient in today's society. Therefore, improving education quality, especially in elementary schools, has become increasingly important nowadays.

The fourth of the seventeen goals of SDGs are to ensure inclusive and high-quality education and to encourage opportunities for lifelong learning for everyone (United Nations, 2015). The focus of education is on the teachers in connection to this objective. It is because teachers are the classroom's most knowledgeable individuals in the classroom. The teacher is acknowledged as having the biggest impact on the success of the class, according to Shymansky (1978) despite the fact that there are many other aspects that contribute to effective classroom education. However, according to the 2018 U.N. report on Goal 4's development, one of the major issues threatening the possibilities for high-quality education for everyone is a lack of professional teachers (United Nations, 2018). According to a survey by Amin and Greenwood (2018), there are a variety of obstacles to successful teaching, such as a shortage of educated teachers and household poverty. Once more, this study demonstrates a connection between education and poverty. Therefore, it is essential that teachers receive professional development and training. It is because, in the opinion of Redman et al. (2018), professional development and sustainable development are dependent factors or covariates, which means that these two variables or cofactors are positively associated to one another and move in tandem. In the student's aspect, raising teaching performance may be the policy path most likely to result in significant improvements in student learning from the perspective of the student (OECD, 2005). As stated by Postholm (2012), teachers' learning or how they learn to learn and how they apply their knowledge in practice to support students' learning is what is meant by teacher professional development. Never in the history of education has the professional development of teachers been given a greater priority, according to Guskey & Huberman (1995). In addition, Saxena (2012) also said that teacher development programs helped the students they taught and ultimately strengthened the educational system. Therefore, in order to provide effective classroom teaching and learning that results in high-quality education, teacher professional development is required. Professional development for teachers is a crucial component of educational progress. However, technology changes are causing rapid changes in professional development. Nevertheless, technophobia is a significant issue in the professional development sector (Bernadine, 2019). This is because learning that utilizes technology will certainly make learning innovative and interesting besides being able to provide special characters (Hanum, 2019). If it is related to the conditions in Indonesia, the latest curriculum used in Indonesia now is the Merdeka curriculum. Not only high and middle schools, elementary schools have also implemented this curriculum. Merdeka Curriculum is an idealistic change to support the goal of education by creating an independent, autonomous, yet safe learning environment. Using the *Merdeka Belajar* platform as a type of practical application, educators are expected to be able to apply innovative and creative learning with this Merdeka curriculum. Teachers are required to develop projects that will help students better attain the Pancasila student profiles that the government has established based on particular topics (Wahyuni et al., 2023). One that teachers can use to support that is the use of learning media in class. Musfiqon (2012) defines learning media as a physical or nonphysical medium used by teachers to more effectively and efficiently disseminate information to students. Utilizing learning media properly will also create an active learning process and be able to help students think critically (Maharani & Reflesia, 2023). Nevertheless, the big idea of the Merdeka Curriculum is not simply internalized and implemented accordingly in schools, particularly at the elementary education level. There are many factors influencing the successful application of this curriculum including facilitators of the learning process. Teachers as facilitators of the classrooms become necessary to be equipped with the knowledge, abilities, and competencies in implementing the Merdeka Curriculum which apparently is newly practiced with a different paradigm. Therefore, teacher professional development

regarding the use of technology as a learning medium in elementary schools in this new Curriculum is urgently needed. This is because technological advances should not only be felt by adults but also elementary school students (Agustina, 2018). This is in line with Fuertes-Camacho et al. (2019) who suggested that these professional development programs be applied globally to elevate preschool and elementary school teachers to the level of professionals.

Based on the information presented above, the researchers in this study provided a solution to the problem by providing a bridge for teacher professional development in the field with the implementation of the Merdeka Curriculum in Elementary Schools. Specifically, this teacher professional development focuses on training in the use of the Canva application as an interactive design technology. The teachers can use it as a learning medium to support teaching-learning activities that adopt the Merdeka Curriculum in their classes. It is because teaching and learning activities can be made more interactive and engaging for students by using Canva (Online, 2019). It is because Canva provides a beautiful user interface and features like inserting a photo, creating a text with color, etc. (Larasati, 2022). Therefore, Canva's features can be used by teachers to create educational materials (Smaldino, 2015). It is hoped that this kind of teacher professional development can impact the abilities of Pancasila profile students who are proposed in the Merdeka Curriculum as well. If the teacher's ability to teach increases, then the quality of education in Indonesia will surely improve over time. When the quality of education increases, poverty can be reduced. This is certainly in line with the fourth SDGs goal, where quality of education is highly emphasized and will have an impact on other goals, one of which is poverty. When poverty decreases, people will be more prosperous. However, this will not be achieved if the training program is not adapted to the current teacher professional development paradigm, one of which is constructivism. Constructivist professional development follows the emerging paradigm's bottom-up methodology. According to Darling-Hammond and McLaughlin (2011), teacher development should concentrate on improving teachers' awareness of the processes of teaching and learning as well as on the students they teach, beginning with pre-service education and continuing throughout a teacher's career. Effective professional development also incorporates teachers in both their roles as learners and teachers, allowing them to wrestle with the uncertainties that come with each role. Therefore, this training is aimed at teachers who have already gone through their careers as teachers in elementary schools, where they learn as teachers who must become professionals who must position themselves as learners as well.

As has been touched upon, a good teacher's professional development program is sustainable. Moreover, Traditional "one-shot" approaches to professional development, according to Kriek and Grayson (2009), are insufficient and inappropriate given the ongoing efforts to change education. This is in line with Broad and Evans (2006) assertion that one-shot initiatives are poor at affecting changes in teachers' instructional strategies. Therefore, this Canva application training program implemented by the researchers in this study trained elementary school teachers in several schools collaboratively and continuously during several intense meetings, with the progress of the program being continuously observed by specialists from a state university in Central Java. This is due to the fact that a sustainable university must be dedicated to sustainability in more ways than just campus greening programs. It also needs to incorporate appropriate education and training, new methods of conducting research, and the encouragement of genuine community engagement (Scott, 2009). Starting from careful program preparation, introductions, training processes, mentoring to even evaluations carried out in this training program. It is because the fact that professional development also entails giving teachers the chance to critically evaluate their practices and form new knowledge and attitudes about the subject matter, pedagogy, and students (Darling-Hammond & McLaughlin, 2011). Therefore, the outcomes, evaluations, and perceptions of teachers who attended this training became the basis for the results of this study. However, it is hoped that this study will not only develop the professionalism of teachers, but also provide teachers with an understanding of using learning technologies such as Canva to support their teaching process in today's classrooms. It is in line with Nurannisaa (2017) who demonstrated that the conventional learning process has completed a lot with advances in technology so that teachers, especially teachers in this case, need to make learning instructions that are able to attract the attention and motivation of student. In conclusion, the purpose of this community service to develop teacher professionalism, especially regarding how to develop interesting learning media using Canva application technology. Therefore, teachers can maximize their potential in designing learning media that suits students' needs in today's era where technology is so closely intertwined with their lives. As a result, it is hoped that the use of learning media that supports learning process in the classroom can improve the students' achievements as potential successors in the future generation.

METHOD

The Canva application training as a learning medium as a form of teacher professional development was held in the city of Magelang, Central Java, Indonesia. This activity is not only a form of obligation, but a concern from the lecturers at one of the universities in Magelang to continue to provide services that are really useful for the community in the future. Therefore, this training is motivated by a real problem in the form of a lack of TPACK knowledge of many elementary school teachers in Magelang. Specifically, their knowledge about the application of technology as a learning medium that can help their learning process while implementing the Merdeka curriculum. Therefore, in order for the training to run on target and be sustainable, this training consists of several crucial stages. This stage consists of analyzing community problems,

identifying problems and finding solutions to problems, preparing for activities, implementing activities, evaluating activities and results. This series of stages is adapted from Fitria et al. (2021) and Alfian et al. (2022).

The identification of the main problems behind the training by these lecturers is the result of research, observation, and structured analysis of various problems that exist in the Magelang city's school environment. As previously explained, the main focus chosen from these various problems is the lack of understanding of elementary school teachers about the application of instructional media that can support learning in the midst of implementing the Merdeka Curriculum. After the main problem is identified, the next step is to find a solution to the problem. Through in-depth discussions and coordination between experts who will go into the field, the innovative solution offered is the provision of training on the use of learning media using the Canva application as an interactive technology in learning for teachers at selected schools in the city of Magelang. As a result of sorting the schools most in need of this training, the researchers in this study selected three schools as targets by obtaining formal permits. Of the three schools, at least 20 elementary school teachers have attended training on the Canva application as a learning medium.

The solution that has been formulated then arranged systematically in a collaborative manner to become a community service proposal which is then sought for approval from the university. After going through several stages of selection and revision, the proposals that have been received and approved by the university are ready to be realized. With a total of four expert lecturers in the field of teaching, there were also selected students who assisted the lecturers to carry out a series of activities in the training, even from the preparatory stage. At this preparatory stage, the lecturers and students held discussions with all the selected schools to discuss the place of implementation of the activity, the time of implementation, the estimated number of participants, as well as various things that had to be adapted to the conditions of different schools, for example the availability of internet access. At this stage, students also help lecturers prepare materials, guidelines, and instruments that will be used during the training. After all the preparations have been completed, the implementation of the training as the most crucial stage begins. The training was carried out intensely which consisted of four meetings in each school with a training duration of 3-4 hours at each meeting.

Starting from an introduction and the basics of the Canva application, teachers as participants in this training are actually taught to practice using the Canva application as a learning medium from the very early stages. Teachers were instructed to create accounts, be introduced to various interesting features in the Canva application, as well as intense and active discussions and questions and answers in the first meeting. In the second meeting, the teacher was taught carefully on how to make learning media in the form of interesting and interactive presentations using Canva. While in the third meeting, the teachers continued by practicing designing learning media in the form of learning videos using Canva. In both meetings, each teacher will be guided by lecturers and students who not only explain the steps that must be taken by the participants, but also guide and direct teachers who are still confused about using the Canva application until they really understand. Towards the last meeting, this is the opportunity for the participants to show their learning results during three previous intensive meetings by presenting the results of their creative learning media designs. At this final stage, not only did the teacher show their results purely, but also received various kinds of positive feedback and appreciation from lecturers, students, and even other training participants.

After the fourth meeting was carried out, the final stage of the training series was carried out. At this stage, all activity participants were given the opportunity to provide feedback as evaluation material for the committee. Providing this feedback is also at the same time a series of 10 questions that the researchers in this study gave to participants in the form of a questionnaire. The questionnaire adapted from Admelia et al. (2022) and Bakri et al. (2021) is a questionnaire used to see how influential this Canva's training has been on the professionalism of these teachers in designing learning media in the form of presentations and videos using Canva. Apart from that, this questionnaire will also show how sustainable or how far teachers will continue to use Canva as a technology for designing interactive learning media in their future. Finally, this questionnaire also teaches teachers to show how satisfied they are with the training that has been carried out as well as criticisms and suggestions that might need to be given to the lecturers and students who are the committee in this training activity. Hence, the perspective that is determined to be a descriptive interpretation of a case is obtained using a qualitative method (Arikunto, 2010). By utilizing the Google Form, the questionnaire provided makes it easier for researchers in this study to determine the percentage, sort, and classify the voices of the participants in the training activities. As the findings of the study, those teachers' voices then explained using in-depth analysis. When evaluation data and feedback are obtained, the last step of this training is the preparation of reports as a form of accountability and publication in the form of writing research articles which hopefully can become insights for future research, especially related to community services in the field of teacher professional development.

RESULTS AND DISCUSSION

Community service activity was carried out in June-July 2023 in three different elementary schools. The use of varied learning media can improve teacher performance which will have an impact on students' understanding of the material presented by the teacher. Therefore, a teacher must be creative and innovative in designing learning so that students more easily understand the learning material presented. Moreover, in the era of Society 5.0, all aspects of human life in society are closely related to the application of digital technology (Fukuyama, 2018). In this regard, learning in the era of society

5.0 cannot be separated from technology (Cholily et al., 2019). Hence, teachers must be able to adjust the media used for teaching in line with the rise of the digital era where students are already familiar with the use of technology in their daily lives. Therefore, the training was conducted to help teachers meet these challenges. This is because technology-based learning media that can attract students to learn and help teachers in learning, one of which is Canva (Aeni & Lestari, 2018). Furthermore, Bakri et al. (2021) claims that the Canva application can inspire teachers to create teaching materials in accordance with the framework of learning objectives and teachers can offer engaging content. As a result, it has been investigated that Canva learning media is suitable for use in the learning process (Tanjung & Faiza, 2019).

To provide further understanding regarding each activity implementation process and the outputs of this activity, the following is documentation, description, as well as analysis of the evaluation results from the researchers:

Greetings and introduction of the committee

Before the activity was carried out, the committee in coordination with the participants and the head of each school conducted an initial ceremony in the form of a greeting and introduction (Figure 1).



Figure 1. Speech by the Principal and introduction from the committee

This is done as a form of introduction to the opening of the activity. This stage is carried out briefly and symbolically by presenting all activity participants present at the school. The committee made introductions one by one including the students who took part in assisting the lecturers. There are a total of four lecturers and two students who become committee members. All committees carrying out these activities come from the teaching and education faculties who have expertise in their respective fields related to education. After the principal made his opening remarks, the committee also gave a clear explanation regarding the objectives of the activities to be carried out for the next four days, what activities will be carried out, what will be studied together, to the expected outcomes when the activity ends. After this initial activity was completed, material delivery activities in the form of an introduction to the Canva application and direct assistance were carried out.

An introduction to the Canva application from the lecturer

This basic introduction to the Canva application was carried out because most of the committee only knew that the Canva application existed, but not many of them knew what was in it and how to access it. In this activity, the lecturer uses previously designed material Power Point slides, providing sufficient basic understanding to the participants before going to the practical stage of designing learning media using real Canva (Figure 2).



Figure 2. Explanation of Canva's introductory materials

The content of the material explanation consists of understanding the Canva application, the uses of the Canva application, the advantages and disadvantages of the Canva application, how to access Canva, how to create an account along with an explanation of all the important features available in it. However, teachers are more focused on the relationship between Canva applications for designing learning media. Moreover, learning media is something that cannot be separated from the educational process because it is very helpful in achieving effective and efficient learning objectives, for example helping to clarify material that is still vague (not concrete) and not understood by students to make it more real (Abdullah, 2017; Supriyono, 2018). Therefore, in the activities carried out at this first meeting, the teachers were also

directly guided to be able to create a Canva account from the start to succeed. With the help of the committee, almost all activity participants succeeded in creating a new Canva account, even some of those who had already used Canva only had to restore their account again. Not only the practice of creating an account, teachers are also given the option to use the Canva application in English or Indonesian according to their preference. Therefore, the committee also helps teachers to access the language change menu. Not only that, actually in this activity there were lots of interactive questions and discussions between the committee and participants regarding the use of the Canva application, both in theory and in practice. This is certainly a good thing because it can be concluded that the participants are indeed interested in learning and developing their potential in designing learning media using learning technologies such as Canva.

Assistance in designing presentations using Canva

After the participants were given sufficient background knowledge about the Canva application and had an account, the practice of creating learning media began. At the second meeting, the participants must now reopen the account that was created at meeting 1 and then open the presentation creation menu (Figure 3).



Figure 3. Training on designing presentation media for classroom learning

The types of presentations available on Canva include creative presentations, education, business, advertising, technology, and so on (Iqbal et al., 2018; Tanjung & Faiza, 2019). However, here the teachers are more focused on educational purposes. With comprehensive guidance and assistance from the committee, the teachers who come from various teaching backgrounds and different ages design interactive presentation materials that they can actually use when teaching. There are two options in making this presentation, teachers are allowed to use the space provided by Canva with the condition that they can adapt the template to the material they want to teach their students. This is due to the availability of a variety of attractive templates that support design creation in Canva (Agustina, 2019). The second option is to make a presentation with an empty template that can be filled with visual objects or any writing according to the wishes and creativity of the teachers. This visualization process is important because according to Nurseto (2011), that by displaying visualization in learning presentations it is hoped that students will feel present and see firsthand what is being discussed in each subject. At this stage, most teachers are very focused on their own work while being monitored by committee members. If there is confusion during the design process, this is where the task of the committee is to help them. Not only that, the committee also provides guidance, direction, and suggestions regarding the correct and effective operation of the Canva application so that the resulting learning media results are of high quality.

Assistance in designing learning videos using Canva

At the third meeting, the participants who had previously been successfully taught to make learning media in the form of presentations now switched to making learning videos (Figure 4). This is because from various tests that have been carried out, video media is declared suitable for use as a learning medium (Febrianto et al., 2020).

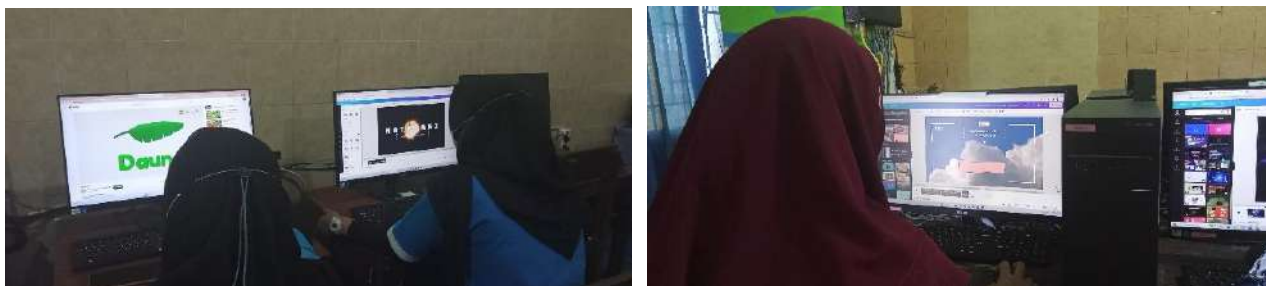


Figure 4. Training on designing video media for classroom learning

Almost the same as the previous meeting, the committee again guided and directed the participants to design learning videos that were adapted to the subjects or material that each teacher wanted to teach. At this stage, the teachers basically carry out the same steps, namely by selecting the template they want or starting to create from blank slides which are then

recreated. However, the difference is, there is a new menu for making learning videos which was not there when they designed the previous presentation. When they design learning videos, the committee provide new knowledge regarding how to make objects or text to animate, add visuals to videos, change the duration of videos, add voice overs, adjust audio and video with text, and much more. As a result, the process of making this video takes a little longer for the participants to complete. In fact, not a few of the participants had to complete the video making process for homework. However, that doesn't mean that the participants did not succeed in understanding how to make interesting learning videos for interesting pursuits. This is because to make an interesting design, it takes a longer time than an ordinary and monotonous design. This can be seen from their performance when presenting presentation designs and videos that have been made as creative and serious as possible. This is because (Rahmatullah et al., 2020) explained that the use of audio-visual-based learning media is indeed capable of supporting the learning process both online and offline.

Presentation of training results by participants

When all participants have received sufficient knowledge of what Canva is and how to use it, practice and produce learning media in the form of presentations and videos, they will reach the final stage of this training. At this stage, the participants were given the opportunity to show the results of their hard work in designing their best version of learning media after the two meetings were held in two weeks (Figure 5).



Figure 5. Presentation of learning media design results by the participants

However, at this last meeting there was no practice session, but a session where the participants not only showed their design results but also shared difficulties and what tips and tricks that they might be able to share with other participants. This is done so that all participants can get knowledge from fellow teachers so that everyone can get the best knowledge and experience that can be applied when the training is over. With the help of the committee who are moderators and operators, they also provide positive comments, constructive criticism, and also share experience and knowledge that might also be useful for future teachers. However, in fact, all participants who have gone through the three intensive meetings have been successful in making learning media that are feasible to be implemented in class later, although some of them need additional time to complete their designs. This is confirmed by the theory of instructional design put forward by Brown and Green (2016) that to develop a good learning media design includes: planning (planning), making learning media products (designing), and the process of implementing learning media (implementation of the intervention). The success of these participants can be seen from the absence of teachers who fail in making their respective media. Officials from that, this can also be measured from the questionnaire given at the end of this presentation session. The administration of the questionnaire was carried out to see how much influence this training had on the professional development of teachers as participants in this activity. The Table1 is the data from the results of the questionnaire that had been filled out by a total of 22 activity participants as evaluation material for the committee as researchers in this study.

Based on the table above, it can be seen that almost all potential participants in this training are familiar with what the Canva application is. However, only 22.7% totally agreed with the question, and there were still 9.1% participants who were not familiar with the Canva application. When directly compared to after the training was carried out by the committee from the university, point 4 shows the percentage of teachers who stated that they were more familiar with Canva surprisingly showing a figure of 90.0% with 9.1% agreeing and none of the teachers who disagreed with this statement. In other words, all teachers become familiar and more familiar with the Canva application after the training. Then when they have not yet carried out the training, points 2 and 3 show that there is still a sizable percentage of 36.4% of participants who cannot design presentations using Canva. In addition, there were also 54.5% or more than half of the participants who previously could not use the Canva application to design learning videos. From these two points, it can also be seen that only a very small percentage indicated that the participants strongly agreed or believed that they could design presentations and videos using Canva as a learning medium. After the training was held, the 36.4% and 54% percentages that were unable to design presentations and learning videos using Canva were reversed at 0%. Even presenters who strongly agreed with the statement that they could design presentations and videos showed very significant improvements. In points 2 and 5, it can be seen that the percentage of 13.6% of participants who were very confident of being able to design presentations using Canva rose dramatically to 81.8%. In addition, points 3 and 6 also show almost the same significant results, which is shown by the percentage of participants who strongly agree to be able to design videos with Canva, which was only 4.5%

to 72.7%. So, it can be concluded that not only the Canva application training can make teachers familiar and more familiar with Canva, this training has also succeeded in making teachers as trainees able to design presentations and videos as learning media in class. This is in accordance with Licius (2018) in Bakri et al. (2021) who said that using the Canva application allows teachers to innovate in making presentation designs and learning videos according to their respective innovations.

Table 1. Evaluation Results

Questions	Very Agree	Agree	Disagree	Very Disagree
1. Before the training, I was already familiar with the Canva app.	22.7%	63.6%	9.1%	4.5%
2. Before the training, I can design learning media in the form of presentations using the Canva application.	13.6%	45.5%	36.4%	4.5%
3. Before the training, I can design learning media in the form of videos using the Canva application.	4.5%	40.9%	54.5%	0%
4. After the training, I became more familiar with the use and use of the Canva application.	90.9%	9.1%	0%	0%
5. After the training, I can design learning media in the form of presentations using the Canva application.	81.8%	18.2%	0%	0%
6. After the training, I can design learning media in the form of videos using the Canva application.	72.7%	27.3%	0%	0%
7. The Canva application is easy to use for designing learning media.	72.7%	27.3%	0%	0%
8. In the future, I will continue to use Canva to design learning media.	59.1%	40.9%	0%	0%
9. The training on making learning media using Canva that has been completed is very useful and satisfying.	86.4%	13.6%	0%	0%

The above success is not only due to the factors of the teachers who are mature learners and the hard work of the organizing committee, but also the Canva application itself. Based on the data above, none of the activity participants disagreed that the Canva application is an easy technology to use for designing learning media. This was shown by more than half of the total participants or 72.7% of participants strongly agreed and their students agreed with this statement. This opinion is in line with Leliana et al. (2021) in Ariyanto et al. (2021) that Canva's advantage is that it is easy to use for designing learning media. This is even in line with research conducted by Pelangi (2020) which states that Canva is easy to use and utilized in various areas of life. As a result, it's not surprising that none of the participants disagreed that they would use the Canva application in the future to design learning media. Plus, 59.1% of them totally agree with that statement. Not only that, as many as 81.8% of participants strongly agreed that this training, they attended was very useful in the future. That means this training has succeeded in conducting training that is sustainable or has a long-term effect. This is of course very much in accordance with the original purpose of holding this training. Where this training wants to help teachers to be able to take advantage of technology, one of which is Canva as a learning medium in the midst of implementing the Merdeka Curriculum which prioritizes students' Pancasila profiles. This is also supported by the fact that the Canva training activities that have been carried out before, Canva training provides great benefits in learning media for students (Pelangi, 2020).

If the teacher can present interactive and quality learning media, it will certainly have an impact on students' understanding of the material. Then, students' understanding of the material explained by the teacher well will produce students who have good learning achievements in the end. The students as Pancasila learners will of course be the younger generation who will become agents of change when they grow up. And in the end, it is the next generation who excel and have a good educational background that will change the nation of Indonesia for the better, including poverty. This is very much in line with the SDGs goals where to reduce poverty, education quality must be improved. However, something definitely needs criticism and suggestions so that it can be even better in the future. The Table 2 is the results of the participants' feedback regarding the suggestions and input they gave to the committee.

Even though the feedback above shows that none of the participants gave negative comments, there are a number of things that need to be emphasized. First, many participants thought that the training that had been carried out was very good and useful for them. This is the pride of this one community service, where the lecturers as well as the committee can give a positive impression to the community when the activity is over. This is very much in line with the second point, where there are also many participants who want this kind of training to be carried out routinely and continuously every year. This is due to the benefits brought by the training which not only provides participants with knowledge or theory alone, but also intensive training over a long period of time so that the participants' abilities are really honed. This is also a suggestion from the researchers in this study that good training is training that does not just finish at one time and doesn't give any impression to the participants. Good training should leave not only a positive impression but a moment that will be beneficial for participants in the future, for example skills that can be applied by teachers while they are carrying out their career as teachers into the future.

Table 2. All participants' feedback

Participants' feedback	
1.	<i>By following this training, I understand more about the use of Canva and the steps for creating learning media using Canva.</i>
2.	<i>The training was good, many members were involved in guiding the teachers.</i>
3.	<i>Overall, the training was very useful and the team also taught it well so that the participants could understand it</i>
4.	<i>In the future, it may be more active to hold trainings like this so that the ability of the teachers can increase.</i>
5.	<i>This activity is very useful.</i>
6.	<i>Please schedule for the next training like this.</i>
7.	<i>Already good.</i>
8.	<i>It has been a good training.</i>
9.	<i>Effective and useful training.</i>
10.	<i>By practicing directly with guidance from the lecturers and their students we understand more quickly and, in the future, we can use it as presentation material in all forms of activities related to learning and meetings, thank you.</i>
11.	<i>It is good, you can add ice breaking to make it more enthusiastic.</i>
12.	<i>Please continue.</i>
13.	<i>This Canva training is very good and helpful in its use, in the future you can add meeting hours to learn other features.</i>
14.	<i>Hopefully training like this can be held again which can increase the competence of teachers in teaching.</i>
15.	<i>Hopefully in the future, for example there will be more training, the time will be longer and we can teach you the features in Canva.</i>
16.	<i>Thank you, the knowledge is very useful, hopefully there will be training with a longer duration of time.</i>
17.	<i>Please conduct trainings like this more often so that we can continue to learn new things.</i>
18.	<i>I will continue to use Canva in learning.</i>
19.	<i>It would be nice if it is routine every year to hold learning application training.</i>
20.	<i>The implementation of the activity is good, the explanation from the resource person is easy to understand.</i>
21.	<i>Thank you, the training was very useful for us.</i>
22.	<i>No comment.</i>

However, one thing that needs to be underlined and to learn from experience from the training that has been implemented is the importance of effective timing. Even though this training has been designed in such a way that it lasts for 4 intensive meetings, it seems that some participants still think that the duration of the time given is insufficient and can be extended again. This is not entirely wrong, because to be able to understand all of Canva's many features, of course it is not enough just 4 meetings. Moreover, this training only focuses on two of Canva's many features, namely only presentations and videos. Because beyond that, the Canva application is an online design program that provides various tools such as presentations, resumes, posters, flyers, brochures, charts, infographics, banners, bookmarks, bulletins, and so on that are provided (Purwati & Perdanawanti, 2019). Lastly, good training should be able to provide an enjoyable learning experience. As stated by participant number 11, the committee can provide ice breaking or other activities that can make the learning atmosphere more enthusiastic and not monotonous. In conclusion, it can be concluded that the Canva application training as a learning medium can already be said to be good, even though many teachers want this activity to be carried out continuously, however, consideration of the duration of the training and the fun of the training must still be considered.

CONCLUSION

This Canva application training as a learning medium for elementary school teachers in the city of Magelang is a form of community service that emphasizes teacher professional development. By presenting experts as committees and students from universities, this training showed positive results. This can be seen from the results of the final survey which showed that the teachers as participants in the training became familiar and more familiar with the Canva application as a learning medium. Not only that, all participants also believed that after holding this training, they would gain the skills to be able to design learning media in the form of presentations and videos using Canva. This cannot be separated from the Canva application which is basically accessible and easy to operate for designing. As a result, this training has also succeeded in showing the satisfaction of the participants, almost all of them were satisfied and wanted this kind of training to be carried out again in the future. This is because the application of technology in classroom learning seems difficult to avoid. Moreover, given how important it is for teachers to provide teaching media that adapts to the times so that they can attract the enthusiasm of their students. With the Canva application, teachers can now design learning media that are interesting and can be created according to the needs of teachers. This will certainly have an effect on student understanding later. If teachers are able to give the best to their students, intelligent generations will emerge who will build this country better. However, the training that has been carried out is also not without drawbacks, namely the need to consider sufficient duration of time and make the training atmosphere more enjoyable. Therefore, these deficiencies can be a suggestion for future research related to community service so that the output results are maximized.

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Empowering women for conflict resolution: A case study on Laiya Island, Pangkep Regency, Indonesia

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-06-11 Revised: 2023-06-27 Accepted: 2023-08-14 Published: 2023-09-22 Keywords CPCD Conflict Laiya Island MSMEs Women's Empowerment	<i>This study aimed to enhance public awareness regarding conflict identification and encourage the adoption of suitable resolution strategies. The community service initiative employed a training approach, engaging a group of 52 women on Laiya Island, Pangkep Regency, South Sulawesi, Indonesia. Furthermore, this activity was a collaboration between CPCD (Center for Peace, Conflict, and Democracy) Hasanuddin University and the Pangkep District Fisheries Service. The results showed that an effective measure for conflict prevention entailed the empowerment of women. Therefore, there had been a notable improvement in community understanding of appropriate conflict resolution techniques. This activity introduced a novel approach where the empowerment of women through the utilization of marine products and the establishment of micro, small, and medium enterprises (MSMEs) as well as home industries played a vital role in conflict resolution strategies. In conclusion, the conflicts experienced on Laiya Island were minimal, and the community successfully resolved disputes through meaningful discussions.</i>
Kata Kunci CPCD Konflik Pulau Laiya Pemberdayaan Perempuan UMKM	Pemberdayaan perempuan untuk penyelesaian konflik: Studi kasus di Pulau Laiya, Kabupaten Pangkep, Indonesia. Studi ini bertujuan untuk meningkatkan kesadaran publik mengenai identifikasi konflik dan mendorong penerapan strategi penyelesaian yang sesuai. Inisiatif pengabdian kepada masyarakat menggunakan pendekatan pelatihan, melibatkan 52 perempuan di Pulau Laiya, Kabupaten Pangkep, Sulawesi Selatan, Indonesia. Lebih lanjut, kegiatan ini merupakan kerjasama antara CPCD (Center for Peace, Conflict, and Democracy) Universitas Hasanuddin dan Dinas Perikanan Kabupaten Pangkep. Hasilnya menunjukkan bahwa langkah efektif untuk pencegahan konflik mensyaratkan pemberdayaan perempuan. Oleh karena itu, terdapat peningkatan penting dalam pemahaman masyarakat tentang teknik penyelesaian konflik yang tepat. Kegiatan ini memperkenalkan pendekatan baru di mana pemberdayaan perempuan melalui pemanfaatan hasil laut dan pendirian usaha mikro, kecil, dan menengah (UMKM) serta industri rumah tangga memainkan peran penting dalam strategi penyelesaian konflik. Kesimpulannya, konflik yang dialami di Pulau Laiya terbilang minim, dan masyarakat berhasil menyelesaikan sengketa melalui diskusi yang bermakna.

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INTRODUCTION

The site of the community service activity is situated on Laiya Island, which may be considered small in size in comparison to other islands in Pangkajene Regency. Despite its classification as a small island, Laiya Island possesses its uniqueness and exotic views, such as white sand and blue sea, providing visitors with a profound sense of tranquility and serenity. Additionally, it is recognized as a destination with significant tourism prospects. To optimize and capitalize on the tourism potential, it is crucial to prioritize the establishment of a robust security framework. The presence of a strong sense of security is essential in creating a welcoming environment for visitors and fostering their confidence in exploring the island.

Even though Laiya Island is undeniably beautiful, it is not immune to security disturbances or conflicts. This possibility arises due to its remote location from the district capital and the lack of oversight from the local government. However, it is essential to determine whether the potential for security disturbances and conflicts is comparable to other areas. To make an accurate assessment, the precise meaning should be obtained through interviews conducted during the community service activities. Consequently, the primary objective of this initiative is to provide training to women's groups residing on Laiya Island. The subsequent section presents an overview of the purpose underlying the community service activities. There are four objectives of this service activity, namely: increased awareness in the community regarding the possibility of conflict and the need to protect the areas; communities can identify potential conflicts such as the causes and appropriate solutions; collaboration is formed that involves the community, fishermen, and the government in preventing conflicts from occurring and jointly seeking resolutions; and increased knowledge regarding appropriate conflict resolution in resolving any conflicts. The purpose of this service is related to SDGs, especially goal number 16, namely increasing an inclusive and peaceful society for sustainable development, providing access to justice for all, and building effective, accountable and inclusive institutions at all levels. Laiya Island is one of the islands that is prone to conflict and violence because of its location far from the district capital and very minimal supervision from the local government.

The underlying concept revolves around two key elements, namely threats and defense. In the face of a threat, human beings initiate a defensive process to counter and eliminate the imminent danger. Subsequently, the situation is deemed secure after the threat has been neutralized. Threats can be defined as actions or endeavors carried out by external parties that generate a sense of fear or endanger the order, integrity, and even the fundamental aspects of the affected entity. Worfer also reported the same understanding of security, emphasizing its nature as the absence of threats (Ali, I. M. et al., 2021). Therefore, the absence of threats is a fundamental condition for the existence of security. This study aimed to enhance public awareness regarding conflict identification and encourage the adoption of suitable resolution strategies.

METHOD

Framework

Figure 1 explains the purpose of community service activities carried out on Laiya Island. Security pertains to the defense and preservation of individuals or entities in response to potential threats.

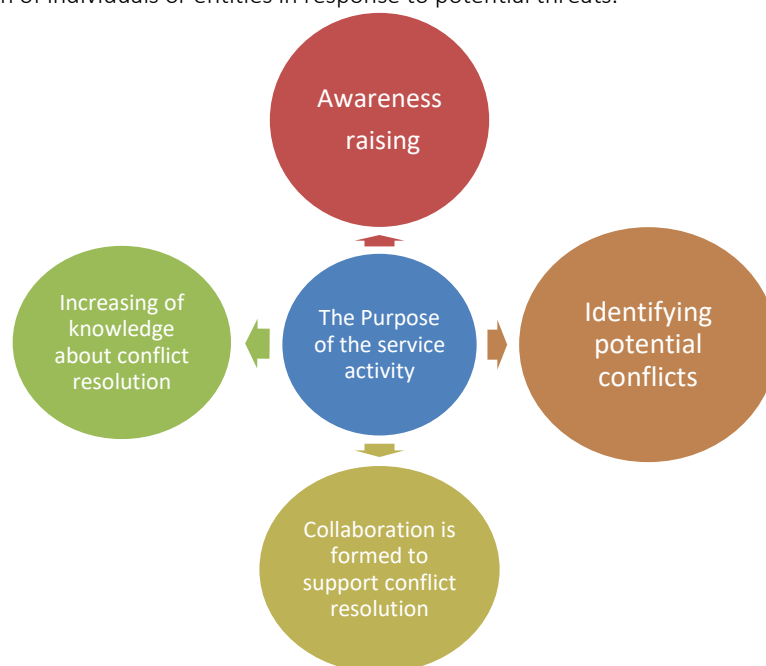


Figure 1. The purpose of community service activities

The definition of conflict, rooted in etymology, encompasses the existence of quarrels, disparities, and disputes revolving around divergent thoughts or wills (Tualeka, 2017). It possesses the potential to arise at any moment, involving individuals, societal groups, and even nations. Conflict emerges when there is a clash of opinions or desires that proves arduous to reconcile without traversing through a conflictual state. According to Tualeka, conflict theory posits that societal order is inherently elusive, hence, disorder and discord are inherent aspects of social structures. Consequently, a common thread can be discerned in the essence of conflict due to the emergence of disputes rooted in divergent interests over limited resources. The divergence of interests signifies that various parties involved in the conflict harbor distinct desires for these resources. Furthermore, the resources may be scarce within a specific region or territory, lacking availability elsewhere, or they may be abundant in a particular area or constitute rare natural commodities (Tualeka, 2017). Conflicts are prone to arise when the individuals embroiled in the dispute attempt to realize their aspirations through coercive means.

The community service activity took place on Pulau Laiya, a small island located in Pangkep, South Sulawesi. Laiya Island is situated within the Liukang Tupabbiring Utara sub-district, covering an area of 85.56 km² and consisting of a total of 18. It is approximately 19.31 km away from the mainland capital, Pangkep (Badan Pusat Statistik Kabupaten Pangkep, 2021). This particular community service initiative spanned from March to May 2023. In addition, the community service project involved training sessions conducted in collaboration with CPCD (Center for Peace, Conflict, and Democracy) Hasanuddin University and the Pangkep district fisheries service. The training targeted NGOs and women's groups, employing effective instructional techniques. The training sessions were conducted within a single day and a total of 52 individuals actively participated, as outlined in the Table 1.

Table 1. Training Participant

No	Activity	Total
1	Fisherwomen	15
2	Entrepreneur women	12
3	Housewife	13
4	Student of senior high school	12
Total		52

RESULTS AND DISCUSSION

Understanding Improvement Training on Conflict Resolution

This training activity presented conflict resolution experts from the Hasanuddin University team. In this activity, the implementing team explained the importance of conducting a conflict analysis for the following reasons: provide a detailed explanation of current issues, specifically in Laiya Island and Pangkep District; give priority to issues especially those related to the conflict; make an identification of the causes of the conflict; explain the people involved in the conflict; make a study of appropriate information in following up on conflicts; evaluate the capabilities of the people involved; and increasing the involvement of stakeholders in resolving these conflicts by collaborating and sharing information.

During the training session depicted in Figure 2, Herlina, who also holds the position of secretary at the office, expressed that Laiya Island had consistently proven to be safe. The absence of conflict intensity and the overall sense of security among the inhabitants were highlighted (interview, March 24, 2023, Laiya Island). Subsequently, when engaging with the residents in a debriefing regarding security concerns, it became evident that the island faced no discernible threats or fears.



Figure 2. Community Service Training

Furthermore, Syuhada, an active member of the entrepreneurial community, attested that no significant incidents had jeopardized the security of their area (interview, March 24, 2023, Laiya Island). Considering the security theory, Laiya Island fits the criteria for a secure island, as its inhabitants are devoid of any threats or fears. This was corroborated during community service activities, where the team experienced immense satisfaction and a profound sense of safety, free from concerns of security-related issues, verbal threats, or non-verbal actions.

Even though Laiya Island can be considered safe in terms of internal conflicts, it is essential to acknowledge that conflicts may still arise beyond the borders. From a security perspective, it is crucial to recognize that the conflicts experienced were primarily external. Herlina explicitly stated that no internal conflicts had occurred, although there was a past external conflict with another group (the specific timeframe was not provided). This external conflict occurred in the waters surrounding the island and centered around the extraction of natural resources, such as fish and marine plant species (interview, March 23, 2023, Laiya Island). During the training session depicted in Figure 3, the causes of this conflict with the community were discussed. The local government on Laiya Island had successfully resolved the conflict through negotiations, officially resolving the issue (interview, March 24, 2023, Laiya Island). This situation highlighted the stability of the Island and its minimal potential for internal or external security threats or conflicts.



Figure 3. Community Service Training

Training to Improve Understanding of Women's Empowerment

One effective measure for preventing social conflicts is the promotion of women's empowerment. Therefore, during this community service initiative, the team emphasizes the significance of empowering women. The concept entails granting them equal opportunities and active involvement in various organizations such as men (Ali, M. A., Wadi, & Liberty, 2021). Considering the insights provided by Ali et al., the team shows to the community that gender equality is crucial in addressing disparities in the realization of human rights, particularly the right to lead a dignified and autonomous life, free from any form of coercion or intimidation. Furthermore, women have historically been overshadowed by men and their abilities have been underestimated or restricted within limited spheres of activity (Figure 4).



Figure 4. Community Service Training

Island communities must recognize that empowerment endeavors strive to establish equal opportunities for both men and women, ultimately fostering gender equality. Development encompasses empowering individuals to exert control over their lives within specific organizations and break free from the grips of poverty. The team elucidated on Longwe's theory, which emphasizes the processes and frameworks involved in empowerment, encompassing five distinct levels. These stages include ensuring prosperity by meeting the economic needs of families and women on an individual basis, expanding access to employment opportunities, enhancing public and stakeholder awareness regarding gender equality, fostering a movement to boost women's participation in empowerment initiatives, and enabling control in the implementation of work programs. By comprehending these five stages, individuals can better grasp the progression of empowerment within a group (Ali, M. A., et al., 2021).

Based on observable data, significant disparities between men and women can be discerned across different employment sectors. Women often encounter limited employment opportunities, typically confined to entry-level positions compared to their male counterparts. Consequently, this discrepancy gives rise to a wage gap, resulting from reduced participation and placement in lower-level roles. Longwe's theory also posits that empowering gender equality is indispensable for achieving equitable rights for women and enhancing economic well-being both individually and within households. Therefore, this training places significant emphasis on the influential role of women in advancing the economic sector and mitigating the escalation of poverty.

Furthermore, the concept of community empowerment is considered a developmental process where communities actively engage in social activities to enhance their circumstances, conditions, and overall quality of life. Empowerment primarily targets individuals with vulnerable and marginalized backgrounds, particularly women's groups. It ignites motivation to contribute to development by fostering strength and capability, which encompass the following aspects: (a) addressing basic needs, such as freedom from hunger, poverty, ignorance, and pain, (b) facilitating equal access to showcase women's productive abilities to augment their income and secure essential goods for their families and themselves, and (c) promoting active involvement in developmental processes and decision-making that profoundly impact various facets of lives (Purnamasari, Vidya; Qurrata, Vika Annisa; Narmaditya, 2020).

In terms of improving the family economy, it was necessary for women, specifically groups, to be active in empowerment activities. As explained by Purnamasari et.al., these activities can improve the welfare of the women's group to increase their quality of life. Furthermore, the importance of micro, small, and medium enterprises (MSMEs) in supporting efforts to empower women, particularly those on small islands, was discussed.

The Hasanuddin University service team explained that women's empowerment is needed to push families out of poverty. This is because empowerment increases the active and responsible participation of women's groups in society, and improves family welfare. The role of women within a family includes the responsibility to educate and serve as exemplary figures for their children. However, certain factors hinder them from fulfilling this role effectively, including low economic and income levels, insufficient knowledge and skills, and limited access to opportunities for personal development. These obstacles often impact the ability to be influential role models within their families and broader society (Lestari, Singal, Wahyuni, & Msutangin, 2022).

Many women attending the training expressed their curiosity regarding the role of MSMEs and the process of developing home industry businesses to become MSMEs. In response, participants were informed about a key strategy to prevent conflicts, which involves actively participating in economic activities and enhancing skills and knowledge. The abundant natural resources available on Laiya Island, such as fish, present an opportunity for MSME development. Consequently, the training focused on teaching participants how to create fish balls without preservatives, increasing their nutritional value.

Currently, a considerable number of women are transitioning from the labor market to the realm of MSMEs. This transition serves as a means to contribute to their rights and decision-making within the world of work, as well as occupy more significant and professional roles. The direct involvement of women across various work sectors is highly valued to empower the community and fulfil their rights and freedoms. However, women have not been fully engaged in the same manner as their male counterparts. Many of them left the labor market and pursued independent entrepreneurship on a smaller scale. Barriers to this development include limited economic resources and a lack of knowledge and skills, affecting the ability to improve their quality of life and meet the economic needs of children and families.

After the training, an assessment was conducted to monitor women level of understanding regarding conflict and resolution. This assessment took the form of a question-and-answer session to measure their comprehension of the topics covered: what conflicts occur most frequently in this region?; how did the community, specifically women's groups, respond to the conflict?; what is the role of the government (local government) in overcoming or preventing conflicts?; what skills are needed to process natural resources in this area?; what do you know about MSMEs?; have you ever shopped for MSMEs products?. These questions are important to measure the level of understanding of women after participating in conflict prevention training. The Figure 5 is the answer given for number 1.

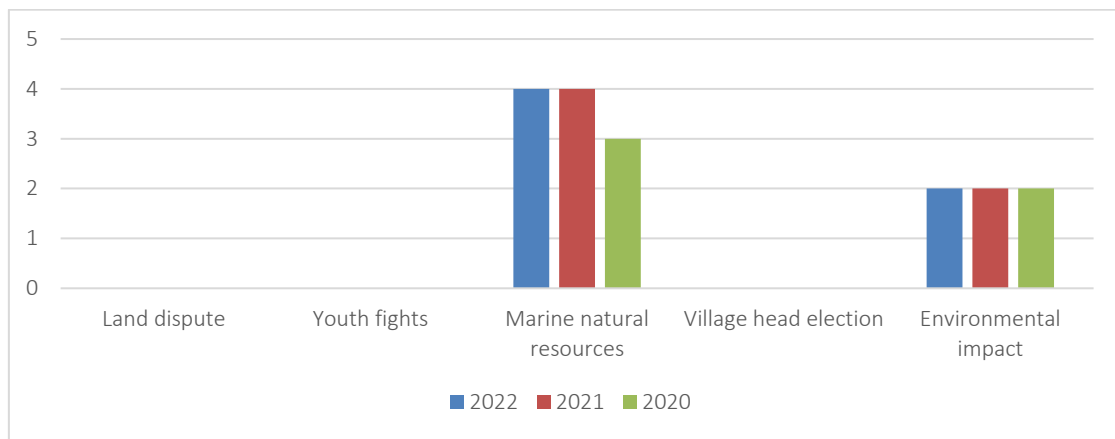


Figure 5. The conflict that occurred on the island of Laiya in 2020-2022

Figure 5 displays the various types of conflicts that transpired on Laiya Island from 2020 to 2022, as recounted by 52 informants. Among these conflicts, disputes regarding sea resources emerged as the most prevalent issue. This situation stems from the participation of external fishermen in the vicinity, utilizing materials detrimental to marine biota. Another conflict pertains to environmental concerns and the subsequent repercussions of pollution. The inhabitants of the Island still exhibit limited awareness regarding the disposal of waste into the ocean. Marine pollution resulting from such practices also emits an unpleasant odor for residents near the waste disposal area. Consequently, internal conflicts arise, involving those responsible for improper garbage disposal and the affected residents. The actions taken by the community groups in response to the conflict can be seen in the Figure 6.

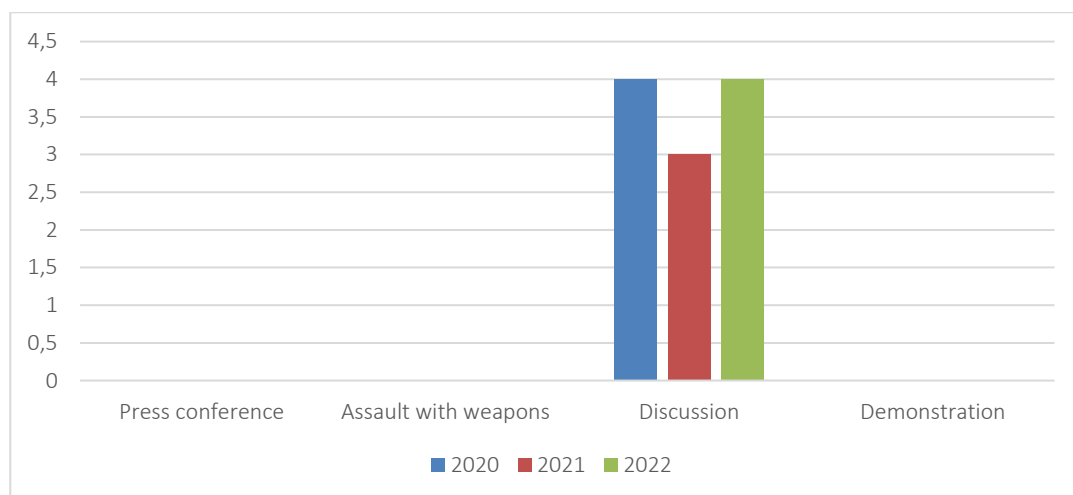


Figure 6. Community Strategies in Resolving Conflicts

Figure 6 above presents a comprehensive overview of the strategies employed by the Laiya Island community using open discussion. The people of Laiya Island actively promote fishermen entangled in profit-related conflicts to engage in deliberate conversations, involving key stakeholders such as village heads. Regarding question number 3, which concerns the local government's role in addressing and preventing conflicts, it involves mediating between the affected fishermen or communities. They actively facilitate the resolution process. Question 4 explores the knowledge of various groups of women and assesses this aspect by examining their involvement in MSMEs and home industry activities.

Figure 7 depicts the extent of community engagement in empowerment initiatives. The empowerment encompasses a series of actions aimed at enabling women to achieve economic independence, self-reliance, and a positive self-image. It equips women with the necessary tools to confront difficult circumstances and actively participate in diverse development endeavors. To foster this empowerment, women must exert control over intellectual resources, including access to information, knowledge, ideas, financial resources, and decision-making power within their households, communities, and beyond (Asad, Hameed, Irfan, Jiang, & Naveed, 2020).

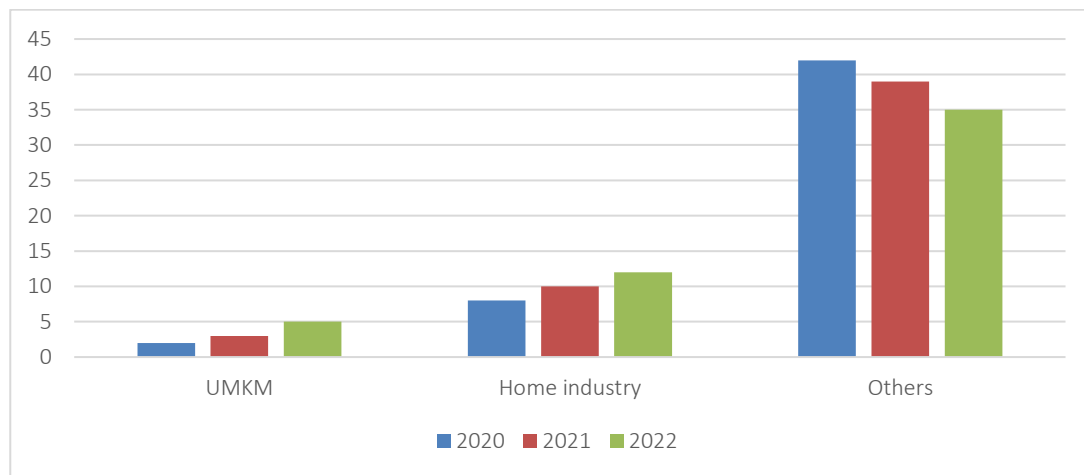


Figure 7. Community Participants in Empowerment Activities

Based on the data in Figure 7, the number of women actively involved in MSMEs on Laiya Island remains low. Over the period from 2020 to 2022, the number engaged in enterprises fails to surpass the 10 mark. A fraction of these women participate in activities related to the home industry. The count of those involved in this sector is also limited, ranging from a mere 5 to 15 businesses during the period. Conversely, a significant portion of women on Laiya Island does not partake in any entrepreneurial endeavors.

This prevailing situation serves as a clear indication that women on Laiya Island must strive to enhance their active involvement in entrepreneurial ventures. In an interview conducted with Mrs Ina, a participant who took part in training sessions, the dearth of women engaged in entrepreneurial activities can be attributed to a lack of skills in developing businesses related to processed seafood products. Additionally, the considerable distance from the district capital poses a challenge since it necessitates a substantial amount of funds to acquire essential materials for manufacturing processed marine products, such as flour, cooking oil, and starch (interview, Laiya Island, 24 March 2023). During a follow-up interview with Ms. Suliastri, an entrepreneur operating an MSMEs business, several obstacles were encountered. The inconvenience of travelling to the distant district capital, which incurred significant expenses was encountered when selling processed products (interview, Laiya Island, 24 March 2023). As previously mentioned, women who refrain from participating in any activities often face limitations due to a lack of adequate skills and knowledge. Consequently, they remain confined to their homes, relying solely on the catch provided by their husbands to meet daily household needs. The answer for question number 5 regarding their knowledge of MSMEs is presented the Figure 8.

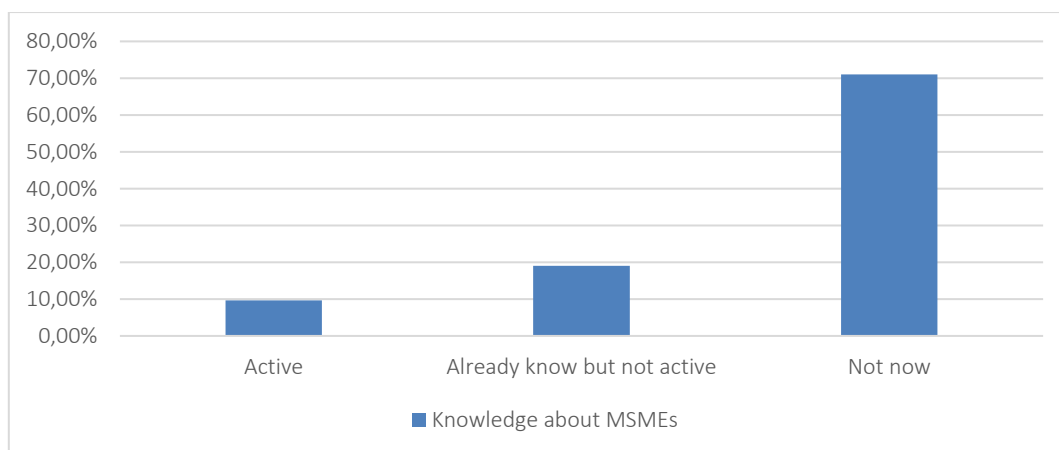


Figure 8. Knowledge Level Regarding MSMEs

The graph, denoted as Figure 8, illustrates the level of knowledge among the training participants concerning MSMEs, consisting of a total of 52 individuals. From these 52 trainees, 5 were actively engaged in MSMEs, while the remaining 10 possessed related knowledge but did not actively pursue entrepreneurship. Conversely, a significant portion of the participants, specifically 37 individuals, lacked any knowledge regarding the concept. Based on an interview conducted with one of the participants named Suliastri, the general public's lack of awareness concerning MSMEs stemmed from insufficient information disseminated through different media platforms (interview, Laiya Island, 24th March 2023). To address question number 6, which pertains to shopping through online platforms or by visiting physical stores, a comprehensive overview can be found in Figure 9.

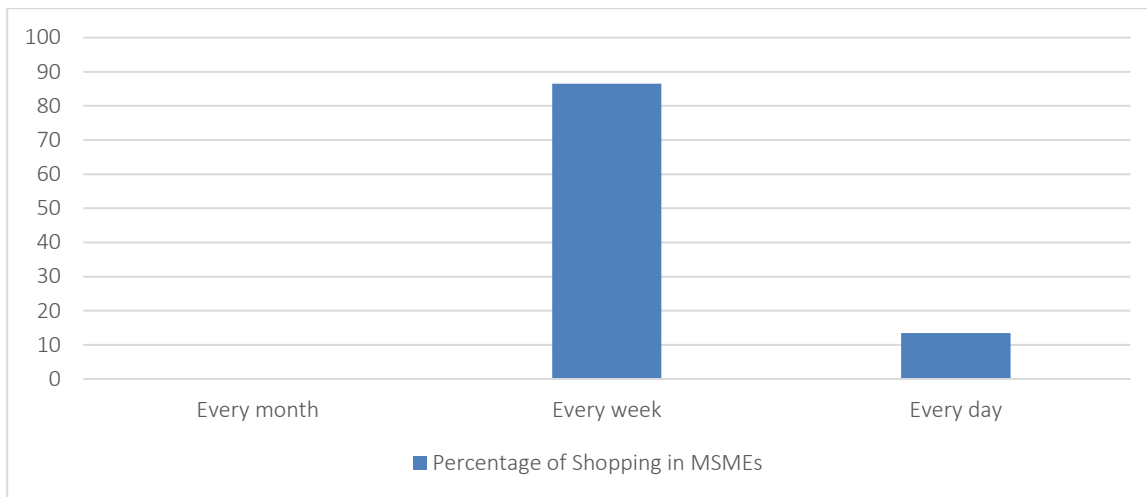


Figure 9. Participation Level in MSMEs

Figure 9 illustrates the level of participation or shopping in MSMEs with a total of 52 participants. The shopping frequency shows that 45 and 7 individuals engage in shopping activities at MSMEs on a weekly and daily basis. Figure 9 shows a very high level of community activity in shopping at MSMEs. This data shows that the level of community participation on Laiya Island for the MSMEs sector is quite high.

This notion finds support in the findings of interviews conducted on Laiya Island, where conflicts predominantly arise when fishermen from other islands employ practices that disrupt marine life (Interview, March 22, 2023, Laiya Island). Lewis Coser, an influential sociologist, classifies conflict into internal and external categories. Internal conflict pertains to disputes that arise within a closely-knit community or group, characterized by an intimate relationship among the members. Meanwhile, external conflict encompasses disputes between different entities, including the main group, individuals, or even nations (Editor, 2021). In line with this perspective, interviews conducted with residents show that the conflict stemmed from fishermen hailing from other islands who engaged in the prohibited practice of fishing near Laiya Island (Interview, March 23, 2023, Laiya Island). This situation exemplifies an external conflict that originated from outside the boundaries of Laiya Island.

According to Dwicahyono et al., the islands within the Indonesian archipelago experience a substantial volume of maritime traffic, with over 70,000 ships passing through annually. Among these vessels, 120-300 pose threats in the form of piracy and navigation hazards (Dwicahyono, Octavian, Bura, Hendranto, & Widodo, 2021). Based on these findings, small islands in Indonesia, including Laiya Island, are at heightened risk of piracy incidents, illegal smuggling activities, such as drug trafficking, or potential accidents involving large cruise ships causing damage to the reefs in the surrounding waters. Additionally, Dwicahyono et al. emphasize that the presence of large ships entering Indonesian waters contributes to different criminal risks, including illegal logging, terrorism, and human smuggling (Dwicahyono et al., 2021). These criminal activities can transpire in open waters, particularly on islands where government oversight is not rigorously enforced.

Indonesia is governed by the regulations outlined in Article 46 of the United Nations Convention on the Law of the Sea (UNCLOS) of 1982. According to this article, an archipelagic country is defined as a nation comprising multiple archipelagos, including islands, surrounding waters, and the connecting waters falling under the jurisdiction of the state (Listiyono, Pramono, Y. Prakoso, Prihantoro, & Sianturi, 2021). The vast expanse of these waters often makes archipelagic countries a preferred transit location for foreign vessels seeking to transport goods swiftly and efficiently through maritime routes. To address the associated risks, the UNCLOS of 1982 establishes that the sovereignty of the state extends to all bodies of water, regardless of depth or distance from the coast. This sovereignty encompasses the airspace above the waters, the seabed and its subsoil, as well as the natural resources. The sovereignty grants the archipelagic state the right to regulate, supervise, and safeguard its maritime affairs, aiming to protect its national interests. Indonesia ratified the UNCLOS of 1982 through Law No. 17 of 1985, thereby recognizing and implementing the provisions outlined in the convention (Listiyono et al., 2021).

Sudrajat asserts that security concerns within the archipelago can be categorized into three distinct areas, namely maritime threats encompassing illicit activities such as oil and sand smuggling, air threats involving unauthorized foreign surveillance of Indonesian territories, and border threats comprising the smuggling of weapons and individuals (Listiyono et al., 2021). These threats pose a significant risk to the islands situated within the jurisdiction, primarily due to the vast number of islands and the inadequate presence of surveillance vessels from the Navy.

According to Panji Suwarno et al., Indonesia's relatively open democracy presents an asymmetric threat in the form of radical groups that operate independently of any specific country. This grants certain freedoms that bestow an advantageous position over the countries to be infiltrated, including Indonesia. The groups leverage their global economic

connections through smuggling syndicates and utilize communication technology to facilitate terrorist movements. This situation can be empirically examined by analyzing various threats that pose challenges to national integration. Firstly, several countries with a history of funding and providing refuge to terrorists can potentially support their operations in other nations. Secondly, non-state actors enjoy the freedom to move undetected and employ diverse methods. These methods include mini-submarines, drones, or small aircraft, to transport necessary supplies for their operations to different areas. The success of the operations can inflict significant economic damage at national and regional levels. Thirdly, individual actors engaging in global terrorism disrupt the natural and environmental balance but also pose a threat of pollution (Suwarno, Kurniawan, Widodo, Wasitova, & Parlina, 2022). These forms of threats are particularly perilous to the survival of small island communities such as Laiya, which rely heavily on the maritime ecosystem for their livelihoods.

According to Taufik et al., the term "asymmetric war" has been used by American academics since 1990 to describe the threat posed by less privileged entities to more affluent communities. The concept can be understood as an unconventional form of warfare carried out clandestinely by non-state entities through small groups such as guerrillas, drug cartels, or specialized military divisions (Dwicahyono et al., 2021). Indonesia is susceptible to this form of asymmetrical threat due to the vast territorial waters and abundant marine resources, coupled with limited monitoring through sea patrols. Aside from jeopardizing the sovereignty of the state, small islands face additional risks such as pollution, habitat loss for local flora and fauna, overexploitation, and potential hazards stemming from climate change. To address these asymmetrical threats arising from the openness of archipelagic nations, several studies developed a new economic model known as the blue economy.

The Blue Economy concept aims to create sustainable livelihoods and protect island communities from the impacts of climate change by fostering an economy environmentally and socially responsible. This approach recognizes the oceans as a shared resource for collective development and is defined by the World Bank as a means of utilizing marine resources to promote economic growth, improve living standards, and preserve the health of the ecosystems. To achieve these objectives, it is essential to develop a socio-economic system that maximizes the efficient utilization of natural marine resources (Roy, 2019). The concept represents a departure from conventional economic practices pursued by large industries solely focused on maximizing profits. Considering the topics covered by this economic model, its implementation requires extensive debate involving various stakeholders, including corporations, business leaders, and affected communities. The service activities also contribute to the promotion of the blue economy, as they emphasize women's empowerment in using marine products as a strategy to prevent conflicts and foster sustainable development.

Activities associated with the blue economy encompass various sectors such as fisheries, which include aquaculture and food processing. Additionally, maritime biotechnology plays a crucial role, involving the production of pharmaceuticals, chemicals, and the cultivation of marine life. The blue economy also encompasses minerals, with offshore mining being a significant aspect. Maritime tourism contributes to the blue economy through the utilization of jet boats, facilitating passenger transportation, and offering coastal trips (Roy, 2019). An example of community service activities involves food processing using marine resources, which contributes to community empowerment, particularly in the context of product utilization.

Concerning maritime security, Bueger identified four key elements intertwined with the blue economy. Firstly, sea power plays a traditional role in safeguarding maritime security, particularly in terms of protecting border areas and maintaining security. Secondly, maritime security encompasses the evaluation of a country's capability to address threats by utilizing its ships and assets, which includes managing disasters and conducting evacuation operations. The third element is economic development, which involves a nation's ability to enforce economic laws on the utilization of marine resources, including oil mining, combatting smuggling, and countering piracy. Lastly, community security is an important concept emphasizing the state's responsibility to ensure sustainable livelihoods, with a particular focus on preventing illegal fishing and human trafficking (Voyer et al., 2018).

These four conceptual frameworks can serve as a yardstick for the government's endeavors in implementing policies on the maritime economy. This approach aims to safeguard maritime sovereignty, specifically considering its status as an archipelagic nation. It also involves safeguarding small island communities such as Laiya Island, which play a crucial role in screening threats to national unity by sea before reaching the mainland. Consequently, a reciprocal relationship arises between the government, which bears the responsibility of ensuring the well-being of island communities, including aspects such as food security and quality of life.

The close relationship between defense and the blue economy can be traced back to the establishment of the 1982 United Nations Convention on the Law of the Sea (UNCLOS). Furthermore, UNCLOS played a significant role in advocating for the concept of defense and maritime sovereignty by granting states the right to claim jurisdiction over their territorial waters and exclusive economic zones (Voyer et al., 2018). During the initial publication, discussions were already underway regarding the resilience of marine resources. This was exemplified by the 'Earth Summit' in 1987, which highlighted the growing interest in the vast potential of the ocean as a significant resource provider. Consequently, a narrative emerged that interconnected the development of the blue economy with maritime defense, giving rise to the concept of security. This concept extends beyond the traditional notion of safeguarding sovereignty and national interests through military capabilities. It also encompasses the capacity to monitor and enforce maritime law, facilitating access to prolonged sea power and the utilization of natural resources (Voyer et al., 2018).

CONCLUSION

In conclusion, Laiya Island faces external threats from fishermen who encroach upon the island's waters to catch fish, using methods that can disrupt marine life. Internal disturbances arise due to the disposal of waste into the sea, resulting in an unpleasant odor for residents near the landfill. To mitigate these challenges, it is imperative to engage in discussions involving the local government and the fishermen to obtain mutually beneficial solutions. During the training sessions, the community service team introduced conflict resolution techniques, emphasizing the importance of women's empowerment initiatives. Therefore, there has been a notable increase in the number of women, comprehending the significance of entrepreneurship, particularly in the processing of marine products. Even though the current involvement of women's groups in MSMEs and home industries remains relatively low, the eagerness to participate in training activities and their determination to become active entrepreneurs are commendable.

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Madrasah diniyah teachers' perceptions on the tajwid recitation program's implementation: A post-training qualitative study

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-09-11 Revised: 2023-09-18 Accepted: 2023-09-23 Published: 2023-09-25 Keywords Madrasah Diniyah Perceptions Recitation Tajwid Teacher	Formative assessment is often neglected in learning. This study investigates the perception of madrasah diniyah teachers on the planned implementation of the recitation program as part of a formative evaluation in the form of feedback. Twenty madrasah diniyah teachers were asked to respond to a questionnaire that covered three aspects, namely planning, learning outcomes, and teacher support in the post-training. The findings show that teachers have an open view of the implementation of recitation and believe that it can provide significant benefits for student learning outcomes. This paper provides empirical insight into teacher perceptions and provides suggestions for expanding teacher understanding and competence in utilizing recitation programs as an integral element of recitation learning methods and evaluations.
Kata Kunci Guru Madrasah Diniyah Pembacaan Persepsi Tajwid	Persepsi guru madrasah diniyah terhadap implementasi program resitasi tajwid: Studi kualitatif pasca pelatihan. Asesmen formatif seringkali diabaikan dalam pembelajaran. Penelitian ini mengkaji bagaimana persepsi guru madrasah diniyah terhadap rencana pelaksanaan program resitasi Tajwid sebagai bagian dari evaluasi formatif berupa umpan balik. Dua puluh guru madrasah diniyah diminta untuk merespon angket yang meliputi tiga aspek, yakni perencanaan, hasil belajar, dan dukungan guru pada pasca pelatihan. Temuan menunjukkan bahwa guru mempunyai pandangan yang terbuka terhadap implementasi resitasi Tajwid dan meyakini dapat memberikan keuntungan yang signifikan bagi hasil belajar siswa. Artikel ini memberikan wawasan empiris tentang persepsi guru, dan memberikan saran untuk memperluas pemahaman dan kompetensi guru dalam memanfaatkan program resitasi sebagai elemen integral dari metode dan evaluasi pembelajaran Tajwid.

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INTRODUCTION

Learning assessment has become the main focus of educational researchers in the last few decades (Stiggins, 2005). Assessment is considered an appropriate way to improve student learning experiences (Black et al., 2003). Apart from that, the existence of disturbances and uncertainties during the learning process is considered to be able to be resolved with learning assessments (Schon, 1984). Assessment is a process that must be carried out continuously to help students increase their motivation and experience (Harlen, 2005, 2012; Stiggins, 2005). To achieve this goal, researchers suggest

teachers carry out formative assessments in the form of feedback. Formative assessment is an important part of the learning process because it can inform teachers of teaching strategies and methods (Harlen, 2005; Stiggins, 2005). This tendency to ignore the role of assessment can influence the learning strategies and content design implemented by teachers in the classroom (Harlen, 2005).

In the context of Madrasah Diniyah level, the number of teaching hours for Tajwid subjects is considered to still have a small and limited proportion of teaching hours. On the other hand, there is no formative assessment in the classical learning system implemented by teachers. In other words, neglect of formative assessments has been a long-standing problem that has not been properly addressed. This condition has caused a problem where students are less able to read the Quran according to the rules of recitation. This is proven by the initial evaluation results, which show less than encouraging results where students still experience misconceptions about the recitation material. Discrepancies in students' concepts and understanding need to be corrected immediately, one of which is by providing exercises and learning modules outside of class through recitations. This also really supports conditions where recitation learning hours are still limited.

Recitations are interpreted as students' conceptual deepening exercises outside of class hours on material that they still have difficulty with when taught in class (Docktor & Mestre, 2014). Recitations are given to students in the form of practicing conceptual questions on certain topics and are accompanied by informative feedback. This exercise will help students when learning by verifying the correctness of the concepts they have previously understood, whether they are appropriate or whether they have misconceptions (Oliveira & Oliveira, 2013). After students practice through conceptual questions along with feedback, they are expected to be able to construct a correct understanding regarding the recitation material and no longer experience difficulties. As several studies have reported success in increasing students' mastery of concepts and overcoming misconceptions experienced through recitation programs (Koenig et al., 2007; Ogilvie, 2009). In general, the recitation program places great emphasis on formative assessment in the form of informative feedback.

In various literature, feedback is proven to improve learning outcomes because it covers various aspects. It is not only relational between teachers and students, but also includes emotional aspects (Carless et al., 2011; Pitt & Norton, 2017; Small & Attree, 2016). Based on psycho-social aspects, providing feedback is recognized as very important (Ajjawi & Boud, 2017; Boud & Molloy, 2013). General feedback can provide information regarding student understanding (Hattie & Timperley, 2007). Thus, positive results will be obtained if the feedback provided is informative, specific, goal-related, and not expressed in judgmental language (Van der Kleij et al., 2015), as is done in the recitation program. Previous research has also shown that feedback can improve students' self-regulation abilities which have an impact on improving performance and learning outcomes (Fonseca et al., 2015).

Although recitation is believed to help students learn recitation, teachers must have significant knowledge to practice it. With the assistance provided during the community service process, teachers will of course gain sufficient knowledge to apply it in their classes. However, knowledge about recitation is not enough to ensure that teachers will act responsively according to students' problems and needs. If teachers do not see the potential of implementing this recitation, then the effect of implementing this program will also be limited (Wilson, 2005). In line with this, research conducted by Tsai shows that some teachers do not perceive the potential insights of new teaching approaches because of their successful experiences in existing practices (Tsai, 2006). In other words, newly acquired concepts tend not to be retained as strongly as their perceptions of previous teaching methods.

In general, a number of pieces of literature point to the statement that teachers' personal perceptions have a major influence on the teaching and assessment carried out in the classroom. For this reason, teachers' perceptions of the implementation of tajwid recitation should be explored in order to support teachers in implementing recitation practices. This research aims to explore teachers' perceptions on the adoption of recitation of tajwid as a formative assessment for learning tajwid. Apart from that, this research was also encouraged because qualitative research involving teacher perceptions of changes and new ways in recitation classes had not been reported.

This article refers to data from community service that has been carried out to help Madrasah Diniyah teachers implement recitation to promote assessment for learning in recitation classes. This is one of the earliest attempts to study the application of recitation at the Islamic school level which has been introduced into the science curriculum. The influence of teachers' initial perceptions of teaching and learning on the application of recitation as a tool to achieve assessment for learning is the focus of this research.

METHOD

The recitation program as a learning method that emphasizes informative, targeted and specific feedback is considered to be able to help students master the expected abilities. With the aim of supporting Madrasah Diniyah teachers to increase their knowledge about the application of recitation and supporting them to use recitation as a means of assessment for learning in recitation lessons, teachers were given workshops which were given in two phases. Phase 1 carried out training on the Tahsin-Tilawah learning model based on Talqin-Taqlid covering material on (1) makharij al-huruf and the law of reading qolqolah; (2) the law of reading mim sukun and nun sukun; (3) the law of mad reading. This training is focused on providing refresher skills in reading the Al-Quran according to correct tajwid rules. Phase 2 carried

out training on the implementation of the Tajwid recitation program using the Tajwid Diagnostic Test (TDT) to find out any misconceptions in the science of Tajweed and solve the problem. The research team also provided intensive support to help reduce technical difficulties that prevented teachers from practicing recitations. After this two-phase workshop, teachers were asked to develop several question items as examples of compiling recitation material. Throughout the workshop, the research team worked closely with participating teachers to provide professional consultation on drafting, planning, and implementing recitations.

This research was conducted after the two training phases were completed (Figure 1) and before the implementation of the tajwid recitation program in their classes. Teachers who participate in the implementation of tajwid recitation are expected to facilitate students in improving their ability to read the Al-Qur'an. As in research conducted by Mui So dan Hoi Lee (2011), The research team adopted a constructivist view that teachers can develop new knowledge about the implementation of tajweed recitation after receiving training.



Figure 1. Tajwid recitation training participants

After the teachers attended the workshop, and before the recitation program was implemented in classroom practice, they were asked to provide responses to understand their perceptions of the recitation implementation. Through the responses given in an open questionnaire (Table 1), this research seeks to identify teachers' perceptions about the tajwid recital program that will be implemented in the classroom. The questions given in the questionnaire are open-ended and focus on three aspects, namely developing, implementing and using recitation programs, learning outcomes and teacher support. These three aspects were adapted from Mui So and Hoi Lee (Mui So & Hoi Lee, 2011).

Table 1. List of open questionnaire questions

No	Questions
1	How do you implement recitation learning in school/class? What strategies/methods are usually applied?
2	After receiving a 'workshop' in this Abdimas (community service) activity, how can you develop and implement a tajwid recital program?
3	According to you, do students easily learn Tajweed? What problems do you usually encounter?
4	In your opinion, what kind of improvement in learning outcomes can students achieve by implementing tajwid recitation?
5	What strategies might you apply so that students can easily participate in the Tajwid recital program?
6	In your opinion, what problems might students face in implementing this tajwid recitation program? What support can you provide regarding this problem?
7	Do you have any other ideas about strategies that can help students learn recitation easily? What needs to be improved about this recitation program so that students can follow the learning process more easily?

Participants consisted of 20 Islamic school teachers in Wagir District, Malang Regency and were conducted at SMP Darul Faqih Indonesia and SMP Sunan Giri Wagir. Madrasah Diniyah teachers were chosen because they are considered

to be the spearhead and front guard in teaching children about reading the Koran, on the other hand they are still laypeople in terms of modern learning, especially learning assessment. These participants offer a fairly representative sample because they come from various schools from different and diverse backgrounds located in Wagir District, Malang Regency.

Data analysis is generally carried out in two stages. First, the responses given by the teacher on the questionnaire are written word for word. Next, the main researcher and colleagues read repeatedly independently. Second, the data is then reviewed and coded according to predetermined categories. In other words, the analysis is carried out deductively and places it into predetermined questions and aspects. The entire coding process was carried out with the help of nVIVO 12 software. To ensure accuracy in interpretation, direct quotes from participants are also presented in the results section (Creswell, 2014). At the data analysis stage, agreement between researchers who carry out coding independently is also calculated (intercoder reliability). Agreement reached over 75% and has reached the required threshold. All differences in coding were resolved through discussion between the principal investigator and colleagues. To ensure the results obtained, the team also carried out member checks by giving several teachers the opportunity to clarify their comments or responses.

RESULTS AND DISCUSSION

Twenty Madrasah Diniyah teachers were asked to respond to an open questionnaire and, a transcript of the results was carried out producing approximately 20 pages of 7 question points. A total of 12 meaning units are recorded for the recitation program of Tajwid. Themes are classified according to three factors that have been determined deductively, namely aspects of developing, implementing, and using recitation programs (Table 2), learning outcomes (Table 3), and teacher support (Table 4).

Develop, implement, and use a recitation program

In this first theme, three sub-themes were obtained, namely learning recitation in general, the methods used, and plans for implementing/applying recitations (Figure 2). From the responses given by the teacher, information was obtained that learning Tajwid is usually done by introducing theory, giving examples, imitating, repeating and memorizing. The methods most often used are the UMMI and Iqro' methods which are carried out classically. The advantage of the iqro method is that students can learn actively and systematically, and it is easy for teachers to monitor progress. Still, the disadvantage is that students need help understanding the names of letters and how to read, according to Tajweed (Wahyudin et al., 2023). The Ummi method has advantages, such as being easy to understand and use, while the disadvantages are that it cannot be taught by the uncertified Ummi method (Firdaus, 2021). Meanwhile, for the application of Tajweed recitation, most teachers agree that the role of media such as websites provides a promising offer to make it easier for students to learn Tajweed through recitation. More detailed examples of responses given by teachers are presented in Table 2.

Table 2. Developing, Implementing, and Using a Recitation Program

Sub-themes from the context of the current study	Example of a response from a teacher
Tajwid learning in general	"In recitation classes, I usually only introduce the theory, for example the law of reading, and then they are asked to read it over and over again and memorize it." "The learning that we apply usually coincides with learning the Koran by giving examples and asking students to imitate what I exemplify."
Method used	"The methods that we often apply in teaching students are the iqro', UMMI, yanbua methods" "Other methods that I usually use are discussions or questions and answers regarding theory, giving quizzes, or reading and writing." "The strategy that is usually used is classical learning by reading together, but there are times when students are asked to read in turns so that students can be identified who are not yet able to read the Al-Qur'an correctly."
Recitation implementation plan	"I am very interested in this tajwid recitation program and want to use it with the help of the website" "The application of tajwid recitation will be able to provide a higher effect by using media that makes it easier for children to understand the material"



Figure 2. delivery of the resource person's contents

Learning outcomes

In this learning outcomes theme, two sub-themes were obtained, namely the obstacles faced by teachers in learning recitation and the expected learning outcomes from implementing recitation. Based on the responses given by teachers, the obstacles faced are very diverse, ranging from time, limited number of teachers, student learning focus, lack of family role, and characteristics of recitation learning itself. By implementing Tajweed recitation, it is hoped that it will be able to raise learning motivation so that students can more easily understand Tajweed material, moreover, this application also has the potential to be applied at home with parental assistance. Based on these results, teachers realize that there are many challenges they face, where the lack of parental role is considered to influence student learning outcomes significantly. The presence of tajwid recitation can increase parental assistance more efficiently. More detailed examples of responses given by teachers are presented in Table 3.

Table 3. Learning outcomes

Sub-themes from the context of the current study	Example of a response from a teacher
Constraint	"Time is very limited, while there are still only a few teachers" "Students lack focus in learning, and rarely even participate in learning" "Lack of family role in helping students read the Koran at home" "Usually students have difficulty with several letters that are difficult to distinguish, for example, Tsa, Sya, Sa"
Increasing learning outcomes with recitation	"At least it can increase student motivation so that their participation is even higher in class" "Improved learning outcomes are better because students feel happy in learning" "Of course, the expected learning outcome is an understanding of the concept of recitation and its application" "Student learning outcomes will increase with tajwid recitation because it can make it easier for parents to accompany students while studying at home"

Teacher support

In the teacher support theme, three sub-themes were obtained, namely general support, support for problems to be faced, and support for other strategies. Based on the responses given by the teacher, general support can be provided by combining recitation learning with previously used methods. Some obstacles such as limited internet support must involve parents. The problem of learning demotivation experienced by students can be overcome by implementing interesting recitations. Apart from that, video tutorials also need to be provided to make it easier for students to take part in the Tajwid recitation program. More detailed examples of responses given by teachers are presented in Table 4.

The main aim of this research is to explore the perceptions of Madrasah Diniyah teachers regarding informative feedback through the recitation program in recitation learning. Many studies have suggested recitation programs as an appropriate support for providing positive feedback (Koenig et al., 2007; Ogilvie, 2009). Through two workshop phases carried out in community service activities, the research team tried to provide support to teachers to increase their understanding and apply it in the classroom. This research also includes practical insights based on teachers' views on how formative evaluation can be implemented in the classroom through constructive and effective feedback to improve student learning outcomes. Because this research is exploratory in nature, the methodology used in this research is designed to enable teachers to articulate more descriptively how teachers can plan recitation programs, also related to the learning outcomes that will be obtained and the support that can be provided by teachers.

Table 4. Teacher support

Sub-themes from the context of the current study	Example of a response from a teacher
General support	"In the current situation, support by building a website is the right step" "Combining with previously run programs"
Support for problems encountered	"The problem that may occur when using the website is the internet infrastructure so it must be ensured that this support is there by involving parents" "The recitation program must be really well designed because demotivation is always a major problem"
Support in the form of other strategies	"There needs to be additional theories, not just evaluation and feedback" "Form a study group by combining children who have not yet and are able to master recitation" "It is necessary to provide tutorials in the form of videos about Tajwid recitation so that students can practice it more easily"

The main results of this analysis reinforce three perceptions that support the recitation program. First, Madrasah Diniyah teachers still maintain old views on teaching methods that have long been used in the classroom (Figure 3). However, it is not as stated by Tsai that teachers often do not accept new teaching approaches because of their successful experiences in existing practices (Tsai, 2006). The Madrasah Diniyah teachers involved in this research tried to be open and accept tajwid recitation as something new and planned to combine it with the methods that had been applied. This might be considered to make it easier for them to implement the tajwid recitation program in class. Second, Madrasah Diniyah teachers assess that the Tajwid recitation program has a number of advantages that are able to overcome a number of problems currently being faced, namely increasing student motivation and making it easier to study at home with parental assistance. Diniyah madrasah teachers believe that the implementation of tajwid recitation can improve student learning outcomes. Third, Madrasah Diniyah teachers consider that the Tajwid recitation program still needs other support such as a website. Teachers assess that the Tajwid recitation program is more significant if it is presented in the form of a learning website. However, there are several obstacles faced such as internet infrastructure. This problem is common when learning requires internet support. Referring to the explanation (Zhang, 2022), the mechanism or tactics that teachers can implement to help students progress in Tajweed abilities is to provide a recitation program as a quiz at home after students have studied with traditional methods in the class. Students can feel the benefits of web-based learning and increase their motivation to engage more with this learning media.



Figure 3. The community service team provides tajwid recitation training

Although this research provides significant results, the research results only provide partial understanding because only the teacher's perspective is sought and does not involve students. Additionally, this research was conducted before the implementation of recitations so the results may be less holistic about how teachers view the implementation of recitations, and it is unclear whether sentiment remains constant if teachers are asked similar questions after successfully implementing recitations. Apart from that, in a typical classroom such as Al-Qur'an learning which is generally teacher centered, the teacher usually does not have much one-on-one time to provide this feedback and it is mostly done classically. Future empirical observations may expand our understanding of how teachers conduct formative evaluation effectively in large class sizes with the aid of recitation programs.

CONCLUSION

This research contributes to the literature by articulating the perceptions of Madrasah Diniyah teachers who have experience in teaching recitation. First, the teacher has an open view and intends to combine recitation with old learning patterns to improve student learning outcomes. Second, teachers are of the view that implementing tajwid provides a number of benefits related to student attitudes by overcoming student demotivation and limited study time. Third, teachers assess that the implementation of tajwid recitation requires additional support, for example by developing a website that is attractive and easy to operate. Thus, the results of this research provide greater clarity for further community service activities in terms of how the implementation of tajwid recitation can be implemented at the madrasah diniyah level and in new contexts, namely in Al-Qur'an learning and why this implementation can have an impact on the quality of learning and outcomes student learning.

In addition, the findings here need to be read with caution because they do not have cross-disciplinary verification, especially as recitation programs are widely proven in the field of science education. Thus, we suggest our research has several practical implications for early madrasah teachers. To maintain student participation and motivation, teachers must be intentional and look for opportunities to implement recitation programs amidst old views that are still strong. However, with the current limited understanding and experience of Madrasah Diniyah teachers regarding the application of this recitation, teachers may need support in the form of further assistance in ongoing community service. In other words, because formative evaluation through recitation is just emerging in the context of Islamic religious education, especially in learning the Koran, we propose a research path.

This research process involves a number of steps that have the potential to cause bias in the conclusions the author wants to draw regarding teachers' views on the implementation of tajwid recitation and its impact on student learning outcomes. Although the focus is on exploring perspectives, these findings can be replicated more widely in an effort to understand tajweed recitation learning practices more comprehensively by paying attention to a number of limitations and the following suggestions. First, because this is the first to explore teachers' perceptions of the implementation of recitation among teachers with almost the same character at one time (one shot), it would be best to conduct similar interviews with teachers who have different educational qualifications and abilities, at different periods such as at the beginning, middle, and end semester, to ascertain whether the results would differ from these findings. Second, we did not observe the implementation of teaching carried out by teachers, so in the future, it is necessary to carry out empirical research that investigates teacher classroom observations to document the occurrence of formative evaluations of students with diverse backgrounds. This knowledge is believed to improve the quality of learning in recitation classes. In other words, empirical research that compares students and teachers with various abilities is also necessary to provide valuable information regarding what things should be considered apart from the impact of providing tajwid. Third, because there is currently no validated evaluative tool to measure how the application of tajwid impacts student learning outcomes and attitudes, the development of such an instrument will provide researchers with greater access to insights into the application of tajwid in the new context of religious education.

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Mapping of potential work-related musculoskeletal disorders in Junrejo community health center

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-08-18 Revised: 2023-09-19 Accepted: 2023-09-23 Published: 2023-09-25 Keywords Awkward position Ergonomics Musculoskeletal disorders Nordic body map Occupational diseases	<i>The International Labor Organization states that controlling work-related musculoskeletal disorders (WMSDs) is part of the Sustainable Development Goals (SDGs) program to protect labour rights and promote a work environment according to the concept of Ergonomic Function Deployment (EFD). This study aims to map the potential for WMSDs in the Junrejo Community Health Center environment. The study used the Nordic Body Map (NBM) questionnaire presented using data triangulation. The NBM results showed an average score of 32.54. This value informs that workers in the Junrejo community health centre environment have a low risk of WMSDs or do not yet need priority action.</i>
Kata Kunci Ergonomi Gangguan muskuloskeletal Nordic body map Penyakit akibat kerja Postur janggal	Pemetaan potensi gangguan muskuloskeletal akibat pekerjaan di Puskesmas Junrejo. Organisasi Ketenagakerjaan Internasional menyatakan bahwa pengendalian gangguan muskuloskeletal terkait pekerjaan merupakan bagian dari program pembangunan berkelanjutan untuk melindungi hak-hak tenaga kerja dan mempromosikan lingkungan kerja yang sesuai dengan konsep Ergonomic Function Deployment (EFD). Penelitian ini bertujuan untuk memetakan potensi gangguan muskuloskeletal yang dikarenakan pekerjaan di lingkungan Puskesmas Junrejo. Penelitian ini menggunakan kuesioner Nordic Body Map (NBM) yang disajikan dengan menggunakan triangulasi data. Hasil NBM menunjukkan nilai rata-rata sebesar 32,54. Nilai tersebut menginformasikan bahwa pekerja di lingkungan Puskesmas Junrejo memiliki risiko gangguan muskuloskeletal akibat pekerjaan yang rendah atau belum memerlukan tindakan prioritas.

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INTRODUCTION

The application of risk analysis measures for the potential occurrence of work-related musculoskeletal disorders (WMSDs) is an effort to protect workers through controls that meet the standard. These controls are expected to create working conditions that are safe and comfortable and have an impact on increasing productivity. Achievement and implementation are based on ergonomic factors related to workers and workstations (Jacquier-Bret & Gorce, 2023). Ergonomics is a study of the work environment, work equipment, and humans and the relationship between them to achieve a level of efficiency, welfare, and safety in carrying out work activities to create a comfortable atmosphere that

can support work productivity. Static and repetitive work activities for a long time cause disturbances in the movement components, namely joints, ligaments, and tendons (Mendonça et al., 2018). However, these disorders are primarily influenced by ergonomic positions, mismatches between workstations and workers, and excessive muscle loading. This position can cause complaints commonly called work-related musculoskeletal disorders (WMSDs) (Heidari et al., 2019).

Musculoskeletal disorders are a health problem for workers in various fields of work (Jacquier-Bret & Gorce, 2023). The International Labor Organization (ILO) states that controlling WMSDs is part of the Sustainable Development Goals (SDGs) program (International Labour Organization, 2014). The program is described in point 8.8 to protect labour rights and promote a safe and secure working environment for all workers (Bappenas, 2019). Meanwhile, the World Health Organization (WHO) and the Global Burden of Disease state that as many as 1.71 billion workers in the world experience WMSDs. Half of the prevalence, namely 568 million workers, experience WMSDs specific to low back pain (LBP). The prevalence of WMSDs in Indonesia in general is 36.6%. Meanwhile, several provinces in Indonesia have a prevalence of joint disease above the national percentage (Susilo, 2022). These provinces include Nanggroe Aceh Darussalam, West Sumatra, Bengkulu, West Java, Central Java, East Java, Bali, West Nusa Tenggara, East Nusa Tenggara, South Kalimantan, and Papua. In general, the incidence of WMSDs is a major contributor in causing worker disability due to occupational diseases and/or occupational accidents to early retirement from work. So mapping every employee complaint can be an initial screening to reduce the prevalence of WMSDs (Aprianto et al., 2021).

The incidence of WMSDs based on reports from the WHO and the Indonesian Ministry of Health and partners was confirmed using Nordic Body Map (NBM). The findings of specific and concrete WMSD problems that are the priority problems are in the neck, hand wrist, and back muscle regions of 27 maps of right or left side body parts (Heidari et al., 2019). The results of previous research indicate that health professionals have the potential to experience WMSDs. The prevalence of WMSDs occurs in the back, neck, shoulder, and wrist regions. However, each profession has specific regions that are likely to experience WMSDs. Dentists and surgeons have 35-55% potential to experience WMSDs in the upper limbs, nurses have >25% potential in the lower limbs, and the rest occur in other professions. In order, professions with high potential for WMSDs include dentists, surgeons, midwives, physiotherapists, nurses, and osteopaths (Jacquier-Bret & Gorce, 2023). The magnitude of the potential is influenced by awkward position factors and work duration (Putsa et al., 2022).

The work duration at Community Health Center reaches 6 hours per day. When associated with the provisions of Article 77 paragraph 1, No. 13 of 2003 concerning working hours that apply is 7 hours per day and 40 hours in 1 week the work duration is by applicable regulations. However, WMSD events that arise are generally associated with work activities that are awkward positions (International Labour Organization, 2014; Susilo, 2022). However, do healthcare professionals in the types of hospitals, clinics and health centers have the same potential for WMSDs. Whereas this community service focuses on services at the first level, namely health centers. Systematically, WMSD problems found through the NBM method approach are carried out with a management action plan. So, this community service aims to map the potential of WMSD in the Junrejo Health Center environment. The form of management efforts uses the presentation or socialization method and provides activity reports to the section responsible for the administration system, problem solving and control of health resources at Junrejo Community Health Center of Batu City.

METHOD

Procedur of study populations

Community service was carried out in the work environment of the Community Health Center on Jl. Pronoyudo No.30, Dadaprejo, Junrejo, Batu City, East Java 65233. This service has obtained permission from the public health office of the Batu city with number 072/1371/422.107/2022. The service aims to map the potential for WMSDs in health employees caused by professional professional activities. The implementation of the service consists of the problem observation stage, problem confirmation and analysis, as well as report preparation and education. The observation stage includes licensing activities and interviews with the person in charge of controlling employee health resources. Then mapping WMSDs using the NBM questionnaire on 15 employees is determined using a cluster random sampling approach in a natural setting (Mushlih & Rosyidah, 2020). The results of the mapping were analyzed through data triangulation techniques. The last step was to educate employees to reduce the risk of WMSDs through the scientific approach of physiotherapy. The ability of employees to make efforts to prevent WMSDs through modification of work activities is the main indicator of this service. These indicators include the ability to analyze awkward positions and be able to carry out the WMSDs rehabilitation in accordance with the recommendations of the ergonomics guidelines from the Indonesian Ergonomics Association (PEI) (Yassierli et al., 2020).

Data collections

The Nordic body map (NBM) or standard Nordic questionnaire (SNQ) is a self-report questionnaire to determine pain complaints in 27 body parts. These complaints are one of the signs to identify the risk of musculoskeletal disorders (MSDs). The level of discomfort or pain complaints on the NBM includes No Pain (1), Slightly Pain (2), Pain (3), and Very Pain (4). In order, these scores represent no pain in a certain area, slight pain in a certain area, discomfort, and very pain in a certain area. All self-reports were calculated to total individual scores to determine the risk classification of WMSDs. The

classification consists of low (28-49) indicating no need for action, medium (50-70) requiring future action, high (71-90) requiring immediate action, and very high (92-122) requiring comprehensive corrective action as soon as possible (Heidari et al., 2019; Prastowo et al., 2023).

RESULTS AND DISCUSSION

The results of mapping the characteristics of employee respondents at Junrejo Community Health Center of Batu City are dominated by female employees in the late adult to early elderly age range, both of which reach 72%. All employees have a daily work duration of no more than 6 hours. Employee professions are dominated by midwives and nurses until each profession reaches a percentage of 20%. Both professions show awkward positions with dynamic work activities.

Table 1. Characteristics of respondents

Characteristics	Frequency (n)	Percentage (%)
Gender		
Male	6	40
Female	9	60
Age		
Late Adolescent (17-25 Years)	1	7
Early Adulthood (26-35 Years)	3	21
Late Adults (36-45 Years)	5	36
Early Elderly (46-55 Years)	5	36
Profession		
Doctor	1	7
Nurse	3	20
Dental Nurse	1	7
Midwife	3	20
Pharmacist	1	7
Nutritionist	1	7
Laboratory Analyst	1	6
Environmental Health	1	6
Health Promotion	1	7
Medical Records	1	6
Administration	1	7
Work Activity		
Static	8	53
Dynamic	7	47
Work Position		
Nature Position	7	47
Awkward Position	8	53

Self-report of Junrejo Community Health Center employees using NMB shows an average total individual score of 32.54. This value is included in the low risk level category or no priority action is needed. However, the highest individual total score is shown in the early to late adult age category which respectively reaches 33.7 and 32. Meanwhile, based on mapping anatomical regions from 28 parts, 6 regions often complain of MSDs. These regions include the neck which reaches 23%, the back and hands at 18%, the legs at 15%, and the shoulders and waist reach 13%. Based on the Likert scale, the average complaint is mildly painful to painful. Each employee reported WMSD complaints of 3 to 8 regions (Figure 1). The WMSD complaints generally came from the maternal and child health workspace and the program. The results of workstation analysis by adopting the principles of job safety analysis (JSA) obtained several risk factors (Albrechtsen et al., 2019).

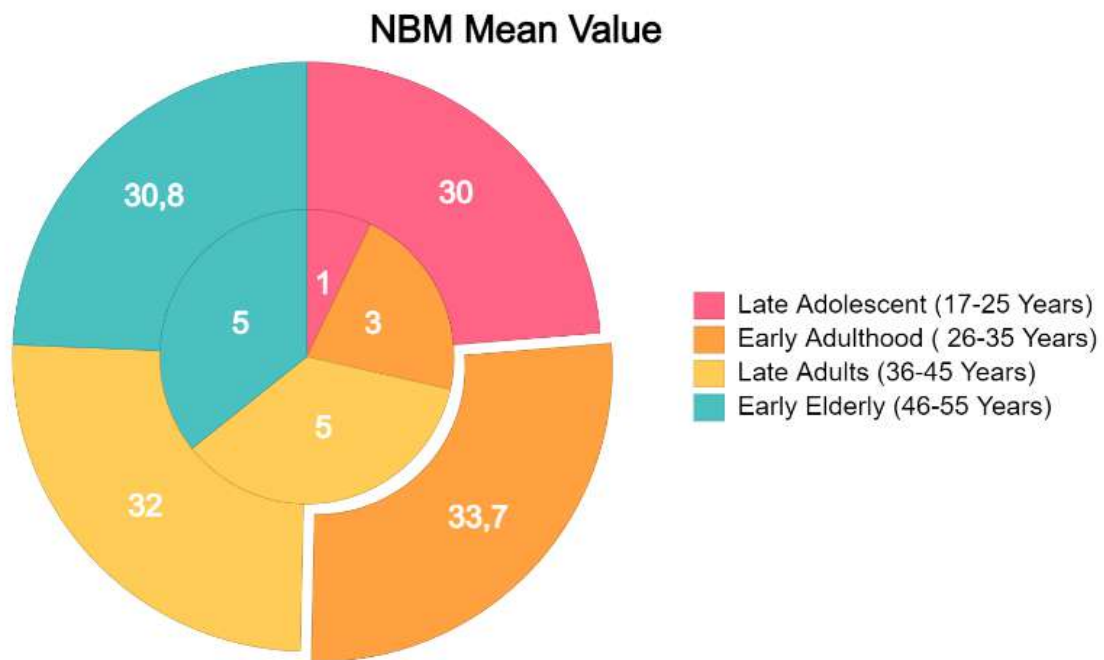


Figure 1. NBM mean value

Each workspace has different risk factors according to professional work activities (Aprianto et al., 2021). Program, service, laboratory, consultation and general poly rooms have static sitting work activities for a relatively long period of time. In addition, this is exacerbated by the condition of the placement of equipment that is difficult to reach. Such activities as in the dental, maternal and child health or maternity rooms are static standing for a period of time according to the level of complexity of the action (Figure 2). All of these activities are carried out for more than 2 hours in a row (Fauzia et al., 2023).



Figure 2. Worker's awkward position

The complexity of health worker competencies requires alignment between competency guidelines and job mobility. The identification of complexity in developed or developing countries shows the low level of compliance of health workers in understanding and developing competency guidelines. Conceptually, every health worker profession has ideal work guidelines. However, the implementation process is different. This is influenced by practice complexity factors or patient-centred demands (Batt et al., 2020). Each professional organization has developed work mobility guidelines based on ergonomic concepts. Mobility guidelines aim to improve efficiency, health, safety, comfort and convenience for each individual. Behaviours that ignore ergonomics will cause inefficiency and lead to occupational diseases and/or occupational accidents (Mohammad et al., 2019).

The incidence of WMSDs is influenced by biomechanical, psychosocial and individual factors. Biomechanical factors are closely related to work activities, work tools and work intensity. Then the individual factors include anatomical structure, age, gender, body mass index and daily lifestyle. Meanwhile, psychological factors consist of management, supervisors, emotions, communication and relationships between work environments (Chowdhury & Chakraborty, 2017). In 2021 the provinces of Aceh, Bengkulu and Bali were reported to have the highest prevalence of WMSDs. The high prevalence rate of WMSDs in Indonesia is caused by individual and biomechanical factors (Aprianto et al., 2021).

Individual factors have a significant relationship with WMSD complaints. NBM mapping of midwives at the Lebak Regency Health Centre shows complaints in the neck, shoulder and back areas. These complaints are due to the midwife's work activities at the time. The kala activity is dominated by the position of the neck bowing, and continuous rotation of the shoulders and back accompanied by wrist bending. However, these activities can change according to the birth process of the baby. In the final stage of labour, there is a relatively long process of stitching the perineum carefully and statically (Mohammad et al., 2019; Sutianingsih & Rokayah, 2019).

The completeness of equipment and the high number of patient visits are problematic at the health centre. Previous studies have shown that patient service in health centres is directly proportional to the level of work activity of health workers. The high activity occurs at workstations that require a level of accuracy such as administration, maternity and dental treatment rooms. Dentists at the Malang City Health Center reported as many as 71.42% working more than 8 hours every day. This work duration has the potential to cause WMSDs to reach a high risk of 57.14% (Murtiwardhani & Shoumi, 2020). The work only has complete equipment reaching 74.2% (Fauzia et al., 2023; Wulandari et al., 2021).

Health centre with 100% equipment completeness in Indonesia still has a relatively low risk of WMSDs. This situation is influenced by the lack of employee awareness in applying the principles of effective, comfortable, safe, healthy, and efficient (ENASE) (Jacquier-Bret & Gorce, 2023). The comfortable position performed by the average employee is included in the awkward position category (Mohammad et al., 2019). The low understanding of ENASE also occurred in 300 health workers in Iran, which resulted in the need to control WMSDs. Recommendations for WMSD prevention programs can be carried out by enforcing continuous reductions in working hours (Heidari et al., 2019). However, this study uses an action plan through Dale's Cone of Experience concept. The concept incorporates several theories related to instructional design and the learning process. The ENASE delivery design follows the read approach in the form of leaflets delivered using the simulation model. Both approaches are expected to enable health workers to remember and understand the principles of ENASE with a percentage reaching 90% (Davis & Summers, 2015).

Static work activities accompanied by awkward positions lead to high-performance stress on soft and connective tissues. Pressure is closely related to the ability of these tissues to maintain position for a relatively long time. Activities that reach the soft tissue threshold will trigger a decrease in blood circulation. This process is known as ischemia. Ischemic events cause inhibition of the transfer or exchange of O₂ in the blood. The inhibition of the exchange process results in the accumulation of CO₂, and secretions. Metabolic waste substances such as lactic acid produced from red blood cells should be distributed to various parts of the soft tissue. However, the process accumulates in certain parts to produce symptoms of MSDs (Thomas et al., 2018).

CONCLUSION

Junrejo Community Health Center employees have the potential to experience low-risk level WMSDs so no priority action is needed. The risk is influenced by static activities with awkward positions for a relatively long period. Average WMSD complaints occur in the neck, back, hands, feet, shoulders and waist regions. The complaints include mild pain to pain. The workstations that have the highest potential to cause WMSDs are the maternal and child health room and the program. The risk of WMSDs with a low category is a parameter in controlling occupational diseases or accidents due to work. Control can be done by applying ergonomic guidelines from the Indonesian Ergonomics Association (PEI). The guidelines explain work positioning, muscle stretching, and organizing workstations.

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Infrastructure development recommendation for traditional market to promote economic growth: A case study of Landungsari traditional market

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-06-04 Revised: 2023-09-11 Accepted: 2023-10-01 Published: 2023-10-02 Keywords Economic growth Infrastructure development Traditional market	<i>The Landungsari Traditional Market is intended to serve as a major economic engine for the local area. This community service aims to assist in assessing the conditions of infrastructure and facilities in the Traditional Market of Landungsari since the availability and quality of infrastructure and facilities play a significant role in supporting the sustainable growth of the traditional market. The factors in question include the physical state of the buildings, the availability of utility infrastructure, the availability of essential public facilities, and the market's accessibility. The study's findings were presented as suggestions for infrastructure improvement that could be used as a guide for the local government to further enhance the market's physical features. Visual assessment revealed that while the market's structure is generally in good condition, several of its components require maintenance and repair. This market needs to make improvements in terms of utility systems since it only satisfies around 25% of the standard requirements. Furthermore, as only 71% of the market's essential public facilities have been provided, additional facility development was necessary. Even though the market's building and facilities have been given adequate access, it is recommended to perform improvements in terms of wider market aisles, the addition of wheelchair-accessible pathways, and the provision of public transportation services to achieve a higher level of market accessibility.</i>
Kata Kunci Pasar tradisional Pengembangan infrastruktur Pertumbuhan ekonomi	Rekomendasi pengembangan infrastruktur pada pasar tradisional untuk mendorong pertumbuhan ekonomi: Studi kasus Pasar Landungsari. Pasar Landungsari diharapkan dapat menjadi roda penggerak ekonomi bagi daerah sekitarnya. Ketersediaan dan kualitas prasarana dan sarana sangat berperan dalam mendukung pertumbuhan pasar tradisional yang berkelanjutan, sehingga perlu dilakukan pendampingan untuk menilai kondisi prasarana dan sarana di Pasar Landungsari. Aspek yang dinilai mencakup kondisi fisik bangunan, ketersediaan prasarana utilitas, ketersediaan fasilitas umum yang vital, serta tingkat aksesibilitas pasar. Hasil studi berupa rekomendasi perbaikan infrastruktur yang dapat digunakan sebagai panduan bagi pemerintah daerah untuk meningkatkan performa sarana dana prasarana Pasar Landungsari. Observasi visual menunjukkan bahwa secara umum struktur bangunan pasar masih dalam kondisi yang baik, namun pemeliharaan dan perbaikan dibutuhkan di beberapa komponen bangunannya. Utilitas pasar perlu dibenahi kembali karena hanya memenuhi sekitar 25% dari standar persyaratan. Selain itu, diperlukan penambahan fasilitas umum di Pasar Landungsari karena hanya 71% ketersediaan fasilitas utama yang telah terpenuhi. Pasar Landungsari telah memiliki akses yang memadai, namun disarankan untuk melakukan peningkatan aksesibilitas pasar dengan memperluas lorong pasar, memberikan akses yang memadai untuk mobilitas kursi roda dan menyediakan layanan transportasi umum. Copyright © 2023, Cahyani, et al This is an open access article under the CC-BY-SA license 

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INTRODUCTION

The traditional market plays a significant role in the local community as a place to hold trading activities to meet their daily needs (Saragih & Meak, 2022). Furthermore, this trading place has been used to accommodate social interaction and maintain the local culture. Hence, the traditional market has the potential to empower economic growth and regional development by providing a trading platform for numerous small traders and transporters (Ujianti & Dewi, 2021; Yulia & Oktaviani, 2018). This vision is recognized as the 8th goal of the Sustainable Development Goals (SDGs), which is to encourage sustained economic growth and promote full and productive employment (Aji & Kartono, 2022; Raharjo, 2015). However, despite its unseparated existence from the local community, traditional markets in Indonesia tends to experience difficulties in their operations due to internal issues, such as the market's poor facility and infrastructure and less well-ordered management which can contribute to the decrease in the number of visitors (Soelistiyono et al., 2018).

The traditional market is expected to have sustainable growth with the availability of infrastructures that are comfortable, healthy, safe, and friendly both to the environment and society (Lutfi & Syaifullah, 2020; Siregar et al., 2021). To ensure great shopping experience, traditional market need to accommodate buyers' interests of a clean and neat market with adequate facilities (Kistanti & Karsinah, 2020). The Traditional Market of Landungsari, which is situated in Malang Regency, is designated to promote the social and economic activities of the local communities (Latifah & Jati, 2021). Due to its advantageous position, this market is constantly busy with activity. Like the typical traditional market in Indonesia, the Traditional Market of Landungsari has a large open area to hold several stalls and booths that are opened by traders. Even though this market has enough space to lodge hundreds of traders, it still lacks public facilities to support convenient trading activities. Moreover, some of its infrastructure requires to be renovated and undergo maintenance. The limited space of aisle between the traders' booth or stalls and puddles that formed in sinking pavers may pose a threat to a comfortable shopping experience.

The Traditional Market of Landungsari is designed to be one of the driving forces of the region's economic development. The market must be able to function properly, efficiently, and effectively to accomplish that purpose. Since the availability and quality of infrastructure and facilities contribute greatly to supporting the sustainable growth of the traditional market, this community service aims to provide assistance in determining the conditions of infrastructure and facilities in the Traditional Market of Landungsari. The aspects in question are the building condition, the availability of utility infrastructure, the availability of essential public facilities, and the market's accessibility which measure the convenience of access provided for engaging in trading activities around the market. The analysis result from this program can be used as input and direction for the government to enhance the physical quality of the Traditional Market of Landungsari. A thriving market will greatly aid in boosting the local economy and serve as an effort to meet the 8th Sustainable Development Goals (SDGs), which include supporting economic growth and promoting full and productive employment.

METHOD

The Traditional Market of Landungsari is located in Malang Regency, East Java, Indonesia. This market, which lies within 6,100 m² area, supplies everyday necessities and fresh goods for the local populations. The Traditional Market of Landungsari falls under the jurisdiction of Landungsari Village and plays an important role in the development of the local economy. As shown in **Figure 1**, this market is surrounded by dense residential areas. Hence, the Traditional Market of Landungsari has huge potential to be the center of economic activity and is expected to support the village to grow sustainably. In order to reach the full potential of the market, the local government has a plan to improve its physical aspects, which includes expansion of the market area, addition of public facilities, and enhancement of the market's infrastructure. However, this development plan needs some sort of guide aid to identify the physical aspects that need to be enhanced. A team that consists of structural engineers and undergraduate students from the Civil Engineering Department of Universitas Muhammadiyah Malang (UMM) seeks to help by offering the required direction (**Figure 2**).

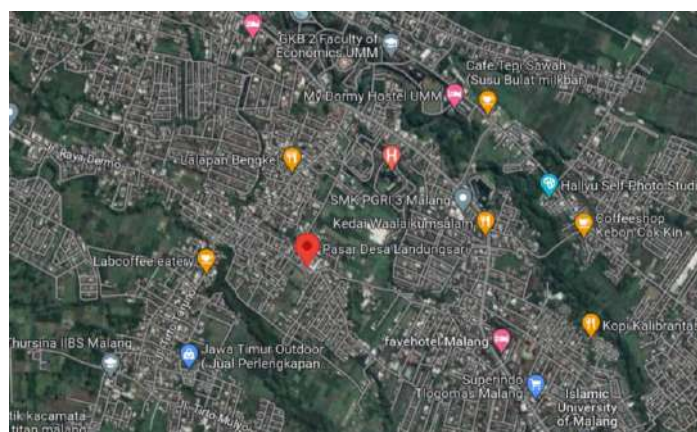


Figure 1. The strategic location of the Traditional Market of Landungsari



Figure 2. The team from Civil Engineering Department of UMM with the representative of the Traditional Market of Landungsari

This study employs a qualitative research approach with the objective of identifying flaws and analyzing a way to improve them based on information and data observed in the field (Royadi et al., 2019). The study implemented involve several steps including data collection, data analysis, and reporting the results (Busetto et al., 2020). The methods used to obtain qualitative data include document analysis, observation, and interviews. Document study refers to the review of the materials depicting the physical aspect of infrastructure and facilities in the Traditional Market of Landungsari. Observations employed to gain insight of the physical conditions of infrastructure and facilities in the Traditional Market of Landungsari. During the observations, the observer conducts market space measurements, takes notes on the situations, and takes photos for documentation. Other data was collected using qualitative interviews with the representative of the Traditional Market of Landungsari. This step provides an overview of the problems faced by the market in terms of their physical aspects.

The data collected was then summarized and categorized based on the Indonesian standard guidelines about the traditional markets, SNI 8152:2015 (Paryatno et al., 2020; Suprpto & Raden, 2022). This standard serves as a benchmark in deciding the quality of the existing infrastructure and facilities in the Traditional Market of Landungsari (Fadjarwati et al., 2021). The category under analysis includes the building condition, the utility infrastructure, the public facilities, and the market's accessibility. The study's findings were presented as recommendations for infrastructure development that could be used as a guide for the local government to further improve the market's physical aspects.

RESULTS AND DISCUSSION

Building Condition Assessment

Assessment of the building's condition is crucial to ensuring that the maintenance plan is effective in meeting service requirements (Gouda Mohamed & Marzouk, 2021). It helps to show the needed maintenance program to keep the building and its component in the original state. This procedure begins with an evaluation of the physical condition of the building's elements, followed by any necessary action to improve the building's performance (Wahida et al., 2012)

Building is makes up by several elements: structural or primary elements, secondary elements, and finishing elements (Wahaj, 2019). The structural elements are the load bearing components like beams and columns. The secondary elements consist of elements that do not provide load bearing capacity to the building, such as walls and floors. The finishing elements are the completing finishes like plastering, paints, ceiling, and roof covering. These types of elements were used to categorize the building components that were assessed in this study.

The building's structural elements in the Traditional Market of Landungsari are generally in good shape, however some of them require maintenance. The market stalls' structural steel, which are depicted in **Figure 3**, are affected by corrosion damage. It can be caused by exposure to the environment and inadequate corrosion protection. The severe corrosion damage on a steel structure can reduces its loading capacity, even leading to structural collapse (Luo et al., 2020). Since the steel structure itself is still in good condition, the preventive measures can be taken by remove corrosion using sand blasting, followed by applying a protective coating on the steel section.

The visual inspection discovered that most of the market's stall walls have no significant damage that could affect its strength and stability. However, some of it needs to be fixed. **Figure 4** shows a brick wall with a sizable opening on top that was likely built to accommodate roof beams. This kind of damage can be easily repaired by rebuilding the section of the wall that has the opening.

The Traditional Market in Landungsari has two different types of flooring: paver brick flooring for the aisle between the market stalls and plastered floors in the market stalls. Visual assessment revealed that the majority of the plastered floors are in decent condition. However, some sections of the paver on the aisle sunk down, causing a tripping hazard, and forming puddles of water (**Figure 5**). Typically, poor installation, soil erosion, or a drainage problem cause pavers to sink

(Hening et al., 2021). It may also indicate that the base was not properly compacted during construction. Since sinking pavers caused problems, both aesthetically and structurally, it is recommended to repair the pavers by reinstalling them after thoroughly identifying the underlying issues.



Figure 3. The corroded structural steel



Figure 4. Market stall's wall with large opening



Figure 5. The sunken pavers at the market aisle



Figure 6. The damaged ceiling in market stalls

The finishing elements that require immediate attention is the ceiling. In some areas of the market stalls, the damage is quite severe as the ceiling has collapsed while other parts are sagging (**Figure 6**). A sagging ceiling poses an immediate hazard since it could collapse and put both the buyer and seller at risk. The common cause of saggy ceilings is water damage, inadequate support, or simply wear out with age (Z et al., 2019). Another factor is the lack of maintenance provided. It is suggested to replace the ceiling with a new one since the damage is severe. Additionally, it is advised to inspect for potential water damage and add new support under the ceiling.

Availability of Utility Infrastructure

Utilities infrastructures supply utility services to the public and considered to include electricity, gas, water, sewage, drainage, and life-safety system. In the Traditional Market in Landungsari, traders have proper access to electricity and clean water. The water is accessed using bore, either provided by the market or by the trader itself (**Figure 7**). However, bore water not be preferable for drinking or cooking without properly tested or treated (Shyamala et al., 2008). Therefore, it is advised to evaluate the quality of the groundwater in this market area.

The Traditional Market in Landungsari has adequate drainage and sewage system, but it is suggested to expand the sewer capacity. In this market, the wastewater is discharged into the river without treatment. The main purpose of the sewage treatment process is to eliminate numerous pollutants before being released into streams and lakes. This step is of great importance for the environment and for public health (Prinajati, 2020; Salvi & Patil, 2021). Hence, a wastewater treatment facility is required. In order to maintain cleanliness in the market area, this market provides temporary waste dump sites (TPS) along with the equipment needed to transport the waste. Unfortunately, there aren't enough trash bins in the market area, which leads to piles up of garbage in some locations.

Traditional markets are one of the public facilities most vulnerable from fire. The loss of life, destruction of property and the environment, interruption of business operations, and job losses are all consequences of fire events in traditional markets. Despite the significant risk, traditional markets typically have subpar fire protection systems (Hاتمoko & Larassati, 2021). The lack of firefighting supplies like water hydrants and fire extinguishers at the Landungsari Traditional Market makes it susceptible to fire. It is also required to provide an evacuation route to ensure public safety during emergencies. **Table 1** displays the market's compliance with the standard requirements based on SNI 8125:2015 in terms of utility systems. The Traditional Market in Landungsari only meets 25% of the required standards and needs to make further improvements.



Figure 7. Access to groundwater using a bore

Table 1. Standard requirements for utility systems in a traditional market

Criteria	Standard Requirements	Standard Compliance
Clean water testing	Yearly	Not Provided
Liquid waste testing	Yearly	Not Provided
Availability of trash bin	At each stalls/booth and near public facilities	Not Provided
Garbage transportation equipment	Provided	Provided
Temporary waste dump sites (TPS)	Provided	Provided
Fire extinguishers	Provided	Not Provided
Water hydrant	Preferably provided	Not Provided
Evacuation route	Provided	Not Provided

Availability of Public Facilities

Public Facilities are essential facilities that need to be provided to ensure a convenient trading experience at the Traditional Market of Landungsari. **Table 2** shows the availability of required public facilities in Traditional Market of Landungsari with SNI 8125:2015 as the reference. The facilities are categorized into primary and secondary one. According to analysis result, this market has provided about 71% and 33% of the required primary and secondary facilities, respectively. The market must provide 100% required primary facilities to satisfy the grade assessment. Hence, further development is for immediate consideration.

Table 2. Standard requirements for public facilities in a traditional market

Criteria	Standard Requirements	Standard Compliance
Primary Facilities		
Parking area	Proportional to market's area	Provided
Management office	Inside the market's area	Provided
Bathrooms	At least four bathrooms (two for women and two for men) that provided in two different locations	Provided but not separated by genders
Prayers room	Provided	Provided
Common room	Provided	Not Provided
Security office	Provided	Provided
Green area	Provided	Not Provided
Secondary Facilities		
Loading and unloading area	Provided	Provided
Handwashing facilities	At least provided in two different locations	Provided
Breastfeeding room	Provided	Not Provided
Healthcare facility	Provided	Not Provided
Smoking area	Provided	Not Provided
Disinfection Room	Provided	Not Provided

Market Accessibility

Indonesian standard guidelines about the traditional markets, SNI 8152:2015, defines accessibility as the convenience for vehicles, people, and the disabled to access the market and its facilities inside the market's building. Anggraini et al. (2017) have developed several assessment indicators according to SNI 8152:2015 to evaluate the accessibility of a traditional market which was then adopted in this study. These assessment indicators are shown in **Table 3**.

Table 3. Assessment indicators to evaluate the market's accessibility level

Assessment Indicators	Accessibility Levels		
	Easy	Normal	Difficult
Distance from the primary road to the market's building	< 100 m	100 – 300 m	> 300 m
Number of the access door(s)	3 doors	2 doors	1 door
Width of the access door(s)	> 2.0 m	1.8 – 2.0 m	< 1.8 m
Width of the market's aisle	> 1.8 m	1.5 – 1.8 m	< 1.5 m
Wheelchair access	Provided	Provided	Not Provided
Number of available public transportation	> 2 modes	1 – 2 modes	Not Provided

The Traditional Market of Landungsari has provided adequate access to the market's building. There are two roads that lead to the market, Jalan Tirto Rahayu and Jalan Tirtomoyo (**Figure 8**). However, as can be seen from **Figure 10**, the road width of Jalan Tirto Rahayu is not wide enough for two cars to pass (only about three meters wide). Moreover, the other access from Jalan Tirtomoyo is only suitable for motorcycles and pedestrians (**Figure 11**). Jalan Tirto Rahayu, the main road, has two main entrances to the market (Gate A and B), while Jalan Tirtomoyo has one back entrance (Gate C) (**Figure 8**). Three corridors serve as the entrance and exit points for the market's building (**Figure 9**). With a width of about 3.5 meters, these corridors are wide enough to accommodate the trading activities of the market. However, observation revealed that there was no public transportation available around the market and the majority of the market's visitors uses motorcycles as the transport mode. Lack of access to public transportation may impede accessibility and discourage residents of wider areas from visiting the market (Berg & Ihlström, 2019; Widayanti & Supriyatno, 2020).



Figure 8. Access to the market from Jalan Tirto Rahayu and Jalan Tirtomoyo

According to the standard, the aisle between the two stalls in the market must be at least 1.5 meters in width to ensure the ease of the people walking around the market. This requirement has not been met as the market's aisle is around one meter in width (**Figure 12**). This narrow corridor leads to congregated and overcrowded people in some areas during the rush hours. The inadequate space in the aisle not only threatens the shopping convenience but also poses a danger in case of emergencies. A market with high accessibility needs to provide wheelchair access to all parts of the market. The Traditional Market of Landungsari has a narrow aisle with rugged and uneven paver floors, which is not suitable for wheelchair mobility. Additionally, there are no disabled facilities, such as toilets and parking spaces designed for people with mobility impairments. The evaluation result of the Landungsari market's accessibility is summarized in **Table 4**.

Table 4. Evaluation of The Traditional Market of Landungsari accessibility level

Assessment Indicators	Observation Results	Accessibility Levels
Distance from the primary road to the market's building	5.0 m	Easy
Number of the access doors	3 doors	Easy
Width of the access doors	3.5 m	Easy
Width of the market's aisle	1.0 m	Difficult
Wheelchair access	Not Provided	Difficult
Number of available public transportation	Not Provided	Difficult

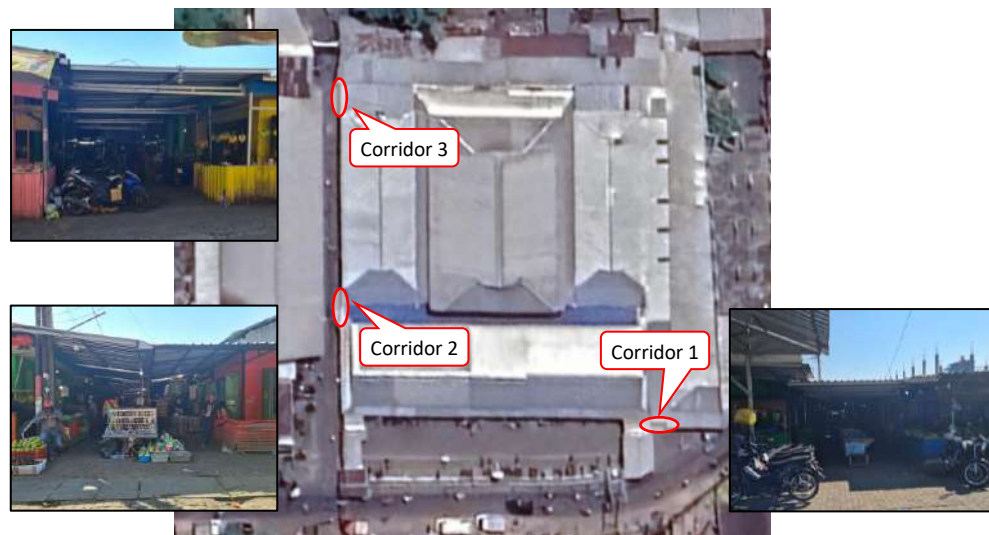


Figure 9. Three corridors as the entrance and exit points for the market's building



Figure 10. Jalan Tirto Rahayu, the primary road access to the Landungsari Market



Figure 11. Jalan Tirtomoyo's narrow width restricts traffic to only motorcycles and pedestrians



Figure 12. Narrow aisle between two stalls in Landungsari Market

From **Table 4**, it is found that there are three indicators that must be improved to increase the market's accessibility: the width of the market's aisle, accessible space for wheelchair mobility, and the establishment of public transportation services. Since the ease of accessing the market and its facilities contributes greatly towards the market's sustainable growth, it is preferable to address this problem in the market's development plan.

CONCLUSION

Traditional market has the potential to empower economic growth and regional development. This vision is recognized as the 8th Sustainable Development Goals (SDGs), to encourage sustained economic growth and promote full and productive employment. This community service aims to provide assistance in determining the conditions of infrastructure and facilities in the Traditional Market of Landungsari as the availability and quality of the infrastructure contribute greatly to the market to grow sustainably. The result from the study shows that while the market's building has no major physical deficiencies, some of the building components need to be repaired and maintained. Evaluation of the market's utility infrastructures found that the market only satisfies 25% of the standard requirements and suggested further improvements. In the case of public facilities, as the market only provides 71% of the required essential public facilities, the additional facility development is for immediate consideration. Landungsari Traditional Market has adequate access to its buildings and facilities, however it is suggested to improve three indicators to achieve a higher level of accessibility: the width of the market's aisle, adequate access for wheelchair mobility, and the availability of public transportation services. These findings serve as recommendations for infrastructure development in the Traditional Market of Landungsari to accommodate the market's sustainable growth.

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Training on making handwash Ag nanoparticle of Sesbania leaf extract for Fatayat NU

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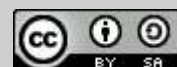
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ARTICLE INFO	ABSTRACT
Article history Received: 2023-07-31 Revised: 2023-09-09 Accepted: 2023-09-12 Published: 2023-10-04 Keywords Ag Nanoparticles Fatayat NU Handwash soap	<i>In order to strengthen the skills and creativity of Fatayat Nahdlatul Ulama (NU) members, Handwash soap making training is a useful activity. Soap making training can provide Fatayat NU members with the opportunity to acquire new skills. In this training, participants will learn various techniques and methods in making quality soap. This community service activity can also provide information and knowledge to Fatayat NU women about making Sesbania leaf extract nanoparticle handwash soap. Based on the evaluation results, it shows an increase in the knowledge of Fatayat NU about making handwash. With an increase in the average value of pretest results from 40 and posttest 75 This community service is an effective means of disseminating information and knowledge about hygiene, health, and the importance of washing hands with soap.</i>
Kata Kunci Fatayat NU Nanopartikel Ag Sabun cuci tangan	Pelatihan pembuatan nanopartikel Ag pencuci tangan ekstrak daun sesbania untuk Fatayat NU. Dalam rangka meningkatkan keterampilan dan kreativitas anggota Fatayat Nahdlatul Ulama (NU), pelatihan pembuatan sabun cuci tangan merupakan salah satu kegiatan yang solutif. Pelatihan pembuatan sabun dapat memberikan kesempatan kepada anggota Fatayat NU untuk memperoleh keterampilan baru. Dalam pelatihan ini peserta mempelajari berbagai teknik dan metode dalam pembuatan sabun berkualitas. Kegiatan pengabdian kepada masyarakat ini juga dapat memberikan informasi dan pengetahuan kepada perempuan Fatayat NU tentang pembuatan sabun cuci tangan nanopartikel ekstrak daun Sesbania. Berdasarkan hasil evaluasi menunjukkan adanya peningkatan pengetahuan perempuan fatayat Nu tentang cara mencuci tangan. Dengan peningkatan nilai rata-rata hasil pretest dari 40 dan posttest 75. Pengabdian masyarakat ini merupakan sarana yang efektif dalam menyebarkan informasi dan pengetahuan tentang kebersihan, kesehatan, dan pentingnya cuci tangan pakai sabun.

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INTRODUCTION

Fatayat Nahdlatul Ulama (NU) is a women's organization under the auspices of Nahdlatul Ulama, one of the largest Islamic organizations in Indonesia. The Fatayat NU empowerment program aims to encourage the role and positive contribution of women in society, as well as provide opportunities for them to develop their potential and skills. (Hendrawan et al., 2022). There are several Fatayat NU empowerment programs including Skills and Training. This program focuses on providing training and skills to Fatayat NU members in various fields, such as entrepreneurship, craft making, agriculture, and information technology skills (Hidayat et al., 2020). With these new skills, Fatayat NU members can become more independent and have the opportunity to contribute to the economy of their families and communities.

Health Program This program includes health campaigns, education about reproductive health, and disease prevention. The aim is to increase the awareness and understanding of Fatayat NU members regarding the importance of health and the role of women in maintaining family health (Chasanah et al., 2022). **Economic Empowerment** This program aims to provide access and opportunities for Fatayat NU members to be involved in economic ventures. This could be a micro business credit program, entrepreneurship training, or capital assistance to help them start their own business (Hafiz & Sungaidi 2021).

Through these various programs, it is hoped that Fatayat NU members will be able to develop their potential, improve their quality of life, and make a positive contribution to society and the nation. This program is also in line with the spirit of equality and independence for women, as well as Islamic values which encourage the empowerment of all members of the ummah, regardless of gender (Surachman 2019). Improving skills and creativity in making handwash for Fatayat NU can be a positive and beneficial step. Making handwash independently can not only meet their daily needs, but can also teach Fatayat NU members new skills and increase their creativity in creating useful products (Febriani 2021).

In order to strengthen the skills and creativity of Fatayat Nahdlatul Ulama (NU) members, Handwash soap making training is a useful activity. This article will discuss the importance of soap making training for Fatayat NU and the benefits that can be obtained from this training. Soap making training can provide opportunities for Fatayat NU members to acquire new skills. In this training, participants will learn various techniques and methods in making quality soap. These skills can be used for personal needs or as capital to start an independent soap business (Hidayat et al. 2020).

Silver nanoparticles are tiny particles of silver with dimensions in the nanometer range, typically ranging from 1 to 100 nanometers (nm) (Xia et al. 2018). They are a type of nanomaterial that has gained significant attention in various fields, including science, technology, and medicine, due to their unique properties and wide range of potential applications. Silver nanoparticles exhibit strong antibacterial properties (Guerrero et al. 2022). They can inhibit the growth of a wide variety of bacteria, making them useful in medical applications such as wound dressings, antibacterial coatings for medical devices, and antimicrobial textiles. Silver nanoparticles can serve as catalysts in chemical reactions, enhancing the rate of reactions in various industrial processes, including the synthesis of chemicals and the removal of pollutants. Due to their small size and high surface area, silver nanoparticles can enhance the electrical conductivity of materials. They are used in conductive inks for printed electronics, touch screens, and flexible electronics. Silver nanoparticles exhibit unique optical properties, including surface plasmon resonance (SPR), which can be tuned by adjusting their size and shape. This property makes them valuable in applications like sensors, imaging, and enhancing the efficiency of solar cells. Silver nanoparticles are investigated for their potential in drug delivery systems, cancer therapy, and imaging agents in the field of nanomedicine. (Kundu et al., 2022). They can be used in photothermal therapy, where their ability to absorb light and convert it into heat is exploited to selectively target and destroy cancer cells. Silver nanoparticles are used in clothing and textiles for their antimicrobial properties, helping to reduce odor and maintain freshness in clothing. Silver nanoparticles can be incorporated into water purification systems to remove contaminants and pathogens effectively. They are used in food packaging materials to extend the shelf life of perishable products by inhibiting the growth of bacteria and fungi. Silver nanoparticles are employed in the development of highly sensitive electrochemical sensors for detecting various analytes, including heavy metals, biomolecules, and toxins.

Silver nanoparticles (Ag) are silver particles with very small sizes, in the nanometer range (1 nanometer is equal to 1 billion parts of a meter) (Arunachalam et al. 2015). The use of silver nanoparticles has been the subject of significant research in recent years, especially in applications such as antibacterial, antimicrobial, and many other applications (Aryan et al., 2021). While the use of silver nanoparticles can have many benefits, it is important to understand that their impact on the environment must also be considered. The small size of silver nanoparticles can make them more easily dispersed in the environment and can have an impact on living organisms, including aquatic organisms such as fish and plankton. (Baek et al. 2018). Therefore, studies of its toxicity and impact on the organism must be carried out to ensure safe use. Silver nanoparticle production can require significant resources, including silver itself. Consider the use of sustainable resources in silver nanoparticle production to reduce environmental impact (Rahim et al., 2020).

Waste from the production and use of silver nanoparticles must be managed properly to avoid environmental contamination. This includes safe processing and disposal. In addition to silver nanoparticles, consider more environmentally friendly alternatives whenever possible. For example, the use of green chemicals or technologies that are more environmentally friendly in the same application (Alabdallah & Hasan, 2021). Silver nanoparticles synthesized using plant extracts are one of the methods used in nanotechnology to produce silver nanoparticles with special properties. Plant extracts contain various chemical compounds, including compounds that can act as reducing agents in the process of forming silver nanoparticles (Xi et al. 2022).

The use of leaf extract nanoparticle handwash soap refers to a soap formulation containing nanoparticles and extracts from the leaves of certain plants. The idea behind using nanoparticles is to increase the penetration and effectiveness of the leaf extracts in the soap, thereby providing additional benefits to the skin. (Martien et al. 2012). Sesbania leaves contain active compounds such as polyphenols, flavonoids, and other substances that have antioxidant, anti-inflammatory, antimicrobial, and maybe even some skin healing properties. However, some of these compounds may have large particle sizes and chemical structures that make it difficult to penetrate the skin in their simple forms.

By using nanoparticle technology, the leaf extract can be broken down into very small particles with nanometer size. This allows them to penetrate deeper into the skin, increasing the penetration and effectiveness of the active substances contained in the leaf extract. **Benefits of Soap Making Training for Business Potential.** With the soap-making skills acquired through training, Fatayat NU members can run small businesses or home industries in producing and selling soap

independently. The market potential for natural soaps is increasing, especially for consumers who are concerned about the environment and skin health (Praharsiwi 2021).

Economic Empowerment This training will empower Fatayat NU members, especially women, by providing the opportunity to have additional sources of income. With the ability to make soap, they can become independent entrepreneurs and contribute to the economy of their families and communities (Wahyuni 2018). By prioritizing natural ingredients in soap making, training participants will be educated about the importance of using environmentally friendly products. This will have an impact on reducing chemical waste and pollution produced by conventional soap (Tivani et al., 2021) .

METHOD

Community service in the manufacture of handwash soap is an activity that is very useful for improving public health and hygiene. Here are the steps of the implementation method, Preliminary study to identify community needs related to handwash soap, their level of awareness about the importance of cleanliness, as well as potential health problems that can be overcome by using handwash soap. making Sesbania Leaf Extract Handwash which was carried out at the Harapan Bersama Polytechnic Pharmacy Laboratory. In carrying out community service activities, Fatayat NU women actively participate in these activities.

In this community service activity, participants are directly involved in the process of making soap so that they can understand practically how to make safe and effective soap. In community service activities also provide Education about Cleanliness and Use of Handwash Soap.

Table 1. Hand Wash Formulations

No	Material	Concentration
1	Ag + Sesbania leaf extract	2 ml
2	SLS	45g
3	Na ₂ SO ₄	30g
4	STTP	15g
5	Citric Acid	7,5g
6	Cocos Oil	10g
7	Aquades	500 ml

This community service activity provides information about the importance of cleanliness, especially in maintaining healthy hands, as well as the benefits of using handwash soap regularly. In this activity also given an explanation of the correct hand washing technique. Evaluation of this PKM activity is by looking at the results of the pretest and posttest given before and after implementation to be able to provide an overview of the success of the PKM activity.

RESULTS AND DISCUSSION

Community service in the manufacture of Sesbania leaf extract nanoparticle handwash is a form of service activity that has great benefits for the community. In this context, community service aims to increase the knowledge of Fatayat Nu women in Pacul Village about making Sesbania leaf extract nanoparticle soap which is carried out in two stages. The first stage was the manufacture of Sesbania Leaf Extract Handwash which was carried out at the Harapan Bersama Polytechnic Pharmacy Laboratory. With the handwash formula that has been prepared (Figure 1).



Figure 1. Preparation of material producing handwash in laboratory.

The next stage is community service activities in the women's Fatayat NU in Pacul Village. Before starting the community service activities, a pretest was first carried out. The pretest was conducted to measure the knowledge of Fatayat NU about making handwash soap Ag nanoparticles of *Sesbania* leaf extract. The pretest was carried out by distributing questionnaires. Pretest and posttest are two types of tests used in research or community service, the aim of which is to have different objectives in measuring changes or effects of a particular intervention or treatment. Pretest is a test carried out before administering a particular intervention or treatment. The goal is to measure conditions or variables that will be changed or tested after the intervention (Figure 2).

The pretest provides an initial description of the variables being studied so that researchers can understand the initial situation before the intervention is carried out. Pretests can be used to identify participants who meet the requirements or have certain initial characteristics that you want to test in the research. Posttest is a test carried out after intervention or treatment has been given to participants or research objects. The aim is to measure the impact or changes that occur after the intervention. The posttest is used to assess the extent to which the intervention or treatment has been successful or unsuccessful in achieving the research objectives. By comparing the posttest results with the pretest results, researchers can identify changes or effects that occur as a result of the intervention. The average value of the questionnaire results is 40.



Figure 2. Pretest Activities

The next stage is the core activity, namely the socialization of making handwash soap. Starting from the socialization of Increasing Awareness and Implementation of Cleanliness (Figure 3). Through community service in making handwash, the community gets education about the importance of washing hands with soap regularly to prevent the spread of disease and maintain health (Ambarwati et al., 2021). This awareness is then applied in everyday life, helping to reduce the risk of infection and infectious disease (Hestiyantari et al. 2020).



Figure 3. Outreach activities to increase awareness and practice of hand hygiene

The next activity is making handwash. In community activities, they are actively involved, starting from training in making handwash to the packaging process. Thus, people become more independent because they have new knowledge and skills that can be used to help themselves and community members (Figure 4).



Figure 4. Photos of soap making activities

Sesbania leaf extract nanoparticle handwash made from natural and eco-friendly. Sesbania leaves (*Sesbania grandiflora*) are a bioreductant that can be used in the synthesis of silver nanoparticles. This plant contains phytochemical compounds such as flavonoids, tannins, alkaloids, saponins and terpenoids (Das, Paul Das, and Velusamy 2013). This bioactive compound can act as a reducing and stabilizing agent in the synthesis of silver nanoparticles because it has an -OH group which is able to donate electrons to ions (Aryan et al. 2021). Making handwash can use materials that are easily obtained from the surrounding environment, such as vegetable oil and other natural ingredients. By utilizing Sesbania leaf extract, this activity can help reduce dependence on chemical cleaning products that have a negative impact on the environment. (Rosmainar 2021).

The last stage of this community service activity is the post test. The posttest was conducted to find out how much the public's knowledge about the manufacture of handwash soap increased. By using a questionnaire to measure the level of knowledge. Based on the results of the posttest, it shows that the average value of the posttest results is 75. This shows that with this service activity, the community's knowledge about making handwash soap has increased.

This PKM activity can also provide information and knowledge to NU fatayat woman. This community service is an effective means of disseminating information and knowledge about hygiene, health, and the importance of washing hands with soap. This knowledge can be the foundation for better behavior changes in maintaining health and hygiene. Community service for making handwash is a form of social intervention that focuses on a preventive and sustainable approach in improving the quality of life of the community. By actively involving the community, this approach can create changes that have a positive impact and are sustainable in the long term.

Fatayat NU's training programs for women, such as training programs in various areas of expertise, have a number of advantages that can have a positive impact on their development. Fatayat is an organization or association of young Muslim women which usually focuses on developing personality, religion and social skills. In this training, NU fatayat women have skills development. The training program helps Fatayat NU women to develop various skills, such as communication skills, leadership, problem solving, and technical skills related to specific training areas. This can help them become more independent and qualified individuals.

This activity can also increase self-confidence. Through training and participation in various activities, Fatayat women can build their self-confidence. This can help them to be more confident in public speaking, interacting with others, and dealing with life's challenges. This activity can also increase network formation. Training programs often provide opportunities for Fatayat women to meet peers who share similar interests and goals. This can help them build a strong social network and expand their circle of friends. Some training programs also include a social awareness component, which helps Fatayat NU women understand their role in society and inspires them to contribute positively to solving social problems. Training programs can help Fatayat women plan their future better. This may involve job skills training, further educational preparation, or career guidance. Training programs can help Fatayat NU women understand how to apply Islamic values in their daily lives, including in modern and complex contexts.

Handwash making training activities can have various benefits for organizations like Fatayat. Fatayat is an Islamic women's organization that is active in various social, religious and educational activities. One of the main benefits of soap

making is that it creates additional income opportunities. By teaching Fatayat members how to make soap, the organization can help them create products that can be sold, assist in meeting their economic needs, and support women's economic independence. Soap making training can improve the skills and knowledge of Fatayat members in simple chemistry, product manufacturing processes, and small business management. These are skills that can be beneficial in various aspects of their lives. Fatayat members who have received soap making training may decide to run a small soap business. Fatayat organizations can provide additional support in the form of business training, business planning, and access to resources to help them plan, manage, and expand their businesses. This training can also be a tool for empowering women, because they can feel more confident and independent in taking roles in economic activities. This is consistent with Fatayat's mission to mobilize women to play an active role in society (Hidayat et al., 2020).

Handwash made by Fatayat members can be sold as a sustainable and environmentally friendly product if the ingredients used are natural and organic. This is in line with the spirit of environmental conservation held by many Islamic organizations. Handwash is an important product in maintaining cleanliness and health. By teaching how to make soap, the Fatayat organization can promote better hygiene practices among its members and their communities. Handwash making training can enable Fatayat members to interact and collaborate with other members, build networks, and increase solidarity within the organization. They can share experiences, ideas and support with each other.

CONCLUSION

Community service activities have been carried out regarding the manufacture of Sesbania leaf extract Ag nanoparticle handwash for Fatayat NU women in Pacul Village. This PKM activity can also provide information and knowledge to NU fatayat women about making Sesbania leaf extract nanoparticle handwash soap. Based on the results of the evaluation, it showed that there was an increase in the knowledge of Fatayat Nu woman about making handwash. With an increase in the average pretest result of 40 and post test 75, this community service is an effective means of disseminating information and knowledge about hygiene, health, and the importance of washing hands with soap.

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Beginner researcher training for Giovanni high school students in Kupang, East Nusa Tenggara

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-08-04 Revised: 2023-09-09 Accepted: 2023-09-26 Published: 2023-10-04 Keywords Beginner researcher training Giovanni senior high school Literacy OPSI Partnership	<i>The purpose of the Beginner Researcher Training activities for Giovanni Kupang Senior High School students is to help students become competent researchers in order to participate in scientific activities and be able to compete academically in scientific competitions such as the Olimpiade Sains Nasional (OPSI). This goal also supports the realization of a literacy awareness movement that has been programmed and implemented well by Giovanni Kupang's Senior High School partners. Beginner researcher training activities were held at Giovanni Senior High School in Kupang City, East Nusa Tenggara Province. Implementation of training activities for novice researchers is carried out using training and mentoring methods which are carried out through Material Presentations/Providing Information, Questions and Answers and Discussions, Focused Group Discussions (FGD) and Technical Guidance. Based on the implementation of community service activities and evaluation with partners, it can be concluded that; (a) The implementation of this activity has been able to improve literacy performance through training activities for novice researchers; (b) Give appreciation and attention to students by carrying out scientific activities at school and competing in the Olimpiade Sains Nasional; (c) Can anticipate the emergence of students' learning laziness and reluctance to be scientifically competent; (d) Being able to provide added value in the field of knowledge and skills for students so that they can complete school assignments given by teachers.</i>
Kata Kunci Literasi Kemitraan OPSI Pelatihan peneliti pemula SMA Giovanni	Pelatihan peneliti pemula untuk siswa SMA Giovanni Kupang, Nusa Tenggara Timur. Tujuan dari kegiatan Pelatihan Peneliti Pemula bagi siswa SMA Giovanni Kupang adalah untuk membantu siswa menjadi peneliti yang kompeten agar dapat mengikuti kegiatan ilmiah dan mampu bersaing secara akademis dalam kompetisi ilmiah seperti Olimpiade Sains Nasional (OPSI). Tujuan ini juga mendukung terwujudnya gerakan sadar literasi yang telah diprogram dan dilaksanakan dengan baik oleh SMA Giovanni Kupang. Kegiatan pelatihan peneliti pemula dilaksanakan di SMA Giovanni Kupang, Provinsi Nusa Tenggara Timur. Pelaksanaan kegiatan pelatihan bagi peneliti pemula dilakukan dengan metode pelatihan dan pendampingan yang dilakukan melalui Penyajian Materi/Pemberian Informasi, Tanya Jawab dan Diskusi, Focused Group Discussion (FGD) dan Bimbingan Teknis. Berdasarkan pelaksanaan kegiatan pengabdian kepada masyarakat dan evaluasi bersama mitra, dapat disimpulkan bahwa; (a) Pelaksanaan kegiatan ini telah mampu meningkatkan kinerja literasi melalui kegiatan pelatihan bagi peneliti pemula; (b) Memberikan apresiasi dan perhatian kepada siswa dengan melaksanakan kegiatan ilmiah di sekolah dan berkompetisi dalam Olimpiade Sains Nasional; (c) Dapat mengantisipasi timbulnya rasa malas dan keengganan belajar siswa untuk berkompeten secara ilmiah; (d) Mampu memberikan nilai tambah dalam bidang pengetahuan dan keterampilan bagi siswa sehingga dapat menyelesaikan tugas sekolah yang diberikan oleh guru.

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INTRODUCTION

The biggest challenge for Indonesia's education development during the fourth phase of the medium-term development period (2020–2024) is to prepare quality and internationally competitive Indonesian human resources. To respond to these challenges, as well as as a manifestation of the mandate of Law Number 20 of 2003 concerning the National Education System, the Ministry of Education, Culture, Research and Technology of the Republic of Indonesia continues to strive to foster and develop the talents, interests and achievements of Senior High School/MA/equivalent students through various student activities (Indonesia, 2003).

The main target of the learning and education process is students or learners, who must be involved in various extracurricular and co-curricular activities that are comprehensive and integrated as a pattern of student development. This pattern of coaching must be able to support the preparation of a quality generation that is formed on a foundation of intellectual competence, skills and qualified attitudes. In order to realize achievements in various fields of science. The Ministry of Education, Culture, Research and Technology of the Republic of Indonesia through the National Achievement Center views that competition programs, contests and festivals must also be used as a means of fostering and developing students' competencies in mastering science and technology. These efforts are enriched by various programs that can increase students' interests, talents, and abilities in various research activities (Nasution, 2017).

Research activity is a process of obtaining or obtaining a knowledge or solving problems encountered, which is carried out scientifically, systematically and logically (Noor, 2010). The benefits of research for high school (SMA) students are increasing learning outcomes and student solidarity to find knowledge and develop insights, increasing the ability to analyze a problem through learning with innovative learning models. Giovanni Senior High School in its activities in the world of education, in supporting student achievements, is often involved in national and international competition activities. One of the competition activities that is often participated in by Giovanni Senior High School students is the OPSI Activity (Indonesian Student Research Olympiad).

The Indonesian Student Research Olympiad (OPSI) was held as an important agenda for the National Achievement Center in order to develop Indonesian people with creative and innovative characteristics. OPSI focuses on growing scientific character through competition activities in order to develop students' freedom of thought to continue researching (Wiyoko et al., 2019). Through this activity, students' concern for the surrounding environment, including exploring the potential of local resources that have a global impact will continue to be grown. Thus, OPSI becomes a forum for high school/MA/equivalent students to actualize their talents, interests, and abilities in research and innovation as well as inculcating a research culture among students. This activity is also a selection of superior research works to be included in various research competitions, scientific forums, as well as national and international publications. Even though the partner, Giovanni Senior High School, has included students to take part in the OPSI competition, based on reports from the Giovanni Senior High School student body, in the last four years the students who have taken part in the OPSI competition apparently have not had the chance to enter the final/win the competition.

The problem is of course very important to solve, because Giovanni Senior High School is one of the very superior high schools and is also the best high school model in Kupang City. With this Beginner Researcher Training PKM Activity, it is hoped that the problems of these partners can be resolved. The purpose of the Beginner Researcher Training activities for Giovanni Kupang Senior High School students is to help students become competent researchers in order to participate in scientific activities and be able to compete academically in scientific competitions such as the Olimpiade Sains Nasional (OPSI).

METHOD

Beginner researcher training activities are held at Giovanni Senior High School, Kupang City, East Nusa Tenggara (Gena, 2022). The activity was held in the Giovanni Senior High School Hall on Tuesday, 02 August 2023. The target group in the novice researcher training activities were 35 Giovanni Kupang SMAK students and 5 accompanying teachers who also took part in the activity. The 35 students consist of students from class X (10) and class XI (11). The selection of students from grades X and XI is because these students still have the opportunity to take part in competitions or Olympiads for high school students such as the National Science Olympiad (OPSI), while class XII (12) are not targeted because they have an interest in to prepare for National Examination and School Examination. In addition to these considerations, another consideration is the students participating in this activity, some of whom are currently involved in OPSI at the stage of receiving proposals to then proceed with research, so that it is an advantage for themselves to be involved in this novice researcher training activity.

The instructors/speakers in this activity were lecturers selected from two majors, namely the Department of Political Science on behalf of Yohanes Jimy Nami, M.I.Pol. and the Department of Communication Science on behalf of Abner P.R. Sanga, S. Sos., M.Si. These two presenters were chosen based on the consideration of their qualified abilities in terms of research and scientific article writing. In order to solve the problems that have been formulated in the problem formulation above, the implementation of novice researcher training activities is carried out using the training and mentoring method, where the implementation of the two methods is carried out by:

- 1) Presentation of Material/Provision of Information
This activity begins by providing information to participants regarding the activity material using the material presentation method (Indrayani, 2022). This activity is carried out with the hope that students will get a comprehensive understanding related to scientific research so that there is an understanding between the speakers and the participants. This will make it easier later in the implementation of exercises / simulations.
- 2) Questions and Answers and Discussion
A form of method used so that presenters can ensure that participants follow the training activities well and get explanations on certain sub-materials that cannot be understood. In the process of question and answer and discussion the moderator gave the opportunity for the participants to ask various kinds of things they wanted to ask related to the material and the answers were immediately given by the presenters and then discussed by all the training participants (Juliangkary & Pujilestari, 2022). The benefits of the discussion method are also to stimulate the reasoning power and speaking ability of students.
- 3) Focused Group Discussion (FGD)
A group discussion technique used to get an overview of the various opinions related to the research material provided (Suparwoto, 2022). The participants were divided into 6 groups to be asked to express their opinions regarding the material in a directed manner, without having to solve the problem. Within 30 minutes the participants were asked to discuss the problems that had been designed by the trainers, so that participants had a new understanding of various problems from various different perspectives from each participant.
- 4) Technical Guidance
Is a method used in the form of directly guiding students (table to table) so that students can directly practice the material presented (Emilda et al., 2022). This technical guidance is necessary because in delivering the material, the speaker requires the participants to install the Mendeley application for citation, in order to facilitate the training of these novice researchers, in terms of the practice of writing comprehensive scientific research results.

The stages of implementing activities are (1) Partnership Development; Expand partner collaboration networks which include training for novice researchers, research practice and research science and technology transfer. (2) Training; The next stage is discussion with partners for the continuation of the activity. To overcome partner problems, there are several things that will be carried out by the implementing team, namely (1) Meeting with the Giovanni Senior High School, (2) Counseling about Becoming a novice researcher, and (3) Beginner Researcher Training:

- 1) Speaker 1
Delivering material and training on general research systematics, how to determine themes, focus, problem formulation and research objectives.
- 2) Speaker 2
Delivering material and training related to research methods, types of research, techniques for collecting data, techniques for analyzing data and formulating results as well as discussing research

The progress of work in the field will always be monitored and cared for. Monitoring will be carried out in conjunction with training guidance and assistance activities as well as monitoring and evaluation will be scheduled periodically. Furthermore, monitoring activities are carried out to monitor the development and progress of community service activities. Meanwhile, this activity aims to follow up on monitoring results which can later be used as input in further coaching or guidance. This activity will be carried out starting from the preparation and implementation of extension activities, guidance and training. Schematically the activity plan in the community service program that has been agreed with partners is in Figure 1.

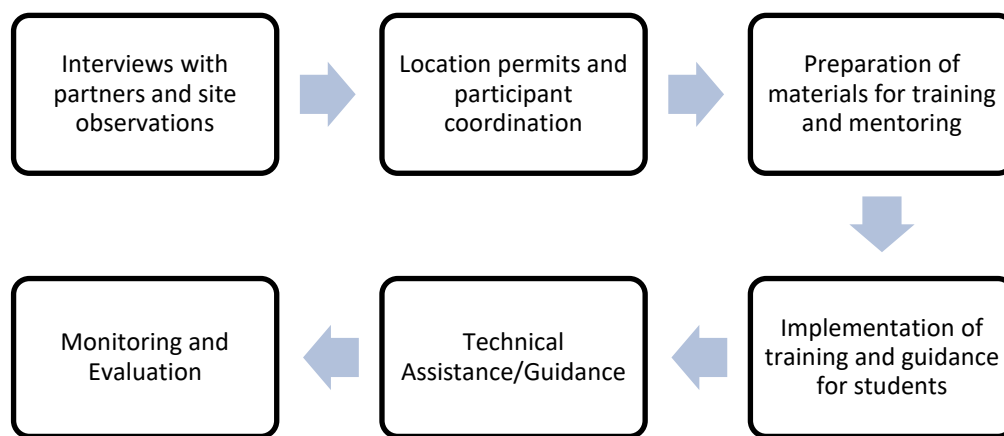


Figure 1. Community Service Program Scheme that is agreed with Partners

RESULTS AND DISCUSSION

This Beginner Researcher training activity has been carried out properly according to the prepared plan. The implementation of activities is carried out in the following stages:

Preparation

This activity requires more time in preparation for its implementation to ensure the level of success in the entire program of activities. The preparations made include: a) Determining the location (a school that is a community service partner) and determining the participants who are the target of implementing novice research activities. b) Conduct outreach to activity partners to ensure the continuity of this activity by disclosing the time schedule and matters that are the consequences of the activity, c) Coordinating and TOT (training for trainers) on novice researcher training to student teams who will assist this community service program sustainably. The team prepared 3 students to become trainers and companions for peer counseling activities, d) Prepared training materials and training materials that would be given to all activity participants.

Implementation

Documentation of these community service activities is presented in Figure 2, Figure 3, Figure 4, Figure 5, dan Figure 6. In the implementation stage of community service activities this is in accordance with the implementation plan and agreement with activity partners. The stages of these activities include:

- 1) Making materials and training materials for novice researchers
This activity aims to provide provisions to participants so they can carry out research activities more practically. This material contains practical instructions in conducting research accompanied by systematics and research examples. Besides that, the material is also equipped with comprehensive research examples. This material was given to all participants and teachers as partners in this service activity. It is hoped that these materials and materials can be used as a reference for carrying out research/writing research reports for students.
- 2) Basic training
The next activity is conducting basic research training for activity partners. The objectives of this activity are: Introducing the systematics of writing research that is good and correct, Providing knowledge and understanding of the process of making a research, Forming the basic soul of a researcher, Increasing sensitivity to problems in the surrounding environment, Helping students who have the potential or are currently taking part in the OPSI championship.
- 3) Advanced Training,
In accordance with the purpose of carrying out this community service activity and the evaluation results from the training of novice researchers, further training is needed. This activity aims to; Improving the competence and skills of participants in conducting research, Forming an interest in research that fits any needs including competitions, Disseminating good research techniques as an alternative support in carrying out practice-based assignments. Further training is needed in order to identify problems that are felt and encountered in the application of training activities for novice researchers.
- 4) Accompaniment
The mentoring program is an activity that is structured as an activity package to ensure that participants paraphrase sentences in writing research results and have the basic skills needed when conducting research. Besides that, this activity is also to bridge the latest information related to problems faced by peers and individual problems when conducting research, so that the community service team can develop new steps and help solve problems faced by participants and partners. The mentoring program is intended to provide basic

insight so students can make research and formulate it in a research report. In addition, mentoring activities are also used to share problems faced by students and individual problems in conducting research. The mentoring program is carried out 3 times in accordance with the partners' agreement to provide assistance in the formulation of research problems and references used in writing research reports.



Figure 2. Activity opening



Figure 3. Delivery of Materials to Participants



Figure 4. Intermezzo /Icebreaking



Figure 5. Team with Partners After Awarding the Certificate



Figure 6. Team With Headmaster Giovanni Senior High School

Supporting and Inhibiting Factors

Based on the evaluation of the implementation and results of the activities, supporting factors can be identified in implementing this community service program. In general, the supporting factors include: a) Adequate experts are available in developing novice researcher training materials; b) Enthusiasm of students is high enough to take part in beginner researcher training activities; c) Support from the Giovanni Senior High School principal who welcomed the implementation of the training activities and helped the service team organize the time and place for the activities; d) Availability of supporting funds from the faculty for the implementation of this community service activity. In addition to the supporting factors, the Beginner Researcher Training PKM activities encountered several inhibiting factors, namely; a) There are still many students participating in the training who do not have initial knowledge about research and the formulation of research reports; b) The participants' comprehension varied, some were fast but some were slow so that the time spent was not optimal.

Evaluation of Activity Results

The results of novice researcher training activities in outline include several components, including: a) The success of the target number of training participants; b) Achievement of training objectives; c) Achievement of material targets that have been planned; d) The ability of some participants in mastering the material. The target participants for the activity previously planned were 35 representatives of class X and IX from the total number of classes at Giovanni Senior High School. In its implementation, this activity was attended by 32 students who were representatives from each class of Giovanni Senior High School. This shows that novice researcher training activities are said to be successful/successful. Achievement of target material in novice researcher training activities is very important, because peer counselor training material can be delivered in its entirety. The training materials that have been delivered are: a) Basic Concepts of Scientific Research; b) Research objectives and functions; c) Systematics of Writing Research Reports and Sentence Paraphrases.

This training and mentoring activity will still be followed by mentoring activities by one of the lecturers in the community service team, so that participants can continue the beginner researcher training process (Jelahun, 2022).

Through the mentoring process it makes a positive contribution to activity participants. The intended contributions include: a) The activities carried out have been able to make a positive contribution to students and have been able to open new insights into the aims and benefits of research; b) The socialization of the importance of literacy carried out by the school needs to get support and be improved for the better; c) The training has had immediate results with an increasing number of students who are interested in taking part in scientific competitions specifically in the field of research. The indicators include: being interested in being scientifically competent, being able to see issues in the surrounding environment, being able to formulate all of these things in OPSI competition proposals, being able to become OPSI champions at the national level, and being able to hone academic skills in preparation for entering lectures and can become candidates for solving problems that occur in society by using scientific methods.

CONCLUSION

Based on the implementation of community service activities and evaluation with partners, it can be concluded that; (a) The implementation of this activity has been able to improve literacy performance through training activities for novice researchers; (b) Give appreciation and attention to students by carrying out scientific activities at school; (c) Can anticipate the emergence of students' learning laziness and reluctance to be scientifically competent; (d) Being able to provide added value in the field of knowledge and skills for students so that they can complete school assignments given by teachers. Based on the evaluation that has been carried out, several suggestions can be put forward, namely: a) The time for carrying out community service activities needs to be increased so that the objectives of the activity can be fully achieved, but with the consequence of adding implementation costs. Therefore, the cost of community service should not be the same between several teams proposing a proposal, bearing in mind that the target audience is different; b) The existence of follow-up activities in the form of similar training is always held periodically so as to create a Literacy Awareness Movement in Partner schools as well as part of organizing literacy in schools.

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Mentoring and training for early childhood education teachers in facing the challenges of the Covid-19 pandemic situation

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-08-02 Revised: 2023-09-11 Accepted: 2023-09-16 Published: 2023-10-05 Keywords Education Early childhood Mentoring Teachers	<i>In Bandulan Village, Malang City, there are community of people dealing with the pandemic situation that need education for their children, but incapable to self-educate their children without the support of the teacher. This community service also aims to assist PAUD Mentari in providing free education to the children in local community. It is based on the phenomenon where teachers of this preschool face difficulties in carrying out common teaching practices concerning the pandemic of Covid-19. A community service team implement a series of professional development activities to enhance teachers' skills in schooling management and crafting teaching media. The community service employs ADDIE approach. Outcomes of this professional development activities are in the forms of the PAUD Mentari teachers' simple schooling management plan and crafted teaching media. These outcomes scaffold the implementation of effective early education schooling in a local community during this pandemic. The results of the Community Service showed that Early Childhood Mentari School teachers' readiness for distance learning during the Covid-19 Pandemic can be said to be good with educational standards facilities. During the pandemic, the PAUD Mentari school implemented a conducive learning model equipped with an online learning of Google Classroom application. Moreover, there are several aspects of the teaching and learning process at PAUD Mentari during the Covid-19 pandemic such as, distance learning, sharing learning materials digitally, support and communication with parents, creative learning activities, monitoring and evaluation, counseling and emotional support.</i>
Kata kunci Anak usia dini Guru Mentoring Pendidikan	Pendampingan dan pelatihan bagi guru PAUD dalam menghadapi tantangan situasi pandemi covid-19. Di Kelurahan Bandulan, Kota Malang, ada komunitas masyarakat yang menghadapi situasi pandemi yang membutuhkan pendidikan untuk anaknya, namun tidak mampu mendidik anaknya sendiri tanpa dukungan guru. Pengabdian masyarakat ini juga bertujuan untuk membantu PAUD Mentari Desa Bandulan Kota Malang dalam memberikan pendidikan gratis kepada anak-anak masyarakat setempat. Hal ini didasari oleh fenomena dimana para guru PAUD ini mengalami kesulitan dalam melakukan praktik pengajaran umum terkait pandemi Covid-19. Tim pengabdian masyarakat melaksanakan serangkaian kegiatan pengembangan keprofesian untuk meningkatkan keterampilan guru dalam manajemen sekolah dan pembuatan media pengajaran. Pengabdian masyarakat menggunakan pendekatan ADDIE. Outcome dari kegiatan pengembangan keprofesian ini berupa rencana manajemen persekolahan sederhana guru PAUD Mentari dan pembuatan media ajar. Hasil-hasil ini memperkuat implementasi pendidikan usia dini yang efektif di komunitas lokal selama pandemi ini. Hasil Pengabdian Kepada Masyarakat menunjukkan bahwa kesiapan guru PAUD Mentari untuk pembelajaran jarak jauh di masa Pandemi Covid-19 dapat dikatakan baik dengan fasilitas standar pendidikan. Di masa pandemi, sekolah PAUD Mentari menerapkan model pembelajaran kondusif yang dilengkapi dengan pembelajaran online aplikasi Google Classroom. Selain itu, terdapat beberapa aspek proses belajar mengajar di PAUD Mentari pada masa pandemi Covid-19 seperti, pembelajaran jarak jauh, berbagi materi pembelajaran secara digital, dukungan dan komunikasi dengan orang tua, kegiatan belajar kreatif, monitoring dan evaluasi, penyuluhan dan dukungan emosional.

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INTRODUCTION

Early education is the fundamental key to provide young children with a safe, nurturing environment that stimulate their readiness for the transition to the early grades (Allen & Kelly, 2015; Duran, 2020). Continuous assistance is essential to the learning of young children, which is commonly carried out daily in a specified time by experienced teachers (Huck & Zhang, 2021; Sari & Yüce, 2020; Widodo, 2005). Accordingly, today's pandemic of Covid-19 largely influences the practices of early education. Teachers cannot present in person to assist children's learning, and face challenges to adapt to the new schooling practices. In 2020, the pandemic Covid-19 forced the policy maker in education to design online learning in defending the students and school member against the spread of the virus. This policy is deemed effective according to the situation on the area with access to technology and ease of non-mobility profession. There are also a consideration that people are not having enough knowledge to deal with such condition, thus creating another level of problem in dealing with the education in pandemic Covid-19 situation (Dhawan, 2020; Tintori et al., 2021; Umulkulsum & Suaji, 2020).

In Bandulan village, Kota Malang, there are community of people dealing with the pandemic situation that need education for their children, but incapable to self-educate their children without the support of the teacher. Previously, the PAUD Mentari is adequately supporting the community with their education service to the children, but the offline service is now unable to be conducted during the pandemic and creating a new situation. The PAUD Mentari is nowadays conducting a door-to-door service that is less effective than offline class.

Closing the school and switching the policy into online learning seems to be a solution, but the efficacy is debatable as there is no measurement to this policy as yet. Some consequences related to the family ability to take care of the education of their children, and degrading social ability of the children as they are closed from their peer and the world might be maintained by using an adequate policy (Barrot et al., 2021; Coman et al., 2020; Stoian et al., 2022). As school are considered effective to maintain the education and socialization of the children, a solution to education during pandemic and online school are inadequate to do so, reopening a school closure is not yet taken into consideration. Therefore, there is a need for different teaching methods such as door-to-door teaching (Pradana & Syarifuddin, 2021; Putra et al., 2020).

Education leadership during Covid-19 should see the situation from all aspects including the 'higher-ups' and the 'common'. The education practitioner must consider a range of impacts in individual, organization, well-being, learning, service provision, performance, staffing, financial implications, management of resources and sustainability of business level while keeping all of their individual people in mind. Effective schooling must mind the aspects of 'responsibility' while maintaining their 'freedom' in dealing with situation related to the condition as the unpredictability of the situation is rapidly changing any policy. Education managements have the 'responsibility' to teach knowledge and skills of the students similar to the traditional teaching, as well as measuring the improvement of the students, giving treatment on students, providing the education facilities, and doing administrative works. But, in parallel, education managements also have the 'freedom' to act according to the situation including bypassing the said 'responsibility' (Chen, 2021; Filip et al., 2022; Samhsa, 2014).

During the 2009 influenza, or scientifically described as H1N1 influenza pandemic, the Australian policy makers decided to close the school to stop the spread of the virus to the students, similar to the ongoing 2021 situation. There are considerable variation to ethical values and ethical process. As the school are showing a strong ethical duty to continue their responsibility as educational institution, the school communities had a broader view on the school managerial policy rather than the officials. This kind of relationship is between the 'higher-ups' and the 'common' seldom creating a confusion on how the education should be conducted (Arar & Saiti, 2022; Callahan & Jennings, 2002; Cherkowski et al., 2015; Poorchangizi et al., 2019). Therefore, it was concluded that the best way of conducting teaching and learning activity as well as managing the education should be conducted through trust between the elements involved in the practice of education.

Based on the above explanation, this community service program is different from previous community service activities because there are no trainers who carry out community service activities which involve the use of distance learning applications to improve the teaching skills of early childhood education (PAUD) teachers. Community service trainers previously emphasized activities on the learning of young children, experienced teachers, and educational leadership during Covid-19. In this community service activity, trainers developed activities regarding mentoring and training for early childhood education (PAUD) teachers in solving the problems of the Covid-19 pandemic in the teaching and learning process.

This community service program is important to carry out because the program that uses online learning applications involving early childhood education (PAUD) teachers have not received much attention of researchers or community service trainers. Furthermore, it contributes to improving the teaching skills of early childhood education (PAUD) teachers through the use of online learning applications such as Google Meet and Zoom Meeting as distance education media. Even though there is currently no Covid 19 pandemic, the community service program can be a guide for carrying out the distance learning process using online learning applications. Distance learning can be used as a medium to improve the teachers' teaching skills, especially PAUD teachers. The distance learning process is still used today by educational institutions to undertake teaching and learning activities. This is because distance learning using various online learning applications that has good efficiency and effectiveness values.

This community service aims to enhance the effectiveness of the PAUD teaching by finding the best practice of the teaching and learning process conducted by PAUD Mentari in Bandulan Malang by applying series of training and workshops for early education teacher in PAUD Mentari, Bandulan village, Malang city. It uses ADDIE (analysis, design, development, implementation, evaluation) model to identify teachers' problems and concerns in schooling management during the pandemic of Covid-19. The expected outcomes are in the forms of schooling management plan and prospective teaching strategies.

The Covid-19 issue is related to SDG 3, namely good health and well-being SDG 3 is one of the 17 goals formulated by various UN countries which reads a healthy and prosperous life. The mission of this goal is "Ensure Healthy Lives and Promote Well-Being of All Ages". Under SDG 3, global leaders and the member states are committed to nine targets and four tools. The main aim of this chapter is to discuss the intersections of COVID-19 and SDG 3 targets with a focus on two selected targets, including prevention and control of Non-communicable Diseases or NCDs (SDG 3.4) and universal health coverage or UHC (SDG 3.8) (Martín-Blanco et al., 2022; Martins et al., 2023; Takian et al., 2022). Thus, this community service program supports efforts to achieve SDG 3.

METHOD

The Implementation of the Internal Community Service Program applies training methods and workshops for teachers at Mentari PAUD, Bandulan Village, Malang City. This method uses the model of ADDIE that stands for analyse, design, develop, implement, and evaluate to help them solve problems in implementing prospective learning and teaching strategies during the Covid-19 pandemic.

Mentari PAUD teachers were appointed by local stakeholders to provide early childhood education services to young residents of the Bandulan Village. They have no background in early education or school management. Their work is solely based on the spirit of helping local parents by providing free educational services. Therefore, these teachers are a priority in community service activities in an effort to improve the quality of education in the city of Malang, East Java. This community service activity is carried out in five stages, namely: 1) analysis; 2) design; 3) develop; 4) carry out; and 5) evaluate.

Analysis phase

At the phase of the analysis, trainers identified learning problems, instructional objectives, learning environment, and students' level of knowledge. In the stage trainers identified teacher problems. The identification process is carried out by asking several questions such as: What material do you teach? How do you teach the subject matter? How do you determine instructional goals and how to achieve those goals? This step provides a blueprint for the entire instructional design process and guides the teachers in the learning process.

Design phase

At the design phase, trainers carried out activities related to designing learning objectives, assessment instruments, exercises, subject matter, lesson planning, and selection of training media. This design phase is carried out systematically and specifically. Systematic means using a logical and orderly method to identify, develop, and evaluate a set of planned strategies targeted to achieve project objectives. Specific means that each element of the instructional design plan must be implemented by paying attention to the elements of the exercise in detail.

Development phase

In this development phase, the trainers make an instructional design and compiles blueprint content regarding mentoring and training mechanisms and procedures. In this phase, trainers create storyboards and graphics. During the process of implementing community service, activities are carried out with reference to procedures that have been developed and revised according to feedback.

Implementation phase

The implementation phase is carried out by developing procedures for trainers and PAUD teachers. Training facilities include training curricula, learning outcomes, training methods and testing procedures. Trainers conduct training to participants including training them on new tools (software or hardware). Implementation includes design evaluation, and this activity is also the phase where the project manager ensures that books, tools, CD-ROMs, and software are available, and the learning application or website is well-functioned.

Evaluation phase

The evaluation phase consists of two parts, namely: formative and summative. Formative evaluation is present at every stage of the ADDIE process. While summative evaluation is carried out when the training process enters its final stage. In this phase, the trainer formulates the results of all the training activities that have been carried out. The details of activities are summarized in Table 1.

Table 1. Community Service Activities

No	Phase	Activity	Time	Facilitator	Subject Matter	Participants	Platform
1	Analysis	Discussion circle	Fourth week of May	Dr. Sudiran; Adityo, MA; Ria A. Asih, PhD	Problems description, expert analysis	5 teachers	Face-to-face meeting
2	Design	Training	First week of April	Ria A. Asih, PhD	Designing the form of training based on the analysis of problem(s)	5 teachers	Face-to-face meeting
		Workshop	Second week of April				
3	Development	Training	Third week of April	Adityo, MA	Training methods, sharing of analysis	5 teachers	Face-to-face meeting
		Workshop	Fourth week of April		Discussion and workshop	5 teachers	
4	Implement	Teaching round 1	Second week of May	PAUD Mentari teachers	Observation on implementation	5 teachers	Face-to-face meeting
		Teaching round 2	Fourth week of May		Observation on Implementation	5 teachers	
5	Evaluation	Discussion circle	June	Dr. Sudiran; Adityo, MA; Ria A. Asih, PhD	Evaluating the training	5 teachers	Face-to-face meeting

The Figure 1 depicts the indicators and outcomes of every activity carried out during the community service.

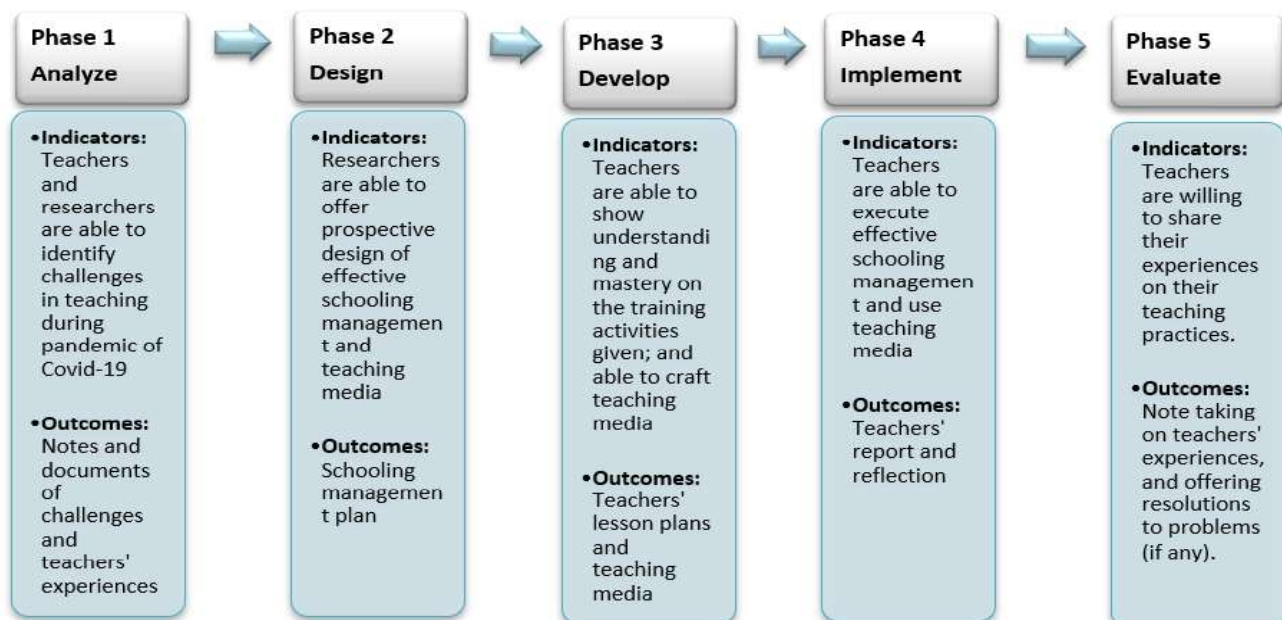


Figure 1. Community Service Indicators

RESULTS AND DISCUSSION

After carrying out a series of internal community service activities, the service team formulates the results of the community service activities. Based on the results of internal community service, the results can be formulated that Early Childhood Mentari School teachers' readiness for distance learning during the Covid-19 Pandemic can be said to be good with educational standards facilities. As it is well known that PAUD Mentari is a pre-school educational institution

established to educate early childhood or pre-kindergarten aged between 3 and 4 years. This school is located in Bandulan Village, Kec. Breadfruit, City of Malang Prov. East Java. This school has 4 teachers (Figure 2). They are Farida Verawati S.E, S.Pd, Iis Nur Setiawati, Dewi Munirah, and Munawarah Hidayati. Mentari Early Childhood Education (PAUD) has 11 pupils (Figure 3) and the school is led by a school principal named Farida Verawati.



Figure 2. PAUD Mentari Teachers



Figure 3. PAUD Mentari Pupils

During the pandemic, the Early Childhood Education (PAUD) Mentari school implemented a conducive learning model equipped with an online learning of Google Classroom application. In the context of the learning model, three out of four teachers recognize the advantages of implementing online teaching through Google Classroom, while one teacher chooses offline classes due to the special circumstances of students. During the Covid 19 Pandemic, the learning process was carried out at each student's home guided by teachers using the Google Classroom application. Google Classroom helps teaching and learning activities run as usual. Through Google Classroom, students and teachers do not need to go to school. They study from their homes and the learning process takes place online. Accompanied by parents, students can communicate with teachers through computer screens or laptops. Mentari Early Childhood teachers and students can carry out teaching and learning activities online. Online teaching and learning activities like this really help teachers and students during the Covid-19 pandemic so that they avoid contracting Covid-19.

Early Childhood Mentari teachers had different responses to the implementation of learning using the online model. Based on the responses of four teachers, three of them stated that learning models that take place online, such as Google Classroom, require more effort to motivate students to learn. Many students attended class mainly because it was mandatory. On the other hand, one of them considered that the online model was sufficient to carry out teaching and learning activities during a pandemic.

PAUD Mentari teachers try to develop effective learning models to enhance students' motivation and skills. This is because they think that online learning is not enough to motivate students during the teaching and learning process. However, they recognize the need for continuous learning while taking a safe distance to keep health and safety. They try to solve challenges that arise during the covid-19 pandemic. This is because the learning activities must proceed with paying attention to the dangers of the Covid-19 pandemic so that instructional goals are achieved.

Teachers' teaching activity follows the learning model that has been commonly used so far. In teaching the material, each teacher uses a variety of methods, such as utilizing YouTube videos, engaging students through online interactive games, presenting attractive PowerPoint presentations, facilitating interactive writing using Google Docs, and including E-Books. All of these methods are carefully selected to increase students' motivation and enrich their learning experience. Teachers design teaching material to enhance teaching and learning activities.

Teaching and learning activities at PAUD Mentari are designed to provide learning experiences that are fun, stimulating, and appropriate to the child's knowledge level. The structure of teaching and learning activities in Mentari PAUD consists of three main parts, namely: 1) Preliminary Activities, 2) Core Activities, and 3) Closing Activities. The following is a description of the teaching and learning activities conducted by teachers at PAUD Mentari.

Preliminary Activities

Preliminary activities are the initial stage of the learning process in PAUD Mentari. The focus at this stage is to create a fun atmosphere, generate interest, and prepare children for learning. Some of the activities that can be carried out at this stage include: (1) Greeting and opening: The teacher greets the children and gives a warm greeting to start the learning day. (2) Free play: Children are given the opportunity to play freely with various toys that are relevant to the learning topic. (3) Simple song or game: The teacher can start the session with a simple song or game that involves the whole group.

Core Activities

These activities form the core of the learning process in PAUD Mentari, where the main objective is to teach certain skills and concepts to children. Activities at this stage should be interesting, varied, and appropriate to the child's developmental level. Some of the core activities that may be carried out in this stage include: (1) Project-based learning: Teachers can provide simple projects that involve art activities, nature observations, or role-plays to teach certain concepts. (2) Stories and fairy tales: Teachers can teach moral values, speech skills, and enhance children's imagination through stories and fairy tales. (3) Art and creativity activities: Children can participate in painting, coloring or simple craft activities to develop their fine motor skills and creativity.

Closing Activity

This activity is the final stage of the learning process in PAUD Mentari, where the teacher closes the session with a summary and ensures the children understand what they have learned. Some closing activities that can be undertaken in this stage include: (1) Summary: The teacher repeats what has been learned and asks questions to ensure that the children have understood what the teacher has said. (2) Re-reading stories or fairy tales: The teacher can re-read stories or fairy tales that have been previously presented and ask related questions. (3) Group play: Children can participate in group play involving learned social skills and knowledge.

During the Covid-19 pandemic, pupils' development assessment activities were carried out with the aim of knowing the increase in their knowledge, attitudes and skills during the learning process. In assessing pupils' progress, teachers use assessments which is relevant to the specific skills they teach. This assessment includes a variety of methods, such as monitoring activity within Google Classroom, gathering feedback via Google Forms, and conducting online trials to measure student progress and understanding.

During the COVID-19 pandemic, teaching and learning activities in Early Childhood Education (PAUD) Mentari underwent significant changes to keep the safety and health of children, parents and school staff. Several steps and

adjustments have been taken to continue the learning process amidst this challenging situation. There are several aspects of the teaching and learning process at PAUD Mentari during the COVID-19 pandemic, namely: (1) Distance Learning: In an effort to minimize the risk of spreading the COVID-19 pandemic, PAUD Mentari is turning to distance learning. Teachers use online platforms, such as video conference, virtual classes, or special learning apps to interact with children and parents. Through this platform, teachers provide learning materials, assignments, and activities that can be done at home. (2) Sharing Learning Materials Digitally: Learning materials and assignments are shared digitally via email, messaging apps, or online learning platforms. These materials can be instructional videos, presentations, audio materials, or other learning resources. (3) Support and Communication with Parents: During the pandemic, parents have become important partners in their children's learning process at home. Teachers communicate regularly with parents via messages, phone calls, or virtual meetings to provide guidance and support in helping children learn at home. (4) Creative Learning Activities: Teachers are trying to provide interesting and creative learning activities, even though they are carried out online. These activities include presenting material through stories or fairy tales, composing online games that are relevant to the learning topic, or providing art projects that can be done at home. (5) Monitoring and Evaluation: Teachers track individual children's learning progress through assignments, projects or online exams. Evaluation is conducted to understand the extent to which children understand the material and provide feedback for improvement. (6) Counseling and Emotional Support: During the pandemic, many children have experienced anxiety or difficulty adapting to changes in routines and learning environments. Teachers play a role in providing emotional support and counseling, both to children and parents, to help them overcome difficulties and challenges. (7) Community Engagement: Schools and teachers can collaborate with local communities to provide additional support in the form of food distribution, technology assistance to underprivileged families, or other support needed during the pandemic.

In the teaching and learning process, the teacher uses online teaching media or in the internet network. In terms of media by utilizing online learning facilities, all teachers take advantage of interactive platforms to enhance the learning experience. These platforms include: Google Forms, cloud services such as Google Drive, social media applications such as WhatsApp and Classroom, and collaborative tools such as Jamboard. This selection of interactive media is carefully selected to encourage effective engagement and communication between teachers and students in a virtual learning environment.

Learning facilities and media that support the process of teaching and learning at PAUD Mentari are effective. Regarding the availability of online learning media, all teachers agree that internet-assisted gadgets are the most effective learning tools during the Covid-19 pandemic. This tool provides an important means of facilitating virtual education and ensuring continuous learning (Martín-Blanco et al., 2022; Martins et al., 2023; Takian et al., 2022).

PAUD Mentari teachers play an important role in the teaching and learning process in the era of the covid-19 pandemic. They have various roles such as, advisers, facilitators, assessors, and motivators. As advisers their task is to provide guidance to students so that they can study well. Their task is to give pupils advice and direction to help them become obedient children to their parents and respective religious. As facilitators, their task is to prepare teaching materials that are easy to implement in class. As assessors, their task is to provide an assessment to measure the progress of pupils' knowledge and attitudes. Meanwhile, as a motivator, the teachers' task is to provide encouragement and enthusiasm so that pupils have strong learning motivation and succeed in achieving their goals. The implementation of the teachers' role demonstrates their adaptability and commitment to ensure a comprehensive and supportive learning experience for their pupils, even in challenging circumstances.

Apart from teachers, parents have a significant role in the teaching and learning process during the pandemic era at PAUD Mentari. They provide essential assistance with necessary facilities and act as motivators to encourage their children's academic progress. However, their role is less prominent for adult learners because adult learners are more independent and able to facilitate their learning activities.

During the pandemic era, the learning process faced problems. The challenges of learning in the pandemic era are mainly related to internet networks or signals because all educational media at all levels rely on internet access. A strong and quality internet connection is highly recommended as an important factor in an effective and efficient teaching and learning process so far (Basar et al., 2021; Lubis & Dasopang, 2021; Selvaraj et al., 2021).

In undertaking the internal service, the teachers put forward their suggestions regarding teaching and learning activities during the current pandemic. They provided valuable suggestions for improving the teaching and learning process. First, they proposed developing an independent online website in the form of a special Learning Management System (LMS) designed for the benefit of educational institutions. The system functions as an important infrastructure capital to effectively anticipate future learning challenges (Bradley et al., 2021; Sumardi et al., 2021). Second, they emphasize the importance of conducting regular evaluations of both teachers and pupils by school management. This evaluation process assesses the effectiveness and quality of implementing online learning. This is useful for identifying areas and necessary repairs or changes based on specific conditions (Chernyayeva et al., 2009; Coman et al., 2020; Selvaraj et al., 2021). Third, the teachers recommended providing training sessions for them which is relevant to their ages and levels of technology mastery. The training focuses on introducing new features and technical issues that commonly arise during online learning (Darling-Hammond et al., 2020; Esteve-gonzález et al., 2015; Malik, 2018).

Finally, teachers highlighted the need to modernize learning resources to meet pupils learning needs during a pandemic by utilizing online learning. To solve the teaching and learning problems, school management needs to update teaching materials and resources that reinforce a more interesting and efficient learning experience for pupils.

CONCLUSION

During the Covid-19 pandemic, teachers at PAUD Mentari School were ready to implement various learning models such as online teaching using Google Classroom. Meanwhile, the responses of students' parents indicated that online learning alone was not enough to motivate them. However, teachers acknowledged the need to continue learning while maintaining safety and health. The delivery of material involves a variety of methods, such as YouTube videos, online games, and interactive presentations, all of which aim to increase student motivation.

Learning methods include Google Classroom activities, Google Forms, and online tryouts. In terms of online teaching media, all teachers use interactive platforms such as Google Forms and social media applications to engage students. Gadgets with internet connectivity are considered the best tools for teaching during a pandemic. During the Covid-19 pandemic, teachers have very important and various roles. The role of the teacher includes instructor, facilitator, assessor, adviser, and motivator. Parents play an important role in supporting early childhood education by providing facilities and motivation. However, their role is less significant for adult learners, who can learn independently. The weakness of the learning process during a pandemic related to internet connectivity is that it is very dependent on an internet connection which sometimes experiences interruptions. In this case the teachers provided valuable suggestions, namely, the need to develop a supportive LMS, the need for regular evaluations, teacher training, and modernizing learning resources to meet students' learning needs through online learning.

Based on the findings, this research offers suggestion to further enhance the online teaching and learning experience during the Covid-19 pandemic by strengthening the following aspects: (1) Motivation and Engagement: PAUD Mentari School teachers need to focus on strategies to increase student motivation and engagement in the online learning process. They need to apply interactive and dynamic teaching methods, and consider gamification aspects so that learning becomes more fun and effective. (2) Professional Development: it is expected that school management will provide comprehensive training to teachers to improve their skills in using online teaching platforms and technologies effectively. The training should also emphasize innovative approaches to engage students so that they are able to overcome technical challenges. (3) Assessment and Feedback: teachers need to develop comprehensive assessment systems that include ongoing monitoring of student learning progress and outcomes. Teachers need to provide feedback to students to help them improve their performance. (4) Parental Involvement: school management needs to encourage active parental involvement in supporting the learning process in early childhood education. Efforts are needed to provide motivation and guidance to parents on how they can help and motivate their children in the online learning process. (5) Infrastructure and Connectivity: efforts need to overcome internet connectivity problems and provide better internet access for teachers and students. There needs to be a partnership with an internet service provider. School management is expected to take the initiative to distribute internet-assisted devices to students to support teaching and learning activities. (6) Curriculum Adaptation: the curriculum needs to be adapted to existing conditions so that it is relevant to the demands of online learning. It is designed to make the teaching and learning process interesting, relevant, and suitable for online learning activities. (7) Learning Management System: school management needs to develop a Learning Management System (LMS) that suits the needs of the institution. This LMS system must facilitate smooth, directed, and integrated communication. By implementing the suggestions above, schools can create a more dynamic, effective and efficient online learning environment that meets the needs of students, teachers and parents during a pandemic. Continuous improvement and adaptation is very important to ensure the successful delivery of quality education so that challenges during the Covid-19 pandemic can be overcome.

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The role of local government in Reog Ponorogo MSME empowerment: A regulator, facilitator, and catalyst

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-09-20 Revised: 2023-09-23 Accepted: 2023-10-04 Published: 2023-10-09 Keywords Empowerment of MSMEs Reog Ponorogo MSMEs Role of local government	<i>This research aims to understand the role of the government as a regulator, facilitator, and catalyst in empowering MSMEs in Reog Ponorogo. The qualitative descriptive research method is used with data collection using observation, interviews, and documentation methods. The results of this research show that the role of local government as a regulator, facilitator, and catalyst in empowering MSMEs in Reog Ponorogo still needs to be improved. As a regulator, the local government should be able to create policies or regulations that agencies can implement to develop Ponorogo Reog MSMEs, such as agency uniform regulations that use Reog attributes in August. The government's role as a catalyst is to provide accessible trading permits for new MSMEs and provide stimulus in the form of people's business credit or KUR in collaboration with private parties in developing MSMEs with relatively simple application requirements.</i>
Kata kunci Pemberdayaan UMKM Peran Pemerintah daerah UMKM Reog Ponorogo,	Peran pemerintah daerah sebagai regulator, fasilitator dan katalisator dalam pemberdayaan UMKM Reog Ponorogo. Penelitian ini bertujuan memahami peran pemerintah sebagai regulator, fasilitator, dan katalisator dalam pemberdayaan UMKM reog Ponorogo. Metode yang digunakan yaitu metode penelitian deskriptif kualitatif dengan pengumpulan data menerapkan metode pengamatan, wawancara, serta dokumentasi. Hasil dari penelitian ini didapatkanterdapat masih belum maksimalnya peran pemerintah daerah sebagai regulator, fasilitator, dan katalisator dalam pemberdayaan UMKM reog Ponorogo. Sebagai regulator pemerintah daerah harusnya dapat menciptakan kebijakan atau peraturan yang bisa dilaksanakan oleh instansi dengan tujuan mengembangkan UMKM reog Ponorogo seperti peraturan seragam instansi yang menggunakan atribut reog di bulan Agustus. Peran pemerintah daerah sebagai fasilitator mengadakan pameran reog, mengadakan event tahunan festival nasional reog, dan festival reog mini, serta pembuatan aplikasi marketplace dengan tujuan mendongkrak omset UMKM reog agar bertambah. Peran pemerintah sebagai katalisator yakni dengan memberikan kemudahan perizinan dagang bagi UMKM baru serta memberikan stimulus berupa kredit usaha rakyat atau KUR yang bekerja sama dengan pihak swasta alam pengembangan UMKM dengan syarat pengajuan yang cukup sederhana Copyright © 2023, Maulida et al This is an open access article under the CC-BY-SA license
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INTRODUCTION

Empowerment is an essential process in building community strength so that they can identify problems and overcome them by utilizing their potential. The government's role in community empowerment is crucial because it is responsible for providing support and guidance to its citizens. The government is tasked with ensuring that people have access to economic opportunities that can improve their welfare. One of the government's efforts is through local economic development, which creates jobs and increases people's income. By creating employment and business opportunities at the local level, local governments can help reduce unemployment levels and improve community

welfare (Riska, 2020). Prosperity can be realized through development that encourages economic growth and is carried out by local governments. MSMEs support national economic activities, especially in overcoming sector gaps (S. Andayani & Rahmiyati, 2020). Empowering MSMEs is very important to strive for, considering that MSMEs contribute to developing and strengthening the country's economic sector through their contribution to employment opportunities. MSMEs can also fill market gaps that large companies need help to fill. Therefore, it will create significant opportunities for MSME players to increase their productivity (Budiarto, 2018).

MSMEs are organizations with the most significant number and can survive various economic crises (Harfandi & Sonita, 2020). MSMEs are very important in supporting the national economy. The government helps overcome sector gaps by significantly contributing to job creation and economic growth. Empowering MSMEs is the key to maximizing the country's economic potential. Also, MSMEs can also fill market gaps that large companies need help to reach. They can produce products and services that suit local needs and are competitive in local and international markets. Therefore, the government must support MSMEs through various training programs, capital assistance, and marketing facilities (Ondang et al., 2019).

MSMEs have played their role in absorbing labor. However, the local government still needs to realize its role, as seen from the strategy and process of formulating policies that have not been targeted at MSMEs, and this means that MSME players experience obstacles in product marketing and financial obstacles. Another problem with empowering MSMEs is the limited mastery of knowledge and skills of skilled MSME human resources, especially in the current technological era, even though local governments should be able to collaborate with other parties in equipping these MSME human resources. Apart from that, other problems arise, namely, the limited working capital owned by MSMEs and sources of capital that are difficult to access. As quoted by BPS, Dibyo Prabowo stated that 35.10 percent of MSMEs experience capital difficulties, market certainty is 25.9 percent, and raw material difficulties are 15.4 percent (Alifah Fidela et al., 2020).

This problem is also experienced by Ponorogo Reog MSMEs in Ponorogo Regency. As we know, Ponorogo Regency is a Reog arts district that represents the Ponorogo community and includes foreign countries (Yurisma & Bahruddin, 2020). Reog art, which is the identity of the city of Ponorogo, cannot be separated from the Reog craft MSMEs spread throughout Ponorogo. Ponorogo's Reog art can act as cultural wealth that must be preserved and introduced to the outside world to stimulate economic and tourism potential in Ponorogo. In its development, Reog Ponorogo MSMEs experienced an increase from 2014 to 2018. However, it is not uncommon for many Ponorogo Reog MSMEs to be unprepared to face market competition and ultimately experience bankruptcy. Reog Ponorogo MSMEs experience many problems, such as low knowledge of science and technology, business capital problems, marketing that is still conventional, human resource capacity still needs to improve, and so on (Alifah Fidela et al., 2020).

The problems they face make it difficult for them to achieve large profits. Appropriate and fast analysis is needed to handle this problem. If we look at the government's role in implementing empowerment, there are still problems (Riska, 2020). The following are three roles local governments use to empower the community: (i) The role of government as a regulator is to create the underlying rules or laws (Ramadhanti et al., 2022). (ii) The government's role as a facilitator provides the means for MSMEs to achieve their goals (Ramadhanti et al., 2022). (iii) The government's role as a catalyst is an organization officially recognized as tasked with building empowerment pathways for MSMEs (Riska, 2020). The success of a program or project depends on the activity supporting infrastructure, funding, and other factors.

The theory of the government's role as regulator, facilitator, and catalyst plays an essential role in empowering MSMEs in Reog Ponorogo. That framework serves as a guide for local governments in supporting and developing the MSME sector in the region. As a regulator, local governments are responsible for creating regulations and policies that support the growth of MSMEs. That includes the preparation of regulations that facilitate MSME licensing and operations. Apart from that, reasonable regulations also protect the rights of small and medium business owners. As a facilitator, the local government must actively overcome the internal and external problems faced by Reog Ponorogo MSMEs. They can organize training, workshops, or educational programs to improve MSME players' skills and capacity. Facilities such as promotion centers or exhibitions can also help MSMEs market their products. As a catalyst, local governments have an essential role in motivating and encouraging the growth of MSMEs. That involves efforts to create a stable and conducive business environment. Local governments can also collaborate with financial institutions to facilitate access to capital for MSMEs.

Empowering Reog Ponorogo MSMEs in its achievements, the local government is expected to be active in overcoming the problems faced by MSME actors, both internal and external. They must also be proactive in developing regulations and policies that support the growth of MSMEs, create a stable business environment, and ensure more accessible access to the resources and capital needed by MSMEs. By implementing the government's influential role as regulator, facilitator, and catalyst, Reog Ponorogo MSMEs will have more significant opportunities to grow and contribute to local economic growth. From the theory, the government's role as regulator, facilitator, and catalyst is a guideline for implementing the empowerment of Reog Ponorogo MSMEs. Local governments are expected to be able to handle these problems both internally and externally so that MSME goals can be achieved. The local government is expected to be active in overcoming the problems of Reog Ponorogo MSMEs and formulating regulations or policies

related to creating a stable business environment to optimize the growth and progress of Ponorogo Reog MSMEs for local economic growth.

Empowering MSMEs is very important in improving the national economy. However, MSMEs face many problems, and many ways are needed so that MSMEs can continue to develop and survive. Several studies that examine this research are more focused on the strategy of the Department of Cooperatives and MSMEs in empowering MSMEs (Wulansari et al., 2021), the role of the government in developing MSMEs (Sari & Komalasari, 2021). The state of the art of this research is the role of government in empowering MSMEs through the perspective of facilitator, regulator, and catalyst. Based on this description, the government's role in empowering reog craft MSMEs needs to be analyzed to determine whether the policies made by the government are running optimally in Ponorogo Regency and can overcome the problems experienced by MSMEs and enable MSMEs to develop well in Ponorogo Regency.

Research on the role of government as a regulator, facilitator, and catalyst in empowering MSMEs in Reog Ponorogo has a significant connection and contribution to achieving the Sustainable Development Goals (SDGs), especially in two main aspects, namely Decent Work and Inclusive Economic Growth (Zaelani et al., 2022). This research has direct relevance to the SDGs goals related to decent work. MSMEs are the primary source of employment in many countries, including Indonesia (Marginingsih, 2021). By understanding the government's role in supporting MSMEs, this research can help create better job opportunities for local communities, especially Reog Ponorogo MSME actors (Maryanto et al., 2022). This research contributes to achieving the SDGs target to create decent and productive work for everyone. This research is also related to the SDGs goals related to inclusive economic growth. In the context of Reog Ponorogo MSMEs, the government's role as a facilitator and catalyst in empowering MSMEs can increase local economic growth (Amanda et al., 2022). That includes increasing MSME access to broader markets, assistance in increasing production and innovation and developing infrastructure that supports economic growth. Thus, this research contributes to efforts to achieve inclusive economic growth, where economic benefits can be enjoyed by various levels of society (Arya, 2020).

This research analyzes the local government's role in advancing MSMEs engaged in the traditional art of Reog in the Ponorogo area. This research is also hoped to help the government create a more effective and sustainable policy framework in the MSME sector. Apart from that, it also describes what activities and policies are carried out by the Ponorogo district government to empower Ponorogo reog craft MSMEs so that they can continue to operate amidst the many problems they are facing.

METHOD

This research aims to describe the role of local government in empowering MSMEs in Reog Ponorogo using a qualitative descriptive approach. This approach is used to understand phenomena that occur accurately and factually through an inductive thinking process. The qualitative approach focuses on an in-depth understanding of phenomena or situations that cannot be compared because they have their context and uniqueness. In this research, researchers try to reveal how the local government supports Reog Ponorogo MSMEs. The information obtained is based on statistical data and involves the views and experiences of informants directly involved in the MSMEs. A qualitative approach allows researchers to understand different perspectives that may not be visible in quantitative data (Adlini et al., 2022). The validity of qualitative descriptive research depends on the viewpoint of the primary data source, the informant. Therefore, this research will ensure that data is collected carefully and in-depth by actively interacting with informants. Thus, the results of this research can provide a better understanding of the role of local government in empowering Reog Ponorogo MSMEs according to their context and uniqueness.

This research collects data and implements observation techniques, interviews, field studies, and documentation with a tape recorder, photos, slides, and so on (Wulansari et al., 2021). from collecting subject data from qualitative research, namely informants. Miles, Huberman, and Saldana (2014) there are four aspects of coverage related to data collection on informants, namely settings, actors, events, and processes of factual phenomena that occur at the research location. Informant in this research The Department of Cooperative Trade and Micro Enterprises of Ponorogo Regency and Reog artisans in Ponorogo Regency. The location used for collecting data and information is the Department of Trade, Cooperatives and Micro Enterprises and is the home of the Reog craft industry. During the interview, questions were asked of the informant by Gede Diva's discussion of the three roles of government as regulator, facilitator, and catalyst. The researchers' data will be collected and processed until conclusions are drawn.

Data analysis in this research refers to the analysis model developed by Miles and Huberman in 1984. This model guides researchers in processing qualitative data systematically. There are four main stages in the data analysis process. (i). The first stage is data collection (Figure 1). Data from interviews, documentation, and observations were collected into one unit. That was done to collect as much relevant information as possible regarding the role of local government in empowering Reog Ponorogo MSMEs. (ii). The second stage is data reduction. At this stage, the data that has been collected is selected and analyzed further. Miles and Huberman (1992) describe this process as selecting or separating information that appears in research notes and then narrowing it down to the core of the problem. It aims to simplify complex data into more focused elements. (iii). The third stage is data presentation. The reduced data is arranged

systematically in narrative form. That allows researchers to present information in a clear and easy-to-understand manner. The presentation of this data helps understand the phenomenon under study and comprehensively reveals the findings. (iv). The final stage is drawing up conclusions. At this stage, researchers formulate conclusions based on the findings that have been analyzed. This conclusion reflects a deeper understanding of the role of local government in empowering MSMEs in Reog Ponorogo. This conclusion is the final result of the research and can be used as a basis for recommendations or further action. By following this analytical model, this research can produce an in-depth understanding of the role of local government in empowering MSMEs in Reog Ponorogo and make a significant contribution to the development of MSMEs and local economic growth.



Figure 1. Data collection (interview)

RESULTS AND DISCUSSION

The role of government

Roles have varying meanings in various contexts. In the sociology book by Bruce J. Cohen, the role is defined as the actions that other people expect or want from someone who occupies a specific position. It refers to the hopes or expectations attached to individuals based on their social position or role in society. On the other hand, the general Indonesian dictionary states that a role is a specific threshold expected to be reached by the general public. That reflects the idea that roles can be considered tasks or responsibilities that individuals must carry out in a particular context and that the general public expects how the individual will carry out their role (Cohen, 2009).

The Big Indonesian Dictionary also provides several synonyms or other meanings for role, such as role, showman, or something that resembles a part that offends the authorities in certain situations or events. That shows that the concept of role can have varying meanings depending on the context, including in art and culture, where performers assume the role of certain characters in a story or drama. Overall, the definition of a role has broad dimensions and can change depending on the situation and context. That is an essential concept in sociology and other fields that examine social interactions and societal dynamics (Noviandari et al., 2021).

Fahmi Amrusi said that local government is a sub-system of the national government that can organize and manage all its affairs. Local government authority is the delegation of tasks and authority to complete an authority given to the local government, trust, and authority in considering, taking ideas, and determining one's efforts in completing tasks (Ondang et al., 2019). As the government's household administrator, the government has three prominent roles in a country's economy: stabilization, allocation, and coordination. There are three components, namely capital accumulation, population growth, and technological updates, which together represent the economic conditions of a country (Khamimah, 2021).

In carrying out their governmental duties, local governments are expected to carry out development efforts that can support economic development to create overall community welfare. Local governments play a role in empowering MSMEs. Gede Diva said there are three: facilitator, regulator, and catalyst (Sari & Komalasari, 2021). The role of local government as a regulator is realized by issuing policies or regulations. The support provided by government agencies in empowering MSMEs is carried out by providing facilities according to their role as facilitators (Ramadhanti et al., 2022). As a catalyst, the government is tasked with accelerating the empowerment process of MSMEs themselves.

Local governments in written laws have the power and authority to regulate society (Marwan & Julianthy, 2019). The division of authority and power is focused on the center and the regions. Local governments are given the authority and power to realize the welfare of the people in the region from various aspects of existing sectors. Local governments need to pay attention to the economic sector to maximize the potential and diversity in the area to raise the local community's economic value to be better and more prosperous (Ondang et al., 2019). The government seeks and develops a series of developments to improve the economy and realize community welfare (Riska, 2020). The role of government needs to be able to realize the basics for the development of entrepreneurship in a country (Iqnatia et al., 2021).

Empowerment of MSMEs

Empowerment is a translation of empowerment. Empowerment is the single most crucial task that the government must carry out to empower society with the tools necessary to unleash its potential and use local economic growth to create certain types of jobs for society, as well as to encourage people to innovate to meet society's needs economically (Ondang et al., 2019). In developing countries, waves of empowerment emerge due to social tensions, economic instability, environmental degradation, and population alienation by various producer factors (Kusuma et al., 2022). Empowerment is essential to improve people's quality of life, sense of security, and general economic growth. Poverty can increase when there is a concentration of food insecurity, especially among the population (Iryana, 2018).

Community empowerment is a concept that refers to the ability of individuals or groups in society to actively participate in development and increase their capacity to overcome social, economic, and political challenges. In this definition, empowerment includes collaboration between individuals or groups to achieve new preferences in community development. Empowerment does not only focus on individuals or groups who may need more power or access. That can also apply to those who already have potential and resources but may still need help to achieve the desired level of independence. In the context of empowerment, it is essential to identify the potential and resources possessed by individuals or groups and then develop them so that they can contribute positively to the development of society (Kusuma et al., 2022).

Community empowerment is an essential approach to sustainable development because it helps communities to be more involved in decision-making processes that affect their own lives. It also helps improve the quality of life and enhances society's ability to cope with social, economic, and environmental changes. Community empowerment is essential for achieving sustainable development and creating a more robust, independent, and empowered society (Endah, 2020).

In developing countries like Indonesia, a wave of empowerment emerged due to social tension, economic instability, environmental degradation, and alienation of the population by various producer factors (Kusuma et al., 2022). The digital marketing model offers MSME users the knowledge and skills necessary to develop their businesses and their capacity for marketing products through online markets (I. Andayani et al., 2021).

Community empowerment needs to be carried out sustainably so that each community can develop the potential and diversity of each region to the maximum (M. Purba 2018). That will be followed by other positive impacts from community empowerment, starting with new job opportunities and more creative and innovative innovations from the community independently. In order to develop community empowerment optimally, the government's role in making this happen is needed. The economic improvement process in Indonesia will continue to improve and increase if local governments can maximize their role in community empowerment (Rabiah et al., 2022). In developing the Indonesian economy through community empowerment, great responsibility and the ability and strength of the community are required to maximize existing local potential (Endah, 2020). According to Firmansyah and Ratih Nur Pratiwi (2004), community empowerment requires social values within the community or the environment. Empowerment creates a just, civilized, and practical life in various fields.

MSMEs in Law No. 20 of 2008 are businesses controlled by individuals not descendants of large companies (Alifah Fidela et al., 2020).). Thanks to the strong government support during the training for MSME employees, the growth of MSMEs in Indonesia continues to increase in quality (Mutrofin & Muhammad, 2021). The MSME sectors in Indonesia are responsible for maintaining the Indonesian economy's stability during the ongoing turmoil because these sectors can survive the economic crisis. It can be said that MSMEs are the foundation of a robust economy (Herispon, 2021). That is because the global economic crisis in 1998 and 2008 did not provide a significant boost for MSMEs regarding the number of workers (Hariyoko, 2018). Indonesia's economic stagnation is likely to cause other countries to recognize and support Indonesia's ability to maintain economic stability during an economic crisis.

MSMEs have different characteristics from large industries in Indonesia. Professor Djisman Simandjuntak, an economic expert, stated the characteristics of MSMEs relevant to this country's economic development. Several characteristics of MSMEs explained by Djisman Simandjuntak and which can be used as a reference are as follows (i). Small and Flexible Markets where MSMEs tend to operate in smaller and more flexible markets. They can adapt their production and services according to changing local market needs. The ability to adapt quickly is an advantage for

MSMEs. (ii). Strong Management Structure Despite their small size, successful MSMEs have an efficient and robust management structure. It involves good planning, managing resources, and making the right decisions. (iii). Ability to Manage Labor: Many MSMEs have a limited number of employees. Therefore, MSME business owners need to have the ability to manage their workforce efficiently and maximize productivity (Hariyoko, 2018).

MSMEs have an essential role in the Indonesian economy. More than 90 percent of companies in Indonesia are MSMEs, and they make a significant contribution to employment and the local economy. They also have the potential to market local products internationally, an essential aspect of increasing national economic competitiveness. However, MSMEs face several challenges, both within and outside (Suyadi & Syahdanur, 2018). Protection, assistance, development, and guidance from the government are necessary steps to support the growth of MSMEs. The government needs to implement special laws and programs to help MSMEs overcome their problems (Herispon, 2021). Empowering MSMEs is an essential initiative in overcoming the problem of poverty and supporting socio-economic development in Indonesia. With the proper support, MSMEs can become the backbone of this country's economy and help improve people's welfare (Eriyanti, 2019).

The government's role as regulator, facilitator and catalyst

The government is a central entity in a country's government structure that is primarily responsible for controlling actions and decisions to achieve government goals. The government is the holder of power and authority in the state, responsible for various aspects of society's life. A critical aspect of government is the administration of local government. Local governments have a crucial role in organizing government at the local or local level. The main goal of local government is to create welfare for the people in the region. It includes a variety of policies and programs designed to meet the needs of local communities (Hayati et al., 2022).

The role of local government is reflected in three main scopes (i). The role of community norms is to understand and respond to the norms and values of local communities. They must ensure that their policies and actions are according to the culture and norms prevailing in the community. (ii). Role in interacting with individuals and organizations: Local governments must also manage relationships between individuals, organizations, and other parties. That includes facilitating cooperation, resolving conflict, and managing resources efficiently. (iii). Individual behavior in society: local government is responsible for shaping individual behavior in society. That may include improving education, awareness, and social ethics to create a healthy social environment (Nartin & Musin, 2022). It can be understood from the description above that if it is related to the actions of local governments, it can be stated that this includes the role of their position in local government.

The role of local governments in these three scopes can be concluded that the actions taken by local governments are an integral part of their role in local government. Alignment with societal norms, management of individual and organizational interactions, and influence on individual behavior are elements that form an essential foundation of effective local government administration. In this context, local governments are responsible for implementing central government policies, adapting to local conditions, and ensuring community welfare at a deeper level.

Empowerment is a task by local governments to develop community potential, especially MSMEs. Local governments have a vital role in realizing independent economic prosperity for the community, especially MSMEs. In this context, the role of local government includes a series of concrete steps aimed at providing real impetus for the development of local economic potential. One of the government's primary roles in empowerment is formulating public policies that support the development of MSMEs. Fair and favorable policies create a conducive environment for the growth of small and medium businesses. Local governments must ensure that the regulations and policies favor large parties and provide fair opportunities for MSMEs (Ondang et al., 2019). the role of local government is to support and encourage the community to develop empowerment.

Apart from that, local governments must also serve as training and education providers for MSMEs. That may include training in business management, marketing, and product development. By providing the necessary knowledge and skills, the government can help MSMEs increase their competitiveness in the market. Furthermore, the role of local government includes providing access to MSME actors to obtain affordable financing. That can be done through loans or financial assistance programs to help MSMEs expand their operations or start new businesses.

With a decisive role of local government in empowerment, the community will feel the support and encouragement needed to develop their economic potential independently. That, in turn, will help create more economically prosperous communities and increase local economic growth. Therefore, empowerment by local governments is not only a responsibility but also an investment in a sustainable economic future. The results of research related to the role of local government as regulator, facilitator, and catalyst in Reog Ponorogo MSMEs according to the Ponorogo Regency Cooperative Trade and MSME Service are presented in Table 1.

Table 1. Role of regional government according to the Ponorogo Regency Cooperative Trade and MSME service

No	Indicator	Interview result
1.	Regulator	1. The local government facilitates access for Reog Ponorogo MSMEs to financial institutions or affordable loan programs such as People's Business Credit or People's Business Credit for Reog Ponorogo MSMEs 2. Local governments provide facilities and infrastructure that support the production and marketing of MSME products, such as exhibition venues or production centers.
2.	Facilitator	1. The local government facilitates access for Reog Ponorogo MSMEs to financial institutions or affordable loan programs such as People's Business Credit or People's Business Credit for Reog Ponorogo MSMEs 2. Local governments provide facilities and infrastructure that support the production and marketing of MSME products, such as exhibition venues or production centers
3.	Catalyst	1. The local government fully supports the organization of exhibitions, festivals, or cultural events to promote Reog Ponorogo products and art more widely. 2. The local government has formed a forum or community that allows Ponorogo Reog MSME actors to share knowledge, experience, and opportunities for collaboration.

Based on the research data above in Table 1, it can be analyzed and concluded as follows:

Regulator

Local governments have a crucial role as regulators in implementing development. A critical aspect of this role is the preparation and setting of goals to achieve balance in the implementation of development, including the preparation and publication of policies to maintain administrative order. As a regulator, local governments are responsible for formulating policies that support the development of MSMEs. Good policies will create a conducive environment for MSMEs to develop and improve their businesses. Local governments must ensure that the regulations and policies implemented do not hinder the growth of MSMEs but, on the contrary, make it easier for them to run their businesses (Firdaus, 2020).

Local governments also act as policy implementers apart from being policymakers. They must implement the policies to ensure that economic and business conditions remain conducive and dynamic. That involves various aspects, including supervision and monitoring of the implementation of established policies. The regulatory function carried out by local governments has a significant impact on various parties, both local governments as compilers of regulations and business actors as objects of licensing. Regulations are designed to protect society and specific organizations and regulate economic activities so that they run in an orderly and fair manner. There is a division of authority between the central and local governments in regulatory functions. These two entities have their respective authorities in supervising and regulating their communities. That allows for implementing regulations appropriate to local and national conditions, creating a better environment for all parties involved (M.Purba, 2018). The primary function of regulations is to protect society or specific organizations, and the benefits can be identified on two sides, namely the local government side, which is the author of the regulations, and the business actor side, which is the object of licensing (Hayati et al., 2022). In the regulatory function, there is a grouping of authorities, namely the central and local governments, which have their respective authorities supervising their communities. Thus, the role of local government as a regulator includes policy formulation, implementation, and supervision to maintain order, protect the community, and encourage healthy economic growth. That is a complex and vital task in ensuring sustainable development at the local level.

The results of interviews with the Ponorogo Regency Cooperative Trade and MSME Service indicate that they have made excellent efforts as regulators in empowering MSMEs in the area. One of the striking achievements is the formulation of very transparent and supportive policies, which have helped facilitate the licensing process for MSMEs just starting a business. Clarity in these policies is essential in creating a conducive business environment in Ponorogo, enabling MSMEs to understand licensing requirements better and minimizing bureaucracy hindering business growth. That is an essential step towards establishing a more dynamic business climate. Apart from that, the Ponorogo local government has also demonstrated its commitment to protecting the intellectual property rights of MSMEs. That is important in providing legal protection for innovation and creations produced by MSMEs. By securing intellectual property rights, MSMEs in Ponorogo can be more confident in developing their products and services without fear of copyright or intellectual property violations.

Overall, the actions and efforts undertaken by the Ponorogo Regency Cooperative Trade and MSME Service reflect a very positive role as a regulator in empowering MSMEs in the region. With clear policies and intellectual property rights protection provided, they have created an environment that supports the growth of MSMEs and their contribution to the local economy. That is a positive step that other regions should emulate to support the MSME sector, which is essential for the national economy.

Facilitator

Local governments have a vital role as facilitators in empowering communities and developing local potential, especially in MSMEs. The role of the facilitator is a tangible manifestation of the local government's commitment to improving community welfare and supporting economic growth at the local level. One concrete form of this role is through discussion forums with the community. In this forum, local governments can listen to the aspirations and input of MSME players and understand the obstacles they face. That allows local governments to design more effective policies that align with community needs. Apart from that, local governments must also facilitate MSMEs in achieving their business improvement targets. If MSMEs experience problems, local governments must provide the necessary facilities and support. That can include ease in administering permits, providing suitable business premises, and assisting in collaborating with external parties, such as investors or potential business partners (Nartin & Musin, 2022).

The facilitator of local government is responsible for creating a conducive environment for the growth of MSMEs. That includes creating a stable and supportive atmosphere for business people by ensuring legal certainty and reducing complicated bureaucracy. Thus, MSMEs can focus more on developing their business. Apart from that, the role of local government as a facilitator also includes directing the community to organize themselves in a more structured manner. That helps society better face future challenges. With the help of local governments, communities can utilize their potential more efficiently, build independence, and contribute to maximum local development (Sari & Komalasari, 2021). Overall, the role of local government as a facilitator is an integral part of efforts to empower MSMEs and local development. That is an essential step in ensuring sustainable economic growth and improving community welfare at the local level. With a practical approach as a facilitator, local governments can become the main drivers for economic and social progress in their region (Riska, 2020).

The results of interviews with the Ponorogo Regency Cooperative Trade and MSME Service indicated that they had succeeded in playing a very effective facilitator role in empowering MSMEs in the Reog Ponorogo area. One of their striking achievements is their ability to facilitate MSME access to financial institutions and affordable loan programs. The Ponorogo local government has ensured that MSMEs in this region have easy and affordable access to various sources of financing, such as the People's Business Credit program. That is a positive step, as MSMEs often need financial support to develop their businesses. By facilitating access to programs like this, the local government is helping Reog Ponorogo MSMEs increase their capacity and develop their businesses better. Apart from that, the role of local government facilitators also includes efforts to make it easier for MSMEs to interact with financial institutions and other related parties. In this way, MSME players can run their businesses more efficiently and effectively.

The Ponorogo Regency Cooperative Trade and MSME Service has taken steps that are a positive example of how local government can act as a facilitator to support the growth and empowerment of local MSMEs. Reog Ponorogo MSMEs can develop more rapidly and contribute to the local economy through access to financial resources and other support. That also reflects the local government's commitment to improving community welfare and optimizing local potential in sustainable economic development.

Catalyst

Local government plays an essential role as a catalyst in community empowerment and developing local potential. As a catalyst, local governments are responsible for accelerating the empowerment process with practical actions. Catalysts, in this context, are instruments that regulate and facilitate the implementation of various forms of empowerment and activities. They create a conducive environment for people to develop their potential. This catalyst role often also includes providing facilities, infrastructure support, intellectual property rights, and capital to help MSMEs achieve more significant growth and success (Nartin & Musin, 2022).

Local government, as a catalyst, can drive initiatives in society. They encourage other individuals and groups to develop their potential proactively. An example is by providing training and technical support to MSMEs, which can help them improve their skills and capacity in running a business. Local governments can also create community empowerment initiatives, such as training and business development programs. They can also provide access to necessary infrastructure, such as markets or affordable production facilities (Nartin & Musin, 2022).

The catalytic role of local government is the primary driver in developing MSMEs. They help create positive change in local communities by encouraging individuals and groups to develop themselves and achieve economic independence proactively. Thus, the role of local government as a catalyst in community empowerment and developing local potential is critical in creating an environment that supports sustainable economic growth. Through their actions, support, and initiatives, local governments contribute significantly to local economic development and improve community welfare (Hayati et al., 2022).

The results of interviews with the Ponorogo Regency Cooperative Trade and MSME Service revealed that they had succeeded in carrying out a very effective catalyst role in empowering MSMEs in the Reog Ponorogo area. One clear proof of this catalytic role is the efforts made by the local government to promote Reog Ponorogo products and art more widely through holding exhibitions, festivals, and cultural events. The Ponorogo local government has realized the importance of expanding market reach and increasing the visibility of Reog Ponorogo MSME products. Organizing exhibitions, festivals, and cultural events provides an invaluable platform for MSMEs to promote their products to a broader audience. These events also become a forum for Reog Ponorogo art, which is a valuable cultural heritage, to be known by the wider community. That supports the economic development of MSMEs and preserves rich and valuable local culture.

In this catalyst role, the Ponorogo local government has succeeded in motivating and encouraging MSMEs to take the initiative in developing their businesses. They provide support and opportunities for MSMEs to appear on various public platforms, helping them grow more significantly. Overall, the steps taken by the Ponorogo Regency Cooperative and MSME Trade Service as a catalyst in promoting Reog Ponorogo products and art are a positive example of how local governments can support the empowerment of MSMEs in innovative ways. Through these efforts, they help increase the income and welfare of local communities and strengthen local cultural identity.

Local governments play a crucial role in empowering MSMEs in Reog Ponorogo, as seen from the artisans's perspective in Table 2.

Table 2. Role of Local Government According to Ponorogo Reog Craftsmen

No	Indicator	Interview Result
1.	Regulator	1. The local government still needs to appeal to new or start-up MSME owners to immediately register their businesses in the Ponorogo Trade and Law Regulation so they can join other business groups. 2. The local government still needs to be more optimal in providing tax incentives or other facilities to encourage the growth of Reog Ponorogo MSMEs.
2.	Facilitator	1. Local governments still need to be optimal in providing training and workshops to improve the skills of artisans, dancers, and MSMEs related to Ponorogo Reog in production, management, marketing, and innovation. 2. The problem of limited business capital among the community, especially MSMEs, is that the credit loan program requirements still need to be improved for artisans to access.
3.	Catalyst	1. Lack of direct intervention by the local government in helping identify potential domestic, national, and international markets for Reog Ponorogo MSME products. 2. In bringing about changes in empowering MSMEs in Reog Ponorogo, the local government still lacks collaboration with the private sector.

Regulator

Local governments have the responsibility to regulate policies and regulations related to MSMEs. That includes licensing, taxes, and other regulations that affect MSME operations. The government must also ensure a legal framework that protects the rights and interests of MSME artisans. That includes property rights, brand rights, and consumer protection.

However, the results of interviews with Reog Ponorogo artisans revealed that the role of local government in its capacity as a regulator still needs to be improved. One indication that emerges is the need for more extensive efforts from local governments to encourage new MSME owners to register their businesses with the Ponorogo Cooperative and MSME Trade Service to join existing business groups.

Registration and regulation of MSME businesses are essential in creating a more structured and orderly framework. That helps MSME owners get better support, such as access to affordable financing, training, and technical assistance. However, if local governments do not actively encourage new MSME owners to register, many business actors may lose the benefits of this regulation. Therefore, the Ponorogo local government needs to improve its role as a regulator by increasing communication and education to new MSME owners. That could include more active outreach and information campaigns and efforts to ease business registration and regulation processes. In this way, local governments can be more effective in supporting the growth and success of local MSMEs, which will support more significant local economic development.

Facilitator

Local governments can facilitate MSMEs' access to funding sources, such as microloans or business capital assistance, to help artisans develop their businesses. The government also organizes training and education programs to improve artisans' business management, marketing, and product development skills. In terms of infrastructure, local governments play a role in ensuring the availability of infrastructure that supports MSMEs, such as production facilities, transportation access, and communication facilities (Tui et al., 2023).

However, the results of interviews with Reog Ponorogo artisans show that the role of local government in its capacity as a facilitator still needs to reach optimal levels. One of the problems that has emerged is the need for more training and workshops to improve the skills of MSME artisans in Ponorogo, especially in production and innovation. Training and workshops are essential for MSME artisans to develop their skills, understand more efficient production techniques, and apply innovation in their products. However, the need for more initiative from local governments in organizing this kind of activity means that MSMEs are limited in developing their skills.

The Ponorogo local government needs to increase their efforts as facilitators by actively holding relevant training, workshops, or educational programs for MSME artisans. That will help increase their competitiveness in the market and encourage innovation in product production. In addition, this will also support the overall growth of MSMEs, which can have a positive impact on the local economy. Therefore, the Ponorogo local government needs to focus more on its role as a facilitator by organizing educational and training programs beneficial for MSME artisans. By doing this, they will help create a more conducive environment for the growth and development of MSMEs in the Ponorogo area.

Catalyst

The local government can be a catalyst in promoting Reog Ponorogo MSME products and activities. They can organize exhibitions, festivals, or other promotional events to increase the visibility of local products. Local governments can facilitate collaboration between MSMEs and other parties, such as large companies or educational institutions, to expand business opportunities and growth of MSMEs. They can work with various stakeholders to develop a healthy MSME ecosystem, including industry associations, cooperatives, and other supporting institutions.

However, the results of interviews with Reog Ponorogo artisans revealed that the role of local government as a catalyst still needs to reach optimal levels. One of the problems that have emerged is the need for more active participation of local governments in helping identify potential markets for Reog Ponorogo MSME products, both at the domestic, national, and international levels. Identifying potential markets is critical in promoting MSME products and helping artisans expand their market reach. However, the lack of local government support and involvement means artisans are limited in seeking new market opportunities. In the era of globalization, expansion into international markets is also essential for developing business.

The Ponorogo local government needs to increase its role as a catalyst by actively supporting artisans in identifying potential market opportunities. That can be done through training programs, workshops, or collaboration with parties who have broader market knowledge. Reog Ponorogo MSMEs can direct their efforts to meet appropriate market demand by identifying potential markets. That will help increase their income and support local economic growth. Therefore, the Ponorogo local government needs to increase its role in helping artisans identify market opportunities and ensure that the potential of Reog Ponorogo MSMEs can be adequately maximized.

The results of research data show that the role of the Ponorogo Regency local government in empowering Reog Ponorogo MSMEs has two sides that need to be considered. On the one hand, the Ponorogo Regency Cooperative and MSME Trade Service have played a good role as a regulator, facilitators, and catalysts. They have developed clear policies, made licensing easier for new MSMEs, and provided support such as exhibitions and community forums for Reog Ponorogo MSMEs. This effort should contribute positively to the growth of MSMEs and community welfare. However, on the other hand, the results of interviews with Reog Ponorogo artisans revealed several obstacles that are still being faced. One of them is the limitations of the younger generation in running a Reog business. The older generation dominates artisans, and the need for more young successors could be a problem in the long term. Local governments need further efforts to inspire the younger generation to be interested and involved in cultural heritage, such as Reog. Apart from that, facilities and platforms to introduce Reog Ponorogo MSMEs to the broader community still need to be included. Artisans need further support in this regard, such as effective marketing and promotion training, so that more people can know and access Reog Ponorogo products and art.

The Ponorogo local government needs to continue to improve coordination and collaboration with MSMEs and the younger generation to overcome these obstacles. By taking concrete steps to support the younger generation and providing more facilities and training, they can be more effective as regulators, facilitators, and catalysts in empowering Reog Ponorogo MSMEs. In this way, the potential of local MSMEs can be maximized, and community welfare can be significantly improved. Based on the research data obtained, the role of the Ponorogo Regency local government as a regulator, facilitator, and catalyst in empowering MSMEs according to interview data from the Ponorogo Regency Cooperative and MSME Trade Service, has made excellent efforts and roles in empowering Reog Ponorogo MSMEs. It can be shown that the local government has developed clear policies and made it easier to license new MSMEs and secure intellectual property rights, provided facilities such as exhibitions, and formed a community forum for Reog

Ponorogo MSMEs. However, this contrasts with the results of interviews conducted with Ponorogo Reog artisans. The local government needs to be more optimal in implementing its role as regulator, facilitator, and catalyst. That is shown by the limited number of successors to Ponorogo Reog craftsmen, especially the younger generation. As the Ponorogo Reog artisans state, most artisans are dominated by older adults. So, this will become an obstacle to developing the empowerment of Reog Ponorogo MSMEs. Facilities are lacking, and platforms are still insufficient to introduce Ponorogo Reog MSMEs to a broader scope so that they can further improve the welfare of the community, especially MSME players.

CONCLUSION

The role of local government in empowering Reog MSMEs in Ponorogo Regency as a regulator, facilitator, and catalyst still has several obstacles that need to be improved. One of the main problems is the lack of policies that benefit Reog Ponorogo MSMEs. Local government efforts in formulating policies must still pay more attention to the interests of MSMEs and create more profitable opportunities for them. Apart from that, the problem of the younger generation needing to be expanded in inheriting the art of Reog Ponorogo is also a serious obstacle. Local governments must take concrete steps to inspire the younger generation to be interested in and involved in this traditional art. That includes providing the necessary training and support so the younger generation can become strong successors in preserving cultural heritage.

More facilities and platforms to promote Reog Ponorogo MSMEs to a broader market are also problems that must be addressed. Artisans and MSMEs need further support in marketing, promotion, and access to larger markets. Demanding access to capital applications to lending agencies is also an obstacle. Local governments need to facilitate access to financing that can help MSMEs develop better. By overcoming these obstacles and playing a more active role as a regulator, facilitator, and catalyst, the Ponorogo local government can significantly contribute to empowering Reog Ponorogo MSMEs. In this way, the potential of local MSMEs can be maximized, and the welfare of the community, especially MSME actors, can be improved.

Empowering Reog Ponorogo MSMEs requires commitment and attention from the local government. Where the local government consistently carries out its policies and roles and is expressed through sustainable empowerment, the local government, as a regulator, facilitator, and catalyst, must maximally emphasize its role in developing Ponorogo's Reog MSMEs. So that MSMEs, especially Ponorogo Reog artisans, can survive in the future with adequate facilities, regulations, and catalysts so that community welfare can be achieved and followed by improving local culture to a broader scope. Researchers also hope that the government will continue to promote outreach regarding empowerment programs to all Ponorogo Reog artisans so that they can keep up with the increasingly fierce market competition.

This research has limitations in comprehensively analyzing the development of Reog Ponorogo MSMEs because the scope of the study is still limited to one area. Recommendations for further research are to develop this research in other areas in Ponorogo Regency and outside. Thus, the more numbers that are researched, the better the recommended proposal will be. Apart from that, further research must also carry out comparative studies with other regions with similar MSMEs in traditional arts or local culture. By considering these recommendations, further research can provide a more comprehensive understanding of the government's role in empowering Reog Ponorogo MSMEs and the potential for developing Reog traditional art.

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Checkpoint ergonomics as a health and safety effort at work among women farmers

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-05-16 Revised: 2023-07-24 Accepted: 2023-08-19 Published: 2023-10-20 Keywords Ergonomics Farmers Musculoskeletal Posture Safety	PT X is a company that works in the plantation sector, one of which is an orange plantation. In the process of harvesting lime leaves, there are 3 workstations and 4 work activities. Most of the work is done manually with a high workload and repetitive movements, causing musculoskeletal complaints. Workers complain of musculoskeletal disorders while working. During initial observation, there were complaints of pain in the neck, shoulders, arms, waist, thighs, and knees. Based on these problems, this study aims to analyze the factors that cause musculoskeletal disorders in the orange harvesting process. The method used to solve problems with partners is by using an ergonomic checklist and the PATH method to analyze three physical risk factors in the workplace. Based on the results of data processing using the PATH method, it was found that the biggest risk factors for injury were 45.53% soil hoeing, 42.39% harvesting and 12.08% grass cutting. The proposed improvements given after being analyzed using ergonomic checkpoints are: (1) reducing bending or squatting postures; and (2) providing protectors and covers for lawn mowers and handcarts and handles for tools for harvesting oranges. This proposed improvement is in accordance with Sustainable Development Goals number 3, namely Good Health and Wellbeing for all.
Kata Kunci Ergonomi Keamanan Muskuloskeletal Petani Postur	Ergonomi checkpoint sebagai upaya kesehatan dan keselamatan kerja pada wanita petani. PT X merupakan perusahaan yang bekerja di bidang perkebunan, salah satunya adalah perkebunan jeruk. Pada perkebunan tersebut, proses pemanenan daun jeruk meliputi 4 kegiatan kerja dengan 3 stasiun kerja. Sebagian besar pekerjaan dilakukan secara manual dengan beban kerja yang tinggi dan gerakan yang berulang sehingga menimbulkan keluhan muskuloskeletal. Pekerja mengeluhkan gangguan muskuloskeletal saat bekerja. Saat observasi awal, ada keluhan nyeri di leher, bahu, lengan, pinggang, paha, dan lutut. Berdasarkan permasalahan tersebut, penelitian ini bertujuan untuk menganalisis faktor-faktor penyebab gangguan muskuloskeletal pada proses pemanenan jeruk. Metode yang digunakan untuk menyelesaikan permasalahan pada mitra yaitu dengan menggunakan <i>ergonomic checklist</i> dan metode PATH untuk menganalisis tiga faktor risiko fisik di tempat kerja. Berdasarkan hasil pengolahan data dengan metode PATH, faktor resiko terbesar untuk cedera terdapat pada kegiatan mencangkul tanah sejumlah 45,53%, pemanenan 42,39% dan pemotongan rumput sebesar 12,08%. Adapun usulan perbaikan yang diberikan setelah dianalisis menggunakan <i>ergonomic checkpoint</i> adalah: (1) mengurangi postur membungkuk atau jongkok, dan (2) memberikan pelindung dan penutup untuk mesin pemotong rumput dan gerobak tangan dan gagang perkakas untuk memanen jeruk. Usulan perbaikan ini sesuai dengan Sustainable Development Goals nomor 3, yaitu Good Health and Wellbeing untuk semua orang. Copyright © 2023, Restuputri, et al This is an open access article under the CC-BY-SA license 
<i>How to cite:</i> Restuputri, D. P., Masudin, I., Wardhana, R. W., Baroto, T., & Arbiatul, A. (2023). Checkpoint ergonomics as a health and safety effort at work among women farmers. <i>Journal of Community Service and Empowerment</i>, 4(3), 581-588. https://doi.org/10.22219/jcse.v4i3.26464	

INTRODUCTION

Work posture is one of the most important factors to be considered in any postural analysis. Awkward, extreme, and repetitive postures can increase the risk of musculoskeletal disorders (Charles et al., 2018). PT. X is a company engaged in the estate (hospitality and villas), annual plant cultivation, annual plant cultivation, industry, and tourism. Human power

plays an important role in the process of cultivating this plant to do several jobs such as tilling the land, sanitation or pest control, harvesting fruit, pruning leaves and wild plants (El-Shafie, 2019). In the industrial world, humans play an important role. If there are no workers, industrial activities will also not run as they should. The problem that occurs is where workers work with less ergonomic work postures. After observing workers in the orange cultivation division, there are 3 activities that are at risk of developing musculoskeletal disorders. Workers complain of musculoskeletal disorders while working. Complaints felt by workers are pain in the neck, shoulders, arms, waist, thighs, and knees. Therefore, it is necessary to improve the work system and identify problems with the posture of workers.

Previously, many researchers conducted research on work posture. For example analyzing the posture of workers using the OWAS (Ovako Work Posture Analysis System) (Kong et al., 2018) and RULA (Rapid Upper Limb Assessment) methods for ceramic process (Rahman, 2014). Besharati et al. (2020) assessed worker posture to evaluate the level of work risk for administrative bureau workers using the ROSA (Rapid Office Strain Assessment) method. Arifin et al. (2020) evaluated the posture of written batik craftsmen using the REBA (Rapid Entire Body Assessment) method for batik workers. Restuputri et al. (2021) analyzed the posture of paving operators using MFA (Muscle Fatigue Assessment) and NERPA (Novel Ergonomic Postural Assessment). The literature review conducted stated that several methods cannot assess the forearm while evidence from epidemiological studies indicates that it is important to assess the forearm in an effort to avoid exposure to musculoskeletal disorders (Pilgihan et al., 2000; Spielholz et al., 2001).

This study proposes several methods in assessing worker posture. As an initial stage of identification where to find out discomfort or pain in the body using a nordic body map. To find out the greatest musculoskeletal risk and assess the systematic relationship between tasks and workers using the PATH (Posture, Analysis, Tools, and Handling) method. PATH, a work sampling-based approach, was developed to characterize the ergonomic hazards of construction and other non-repetitive work (Buchholz et al., 1996). Some research uses PATH to solve and analyze posture problems, for example: Fulmer et al. (2004) analysis of apple harvest work in New York, Beheshti et al. (2016) using PATH for construction workers, and Kucera and Lipscomb (2010) used (PATH) method in small-scale commercial crab pot fishing. According to ergonomics checkpoints, material handling and storage are the worst in Indonesian agriculture, coupled with minimum safety information, toilet and washing facilities, and first aid. The high-risk activities are manual hoe for land clearing, manual plow, grass cutting for land clearing and threshing. The reported MSS mainly found in the shoulder and lower back (Widyanti, 2018). Ergonomic assessment checklist or ergonomic checkpoint is used to assess the risks of workplace injuries associated with ergonomic hazards (Niu, 2010). Some research that used ergonomic checkpoint for solve the problem, for example: Pérez et al. (2021) was improving working conditions using the ergonomic checkpoints tool in a Colombian meat processing plant, Abdollahpour and Helali (2022) implement practical ergonomics knowledge transfer using ergonomic checkpoints to support the participatory ergonomics process in an Industrially Developing Country, and Ahmadi et al. (2017) was using Ergonomic Checkpoints' measures in an assembly and packaging industry. Based on these problems, this study aims to analyze the factors that cause musculoskeletal disorders in the citrus harvesting process so that later suggestions are given according to the ergonomic checkpoint. This proposed improvement will later be in accordance with Sustainable Development Goals no 3, namely Good Health and Wellbeing for all.

METHOD

Ergonomic Checkpoint in agriculture is the result of a collaboration between the IEA (The International Ergonomic Association) and the ILO (The International Labor Organization) (Kawakami & Kogi, 2005). The preparation of these checkpoints is based on good ergonomic practices in agricultural and rural work in both developing and developed countries. These checkpoints are used to check the initial draft and make necessary improvements. The advice provided is based on training experience gained in both developing and developed countries. Corrective action at the workplace can be drawn from the benefits demonstrated by this checkpoint and is based on ergonomic principles that have been tested in the workplace. Ergonomic Checkpoints distributed by the ILO and IEA in 2012, there are 100 clear focus checkpoints, details that are practical, effective, and easy to change according to existing needs in agriculture to increase and reduce accident rates (Kogi et al., 2019). According to (Niu & Kogi, 2012), there are 4 ways to use this checkpoint, namely: (1) Apply the selected checkpoint to the workplace, (2) Design a locally adapted checklist, (3) Make ready-to-use information sheets, and (4) Organize training for planning and implementing workplace improvements.

A fully characterized method of ergonomic exposure in construction work has been developed, this method is named PATH (Posture, Analysis, Tools, and Handling) presented by incorporating the OWAS method into it to make a more comprehensive instrument (Paquet et al., 1999). The activity code includes manual material activities, and hand postures/activities. Lifting, lowering, carrying, moving/placing, and pushing/pulling are classifications of manual material activities in this method (Hajaghazadeh et al., 2012). Hand activity is categorized into rough grip, pinch grip, and empty hand (Torghabeh et al., 2020). The main assumptions underlying the PATH method are that ergonomic exposure is a function of the task and the relative frequency with which the task is required determines the exposure profile for an individual (Beheshti et al., 2016). In the PATH method, tasks are defined as the largest group of activities that are usually carried out together by a worker to achieve a common goal (Hajaghazadeh et al., 2012).

The data needed in this study are: documentation, body position, material handling manuals, weight, length of activity, activities, carrying position, and working altitude. The initial data will be analyzed later by identifying previous methods,

such as the Nordic Body Map (NBM) and PATH (Posture, Activity, Tools, and Handling). The processing stages to be carried out are as follows:

- 1) The first step is to carry out an initial identification by distributing the Nordic Body Map (NBM) questionnaire. Furthermore, the results of each worker's score will be classified according to the level of risk based on the NBM table.
- 2) Determine the stages and process operations of the ongoing work at the site.
- 3) A description of the tasks and activities carried out in each operation by each worker is obtained through worker interviews and direct observation as well as from photo or video documentation.
- 4) Then adjusted to code the tasks, activities, and tools used using the PATH code sheet provided.
- 5) To carry out data collection, observers select a number of workers who perform the same operation.
- 6) Workers are usually followed for 3 or 4 hours during each sampling period (from the start of the shift to the break or from the break to the end of the shift).
- 7) Observations are made at fixed intervals usually of 45 or 60 seconds, 45 seconds being the minimum interval used to maintain reliability.
- 8) After that, tasks involving workers are recorded, along with the data to be processed for each observation, while the calculation formula used for data processing on the PATH code observation sheet is:

$$\text{Data frequency} = \left(\frac{\text{Raw frequency}}{\text{Total number of frequencies}} \right) \times 100\%$$

- 9) Finally processing data using ergonomic checkpoints to provide improvement suggestions.

RESULTS AND DISCUSSION

There are several stages in processing fruit plants so that the plants become fertile and develop well, one of which is cultivating the soil using a hoe. Activities using hoes are used by workers to make partitions on dragon fruit plants so that the roots of the dragon fruit do not appear to the ground. Hoes are also used by workers to clear the land of weeds and when applying fertilizer to plants, in which a little soil is hoed and put on top to prevent the fertilizer from evaporating. These activities that use a hoe will certainly make the worker's posture bend continuously. The PATH assessment for soil digging activity is presented in **Table 1**.

Table 1. PATH assessment for soil digging activities

	Posture Code	Time (second)	Worker 1 (%)	Worker 2 (%)	Worker 3 (%)	Worker 4 (%)	Worker 5 (%)	Worker 6 (%)	Worker 7 (%)
Back	Neutral (< 20°)	60	8.70	20	15.79	10.71	20	16.67	22.73
	Bending 20° – 45°	60	30.43	32	26.32	17.86	30	38.89	31.82
	Bending (> 45°)	60	60.87	48	57.89	35.71	50	44.44	45.45
Arm	Elbows under shoulders/neutral	60	78.26	68	84.21	75	70	88.89	68.18
	Two elbows at/top shoulder level	60	21.74	32	15.79	25	30	11.11	31.82
Leg	Neutral with the bend of the knee < 35°	60	91.30	80	73.68	67.86	65	88.89	68.18
	One/two feet forming an indentation > 35°	60	-	8	-	10.71	-	-	18.18
	Walking/moving	60	8.70	12	26.32	21.43	35	11.11	13.64
MMH	Handling with two hands	-	100	100	100	100	100	100	100
Handling Position	Elbows close to the body	-	82.61	80	89.47	85.71	70	83.33	86.36
	Elbows away from the body	-	17.39	20	10.53	14.29	30	16.67	13.64
Weight	Light (< 4,5Kg)	-	100	100	100	100	100	100	100
Activity	Walking	60	13.04	12	26.32	21.43	20	11.11	9.09
	Neutral	60	82.61	80	52.63	39.29	65	72.22	86.36
	Standing/resting	60	4.35	8	21.05	3.57	15	16.67	4.55
Working height	Below the knee	60	100	100	100	100	100	100	100
	Between knee and waist	60	-	-	-	-	-	-	-
	Above waist height	60	-	-	-	-	-	-	-

Based on **Table 1**, it can be seen that the greatest frequency of back assessment is in the category of very bent posture (> 45°) in Worker 1, namely 60.87%. On average, workers have a greater frequency of very bent postures, which means that workers doing hoeing activities are more dominant in forming a posture > 45°. The greatest frequency in the assessment of the arm is in the category of the elbow being in a neutral position/under the shoulder. This means that workers do more hoeing activities with a neutral arm position. The greatest frequency in assessing the feet is in the category of knees with an indentation < 35°. This means that workers do more hoeing activities with a neutral foot position. All workers hold the load with two hands. The greatest frequency in the assessment of load-carrying positions is in the category

of elbows close to the body. This means that workers do more activities with their elbows close to the body. For the weight of the load used or carried by all workers < 4.5 kg. The greatest frequency in activity assessment is in the moving category. This means that workers carry out more activities in shifting positions. The working height in the work area is below the knee.

At the time the orange harvesting process was carried out by six workers. The harvesting process is done by picking citrus fruits that are ready to be harvested from one tree to another. Picked oranges are collected in small baskets that can hold 12 kg of oranges in one harvest. After that they are collected into bigger baskets with a load range of 38 kg. **Table 2** shows an assessment based on the PATH (Posture, Activity, Tools, and Handling) method for citrus fruit harvesting activities.

Table 2. PATH assessment for harvesting activities

	Posture Code	Time (second)	Worker 1 (%)	Worker 2 (%)	Worker 3 (%)	Worker 4 (%)	Worker 5 (%)	Worker 6 (%)	Worker 7 (%)
Back	Neutral (< 20°)	60	57.14	63	50.00	55.56	58	54.55	57.14
	Bending 20° – 45°	60	28.57	25	33.33	33.33	33	27.27	28.57
	Bending (> 45°)	60	14.29	13	16.67	11.11	8	18.18	14.29
Arm	Elbows under shoulders/ Neutral	60	50	64.29	46.67	43.75	60	50.00	50
	Two elbows at/top shoulder level	60	14.29	28.57	16.67	25.00	10	12.50	14.29
Leg	Neutral with the bend of the knee < 35°	60	33.33	44.44	36.36	40	33.33	30.77	33.33
	Walking / moving	60	66.67	55.56	63.64	60.00	66.67	69.23	66.67
MMH	Descending	-	30.77	31.25	33.33	66.67	14.29	33.33	30.77
	Holding - 1 hand	-	46.15	43.75	44.44	33.33	57.14	42.86	46.15
	Holding - 2 hand	-	23.08	25	22.22	11.11	28.57	23.81	23.08
Handling Position	Elbows close to the body	-	25	63.64	60	58.33	53.85	66.67	25
	Elbows away from the body	-	75.00	36.36	40.00	41.67	46.15	33.33	75.00
Weight	Medium (4.5 – 22.5 Kg)	-	100	100	100	100	100	100	100
Activity	Put the oranges in the basket	60	41.18	42.86	37.50	31.82	30.43	40.91	41.18
	Walking	60	23.53	23.81	29.17	27.27	43.48	31.82	23.53
	Harvesting	60	35.29	33.33	33.33	40.91	26.09	27.27	35.29
Working height	Below the knee	60	-	-	-	-	-	-	-
	Between knee and waist	60	-	-	-	-	-	-	-
	Above waist height	60	100	100	100	100	100	100	100

Based on **Table 2**, it can be seen that the greatest frequency of back assessment is in the category of neutral posture (< 20°) for all workers. The average worker has a greater frequency in neutral postures, which means that workers carry out harvesting activities more dominantly forming neutral. The greatest frequency of arm assessment is in the neutral posture category for all workers. On average, workers have a greater frequency of neutral arm postures, which means workers carry out harvesting activities with one arm above the shoulder. The greatest frequency of foot assessment is in the walking/moving category for all workers. On average, workers have a greater frequency of walking postures, which means workers carry out harvesting activities in a walking or moving position. The greatest frequency in the assessment of the use of manual material handling is in the category of holding with one hand for all workers. On average, workers have a greater frequency of holding with one hand, which means that workers carry out harvesting activities in a holding position with one hand. The greatest frequency in the assessment of the position of carrying the load is in the category of the elbow away from the body in Worker 1 and the other workers in the position of carrying it close to the body. This means that on average workers do more activities with their elbows close to the body. The weight of the load carried by all workers at harvest time is in the range of 4.5 kg – 22.5 kg. The greatest frequency in the activity assessment is in the moving category for Worker 5. This is because there are only a few trees or oranges that can be harvested by workers, so they do more activities in moving positions. The working height in the work area is above waist height.

In the lawn mowing activity, workers cut grass by carrying a lawn mower on their shoulders. The load of the lawn mower that is carried weighs 17.5 kg and the cutting machine handle is 5 kg. This work is carried out by one person and the load is carried during the weed cutting process until it is finished. The PATH assessment for lawn mowing activities is displayed in **Table 3**.

Table 3. PATH assessment for lawn mowing activities

	Posture Code	Time (second)	Worker 1 (%)
Back	Neutral (< 20°)	60	55.17
	Bending 20° – 45°	60	17.24
	Bending (> 45°)	60	27.59
Arm	Elbows under shoulders/neutral	60	100
	One elbow at/top shoulder level	60	-
	Two elbows at/top shoulder level	60	-
Leg	Neutral with the bend of the knee < 35°	60	44.44
	Walking / moving	60	55.56
MMH	Hold with two hands	-	100
Handling Position	Elbows close to the body	-	-
	Elbows away from the body	-	100
Weight	Light (< 4,5Kg)	-	-
	Medium (4.5 – 22.5 Kg)	-	100
	Heavy (> 22.5 Kg)	-	-
Activity	Walking	60	72.73
	Mounting the blade	60	9.09
	Resting / Standing	60	18.18
	Below the knee	60	100
Working height	Between knee and waist	60	-
	Above waist height	60	-

Based on **Table 3**, the greatest frequency of back assessment is in the category of neutral posture (< 20°) in workers. Workers have a greater frequency in neutral postures, which means that workers doing grass cutting activities are more dominant in neutral postures. The greatest frequency of arm assessment is in the category of neutral posture in workers. Workers have a greater frequency of neutral arm postures, which means that workers carry out grass cutting activities with their arms under their shoulders. The greatest frequency of foot assessment is in the walking/moving category of workers. Workers have a greater frequency of walking postures, which means workers carry out grass cutting activities in a walking or moving position. Assessment of the use of manual material handling is in the category of holding with two hands for workers who mow the grass. The greatest frequency in the assessment of the position of carrying the load is in the category of the elbow away from the body. This means that workers do more activities with their elbows far from the body. The weight of the load carried by workers when cutting grass is in the range of 4.5 kg – 22.5 kg. The greatest frequency in activity assessment is in the moving category. This is because when mowing the grass, the workers do it in shifting positions. The working height in the work area is below the knee.

Based on the results of data processing, the percentage of plowing the soil is 46%, the citrus harvesting is 42%, and the cutting of grass is 12%. It means that this activity has the longest time in the process. Based on the PATH method, the risk that has the potential to cause musculoskeletal disorders is the job with the greatest frequency (Beheshti et al., 2016). Therefore, it is necessary to propose improvements in order to minimize the risks that may occur.

Ergonomic Checkpoints distributed by the ILO and IEA in 2012, there are 100 clear focus checkpoints, details that are practical, effective, and easy to change according to existing needs in agriculture to increase and reduce accident rates. The ergonomic checkpoint consists of 10 assessment aspects (Helali, 2009), namely: (1) Material storage and handling with 14 check points; (2) Workstation and tools with 14 check points; (3) Machine safety with 12 check points; (4) Agricultural vehicle with 8 check points; (5) Physical environment with 13 check points; (6) Control of hazardous chemicals with 5 check points; (7) Environmental protection with 6 check points; (8) Welfare Facility with 8 check points; (9) Family and community cooperation with 9 check points; and (10) Work organization and work schedule with 12 check points (Caple, 2010).

There are five aspects of ergonomic checkpoints in this research to propose improvements, with a total of 56 points. There are 17 points that need improvement. Meanwhile, of the 17 points selected that needed to be prioritized, there were 5 points that were prioritized to propose improvements. The following is a proposed improvement based on an analysis using an ergonomic checkpoint checklist on priority points:

- 1) **Checkpoint 4:** Use handcarts, hand trucks and other wheeled devices when transporting materials, tools, and products. In the process of harvesting citrus fruits, workers use small baskets that can hold 12 kg of fruit. Once the contents in the small basket are full, they are transferred to a larger basket. This is of course not efficient. So it is necessary to have a suitable handcart (Kochańska et al., 2023).
Solution: Wheelbarrows and handcarts are particularly suitable when loads have to be moved over terrain and for short distances around farmland (Arabian et al., 2020). Handcarts with sturdy handles transport heavy or large quantities of material. And it's easier to move to the orange shelter.
- 2) **Checkpoint 18:** Change the farm settings in the field to avoid strenuous working postures as much as possible. Farming work in the field is very often done at ground level. This requires farmers to bend forward or squat. Because the work

usually takes a long time, farmers can easily experience back pain and leg muscle fatigue. This pain and fatigue can be prevented, or at least reduced, by introducing arrangements to avoid slouching or squatting postures.

Solution: Tools that are not ergonomically designed will make it difficult for workers to adapt (Gonzalez & Morer, 2016). In this case, it is necessary to replace agricultural tools with long shafts and easy-to-grip handles or hand grips that support high-strength work, namely all fingers gripping the handle, so that work on the ground can be done with a natural standing posture.

- 3) **Checkpoint 20:** *Eliminate work at height or provide a safe and stable platform.* In harvesting activities, workers often climb trees to collect fruit that is on the top branch. This is certainly a risk for workers.

Solution: To eliminate work at height by simple adjustments, such as long tool handles or limiting plant height. By designing ergonomically fit agricultural hand tools farmers could avoid their injuries (Parvez & Shahriar, 2018).

- 4) **Checkpoint 22:** *Choose a work method that alternates standing and sitting, and as much as possible avoid bending and squatting postures.* It is very important to avoid strenuous working postures such as bending and squatting. This posture places tension on the back and causes pain, leaving you prone to mistakes and accidents. Frequent changes in work posture can help prevent tension and pain.

Solution: Minimizing bent posture by using the appropriate tool, if digging or tilling the soil can use a long handle. This can be applied to workers with hoeing activities and with reference to previous research by Purwanto (2013), the use of an ergonomic hoe can enable workers to work in a natural position, thus minimizing the chances of hunchback.

- 5) **Checkpoint 29:** *Purchase a machine equipped with safety guards and necessary precautions.* During grass cutting activities, workers carry a machine weighing 17.5 kg.

Solution: Mowing the grass can use a tool like the picture above, where the mower is lighter, has a good grip, and has a guard around the blade. This will certainly reduce the risk of injury to workers (Nag & Gite, 2020).

- 6) **Checkpoint 30:** *Attach appropriate guards to dangerous moving parts of the machine.* Moving machine parts pose a risk of accidents to workers. As in lawn mowing activities when unprotected, dangerous objects such as sharp objects and hot metal can even fly out of moving parts. A simple, handmade shield can greatly reduce these risks.

Solution: (a) Make covers for the moving parts of the machine. Make covers for the moving parts of the machine. Use available materials such as wood or steel scrap. Choose materials that are strong and durable, and ensure the covers are difficult for children or careless people to remove (Ridley & Pearce, 2006). (b) Covers should be removed for repair and maintenance only by a qualified and experienced person. Follow safe maintenance procedures.

Based on the conclusions that have been described, the research implications are as follows: the results of this study can be used as a reference by the company when it will analyze the work done by farmers, because ergonomics has an important role in work attitude and reduces the level of risk of injury. The results of this study can be used as a reference by future researchers when designing a tool by taking into account ergonomic risks based on the ergonomics checklist. The limitations of this study are the small number of workers, and the data is only taken from one company. For future research, more data can be collected, and data can be classified based on several other categories, for example age, gender, etc.

CONCLUSION

Based on the results of the analysis using the Nordic Body Map questionnaire, it was found that the workers felt the most complaints in the neck, shoulders, arms, waist, thighs, and knees. This is due to work postures that are not ergonomic when working for a long duration. Based on the processing results of the PATH method, the biggest risk factor for injury was found in the activity of plowing the soil by 45.53%, harvesting by 42.39% and cutting grass by 12.08%. Proposed improvements using ergonomic checkpoints are as follows: for hoeing activities, workers should reduce bending or squatting postures. In addition, the equipment needed is equipment with a handle that is easy to grip. For the activity of harvesting oranges, a larger handcart with a long handle is needed so that the workers can pick up oranges easily. Lawn mowing activities require protection and cover for the machine so that workers are safer in mowing the grass. These three proposals are aligned with the goal of Sustainable Development Goals number 3, namely a Good Health and Wellbeing.

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Strengthening students' ability to create content in tourism brand communication

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ARTICLE INFO	ABSTRACT
Article history Received: 2022-06-14 Revised: 2023-09-14 Accepted: 2023-09-16 Published: 2023-10-22 Keywords Branding Communication Content creation Tourism	Vocational high school of 60 Duri Kepa Jakarta has an advantage in developing tourism learning. This is essential in realizing national development priorities, namely tourism. Students' abilities are supported by technological developments and various social media applications to communicate tourism branding in the city of Jakarta. A number of tourist destinations in Jakarta are popular and some are not popular, this issue has sparked student communication creativity in communicating the branding of tourist destinations. Community service programs in partnership with neighboring countries provide new enthusiasm in digital content literacy and environmental communication. Training on communicating tourism destination branding requires out of the box ideas, so that people or travelers can accept the meaning of branding communicated by students about the situation of the destinations they visit. This training results in changes in students' ability to communicate branding of tourist destinations in the city of Jakarta which is based on sustainable tourism communication.
Kata Kunci Branding Komunikasi Pembuatan konten Pariwisata	Penguatan kemampuan siswa dalam membuat konten komunikasi branding pariwisata. Sekolah Menengah Kejuruan 60 Duri Kepa Jakarta memiliki keunggulan dalam mengembangkan pembelajaran pariwisata. Hal ini sangat esensial dalam mewujudkan prioritas pembangunan nasional yakni pariwisata. Kemampuan siswa didukung dengan perkembangan teknologi dan aplikasi media sosial yang beragam untuk mengkomunikasikan branding pariwisata di kota Jakarta. Sejumlah destinasi wisata di Jakarta ada yang populer dan ada yang tidak populer, persoalan ini menjadi pemantik kreatifitas komunikasi siswa dalam mengkomunikasikan branding destinasi wisata. Program pengabdian masyarakat yang bermitra dengan negara tentangga memberikan semangat bari dalam literasi konten digital dan komunikasi lingkungan. Pelatihan mengkomunikasikan branding destinasi pariwisata membuatuhkan ide out of the box, agar masyarakat atau traveler dapat menerima makna branding yang dikomunikasikan siswa tentang situasi destinasi yang dikunjungi. Pelatihan ini menghasilkan perubahan kemampuan siswa dalam mengkomunikasikan branding destinasi wisata kota Jakarta yang be basis pada komunikasi pariwisata berkelanjutan. Copyright © 2023, Gusfa et al This is an open access article under the CC-BY-SA

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INTRODUCTION

The Indonesian government in anticipating rapid economic and social changes, one of which is by making tourism education one of the pillars of the economy. To achieve the curriculum reorientation of Education Sustainability Development, all subjects are recommended to connect to SDGs through unique characteristics. Considering the priorities of the students and the public, this research appeals to strengthening ESD through formal, informal, and nonformal channels under the influence from the global development and different linguistic regions' media promotion (Yuan, et al., 2021) talking about branding issues explores tourist destinations (Yuristiadhi, 2017) by highlighting the

concept of tourism owned by certain regions, besides that branding communication is a strategy to communicate the city (Kamil, 2017). The purpose of the strategy is to create a perceptual whole about the image, taste and calm impression of the city of travelers, and requires millennial creativity. Digital businesses developed with social media applications such as Instagram, TikTok, Facebook are changing the world (Marta, 2018), the creation of formation of interdisciplinary teams of education and digital competencies for research and teaching (Garcia-Hernandez, et al., 2022).

The potential for new business development in hospitality industry can increase due to the opportunity to digitize business branches and change businesses from offline to online (Musnaini et al., 2020). The positive impact of digitalization on entrepreneurship also occurs in various forms, namely, promoting innovation, creating job opportunities, and increasing productivity both socially and economically so that it becomes a priority for governments in various countries. However, the digital potential of millennial businesses certainly needs to be developed by various parties. The parties that play a significant role are the government, university, and industry. These three parties are the most conducive organizations, destination management organization (DMO) can counter co-destruction using storytelling to influence perceptions and set agendas for user conversations that stimulate brand co-creation (Lund & Scarles, 2019).

Another advantage of a young age is being close to sustainability and social media (Lin & Zhou, 2022) though technological developments are increasingly rapid today, making businessman get convenience in terms of internet access as a medium for marketing, promotion, or doing business and the scope of tourism need changes with online branding strategies (Scorrano, Fait, Maizza, Vrontis, 2019). Utilizing online companies in metaverse tourism is increasingly being done, such as opening an online shop, selling SEO (search engine optimization) and SEM (search engine marketing) services, freelance writing, and many more. At a relatively young age, of course, he can understand the market's tastes at his age. Millennials know young people's tastes well, understand what is trending, or will become a trendsetter. So, there is no need to wait old enough to build a new business in tourism sector, if there is participation from the millennials, the destination branding will be strong (Cheung, Pires, Rosenberger, Leung, Sharipudin, 2021).

The digital and branding communication trend is growing due to the COVID-19 pandemic and is one of the tourism and hospitality business opportunities that must be exploited. In case of Indonesia, building e-commerce business that can compete and survive and be profitable can be done using social media marketing to strengthening of the brand image (Rimadias, et al., 2021). The strategy to start building a digital business and the right, accurate and efficient marketing process significantly help make branding destination and another tourism product and producers should make a brand strategy in this challenging time through empathy, authenticity, and credibility approaches to local products (Putritamara, et al., 2022).

Based on the explanation above, there is an excellent opportunity to make branding communication for student in tourism and hospitality scope for the younger generation to take advantage of the opportunities described above. In that context, we created a community service activity with the title "Workshop strengthening the student ability to improve destination branding communication Tourism?"

METHOD

The methods that have been used in this training are participatory experiment and action simulation. The way to get data is by collecting questionnaires before training and after training, literature study, observation and use instrument as questionnaires. There was simulation action as empowerment project implements with the community capital that is the school as well as measures and monitors the associated impact in the school, which is aligned with the sustainable development goals (SDGs) and is of significant practical importance to improve the sustainability process in tourism development (Hatipoglu, et al., 2022).

The uniqueness of communication as a work of art and its design cannot be equated with theoretical concepts in other research sites. This training has started as a well-being-based learning process that has international insights and has the value of digital innovation. The implementation steps are as follows 1) exposure to material on environmental communication and branding of tourism destinations that has been strengthened by Malaysian speakers is practiced. 2) create content simulations that have environmental care values, cultural values and norms, and the value of the natural beauty of Jakarta destinations, especially West Jakarta. 3) Evaluation of creating this content was initiated to strengthen the communication skills of social media-based student tourism product branding. The following is the flow of the joint community service method of two countries carried out by three institutions. Overall, the details of the problems, solutions, and outputs of this community service program are as follows

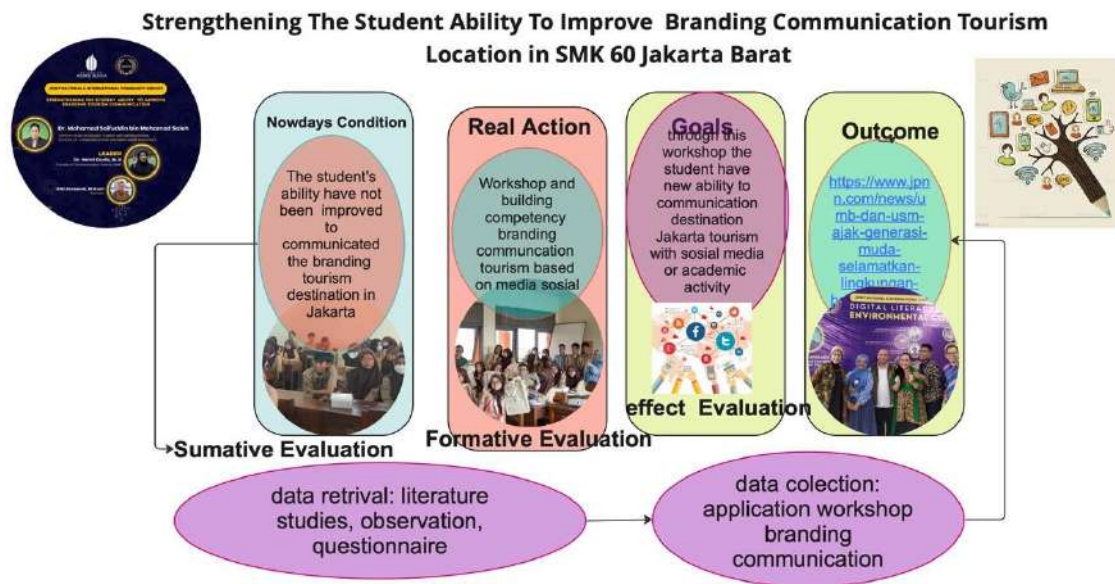


Figure 1. Mapping Activity Joint of Community service with Universty of Sains Malaysia

The problem of the inability of SMK N 60 students is to create content that is capable of branding tourist destinations in West Jakarta. So the simulation of creating content on social media is directed at story telling about history, leaning as an art based on Betawi culture, making videos about nature, culinary and increasing knowledge about how to respond to comments on social media. The implication is a change in the ability to communicate branding of Jakarta's tourist destinations. such as story telling about the textile museum, national museum, old town Jakarta which has historical value, culture and ethnic identity. Therefore, schools have an important role in developing sustainable tourism and sustainable branding communications trough different ways of curriculum development, training and capacity building (Habimana, et al., 2023)

Empowering the experience of lecturers and students of the communication science master programme of the faculty of communication science through technical practice training in communicating the branding of Jakarta tourist destinations configured with the experience of Malaysian lecturers on sustainability communication into solutions that have the value of working together to build student character as future leaders who meet the elements of energy, spirituality, multitalent and innovative. Starting point from lecturer, teacher perception to influence well providing equality in access, control, participation, and benefits for male and female students in a balanced way (Wijanarko, et al., 2022).

The form of collaboration in community empowerment at SMKN 60 Duri Kepa is international community services collaboration by sharing roles intellectually and technically together to finance this activity. as well as in the publication of activities also inform each other on both campuses of the social benefits provided to the community. Lecturers and students create sub-thematic sub-themes digitalization based on human resources empowerment (Aisyah, et al., 2023). The following are the stages of community services that have been carried out at school in order to strengthen the practical knowledge of SMK N 60 Jakarta students in the existing vocational concentrations and the context of tourism communication and branding based on environmental values. The number of students involved in the study programme is 100 students in total, the theme of branding communication and the use of social media is grouped into one class. the speakers are several lecturers assisted by students of the master of communication science study programme. Increasing students' knowledge is done with the following sequence: 1) Evaluation with a questionnaire about knowledge of tourist destinations in West Jakarta 2) identifying social media and its content and adjusting to the branding message of tourist destinations. 3) directing students to create content that has a connection with environmental issues. 4) simulation of creating content with video on tiktok 5) simulation of creating stori telling content on instagram 6) evaluation of student work that fulfils branding elements and environmental elements 7) providing feedback and suggestions on student work 8) giving rewards to the best work.

RESULTS AND DISCUSSION

Sharing Sessions on Digital Literacy and Environmental Communication add perspectives to learning practices that have environmental values, arts, culture and concern for diversity. caring for the environment which is a tourism asset is done simply by the rest through the use of social media. information about nature, culture and destinations becomes content that brands Indonesian tourism destinations that have been visited by students. Convergence of branding for

tourist destinations and cities that incorporates branding elements from articulations whose sources are hidden are the city's vision and mission. Community participation, especially from schools and the role of students in helping tourism development which is integrated in the vision of the city of Jakarta, namely Jakarta is a developed, sustainable and cultured city whose citizens are involved in realizing civility, justice and prosperity for all (ppid.Jakarta.go.id, 2023). students, especially vocational schools who study tourism, become pioneers for tourism development.

The ability to communicate branding through multichannel is an arena for the creativity of students and teachers, especially when using social media platforms. Branding experience in the context of media, marketing and development of tourism destinations is important because from the results of the June 2023 search, the trend of tourist destinations in Jakarta has not yet reached the top minds of the public, both in Jakarta and outside Jakarta. The following is the achievement of branding for tourism destinations in the city of Jakarta.

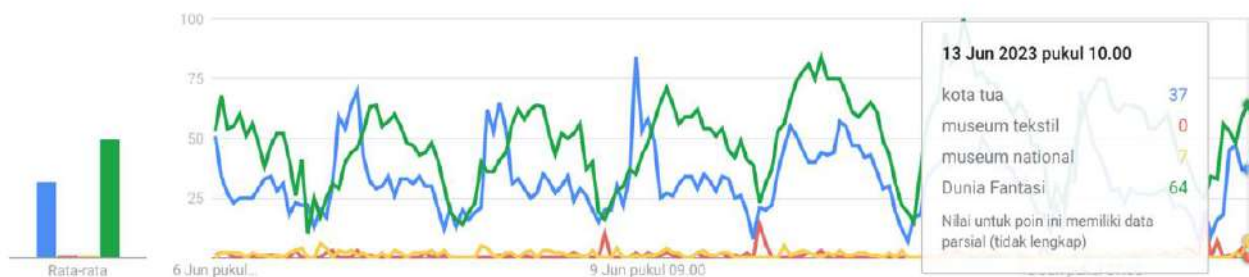


Figure 2. Grafik of Google Trend Tourism Destination In Jakarta

The ability of students who have traveling motivation and strong social networks is certainly an asset to empower students as tourism ambassadors among future generations. The objective of the module on branding communication is to strengthen the knowledge and technical expertise of SMK students to communicate the branding of tourist destinations in the city of Jakarta. Even though the debate about branding and process communication is a polemic for policy makers in a region, in practice the process of branding and communication are two things that influence the development of a tourist destination.

This training process begins with the duties and functions of tertiary institutions as partners with the government, school institutions and the community. Attention to tourism development and a focus on technology-based sustainable development is planned at SMKN 60 Duri Kepa, the training model is communicated as follows (Figure 3).



Figure 3. Model of Workshop in SMKN Duri Kepa Jakarta

The dedication process is planned with sharing from the key speaker from Malaysia, namely Syaefudin PhD. Before carrying out the training at the SMKN 60 Duri Kepa school, coordination was carried out by the entire UMB Lecturer team with a rundown of events that had been prepared, then preparing the room at the SMKN 60 Jakarta school (Figure 4).



Figure 4. Preparing meeting room by UMB and SMK N 60 Duri Kepa Jakarta

This community service joint was opened with hospitality between 3 institutions, namely Mercubuana University and the Science University of Malaysia and SMKN 60 Tangerang. The discussion that will be given as a strengthening of this collaboration is sharing on the theme of digital literacy and environmental communication. In accordance with the rundown that had been prepared, the event took place wisely which was attended by 6 classes of students, each class of 20-30 students. Participation from the school is the presence of teachers and school officials. The Figure 5 is the documentation of the remarks given by the institutions.



Figure 5. Rector's Speech

The remarks by the Chancellor of Mercubuana University emphasized that there is collaboration between countries which provides a spirit of mutual sharing on a common theme, namely digital literacy and environmental communication to anticipate changes in the era of technology, the digital economy and an environmentally friendly life. Synergy that builds a system to strengthen communication knowledge starting from elementary school to university and has an impact on digital-based communication practices that meet elements of sustainability and ethics in accordance with Asian culture. Figure 6. Opening Speech by the Rector of Universitas Mercu Buana (Figure 6).



Figure 6. Dean of Communication Science faculty' speech

On this occasion, the dean of the faculty of communication considers the importance of digital knowledge based on websites and applications or mobile which changes all aspects of life and cares for the environment, attention to technological barriers is felt from various groups. The school practices communication on a digital basis with the right messages and fulfils eastern humanitarian and ethical elements (Figure 7).



Figure 7. Greeting from SMKN 60 Duri Kepa Principal School

On this occasion, the principal of the school expressed his infinite gratitude to the lecturers involved in serving at SMKN 60 Jakarta. It was expected that this activity will be continuously carried out to provide added value to students' knowledge in practicing their skills and communicating it well. Provision of communication knowledge as a basis for making students professional and creative in the era of innovation and technology. Student participation in the community service event this time was enthusiastic and followed it in an orderly manner, follow the documentation (Figure 8).



Figure 8. Documentation student as Participant in The Digital Literacy And Environment Communication Seminar

The highlight of this first session of community service activities was the presentation delivered by Syaefudin Ph.D. Students are introduced to communication messages conveyed in various major media and social media. Communication messages that have an influence on perceptions about the environment and its purpose is to empathize with the surrounding environment. Figure 9 and Figure 10 is the documentation.



Figure 9. Documentation of Keynote's Speech from University Sains Malaysia and Universitas Mercu Buana Lecturer



Figure 10. Team from UMB and SMKN 60 Duri Kepa Jakarta

1) Training on strengthening students' abilities in branding communication in tourist destinations

The first session was finished with Q and A, the participants were divided into several groups in the classes that had been provided. The theme raised in this training is tourism branding communication in the Jakarta region. In accordance with the vision of the city of Jakarta which involves the community to get welfare fairly, the involvement of all parties including schools is an indicator of participation and care for the city. The first motivation given is the student's desire and need to travel, by mentioning the destinations students want to visit and have visited. students' experiences of destinations are explored as a way to involve students in marketing and ordering perceptions about the destinations closest to students, namely the city of Jakarta and destinations in the Jakarta Region. Students' ability to identify destinations is efficient and the ability to express what is felt and perceived about interesting events has not been well expressed.

Mentoring and Counseling to make social media content based on experience branding

Conducting outreach activities on how to empower student competence with all the economic potential that exists in SMK 60 Duri Kepa area which can be supported through the branding communication tourism. the ability of students in tourism schools to communicate branding can provide economic support through closeness to tourists. building closeness with tourists means increasing economic value, where the decision to visit, shop in large quantities and stay longer in tourist areas (Wibisono, 2021) This is an indicator of quality and sustainable tourism. Communicating tourist destination branding through messages that have deep meaning about what students feel, receive and perceive students can increase self-confidence in students expressing their experiences in conversations on social media. This experiential message about the destination brand is what everyone accepts. of course its mental health, there are behaviour, mentality, and speech of each HR deal with various types of tourist character (Wibisono, 2021). The student have self-discipline, broad-mindedness, and initiative to become important soft skills.

This training conducts communication branding consulting, namely when using media to create messages that narrate students' branding experiences. Speech, pictures and photos and videos uploaded on social media are simulated in class (Yaniasti & Setiawan, 2021) means that the presence of school management that pays attention to cyber counselling can also be applied specifically to train students in designing messages and being creative in broadcasting, making short films or making travel videos that make branding of tourist destinations more deeply remembered by tourists watching it.

The student's ability to make travel trips is also consulted with the facilitator, because in Vocational High Schools there are no specific lessons to integrate broadcasting skills with virtual tourism travel content. The depth of making content becomes valuable knowledge for students in promoting tourist destination branding (Baswaran, 2021) counselling in making virtual is a unique student idea that can be simulated with communication skills.

Objects of tourist destinations that highlight the advantages of nature and other dimensions of tourism in food, culture, history and knowledge of indigenous peoples are vehicles for ecotourism development (Daulay, et al., 2022). This means that through this training students have knowledge of environmentally sound tourism. A sense of security and comfort with highlighting fruits, healthy food are dimensions that guarantee quality tourism indicators (al-Ansi, 2023). Understanding of students in creating content that highlights the destination brand through the beauty of nature, plants and animals as well as processed community food that embodies quality and healthy modern lifestyle changes. In counselling this time it is also related to the student's belief system that in order to realize quality tourism, it highlights the dimensions of values believed by the Islamic community which are based on the certainty of God's promise that the life that Muslims dream of is a life that utilizes and preserves the universe and its contents, sustainable tourism is already embedded in Muslim perceptions long before SDGs put that sustainable tourism is a big theme that must be implemented in global culture this training, mentoring and coaching are not only the basis of digital branding communication but also deeply motivating based on believed interpretations.

The monitoring and evaluation strengthening student's ability to create content in tourism branding communication Stage three is the monitoring and evaluation stage which is carried out to see the results of the activities, after holding empowerment outreach activities, simulation activities and giving rewards to students who succeed in making products. Next, students are asked to fill out a questionnaire regarding activities carried out offline. Figure 11 is the results.

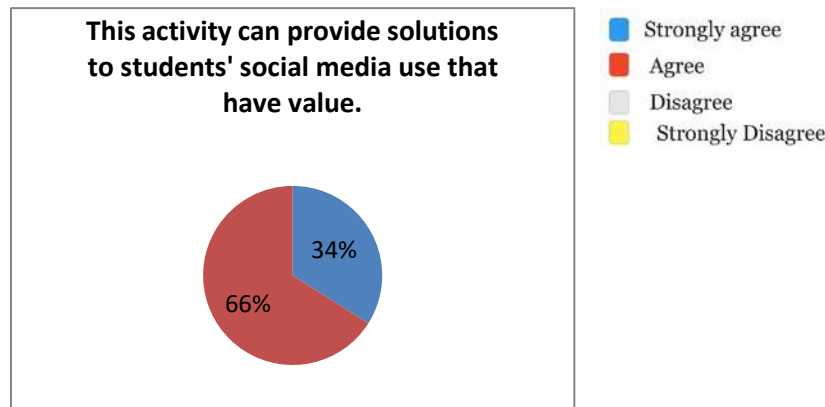


Figure 11. The problem solving for academic values

The problem is that SMK N students who have not mastered creative techniques in creating content and techniques in making videos can make changes to themselves, become more creative, innovative and can generate economic value. In training on strengthening students' ability to communicate branding can solve student problems, this is illustrated by 66% of students answering that there is a change in their technical skills. This is confirmed that there is an effect of digital transformation on students who want to realize ecotourism (Daulay et al., 2022)

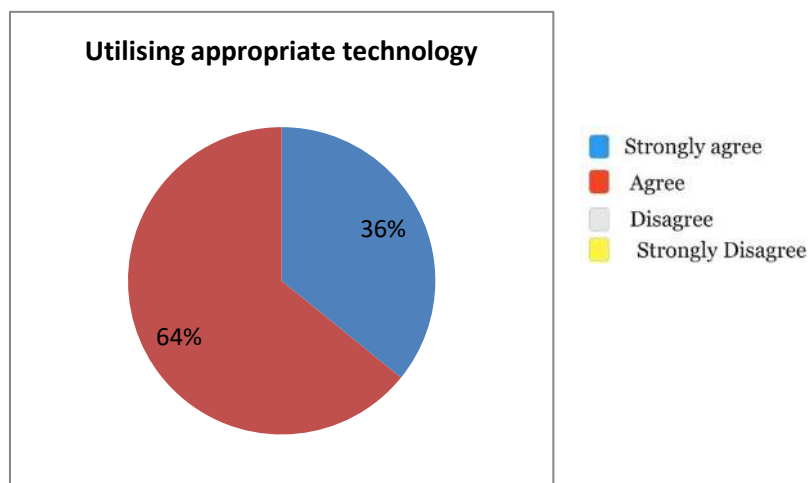


Figure 11. The technology used at the seminar and workshop

The training on branding communication uses a social media platform that is very close to vocational students, because of that the effectiveness of using live simulations when mentoring and coaching as student creative outlets is effective. This can be explained that 64% of students answered that the use of this training technology was effective for them. This is confirmed that the type of student learning that uses technology is the initiator, collaborator and contributor type (Nofrion, 2023).

The Figure 13 is the opinion of students regarding acceptance of seminars and training:

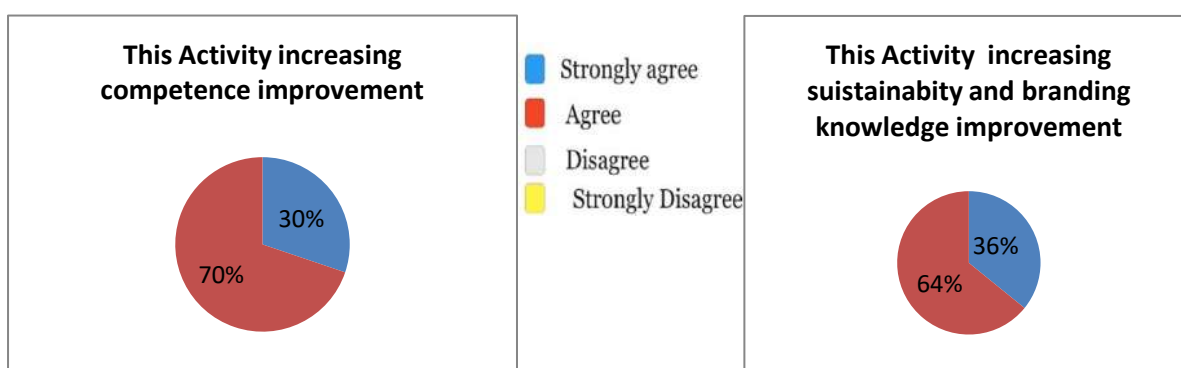


Figure 13. The seminar and workshop increased good competence and student knowledge practices

The seminar and workshop the student has been a change in learning in increasing knowledge and competence as an ultimate goal for all teachers, and becoming bridged the education system that contains SDGs values and the tourism industry where data is included in individual career development (Caesario, et al., 2022). Because learning that can have an impact on students is standard in learning, the training and seminars configured with mentoring and coaching in class have a strong influence on student competence and knowledge (Rimadiaz, et al., 2021), 70% of students feel their competence related to branding communication increases and 64% of students feel their knowledge about tourism which is based on sustainability has also increased (Figure 14).

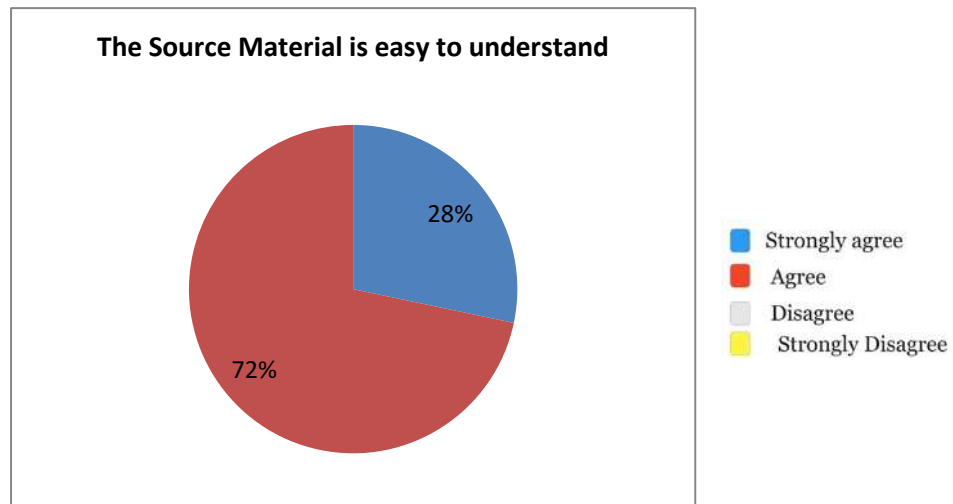


Figure 14. Facilitator of workshop meets the needs of participants

The influence that students receive is of course on the message given by the training facilitator, in this case the team that provides the training materials, prepares modules with attractive pictures, and makes the class come alive with interactive communication. Starting with questions and self-introduction to each with a pleasant experience about travel (Baswaran, 2021). The impressions felt and memories made at the destination location are topics that create a warm closeness between the training participants and the facilitator. Because of that, the student's assessment of the facilitator 72% answered that the presentation and delivery method were good and the message conveyed was clearly received (Rimadiaz, et al., 2021). All of these worked well because the approach used by the facilitator was an approach that explored students' confidence and student abilities or a downstream approach (Nofrion, 2023). This downstream method certainly uses tools that support the training process, namely modules and 66% agree that this teaching material is useful for them along with the graphs (Figure 15).

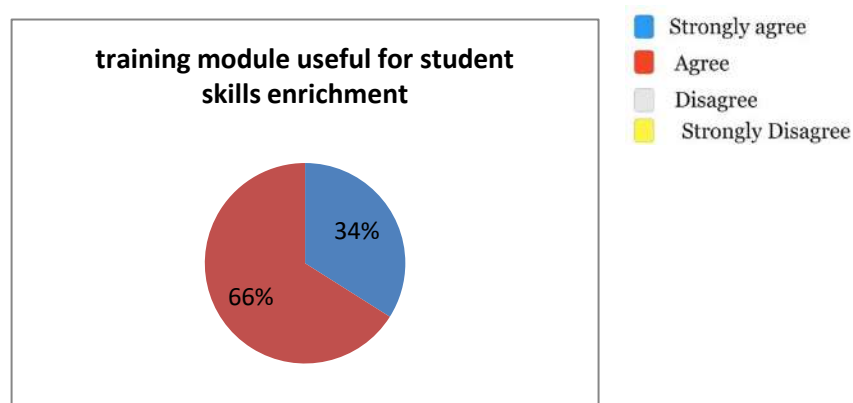


Figure 15. The used module as academic enrichment

From 66% of the answers (Figure 16), the benefits of modules and teaching materials when participating in community service activities. Even this foreign cooperation provides good practices that have the strength of learning facilities and infrastructure (having) learning, including learning modules, where the atmosphere is comfortable and full of warmth (loving), which influences on students' self-consumption (being). In a healthy and clean environment. This (healthy) pseudo gives confidence in learning and communication systems that are more meaningful and humane (believe) (Istiqomah & Rahmawati, 2020). The following is a graph that explains good practice of foreign cooperation in community

service located at SMK N 60 Duri Kepa Jakarta 66% percent of students feel the benefits of this activity for them, and this is related with the university role to rive conservation and development of arts, cultures, and local wisdom in order to assimilate, to add and to build precious values into current time (Yanpisit & Surangkul, 2022). The solution of community empowerment and improving the skills of SMKN 60 Jakarta students in branding Indonesian tourism destinations is a local solution to the National Problem of promoting Indonesian tourism destinations (Kah, 2023), this is how the Campus tackles the Sustainable Development Goals.

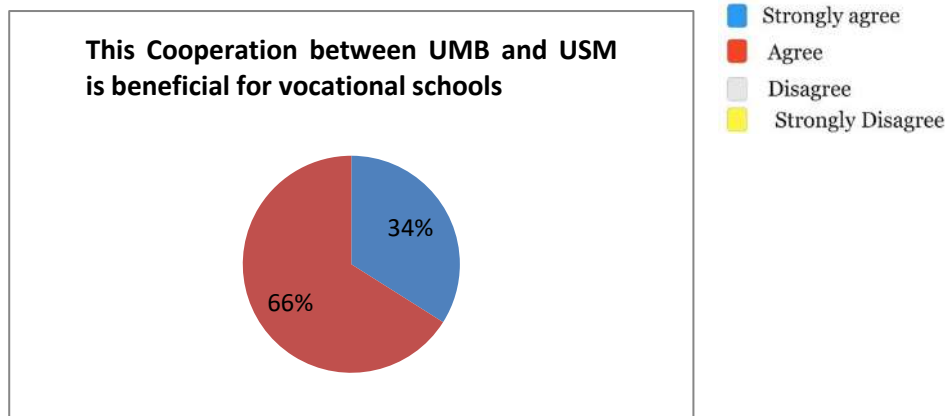


Figure 12. The aim of joint community services can be felt benefit to the student

Branding communication provides insights plus this environmental-based theme is also supported by the Malaysian state like doing branding with upin ipin's branding preserves the language, ethics and everyday problems of Asian children. This means that all people in this world care about sustainability in favour of the safety of nature and its contents (al-Ansi, 2023).

Support and Problem Encountered

Full support was provided by SMK 60 Duri Kepa Jakarta Barat In addition, the support for this activity also went very well because the Deputy Chairperson of the SMK personally provided facility support and assistance during the activity. this is also an added value from this activity, where when there are real problems in the field that are asked by participants, explanations and solutions can be given directly. That's why this method is very interactive, even until the event is about to end there are still many participants who want to ask questions (Figure 17).

The problem lies in that information that can support student ability to create content in improvement branding communication tourism has not been able to be carried out optimally, especially when related destination tourism are still carrying out traditional activities. The following is interactive documentation of students in the training process;



Figure 17. Students are engaged in making branding communication with social media then received rewards and souvenirs from UMB and USM

CONCLUSION

Based on the results of the user experience evaluation of students at SMKN 60 Duri Kepa Jakarta, out of 20 respondents it was found that 70% strongly agreed that the socialized workshop and seminar materials were easy to understand, and could be developed with extracurriculars. As a promotional container for the city of Jakarta. SMKN 60 Duri Kepa as a pilot project, this program has the potential to increase branding socialization for tourist destinations in the city of Jakarta, marketing, according to the capacity of SMK students. In the aspect of achieving the training objectives, out of 15 respondents the results obtained 66% strongly agreed that the learning objectives of the training and seminar system were in accordance with the expectations of the respondents. The hope that the trainees answered was the problem of communicating the branding of the Jakarta city tourism destination, where the use of social media can involve students as agents of tourism development. Advanced Development Phase 2 social media applications create content that contains the feelings, experiences and impressions that students receive about the tourist destinations of the city of Jakarta. The collaboration of the UMB and USM campuses to realize an increase in the skills and abilities of students in communicating destination branding can be carried out continuously and sustainably

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Marketplace governance in the context of empowering MSMEs inside the realm of online shopping

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-09-29 Revised: 2023-10-15 Accepted: 2023-10-25 Published: 2023-10-27 Keywords MSME empowerment Online markets Sustainable development goals	<i>The development of online markets in Indonesia that sell imported goods at low prices has caused many MSMEs to go collapse. To accelerate the Sustainable Development Goals, especially achieving the goal of "a country with no poverty, no hunger, creating decent jobs and economic growth as well as a healthy and prosperous country," MSMEs need to be protected from these problems. This study aims to analyze the prospects for the development of online shopping and its impact on MSMEs and propose improvements to marketplace governance. Method research includes interviews, secondary data studies, literature reviews, and meta-analyses. Research results show that online shopping is a need for future society; the marketplace is increasing in terms of numbers, consumers, and transaction value. The number of MSMEs experiencing collapse has increased due to the inability to compete with marketplace players. It is necessary to improve marketplace governance through regulations to protect MSMEs. Current laws only protect consumers, not yet protect MSMEs. Through marketplace governance, it can empower MSMEs to overcome and prevent poverty and hunger, create decent jobs and economic growth, have a healthy and prosperous life, and accelerate the achievement of the SDGs.</i>
Kata Kunci Pasar online Pemberdayaan UMKM Tujuan pembangunan berkelanjutan	Tata kelola marketplace dalam perspektif pemberdayaan UMKM di Era Belanja Online. Berkembangnya pasar online di Indonesia yang menjual barang impor dengan harga murah menyebabkan banyak UMKM yang bangkrut. Untuk mempercepat Tujuan Pembangunan Berkelanjutan, khususnya mencapai tujuan "negara tanpa kemiskinan, tanpa kelaparan, menciptakan lapangan kerja yang layak dan pertumbuhan ekonomi serta negara yang sehat dan sejahtera", UMKM perlu dilindungi dari permasalahan tersebut. Penelitian ini bertujuan untuk menganalisis prospek perkembangan belanja online dan dampaknya terhadap UMKM serta mengusulkan perbaikan tata kelola lokapasar. Metode penelitian meliputi wawancara, studi data sekunder, tinjauan literatur, dan meta-analisis. Hasil penelitian menunjukkan bahwa belanja online merupakan kebutuhan masyarakat masa depan; lokapasar meningkat dalam hal jumlah, konsumen, dan nilai transaksi. Jumlah UMKM yang mengalami kebangkrutan semakin meningkat akibat ketidakmampuan bersaing dengan pelaku lokapasar. Perbaikan tata kelola lokapasar perlu dilakukan melalui regulasi untuk melindungi UMKM. Undang-undang saat ini hanya melindungi konsumen, belum melindungi UMKM. Melalui tata kelola lokapasar dapat memberdayakan UMKM dalam mengatasi dan mencegah kemiskinan dan kelaparan, menciptakan lapangan kerja yang layak dan pertumbuhan ekonomi, memiliki kehidupan yang sehat dan sejahtera, serta mempercepat pencapaian SDGs.

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INTRODUCTION

The background to this research departs from the facts about online shopping, which has now become an alternative means of shopping for the public. The facilities offered by online shopping are very diverse. Many people state that online shopping is the easiest way to get the goods they need (Harahap & Amanah, 2018). In online shopping transactions, consumers can look for lower prices for goods, are free to bargain on prices, choose goods, and ultimately get goods efficiently in terms of time, cost, and energy. That attracts consumers to choose online shopping as an alternative shopping (Rachmarwi, 2018). Therefore, every day, there are more and more online business people, followed by an increase in consumers (Choiri, 2020).

Historically, online shopping has become a social phenomenon before the COVID-19 pandemic, as evidenced by Bank Indonesia data showing that online shopping transactions in Indonesia reached 75 trillion rupiah in 2016 (Nababan, 2017). Furthermore, during the COVID-19 pandemic emergency, the volume of online shopping increased significantly. One marketplace, Shopee, for example, experienced an increase in transactions during the 2020 pandemic by almost 130% compared to transactions the previous year. Public activity in online shopping increased sharply during the Covid-19 pandemic emergency. However, when the emergency period of the COVID-19 pandemic ended, people's habit of shopping online did not end but, on the contrary, continued to increase, as evidenced by the increase in the number of marketplaces. And the number of electronic money users. In 2022, an electronic financial institution, Kredivo, has more than 6 million customers spread throughout Indonesia, and it is estimated that the number of customers will increase by 70% in 2023 (Rustagi, 2023). This increase in the number of electronic money customers is an indicator of the increase in the number of online shopping customers.

Recently, the TikTok marketplace has become very popular and has been able to replace several of its competitors. TikTok carries various models of online marketing innovation. The innovation model offered by TikTok can attract consumers' attention. In 2021, Tiktok offers several marketing innovations in the form of cashback, significant discounts, giveaways, and video testimonials from buyers from public figures, especially artists or celebrities (Priatama, Ramadhan, Zuhaida, Akalili, & Kulau, 2021). In 2023, Tiktok will produce innovations in live streaming marketing called "Tiktok LIVE" and Selebgram's. Selebgram's is an online sale that involves public figures on the Instagram application as marketers in their marketing program. Tiktok LIVE's marketing innovation combined with Selebgram's can increase Tiktok's sales volume, as evidenced by the high interest in repeat purchases from its customers (Siregar & Harita, 2022). At the same time, celebrity endorsements attract public attention and are expected to increase product awareness. Celebrity endorsers have been proven to attract consumers to purchase goods used by celebrities (Nurman & Engriani, 2020).

This phenomenon has resulted in MSMEs, most of which still carry out conventional trading, experiencing collapse. MSMEs, which have become online traders, need help to compete with TikTok because they cannot involve celebrities in sales. (Ramadani & Syariati, 2020) Unable to compete with the very cheap and high-quality selling prices of TikTok goods, which are imported. That has also caused more than 56% of Toto clothing traders in Jakarta's Tanah Abang market to close permanently (Arini, 2023).

Indonesia is committed to implementing the 2030 Agenda to achieve the Sustainable Development Goals through determination Presidential Regulation Number 59 of 2017 regarding Implementation of the Achievement of Sustainable Development Goals (SDGs) (Kusumaningdyah, 2022). In this context, MSMEs are expected to support the achievement of the SDGs' economic pillars, which at least include solving the problems of poverty and hunger, creating decent jobs and economic growth, and realizing a healthy and prosperous life. The problem in this context is that when online shopping proliferates, the sales turnover of MSMEs falls permanently. Thus, of course, it hurts job losses. MSMEs in Indonesia absorb a significant number of workers. In 2017, micro businesses were able to absorb around 107.2 million workers (89.2%), while small businesses were 5.7 million (4.74%), and the number of medium businesses was 3.73 million (3.11%). Meanwhile, for large businesses absorbing a workforce of around 3.58 million people, Indonesia's combined number of MSMEs absorbs around 97% of the national workforce. In contrast, large businesses only absorb around 3% of the total national workforce (Marlinah, 2020).

Based on the problem description above, this research study focuses on: (1) what are the prospects for the development of online shopping in the future? (2) What is the impact of the development of online shopping on MSMEs? This study aims to analyze the prospects for online shopping development, technological developments, and social transformation toward society 6.0. This research also critically analyzes the impact of online shopping on the existence of MSMEs, considering that the role of MSMEs in supporting the national economy is enormous. In the end, this research recommends policy proposals that need to be taken by the government in terms of marketplace governance to empower MSMEs in the era of online shopping, which is predicted to become a culture in the future.

The novelty of this research lies in its focus on efforts to present the latest data as well as analyze the development of online shopping in Indonesia, which will occur in 2023, when this research was conducted, followed by an analysis of the destruction of MSMEs as a result of digital marketing strategies implemented by online business actors. The novelty of this research also lies in the research objective of proposing marketplace governance to empower MSMEs in the online

shopping era, where marketplace governance through regulations to empower MSMEs has yet to exist, considering that the current marketplace governance only focuses on efforts to empower consumers.

METHOD

This research is a qualitative descriptive study (Creswell & Poth, 2017) on the development of e-commerce in Indonesia and the implications this has for MSMEs. The data collection technique used was interviewing (Mann, 2016) with key informants, secondary data studies (Fusch & Ness, 2015), which have been collected by several institutions, literature studies (Islami, 2018) and (Firman, 2013) which are used and developed by researchers whose research results have been published in scientific journals, and uses meta-analysis methods (Retnawati, Apino, Kartianom, Djidu, & Anazifa, 2018) in collecting and analyzing data by relying on secondary data from several institutions and research data from previous researchers.

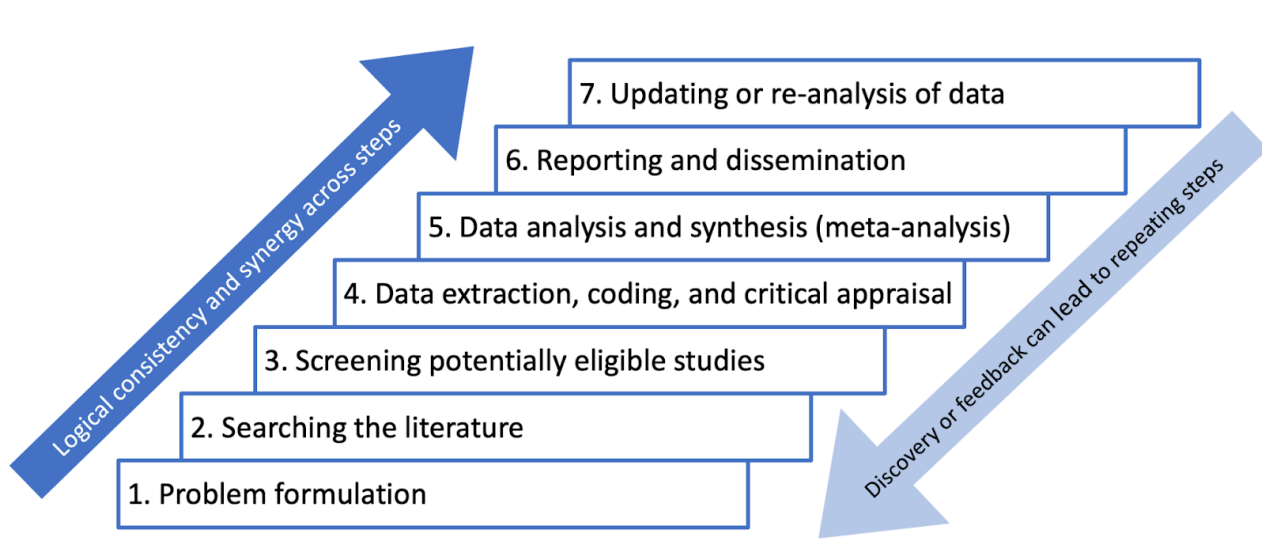


Figure1. Steps of Meta-Analysis
Source: (Simon, 2023)

Based on Figure 1, the sequence of steps in meta-analysis includes issue identification, looking for pertinent literature, evaluating potentially suitable studies, classifying and assessing studies, merging findings from various studies using meta-analysis, presenting and sharing results, and revising or re-examining data.

First, in the initial stage, the researcher formulated the main problems faced by MSME actors. Problems faced by MSMEs as a result of the development of marketplaces and the online shopping phenomenon. Second, researchers conducted a literature review by conducting a study of previous research publications regarding the development of the marketplace concept and the online shopping phenomenon. Third, researchers select data and concepts from the literature review. Researchers choose data that is relevant to the marketplace and online shopping problems. Fourth, researchers collect main data. The main data is collected by selecting data that is most relevant to the marketplace and online shopping problems. Fifth, researchers conduct analysis and discourse. Researchers conduct discourse between conceptions and theories. Researchers also carry out discourse between conceptions and theories with the data that has been collected. Sixth, the researcher prepared a tic description version of the research report and a published article version. Seventh, in the final stage, the researcher carried out revisions based on updating the data. Revisions were made because new data developments were discovered before this article was published. A new policy has been formulated that regulates electronic trade transactions.

RESULTS AND DISCUSSION

The government of Indonesia decided to use digitalization as a tool for the effective development of MSMEs as a nation that has ratified the SDGs. Priority strategies include growing the market share of MSME products abroad, adding production facilities, enhancing product quality, and optimizing internet marketing techniques (Idah & Pinilih, 2019). The launch of the "100,000 MSME movement" and the "MSME Go Online" program together in 30 districts/cities in Indonesia to make Indonesia the "Digital Energy of Asia." The challenge for MSMEs is how to deal with strategies to fill the needs of the domestic and global markets. How MSMEs have technology-based entrepreneurship strategies and maintain local wisdom. The opportunities provided by the government will be helpful and beneficial for MSMEs (Marlinah, 2020).

MSMEs in the national economy play a vital role. More than 90% of the Indonesian workforce works in the MSME sector. Data from the Ministry of Cooperatives and MSMEs shows that the contribution of MSMEs to gross domestic product (GDP) in 2017 reached 60.34%. MSMEs need to be empowered so that economic growth is of higher quality and seen as a solution to economic disparities (Abbas, 2018).

Based on the Central Bureau of Statistics survey, the survey identified various pain points and issues faced by MSMEs based on their priorities, including lack of capital, marketing difficulties, and fierce commercial competition. Digital marketing strategies using social networks and websites for SMEs are essential because they can provide knowledge (Ramadani & Syariati, 2020). Multi-stakeholder research in most Indonesian provinces shows that trading is not only done in traditional markets but also using widely available technology and trading applications (Maksum, Sri Rahayu, & Kusumawardhani, 2020). With the increasing development of technology, many online shopping sites have merged many online stores into one site, helping buyers quickly get the products they want through many attractive promotions. When MSMEs fail to keep up with these business developments, they are outdated, and therefore, their products are uncompetitive and challenging to market. However, in some regions, MSMEs are instructed to promote products outside the region using online applications or e-commerce (Susandi & Sukisno, 2017).

Selebgram's and Online Shopping

Instagram is a popular social media application and is very popular among smartphone users. Krieger and Systrom created and launched Instagram on October 6, 2010 (Berkowski, 2016). Celebrity endorsers (selebgram's) were born from this social media. Selebgram's has at least 20,000 followers. Followers usually watch creative content on selebgram's posts. So, a celebrity's influence on their followers is whether they agree or disagree with a particular idea. Therefore, a celebrity can act as an Influencer whose services can be used by online business agents to promote their products. Selebgram's trend has become more popular since this social media gained fame, which has triggered the development of various online stores on Instagram. The popularity and attraction of being followed by many people makes selebgram's trusted to promote a particular product. Promotional activities on Instagram carried out by celebrities are called endorsements, which are paid at varying rates according to their level of popularity (Octarina, Alfath, & Ulfa, 2020).

Previous researchers who have researched selebgram's and online shopping have found several benefits online business owners obtain when using selebgram's services. (Octarina et al., 2020) A number of these benefits are presented in Figure 2.

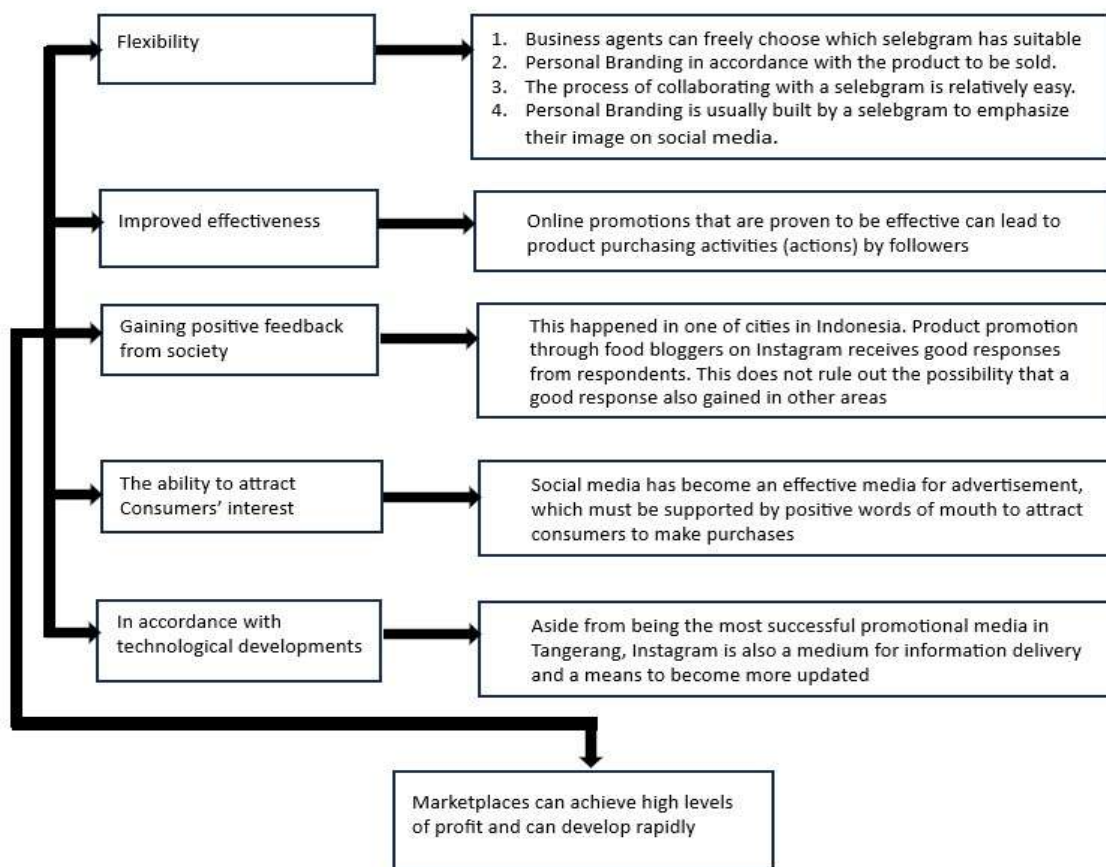


Figure 2. The Benefits of Using Selebgram's as a Promotional Method in e-Commerce
Source: (Octarina et al., 2020), was modified

Figure 2 illustrates several conveniences and benefits online business people obtain if they use selebgram's services as promotional media. The benefit of the main goal is that marketplaces can achieve high levels of profit and develop rapidly. In further developments, live streaming appeared in promotions, which positioned Selebgram's as figures in the form of Instagram Direct Messages (DM) and live streaming on every platform owned by e-commerce players (Priatama et al., 2021).

E-Commerce and Marketplace

E-commerce is an electronic purchasing transaction carried out through online media. E-commerce is also a business process that utilizes electronic technology to connect business people, consumers, and the general public through electronic transactions in obtaining goods, services, and information online. Due to the ease of using the internet to conduct e-commerce, many people choose it as their method of choice (Irawati & Prasetyo, 2022). Several e-commerce platforms, including marketplaces, websites, and social media, can be used for online transactions. Of these platforms, the one most frequently used by Indonesians is the marketplace, ranked below websites and followed by social media (Sirclo, 2020).

E-commerce is now increasingly widespread and is no longer dominated by the island of Java. In 2017, customers from the Java region accounted for 70% of all e-commerce transactions, compared to only 30% from other regions outside Java. However, in 2022, e-commerce distribution in Indonesia will expand to other provinces in Indonesia and areas outside Java. That is due to infrastructure access continuing to develop so that the distribution of information and communication becomes more accessible for people to access in all regions (Sirclo, 2020).

Etymologically, the word "marketplace" comes from English, namely from the words "market," which means market, and "place," which means a location. In this context, a marketplace is where business actors operating in the economic sector can conduct purchase and sale transactions for various goods or services (Ira, 2023). The results of research conducted by (Irawati & Prasetyo, 2022) show that the marketplace is the most trusted platform for trading (97% of respondents), while only 91% and 82% of research respondents trust websites and social media for trading.

In 2019, many social media experts predicted that TikTok would become "The Big New Media." The number of downloaders of this application supports this. The page databoks.katadata.co.id (2020) states that the Tiktok application received more than 2 billion downloads in the first three months of 2020. Twelve million United States users used this application in March 2020, and a total of 52.2 million users globally (Weiss, 2020); this makes the Tiktok application the application with the highest number of downloads for the non-gaming category in the first quarter of 2020 (Leskin, 2020). Apart from that, the time spent opening the TikTok application has also increased. For example, users in the United States spent an average of 8 hours on the Tiktok application during March 2020, 10.8% more than the time spent in January 2020 (Weiss, 2020). The highest total downloads were in Indonesia, with 11% of total downloads, followed by Brazil, with total downloads of 9%.

TikTok is now a social media platform or application with the most incredible power to attract consumer attention. As it develops, the Tiktok application is used not only for entertainment and visual communication but can also be used as a new digital transaction. Research conducted by (Dewa & Safitri, 2021) with the title "Using Tiktok Social Media as a Media for Promotion of the Culinary Industry in Yogyakarta During the Covid-19 Pandemic (Case Study of the Tiktok Javafoodie Account)" shows that Tiktok is the most popular marketplace in e-commerce.

There are indications that the marketplace that has succeeded in leading this market (Tiktok) consistently innovates in communicating with customers (Romo, García-Medina, & Romero, 2017). The results show that the strategies used in digital marketing, such as storytelling techniques, are becoming one of the keys to digital marketing for TikTok. Apart from that, (Hayu, 2019) wrote about the importance of "Smart Digital Content Marketing," including social media optimization content, endorsements, unboxing, hashtags, testimonials, promos, challenges for consumers, and live shopping relationships with consumers through scheduled and scheduled interactions.

Marketplace Development and Implications for MSMEs

TikTok is a social media that initially only provided a place for its users to express and be creative through video content (Arrofi & Hasfi, 2019). TikTok users originally came from teenagers and young adults (around 16-24 years). They are a potential market share for product marketing through online shopping (Rasyid, 2020). The use of the TikTok media platform is growing, and it is also used for marketplaces as a digital marketing medium. That is because the TikTok application has diverse features that can make content more interesting for marketing purposes. TikTok will boost online sales transactions starting mid-2023 (Mustajab, 2023).

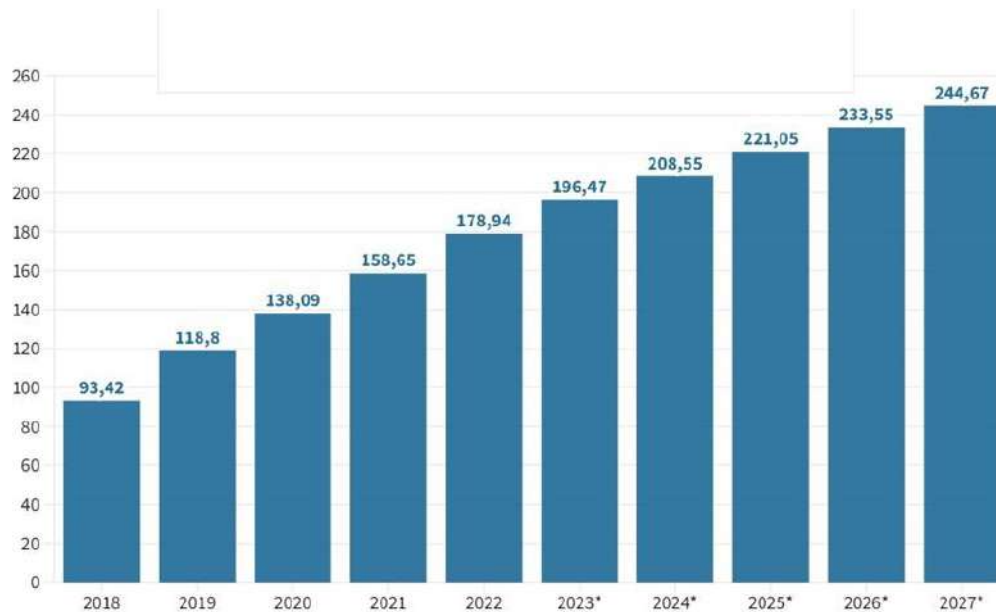


Figure 3. Users of E-Commerce 2018-2027
Note: *= projection; Number of users= in millions
Source: Research Results of (Mustajab, 2023)

Figure 3 presents information that, based on Market Insights statistical data, the number of e-commerce users in Indonesia will reach 178.94 million people in 2022. This number has increased by 12.79% compared to the previous year, which was 158.65 million users. By the end of 2023, it is projected to reach 196.47 (Mustajab, 2023). Looking at the trend, e-commerce users in Indonesia continue to increase. This trend of increasing the number of e-commerce users is predicted to continue for the next four years. In 2027, it is estimated that the number of e-commerce users in the country will reach 244.67 million people. Meanwhile, Bank Indonesia noted that the value of e-commerce transactions in Indonesia will be IDR 476.3 trillion in 2022. This value was obtained from 3.49 billion transactions in e-commerce throughout that year. The value of e-commerce transactions in 2022 is 18.8% higher than the previous year, which amounted to IDR 401 trillion. This figure is considered spectacular even though it is still below Bank Indonesia's target of IDR 489 trillion (Mustajab, 2023).

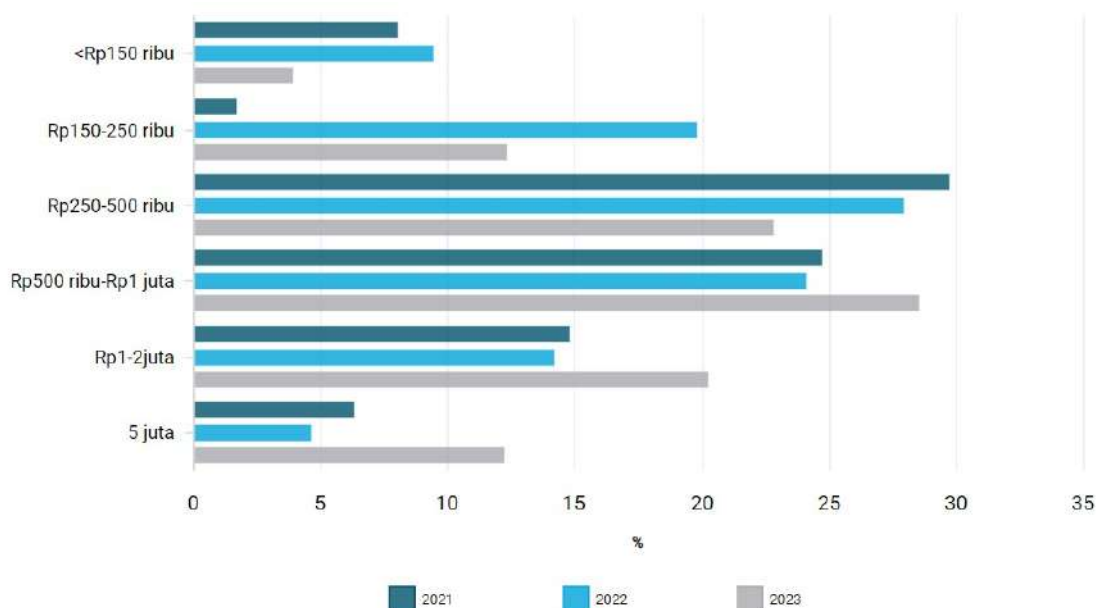


Figure 4. Budget Allocation for Using PayLater (Data up to March 2023)
Source: Research Result of (Annur, 2023b)

Based on Figure 4, Kredivo's collaboration survey with Katadata Insight Center (KIC), of the 6,403 Indonesians surveyed, the majority, or 60.9%, used the service PayLater with funds above IDR 500 thousand in 2023. That is recorded in the report entitled Indonesian e-Commerce Consumer Behavior 2023: Economic Recovery and Post-Pandemic Shopping Trends. The proportion of consumers using PayLater with funds above IDR 500 thousand has increased in the last two years. It was recorded that the proportion of respondents who used PayLater with funds of IDR 500 thousand-IDR 1 million increased from 24.1% in 2022 to 28.5% in 2023. This figure is even higher than in 2021, only 24.7% (Annur, 2023b). Furthermore, the proportion of PayLater respondents was Rp. 1 million. 2.5 million also increased from 14.2% in 2022 to 20.2% in 2023. Likewise, the proportion of respondents who used PayLater with funds, as shown in Figure 4 is IDR 2.5 million, increasing from 2022 4.6% to 12.2% in 2023 (Annur, 2023b).

"Consumers using PayLater who spend IDR 500 thousand or more when shopping online tend to increase. "According to the Kredivo and KIC teams, this is because PayLater offers various conveniences, one of which is payment flexibility." This convenience helps consumers in managing their financial balance. That also helps consumers with limited funds spread their purchases over several payment terms when needed. "Conversely, consumers who spent IDR 500,000 or less decreased compared to the previous year". That can be seen in the graph in Figure 4. Kredivo and KIC conducted this survey with 1,679 PayLater user respondents spread across various regions in Indonesia (Annur, 2023b).

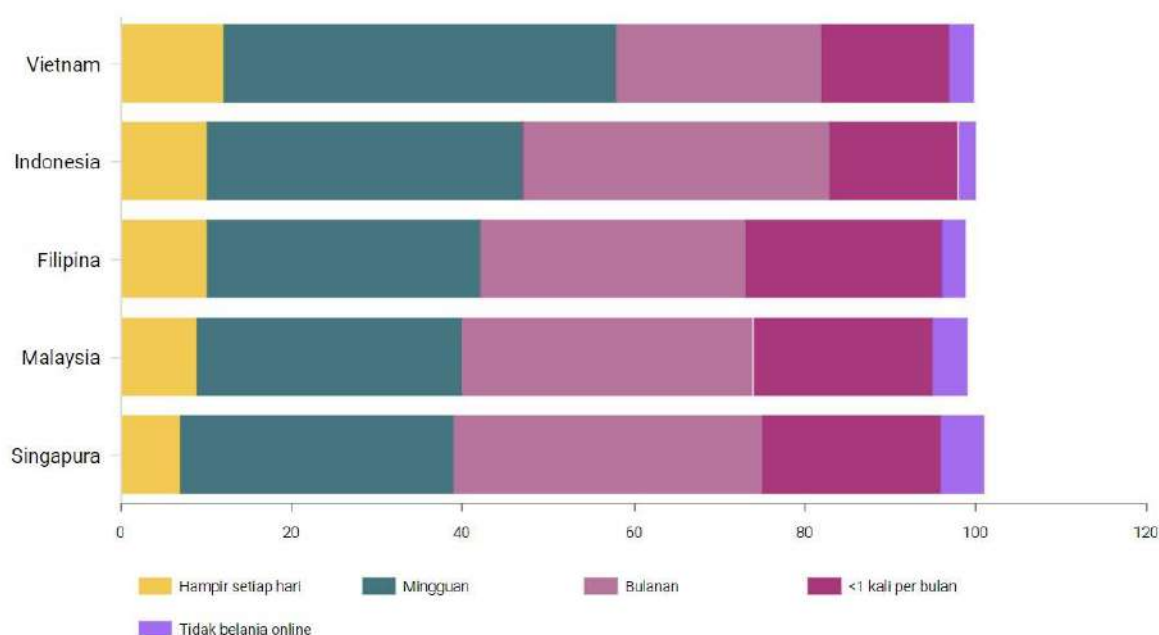


Figure 5. Frequency Online Shopping in many Southeast Asian Countries (Data up to March 2023)
Source: Research Result of (Muhamad, 2023b)

In the *Watch, Chat, Read, Shop-Consumer Pulse Report* March 2023 edition, the Katadata Insight Center (KIC) research institute recorded the frequency of shopping online in several countries. According to the report (Figure 5), Vietnam is a country that spends intensively online, with the highest daily rate in Southeast Asia and the highest of the 13 surveyed countries. As many as 12% of total respondents in Vietnam admitted to shopping *online* almost every day. Most, or 46% of Vietnamese respondents, usually shop online *at least once per week*. Next in line is Indonesia, with 10% of respondents shopping online almost daily, 37% shopping online weekly, and 36% at least once monthly.

Meanwhile, in Malaysia, only 7% of respondents shop online almost every day. The majority, or 36% of Malaysian respondents, shop online monthly. Likewise, in the Philippines and Singapore, most respondents shop online monthly, with the proportions as shown in Figure 5, regarding the categories of goods that are most often purchased when shopping online indicate that the food and beverage category is the most purchased, with a proportion of 57% of total respondents in 13 countries. Next is the household needs type with a percentage of 54%, and fashion & beauty products at 51%. This survey involved 6,479 respondents spread across Asia Pacific (China, Indonesia, Malaysia, Thailand, Vietnam, Hong Kong, Japan, Philippines, Taiwan, India, South Korea, Singapore) and the United States. Data was collected in March 2023 using a survey method online from the dedicated Rakuten Insight panel (Muhamad, 2023c).

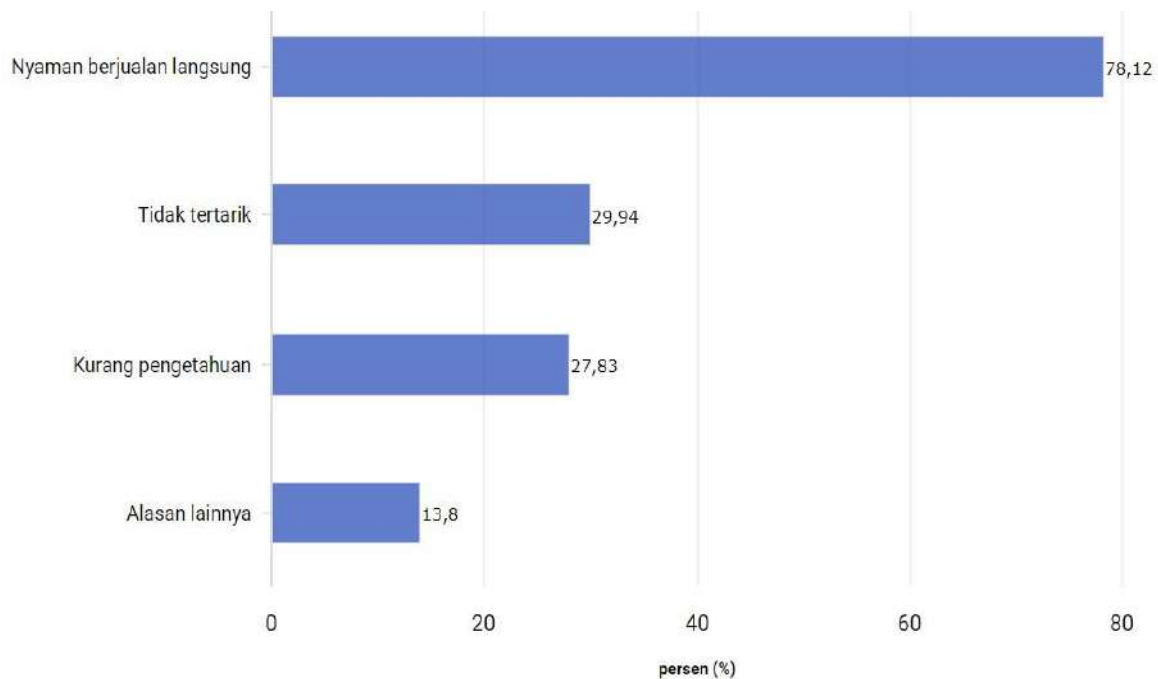


Figure 6. Reasons Why Business Actors in Indonesia Don't Sell in E-Commerce
Source: Research Result of (Muhamad, 2023c)

The report on survey results from the Central Bureau of Statistics as illustrated on Figure 6 (Research Result of (Muhamad, 2023b) presents data about the number of MSMEs that still need to do so-commerce in 2022. The biggest reason (78.12%) is more comfortable selling directly (*offline*),". As for MSMEs who admitted that they were not interested in online sales, the proportion reached 29.94%. Then, MSMEs who did not switch to e-commerce because they felt they needed more technological knowledge or skills, as much as 27.83% (Muhamad, 2023b).

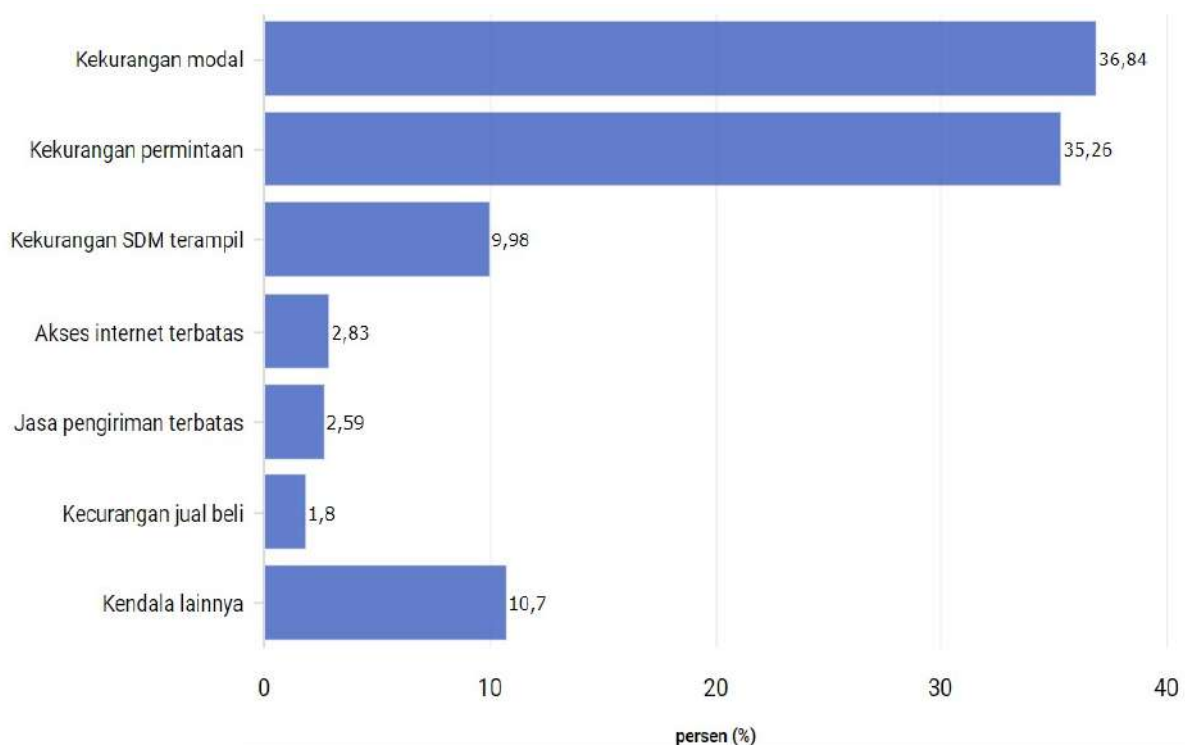


Figure 7. Obstacles Faced by E-Commerce Business Actors in Indonesia
Source: Research Result of (Muhamad, 2023a)

The Central Statistics Agency's survey report, entitled *Statistics e-Commerce 2023* (Figure 7), shows around 31 thousand business units of *e-commerce* those surveyed needed more capital. That was the obstacle most often faced. During 2022, 36.84% of business actors will need more money. The next obstacle is a lack of demand, with a proportion of 35.26%, followed by a lack of skilled labor at 9.98%. Apart from that, some perpetrators-commerce local people, feel that their business is hampered due to limited internet access, limited delivery services, fraud in the buying and selling process, and other obstacles, as seen in figure 7 (Research Result of (Muhamad, 2023a).

According to a report titled *Indonesian e-Commerce Consumer Behavior 2023: Economic Recovery and Post-Pandemic Shopping Trends*, the increase in activities outside the home makes people pay more attention to their appearance, and thus, the need for products is increasing.

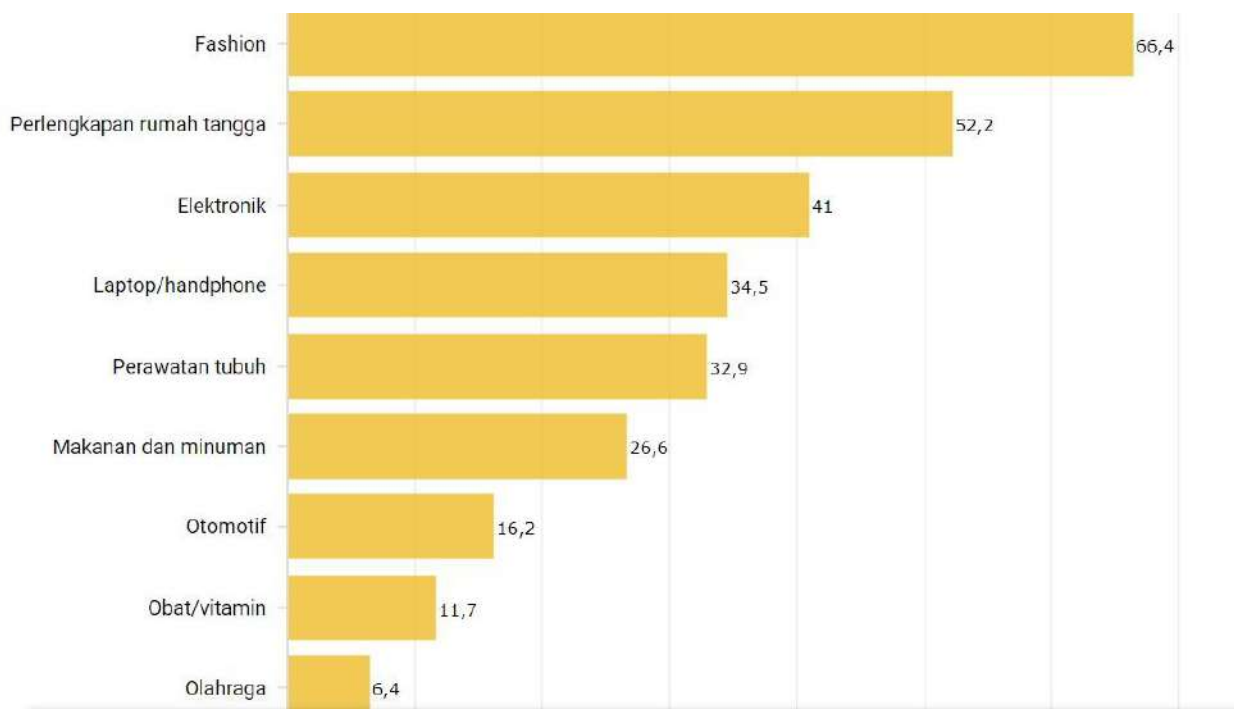


Figure 8. Types of Goods and Services in Online Shopping Transactions in 2023

Source: Research Result of (Annur, 2023a)

The data in Figure 8 shows that out of 1,491 users in Indonesia, the majority, or 66.4%, use this service to shop for fashion products regularly online. That highly correlates with data showing that 72% of MSMEs that went bankrupt were those with clothing trading business types (Annur, 2023a).

Marketplace Governance for Empowering MSMEs

One of the challenges MSME businesses face in today's increasingly competitive e-commerce environment is that many MSMEs still need to utilize e-commerce for business. (Ajija, Hartadinata, & Sulistyowati, 2021) Even though MSME players know the enormous potential for e-commerce development, most have yet to use e-commerce effectively for various reasons, for example, a lack of understanding and expertise regarding current technological developments (Ainy, 2020). In terms of business expansion to penetrate the online shopping market, it is essential to meet consumer needs and advance MSMEs. E-commerce has played an important role in the country's economy, including in the growth of MSMEs (Prameswari, Suharto, & Afatara, 2017).

The United Nations Development Program almost always explains that in the digital era, it is essential for governments to establish policies based on social entrepreneurship, which focuses on people-centered development within a human development framework. Rapid technological change, especially digital technology, has an impact on human development prospects (SHANMUGARATNAM, 2023); it consists of programs that seek to increase and generate market-based revenues for financially sustainable businesses while also aiming to solve social problems. This concept is called social entrepreneurship. Therefore, social entrepreneurship is an alternative way to minimize the negative impact of a production-based development approach (people-centered development) by viewing social and economic goals as equally important (Poon, 2020). This conception of social entrepreneurship needs to be the basis for the government to manage the development of e-commerce, including marketplaces, which no one can stop (Garrigós Simón, González-Cruz, & Contreras-Pacheco, 2017).

The most relevant governance to address the rapid development of e-commerce and the growth of several marketplaces from a social entrepreneurial perspective is protection through regulation, which emerged as a concept initially used in policy discourse (Jordana, Bianculli, & Fernández-i-Marín, 2015). The banking world, for example, carries out projects for regulatory governance (OECD/KDI, 2017) has published a report on how to improve governance by introducing regulations. Meanwhile, the banking world emphasizes good management and the role of government in regulating transparency and accountability. Most research concerns how these regulations enable and constrain action or how they are created, reproduced and changed to empower communities that need them (Kjaer & Vetterlein, 2018).

The community (including MSMEs) needs good services according to the concept of smart governance, namely government governance that aims to serve the needs of the community, is responsive in problem solving, committed to reducing disparities, increasing the professionalism of the apparatus in empowering the community through sophisticated technology (Haryati, 2023a). There are three essential determinants in governance: rules, resistance, and responsibility (Kjaer & Vetterlein, 2018). An explanation of the three determinants is presented in [Table 1](#).

Table 1 . Determinant of governance

Number	Determinant	Description
1	Rules	Such policy issues are subject to rules and regulations continually created and replicated by pertinent parties. However, they are also under dispute, and resistance-based actors have occasionally been able to alter them more severely. Finally, the normative environment that justifies what constitutes responsible behavior is present during these conflicts over the dominant regulatory system.
2	Resistance	The potential of regulatory governance to respond to structural pressures, the general volatility and contingency emanating from "the market," and other changes about, for example, technological developments, is referred to as resistance, which is the second dimension. Resistance can appear in various ways when it comes to organized political processes, governance networks, and civil society. However, resistance also manifests itself in less structured ways, such as within businesses, international organizations, and local environments on a micro level.
3	Responsibility	Responsibility highlights the normative underpinning of rules and thereby tackles the issue of regulatory governance's legitimacy. The justifications for rules and regulations are founded on beliefs and worldviews. How policy problems are identified and described affects recommendations for solving them, opening up the field of potential policy solutions.

Source : (Kjaer & Vetterlein, 2018) (modified)

Based on the description in Table 1, it is known how (Kjaer & Vetterlein, 2018) presented the results of his research on the actions of government officials who carry out marketplace governance, that three determinants must be passed. The three determinants are rules, resistance, and responsibility. (Kjaer & Vetterlein, 2018) Expressly notes that resistance is an explicitly managed determinant, especially if the sector that focuses on governance has a high potential for conflicts of interest between communities.

MSME governance in the era of online shopping is directly related to the aim of empowering MSMEs, where, in reality, some MSMEs have the potential to experience a "deprivation trap" (Gascon & McIntyre-Mills, 2018). In Chambers' opinion, an assumption can be made that in the context of marketplace development, MSMEs in Indonesia are currently facing a deprivation trap, which can also be interpreted as a "disempowerment trap." (Gascon & McIntyre-Mills, 2018). Firmly states that a poor or powerless community can experience a deprivation trap when facing shocks, for example, a competitive situation. Through Figure 9, Chamber illustrates five situations that can cause a community in a state of disempowerment to experience a deprivation trap.

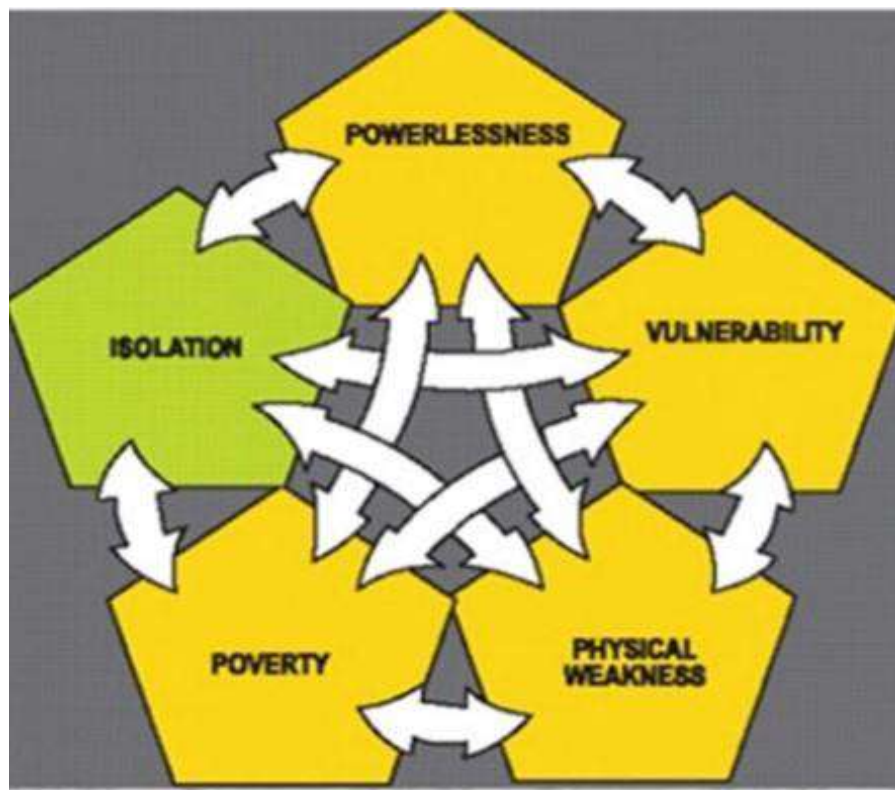


Figure 9: Deprivation Trap, Chambers Version (1983)
Source: (Gascon & McIntyre-Mills, 2018)

From the community empowerment theory perspective, MSMEs in the e-commerce era are in 5 unfavorable situations. Powerlessness is a multidimensional phenomenon. *Helplessness* is an integrated concept with five dimensions (Gascon & McIntyre-Mills, 2018) namely: (1) lack of ownership, (2) powerless. (3) vulnerability in facing emergencies, (4) dependency, and (5) isolation both geographically and sociologically. Helplessness is not only limited to living with a lack of money and low-income levels but also concerns other social aspects. (Purwana, Rahmi, & Aditya, 2017) stated that the digital world is predicted to become essential for all human activities, including business activities for MSMEs, which can become an entry point for MSMEs to become empowered. If the wave of technological development destroys MSMEs, it is very ironic. It is a sign that governance needs to be improved (Yazid Bustomi, Rohaeni, & Aryanto, 2021)

Barus (2020) stated that MSMEs should be able to coexist with technology so that they can adapt to industrial developments in the community 6.0 era. Apart from that, the conclusions of the research results (Amelia, Prasetyo, & Maharani, 2019) stated that a particular strategy is needed to increase the competitiveness of MSMEs by utilizing information and communication technology to face increasingly fierce business competition. MSME players are expected to be able to utilize technology as widely as possible so that their businesses can develop quickly. (Lubis & Junaidi, 2016) explained in their research report that to achieve competitiveness, MSMEs must make changes to continue to operate and develop, namely by utilizing information technology. The rapid development of technology and information has impacted human life, especially the business world, and not vice versa. An organization/company needs to have a competitive advantage if it wants to continue to exist in the Community 6.0 era, with the assumption that humans need to be able to live side by side with technology (which is always developing), because the development of information and communication technology has proven to be a determinant of the direction of social change and the transformation of a person's life. society (Haryati, 2023a) and when MSMEs do not have the expertise to do so, the state needs to come up with policies aimed at increasing the digital capacity of MSMEs. However, if the opposite happens, namely that MSMEs experience destruction due to technology, it is deemed necessary to carry out governance through state intervention.

The Inability of MSMEs to Compete in The Marketplace

Exceptional Staff to the Minister of Cooperatives and SMEs for Empowerment of the Creative Economy of the Ministry of Cooperatives-UKM, Fiki Satari, said that his party had received complaints from business actors regarding imported products sold by TikTok Shop (Hikam, 2023). That research found data that the influx of imported goods being traded on the TikTok Shop caused many MSMEs to go collabs, even though these MSMEs only started to recover when the COVID-19 pandemic was over. Several findings show that the imported goods sold by TikTok at low prices have killed MSMEs.

Data of Table 2 presents the results of interviews with key informants who work as academics in digital marketing and digital communications.

Table 2. Interview Results with Key Informants (Academics)

Number	Name & Skills	Informant's opinion	Proposed Solution
1	Sulistyowat, E. (Digital Marketing Specialist)	"MSME business actors collapse because they could not compete on price with imported goods sold cheaply on the TikTok Shop platform. At least 70 MSMEs have submitted complaints to several media, especially those in the convection category and clothing traders because they cannot compete on price and quality. Many imported clothes are sold on TikTok at low prices of up to IDR 15,000. I suggest stopping the practice of online trading in imported goods by TikTok.	TikTok and other online traders are prohibited from selling imported goods. Regulations are needed regarding the appropriateness of prices for goods sold online.
2	Widodo, S (Digital Communication Specialist)	When the goods traded by MSMEs cannot compete, regardless of imported or local interests, and cannot compete in providing digital services or digital communications in the marketing process. It is almost certain that MSMEs will experience defeat in the online trading mechanism. "The solution at the upstream level is that regulations need to be issued to protect MSMEs, while the answer at the downstream level is to increase digital capacity and change the mindset among MSME players so that they are better prepared to enter the era of online shopping.	There is a need to improve marketplace governance. Establishing an Online Trade Complaints Institution that manages Online Complaint Applications is necessary.
3	Viana. N (Consumer Behavior Expert)	Consumers can make shopping transaction decisions that are most beneficial to themselves, for example, choosing quality goods at the cheapest prices. However, if the increase in online shopping volume destroys MSMEs, then the government needs to intervene to protect MSMEs by also protecting consumers.	State intervention is needed to protect consumers and MSMEs

Source: Primary data, interview results, 2023 (data is concluded)

Based on the results of interviews with key informants in this research (table 2), the key informants each provide opinions according to their respective expertise. The solutions they propose to face the problems faced by MSMEs are very relevant to the concept proposed by (Octarina et al., 2020) which is stated in the publication of their research results entitled "Criminal Responsibility Of Business Agents On Selebgram's (Celebrity Endorsers) Product Promotion." In essence, they propose regulations, government intervention, and improvements to marketplace governance that not only protect consumers but also empower MSMEs to face transformation in online commerce and strengthen the online shopping culture.

Data in Table 3 presents the results of a meta-data study, which is the bureaucrats' response to the destruction of MSMEs caused by losing competition with online traders. This data was collected from several online media reports.

The results of a study on bureaucrats' responses to the destruction of MSMEs in the era of online shopping are explained in Table 3. These officials responded following their respective authorities, including i) Issuing regulations governing online trading, ii) Increasing the quality and quantity of digital capacity-building programs for MSME actors, and iii) Overseeing the implementation of MSME protection regulations so that these regulations can be implemented. He is perfecting local market governance in the era of online shopping. That is in line with the opinion of (Ramadani & Syariati, 2020) in the publication of their research results, "Digital Economy and Business Competition as Drivers of MSME Income," that improving good digital economic governance can encourage the increased success of MSMEs. This thesis is also supported by opinions of (Haryati, 2023b) that the success of promoting the future is determined by the level of digital literacy; this means that a high level of digital literacy is beneficial in terms of time efficiency, helps effectiveness in learning new knowledge, cost efficiency, makes work safer, helps get the important information, makes it easier to build relationships and networks or human capital, helps make quality decisions, helps create the best performance, makes it easier to serve others and can even influence the world.

Table 3. Bureaucrats' Response to the Destruction of MSMEs in the Era of Online Shopping

Number	Name, Department & News Source	Bureaucrat Opinion	Action plan
1	Hasan, Z. Minister of Commerce Coverage 6 08-14-2023, 21:13 IWST	The government should regulate and organize so that e-commerce and marketplaces can optimally develop products made in Indonesia. This arrangement does not harm e-commerce. We want the trade ecosystem through e-commerce to benefit MSMEs and create e-commerce development forward	Has issued Minister of Trade Regulation Number 31 of 2023 concerning Business Licensing, Advertising, Guidance, and Supervision of Business Actors in Trading Through Electronic Systems
2	Masduki, T. Minister of Cooperatives and SMSEs Coverage 6 27-09-2023	It welcomes the Minister of Trade Regulation Number 31 of 2023 issuance concerning Business Licensing, Advertising, Guidance, and Supervision of Business Actors in Trading Through Electronic Systems. According to him, this is a fundamental step to protect the products of the local country. The hope is that this will also increase the competitiveness of MSME products.	The Ministry of Cooperatives and SMEs is increasing the quality and quantity of digital capacity-building programs for MSME players.
3	Riyanto. B Head of the National Legal Development Agency, Ministry of Law and Human Rights Home National Legal Development Agency, Ministry of Law and Human Rights, 09-28-2023	Referring to the Regulation of the Minister for Empowerment of State Apparatus and Bureaucratic Reform Number 51 of 2020 concerning Functional Positions, the task of the Functional Position of Legal Analysis is to carry out Analysis and evaluation in the field of statutory regulations and unwritten law, the formation of statutory regulations, legal issues, supervision of implementation statutory regulations, agreement documents and implementation of agreements, legal services, licensing, legal information, and legal advocacy.	All legal regulations need to be supervised in their implementation to follow the objectives of promulgating these legal regulations. Legal Analysis needs to oversee the implementation of the Minister of Trade Regulation Number 31 of 2023

Source: Result of Meta-Data results, Online News, 2023 (data is concluded)

CONCLUSION

It is estimated that online shopping will become a need for society and a shopping culture for people in all strata. With the impact of online shopping becoming a culture, MSMEs must have digital and creative capabilities in creating innovations, both product innovations and digital marketing strategy innovations, adapting to technological developments. If MSMEs cannot do this, then MSMEs will experience destruction. The government needs to increase its commitment to improving market governance.

Implication: Minister of Trade Regulation Number 31 of 2023 concerning Business Licensing, Advertising, Guidance, and Supervision of Business Actors in Trading Through Electronic Systems has been issued. The Minister of Cooperatives, Micro, Small, and Medium Enterprises Regulation regarding the Digital Capacity Building Program for MSMEs will be published soon. Adequate supervision of the implementation of these laws and regulations is required. If market management were initially aimed more at protecting consumers, then it would also be necessary to protect MSMEs in the future.

This research has not been able to explore the opinions of MSME actors through direct interviews with them or through observations of the conditions of the destruction of MSME businesses, so it cannot describe the data and analyze the level of destruction they experienced. This research has yet to conduct interviews with local market consumers, so researchers have not been able to present consumer suggestions and input.

ACKNOWLEDGEMENTS

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Empowering the children's and women's forum as an effort to protect children and women from violence

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-06-06 Revised: 2023-09-11 Accepted: 2023-11-03 Published: 2023-11-03 Keywords Children Dadaprejo Forum Legal protection Woman	Many cases occur in Indonesia that show children and women have become victims of violence, one of which is domestic violence. There are many cases in the community of children and women who experience physical, psychological, sexual violence and neglect in the family, especially in the household. This community services uses FGD method to strengthen the children's and women's forum. The findings of this community services found that change is a must, so that in this case the government needs to make efforts to educate the public to be more open and able to take care of themselves to avoid becoming victims of violence, especially in the household. This community services take place in Dadaprejo, Batu, Esat Java. As a result, the Women and Children Forum is an important tool to be carried out as a means of communication that is implemented to prevent women and women from becoming victims of violence.
Kata Kunci Anak-anak Dadaprejo Forum Payung hukum Wanita	Memberdayakan forum anak dan perempuan sebagai upaya melindungi anak dan perempuan dari kekerasan. Banyak kasus yang terjadi di Indonesia yang menunjukkan anak dan perempuan menjadi korban kekerasan, salah satunya kekerasan dalam rumah tangga. Banyak kasus di masyarakat anak dan perempuan yang mengalami kekerasan fisik, psikis, seksual dan penelantaran dalam keluarga, khususnya dalam rumah tangga. Pengabdian masyarakat ini menggunakan metode FGD untuk memperkuat forum anak dan perempuan. Temuan dari pengabdian masyarakat ini ditemukan bahwa perubahan adalah suatu keharusan, sehingga dalam hal ini pemerintah perlu melakukan upaya untuk mendidik masyarakat agar lebih terbuka dan mampu menjaga diri agar tidak menjadi korban kekerasan khususnya dalam rumah tangga. . Pengabdian masyarakat ini berlangsung di Dadaprejo, Batu, Esat Jawa. Oleh karena itu, Forum Perempuan dan Anak menjadi sarana yang penting untuk dilakukan sebagai sarana komunikasi yang dilaksanakan untuk mencegah perempuan dan perempuan menjadi korban kekerasan. Copyright © 2023, Erdianti et al This is an open access article under the CC-BY-SA license 

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INTRODUCTION

The problem of children and women is always interesting to discuss, this is a realistic condition that occurs in society that can be seen that children and women are the parties who often become victims of violence. However, it is undeniable that it is very possible that men can also be victims of violence, but more women are victims than men (Rahmatika, 2021).

Relating to a child who becomes the next generation of the nation, in essence the child is unable or unable to protect themselves from various forms of actions that can cause harm physically, mentally, mindset and growth and development of children (Disemadi, Al-Fatih, & Yusro, 2020). With violence that has an impact on many things, it is necessary to have special protection efforts and against children. Every child needs help from others, be it parents,

community, family, teachers and other parties in order to protect themselves from various situations and conditions that may endanger or even threaten them. But the reality is that not all children get full protection and love from parents who should be the closest environment to provide protection for the child. Often there are many cases related to children who get violence from their parents (Novita Erdianti & Al-Fatih, 2019).

Usually, this violence occurs due to broken home family conditions, insufficient economic conditions, disharmony that occurs within the family and so on. This condition will certainly affect and inhibit the growth of the child who should receive treatment like other children in general. Violence is very close to the life and growth of children. Child protection is the responsibility of all communities, not just families. All levels of society have a role and responsibility in the implementation of child protection, in accordance with the mandate of Law No. 35 of 2014 concerning amendments to Law No. 23 of 2002 concerning child protection. According to Law No. 35 of 2014, the definition of a child is not yet 18 years old, including children who are still in the womb. Child Protection Law No. 35 of 2014 states that child protection is all activities to guarantee and protect children and their rights to live, grow, develop, and participate, optimally in accordance with human dignity and dignity, and get protection from violence and discrimination.

Based on the understanding of the above Law, it can be explained that child protection is all activities that intend to ensure the fulfillment of children's rights and protect children's rights (Al-Fatih & Aulia, 2021). Ensuring the fulfillment of children's rights is related to ensuring children's rights to live, participate, grow, and develop in every sphere of life (Liebel, Budde, Markowska-Manista, & Meade, 2023). While the protection of children's rights is related to the protection of children from violent behavior and discrimination. So that when children get protection, it means that they will form children who are qualified, have noble character, are happy and prosperous.

This means that it will form a quality next generation to improve the quality of the Indonesian nation (Erdianti & Fatih, 2019). May children not only have the potential to become victims of violence but also in this case children also have the potential to become perpetrators of criminal acts or delinquency so that in this case it is good as victims and perpetrators in this case it becomes the same problem as important to be addressed immediately Based on data from the 2020 Indonesian Child Profile published by the Ministry of Women's Empowerment and Child Protection, the number of children in Indonesia in 2019 reached 84.4 million, the number of children, this makes Indonesia in the fourth position in the world as a country that has the highest number of children. This high number raises various problems, there are still many children in Indonesia who have not felt the rights that should be obtained. Therefore, the image of Indonesian children is the target of child rights protection programs pursued by the Government of Indonesia, especially by Regional Governments as governments that are directly close to children's lives, so they are required to be more proactive and critical of the fulfillment of children's rights (Muna, Solehuddin, & Mahmudah, 2022).

In addition to children, it turns out that women are also not a few who experience violence. Various forms of violence are often experienced by women including harassment, rape, murder and even women who are traded for prostitution. Even in the Law on the Elimination of Domestic Violence, it states that the definition of domestic violence is a form of violence, especially against women that causes physical, mental and sexual violence suffering and domestic neglect. The term especially women indicates that it is women who are more victims than men. Based on the Annual Record (CATAHU) issued by Komnas Perempuan that there were 431,471 cases of violence against women consisting of 421,752 cases sourced from case data/ cases handled by Religious Courts, 14,719 cases handled by service procurement partner institutions spread across one third of provinces in Indonesia and 1419 cases from the Service and Referral Unit (UPR), a unit deliberately formed by Komnas Perempuan to receive complaints from victims who came directly or call Komnas Perempuan. Of the 1419 complaints, 1,277 were gender-based and 142 non-gender-based cases. Data on reported violence has increased significantly over the past five years.

Children and women who are vulnerable positions to become victims of criminal acts are one of the triggers for the need for women's and children's forums in the community as a means or forum of communication for children and women to express opinions when they face problems (Gomes, 2013). As another effort to ensure the sustainability of children's rights, a Children's Forum organization was also established which is regulated through the Regulation of the Minister of Women's Empowerment and Child Protection Number 18 of 2019 concerning the Implementation of Children's Forums. The Children's Forum organization is a multi-level organization from villages to regional and international levels. In Dadaprejo sub-district, the establishment of children's forums and women's forums is important to do considering that cases of children who are perpetrators of criminal acts have increased (Alaby, 2019). If in the middle of district, in the environment around Dadaprejo sub-district drinking is still a common thing among adults, plus if there is a celebration or village activity there are still several people who drink these drinks, so this will have an effect on children who are feared to think drinking is something normal. If children have started trying to drink alcohol, it has the potential for children to be trapped in other conditions, namely the possibility of children becoming criminal offenders.

In addition to trying to drink, there are still minors who abuse drugs. They mix drinks using drugs such as Bodrek, or Antimo which is then also mixed with amethyst. Abuse of these drugs mixed with amethyst has an impact on hallucinations in children that are quite intense so that it is very dangerous for the condition of these children. This condition requires special attention from various parties, including village officials. Another problem that also needs

attention is the condition of children who are also involved in several criminal acts, this condition the proposer knows based on the results of the proposer's communication with the head of Dadaprejo Village, where there are still children who must deal with law enforcement officials who need attention from their families, communities and village officials.

With these conditions, there should be efforts made by the village to provide protection for children so that in this case one of the efforts that can be done by the village is to create legal protection for children by creating a child-worthy village / village that will always try. The Children's Forum is a forum that moves and aims to help reduce the number of crimes against children or There should be a role for the community. What is done is useful to protect children from the influence of negative things. A child can be affected by an unfavorable community environment because child protection in Indonesia is still weak, the closest community empowerment is family, play environment, and school. Child protection will never stop, until the potential resources of successors to the nation's ideals are maintained. Child protection must have two aspects, the first aspect relates to laws and regulations governing children's rights, criminal children and concerns the implementation of these regulatory policies.

The second aspect is the role of the child and parent's environment in protecting children from the influence of perpetrators. This children's forum will bridge communication and interaction between children and the government in order to fulfill children's participation rights. Nationally, there have been 31 Provincial Children's Forums, 401 District/City Children's Forums, 267 Sub-District Children's Forums, and 170 Village/Village Children's Forums. This number is relatively small compared to the total number of areas in Indonesia today. This is certainly not in accordance with the mandate of Law No. 35 of 2014 concerning Child Protection that every child has the right to live, grow and develop, and have his opinion respected. Based on the explanation above, the formulation of the problem raised is how is the urgency of the existence of the Children's Forum and Women's Forum as an effort to protect children and women? those topics were related to the SDG's goals, related to the Gender Equality topics, which is bring equality to children and women in the society without any violence.

METHOD

The target of community is Dadaprejo children and women forum. Dadaprejo is a village located in Batu City, East Java. The parties involved in this service activity is the Village Government, women organization such as PKK and also the community services from Faculty of Law, Universitas Muhammadiyah Malang. The method that explains the stages or steps in implementing the solution offered to resolve the problem which chosen by the author(s) is Focus Group Discussion (FGD) and seminar model (Al-Fatih & Siboy, 2021). The science and technology transferred/introduced regarding the WAG interaction, webinar and online discussion. Instruments or tools and materials used in community service activity are Power Point (PPT) and brochure. Data collection techniques by list from the authors. To indicate this community service success or not, the author(s) take a control in the WAG of children and women that in keep contact in group. For dissemination, this community services also provide in a scientific paper with purposive method (Ansari & Negara, 2023), such as this paper as an output.

RESULTS AND DISCUSSION

Based on the Regulation of the Minister of Women's Empowerment and Child Protection No. 18 of 2019, what is meant by Children's Forum is a forum for children's participation where members are representatives of children's groups or children's activity groups or individuals, managed by children and fostered by the government, as a means of channeling children's aspirations, voices, opinions, desires, and needs in the development process (Paramitha & Sukardi, 2023). The Children's Forum has a function as a forum for Children's Participation that accommodates the aspirations, voices, opinions, desires, and needs of Children regarding the fulfillment of Children's Rights and Special Protection of Children in the development process in accordance with the level of the area where the Children's Forum is located.

The Ministerial Regulation became the basis for the establishment of children's forums at the regional level so that it became clear about its position. In various cities and regencies in Indonesia already have children's forums as a place for children to participate and be listened to their opinions. Broadly speaking, the Convention on the Rights of the Child (CRC) groups children's rights into 4 (four) groups of basic rights, namely the right to survival, the right to grow and develop (development rights), the right to protection (protection rights), and the right to participate (participation rights) one of the principles is children's participation in environmental development which is also one of the rights of 31 children's rights (Jørgensen, Wood, Lynch, Spencer, & Gunnlaugsson, 2023). According to the Regulation of the Minister of Women's Empowerment and Child Protection of the Republic of Indonesia Number 3 of 2011 Article 1 Paragraph 2, "Child participation is the involvement of children in the decision-making process about everything related to themselves and is carried out on awareness, understanding and mutual will so that children can enjoy the results or benefit from the decision.

Children need to be involved in decision making, including in making decisions on regional development plans to create a city that is worthy of them (Publik, Sari, Rusli, & Riau, 2023). The above shows that children's participation is the basis and stepping stone that ensures that children are subjects of equal human rights and therefore are not always the object of a development process. Currently, the government has established and fostered a children's participation forum called the Children's Forum, which consists of all children and the management consists of representatives of children's groups. This children's forum was formed with the aim of bridging the interests of children and the interests of adults. The children's forum is a media, forum or institution to fulfill the child's right to participation, to specifically affirm article 10 of Law Number 23 of 2002 concerning Child Protection (Abdullah & Ismail, 2019). As a form of commitment in responding to the understanding of the importance of children's participation rights to create a world that is worthy of children (Pratama, 2023).

Unlike the children's forum, the women's forum here basically has a need for its existence but unfortunately the legal umbrella for the women's forum is not specifically regulated in ministerial regulations such as the children's forum. Many women's empowerment efforts were carried out after realizing and acknowledging that there were many problems faced by women's groups. Some of the problems faced are the treatment of injustice to women in the fields of education, health, politics and economics (Banks, 2019). Furthermore, women in Indonesia are also faced with various problems of violence ranging from verbal violence, physical violence to even sexual violence. Patriarchal culture is considered to have a strong aspect causing these women's problems.

Patriarchal culture places women in the number two (subordinate) position in various aspects of development. With this condition, the way to solve women's problems is to increase women's bargaining position. Many strategies are taken to improve women's bargaining position both various counseling, training, awareness and no less important than that is the organization of women (Qizi, Qizi, & K, 2023).

Solving women's problems will be more effective if women organize, namely in groups according to the same problems and needs (Johansson & Kreft, 2023). Women's organizations are one of the solutions to women's problems and efforts to realize the protection of women. Women's organizations here can be a forum for women to express aspirations or opinions or even as a place to vent for women about the problems they face. The existence of women's organizations in society can be said to have a large number, because the purpose of women's organizations depends on the purpose of the organization formed. Just like other organizations, the women's forum here is devoted as a forum for women to communicate either in one direction or two directions in order to prevent violence experienced by women (Amirah, Ulviani, & Muthahharah, 2023).

For example, counseling women about preventing violence against women One of the communities that has a focus on women's issues in Dadaprejo Village is the Women's Care Forum, this forum was created at the initiation of lecturer service activities carried out in the Dadaprejo environment, this women's care forum aims to increase awareness about the conditions experienced by women, especially the most related to cases of domestic violence, namely domestic violence. This forum is usually carried out during PKK meetings both at the RT level and RW level. This women's forum at the village level is a bridge for the Batu city local government as an institution that guarantees women's protection so that women's problems in the village or village will be conveyed to the Batu City government.

This women's care forum activity is carried out by various methods, namely counseling and socialization on Child Protection and Elimination of Domestic Violence This socialization and counseling is carried out to educate the community about the importance of child protection. Socialization and counseling activities are carried out with the aim of informing students in schools and the general public so as much as possible not to commit acts of violence against children. This socialization and counseling are carried out in schools and in the general public. The Children's Forum and Women's Care Forum are a means to achieve Child Worthy Villages and Villages that guarantee the protection of women's rights.

CONCLUSION

The issue of child and women protection is a topic that is always interesting to talk about, this condition is very concerning for the Indonesian state, thus it is necessary to make legal protection efforts to prevent children and women from becoming victims of violence. Given that currently the amount of violence against children and women is increasing. Prevention efforts that can be done are to create a safe, comfortable environment for the growth and development of children and women that can be provided by villages or villages so that the community will be facilitated to be able to convey complaints and problems experienced in their families. Children's Forum and Women's Care Forum are solutions that will be able to provide hope for the community by educating the public to be able to provide protection for children and women as part of citizens who are guaranteed their rights.

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The effect of counseling on hemoglobin on the knowledge of Islamic boarding school students

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-07-29 Revised: 2023-11-03 Accepted: 2023-11-07 Published: 2023-11-07 Keywords Counseling Hemoglobin Islamic boarding school Knowledge POCT	Anemia is a condition where the mass of erythrocytes or hemoglobin in circulation cannot fulfill its function to provide oxygen to body tissues. Anemia in adolescent girls is still quite high; the world prevalence of anemia ranges from 40 to 88%. Community service activities aim to screen (check) hemoglobin levels as early detection of anemia using the Point of Care Testing (POCT) method to determine the relationship between age and education to the incidence of anemia and as a preventive effort to minimize anemia. This activity was carried out through counseling about hemoglobin using the lecture method at the Islamic Boarding School Roudlotul Musthofa in May 2023 with 23 female students as respondents, which were then analyzed using the Wilcoxon statistical test. The results of the questionnaire before counseling (pre-test) obtained an average of 80, then counseling was carried out, and the average results of the questionnaire (post-test) were 94. The results of the Wilcoxon Test analysis showed p (Asymp.Sig. (2-tailed)) = $0.000 < \alpha$ (0.05), which means that there is a significant influence between the knowledge of junior high school students of Raudlatul Mustofa Islamic Boarding School Tulungagung Regency and hemoglobin counseling conducted.
Kata Kunci Hemoglobin Pengetahuan Penyuluhan POCT Pondok Pesantren	Pengaruh penyuluhan hemoglobin terhadap pengetahuan santri. Anemia adalah keadaan dimana massa eritrosit dan atau massa hemoglobin yang beredar tidak dapat memenuhi fungsinya untuk menyediakan oksigen bagi jaringan tubuh. Anemia pada remaja putri sampai saat ini masih cukup tinggi, prevalensi anemia dunia berkisar 40-88%. Kegiatan pengabdian masyarakat bertujuan untuk skrining (pemeriksaan) kadar hemoglobin sebagai deteksi dini penyakit anemia dengan menggunakan metode Point of Care Testing (POCT) untuk mengetahui hubungan antara umur, pendidikan terhadap kejadian anemia dan sebagai upaya preventif (pencegahan) untuk meminimalisir penyakit anemia. Kegiatan ini dilakukan melalui penyuluhan mengenai hemoglobin dengan metode ceramah di Pondok Pesantren Roudlotul Musthofa pada bulan Mei 2023 dengan banyak responden 23 siswi, yang kemudian dianalisa menggunakan uji statistic Wilcoxon. Hasil kuisioner sebelum penyuluhan (pre-test) didapatkan rata-rata 80, kemudian dilakukan penyuluhan, dan didapatkan rata-rata hasil kuisioner (post-tes) yaitu 94. Hasil analisa Uji Wilcoxon menunjukkan p(Asymp.Sig. (2-tailed)) = $0,000 < \alpha$ (0.05), yang artinya terdapat pengaruh signifikan anatara pengetahuan siswi SMP Pondok Pesantren Raudlatul Mustofa Kabupaten Tulungagung terhadap penyuluhan hemoglobin yang dilakukan.

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INTRODUCTION

Anemia in adolescents is a prevalent condition primarily caused by insufficient intake of essential nutrients necessary for hemoglobin formation, namely iron (Fe), vitamin C, and copper. This condition highlights the importance of a balanced diet rich in these nutrients to support healthy hemoglobin levels. Further research and awareness campaigns are crucial to addressing this nutritional deficiency and promoting overall adolescent health (Astuti & Kulsum, 2020). According to Indartanti & Kartini (2014) Iron is essential for the formation of the heme component in hemoglobin, while vitamin C is a crucial element in hemoglobin synthesis. Additionally, copper plays a vital role in the absorption of iron from the

gastrointestinal tract. Anemia is characterized by symptoms such as fatigue, weakness, paleness, lack of energy, decreased appetite, and cold hands and feet. Understanding these interconnections between nutrients and the symptoms of anemia is essential for developing effective prevention and treatment strategies, emphasizing the significance of a well-balanced diet rich in iron, vitamin C, and copper for overall health and well-being (Subratha, 2020). The symptoms mentioned should be promptly addressed to prevent more serious consequences for the quality of human resources (Zulqifni & Suandika, 2022). Anemia in adolescents has various detrimental effects, including a decline in learning ability and concentration, hindrance to growth, reduced physical capabilities, a weakened immune system, diminished work productivity, and decreased overall fitness. These consequences underline the critical importance of addressing anemia in young individuals promptly. By implementing comprehensive awareness programs, ensuring proper nutrition, and providing timely medical interventions, we can mitigate these impacts, allowing adolescents to reach their full potential both academically and physically. Investing in the health and well-being of young individuals is essential for fostering a productive and thriving society (Savitri et al., 2015).

Anemia among adolescent girls remains significantly high to this day, with a global prevalence ranging from 40% to 88% (Nurjannah & Putri, 2021). The prevalence of anemia among adolescent girls is alarmingly high, with a rate of 75.9%. According to Martini (2015) anemia affects 50.5% of adolescent girls aged 10–18 years. Anemia can lead to persistent fatigue, decreased learning concentration, low academic achievements, and diminished work productivity. Additionally, it weakens the body's immune system, making individuals more susceptible to infections. The high prevalence of anemia among adolescents, if left untreated, can persist into adulthood and significantly contribute to maternal mortality, premature births, and low birth-weight babies. Effective interventions, including nutritional education, accessible healthcare services, and public health campaigns, are essential to address this issue and improve the overall health outcomes of adolescent girls, ensuring a healthier future generation (Indriani, 2017).

According to Barus (2022) anemia is a condition where the circulating mass of red blood cells and/or hemoglobin cannot fulfill its function of providing oxygen to the body tissues. Hemoglobin (Hb) is a protein that serves as an oxygen carrier. Factors influencing hemoglobin (Hb) levels include the adequacy and metabolism of iron in the body. Iron is necessary for the production of hemoglobin (Hb), and iron-deficiency anemia leads to the formation of smaller red blood cells and low hemoglobin content. Proper understanding and management of iron intake and metabolism are crucial in preventing and addressing iron-deficiency anemia, ensuring the production of healthy red blood cells and adequate oxygen supply to body tissues (Hermawati, 2013). The hemoglobin (Hb) levels are greatly influenced by various factors such as age, gender, altitude above sea level, dietary patterns, and others (Gunawan et al., 2021). Low hemoglobin (Hb) levels are associated with clinical issues such as anemia (Hermawati et al., 2021). According to the World Health Organization (WHO), the criteria for anemia in non-pregnant adult women is a hemoglobin (Hb) level less than 12 g/dL (Pramartha, 2016).

Early detection through anemia diagnosis can be achieved by measuring hemoglobin (Hb) levels using Point of Care Testing (POCT) equipment (Suryati et al., 2021). The point-of testing (POCT) method involves simple examination procedures using small sample quantities. It is easy, fast, and effective, making it suitable for areas with limited healthcare facilities, such as community health centers and smaller hospitals. This method is particularly valuable in locations like the community service area at Islamic Boarding School (IBS) Raudhlotul Musthofa in Rejotangan Subdistrict, Tulungagung Regency, East Java Province. The assessment of hemoglobin levels is based on the standard normal range for anemia: 12–15 mg/dL for females and 13.5–17 mg/dL for males (Faatih, 2017).

The point-of testing (POCT) method operates on the principle of measuring hemoglobin levels in a sample based on electrical potential changes. This brief electrical potential, influenced by the chemical interaction between the blood sample and the electrodes within the test strip, allows for the accurate determination of hemoglobin levels (Lailla et al., 2021). The hemoglobin level examination using the Point of Care Testing (POCT) method involves using a small sample of capillary blood. This method is convenient because it requires only a small amount of blood, easily collected from a fingertip (Widianti et al., 2021). However, the use of capillary blood samples has a drawback—it may lead to sample dilution due to shallow punctures. When the skin is not pierced deeply enough, it can dilute the sample, potentially affecting the accuracy of the results (Puspitasari et al., 2020).

The community service activity aims to screen hemoglobin levels early through the Point of Care Testing (POCT) method, enabling the detection of anemia. The objective is to understand the relationship between age, education, and anemia incidence. Additionally, this initiative serves as a preventive measure to minimize the occurrence of anemia, aligning with the efforts of the government and the World Health Organization (WHO) to reduce anemia prevalence by 50% by the year 2025 (Quraini et al., 2020). The hemoglobin level (Hb) examination is conducted using strip tests, with primary data obtained through questionnaires and interviews. Preventive activities aimed at minimizing anemia are carried out by providing information to the positive (+) anemia students at IBS Raudhlotul Musthofa. This information focuses on improving nutritional intake, promoting healthy lifestyle choices, and maintaining cleanliness (Nidianti et al., 2019). Based on these activities, the initiative plays a role in contributing to the achievement of the third Sustainable Development Goal (SDG). This goal aims to ensure health and well-being for people of all ages by promoting preventive measures and enhancing the overall health and welfare of the community (Wisudanto et al., 2022).

METHOD

The implementation involved educational sessions on hemoglobin tailored to address the specific issues and conditions of IBS Roudlotul Musthofa (Figure 1). These activities were carried out from May 8 to May 19, 2023, with the main awareness session conducted on May 15, 2023. The events took place at Pondok Pesantren Roudlotul Musthofa in Pundensari Hamlet, Rejotangan Village, Rejotangan Subdistrict, Tulungagung Regency.



Figure 1. Students of IBS Roudlotul Musthofa

The data was collected using a questionnaire from a total of 23 female students. Initially, the respondents were asked to complete the questionnaire to measure their knowledge about hemoglobin (pre-test) before the educational sessions. Subsequently, an awareness campaign was conducted through lectures and the distribution of leaflets. After the session, the students were asked to fill out the questionnaire again to assess their knowledge levels (post-test). A comparison between the respondents' knowledge levels before and after the awareness campaign was made to evaluate the impact of the intervention. The significance of this impact was analyzed using the Wilcoxon signed-rank test, a statistical method used to determine if there was a significant difference in respondents' knowledge levels before and after the hemoglobin awareness campaign.

RESULTS AND DISCUSSION

This analysis was conducted to determine the impact of the intervention, which involved an educational lecture on hemoglobin, on the knowledge of female students at IBS Roudlatul Musthofa. The Figure 2 was collected during the educational session.



Figure 2. Educational session

The analysis employed a non-parametric test, specifically the Wilcoxon test, due to the non-normal distribution of the data. The Wilcoxon test was conducted to examine the difference in knowledge scores of respondents before and after the educational intervention. The statistical test was performed at a significance level of 95% (alpha 0.05), and the results are in the Table 1.

Table 1. Wilcoxon Test Ranks Results for Respondents' Knowledge

Wilcoxon Signed Ranks		
Variable	Ranks	N
Posttest Score - Pretest Score	Negative Ranks	0
	Positive Ranks	19
	Ties	4
	Total	23

Based on Table 1, the results of the pre- and post-tests using counseling interventions with lecture methods on hemoglobin show a negative rank value of 0. This value of 0 indicates no decrease from the pretest value to the posttest value in the results of the knowledge of counseling respondents.

Positive Ranks between the results of knowledge of hemoglobin counseling respondents for pretest and posttest values: N 19 positive data, which means 19 respondents have increased knowledge of hemoglobin from pretest to posttest values. Ties is the similarity of pretest and posttest values; the result of the ties value is 4, so there is the same value between the pretest and posttest values of hemoglobin counseling respondents on the knowledge variable.

Table 2. Results of the Wilcoxon Test Analysis of Knowledge Variables

Variable	N	p-value
Knowledge before and after	23	0.000

Based on Table 2, after the Wilcoxon test, it was found that 23 respondents experienced an increase in value. The results of testing the data above show the results of p (Asymp.Sig. (2-tailed)) = $0.000 < \alpha$ (0.05), and it can be concluded that there is a significant influence between the knowledge of junior high school students of the IBS Raudhlatul Musthofa and the intervention provided, namely counseling on hemoglobin, in the pretest and posttest results.

Activities have been carried out according to the planned schedule. In this implementation, there are several fields of activity, namely health and education. Activities that have been carried out include data collection, discussion, and counseling on anemia.

This activity was carried out because the SDGs have goals that are more universal. The SDG concept indirectly replaces the MDGs with goals that better meet future challenges. SDGs have three important pillars, and the main target of this counseling activity is human development, which includes education and health (Wahyuningsih, 2017). In addition, this activity aims to achieve the 3rd SDG goal of good health and well-being to ensure healthy lives and promote well-being for all people at all ages (Irhamsyah, 2019). Efforts to counsel hemoglobin levels need to be increased early on with the aim of increasing the knowledge of participants. So that it can change the lifestyle to be healthy and the goals of the 3rd SDGs can be achieved (Dewi et al., 2022).

The development of the role of the community makes pesantren the center of the healthy living community movement. The large number of students who live in pesantren dormitories and carry out activities together results in a lack of adequate nutritional intake and can cause anemia (Indriani, 2017). Adolescent girls who are still growing and are in their menstrual period every month cause iron loss. This menstrual blood loss also causes an iron deficiency. Inadequate iron intake in adolescent girls is a common cause of anemia (Sholicha & Muniroh, 2019).

After observation, STIKes Hutama Abdi Husada Tulungagung students conducted counseling on anemia for IBS Raudlatul Musthofa students in Rejotangan Village, Rejotangan District, Tulungagung Regency. After counseling was carried out, the results showed that before counseling, the average pretest score was 80, and after counseling, the average posttest score was 94. Where the results of the pretest and posttest scores have increased, so that it can be a benchmark for increasing student knowledge about hemoglobin. This is in line with the counseling conducted by Arifah et al (2022) which shows if there is an increase in posttest scores after receiving counseling.

Based on the results of the analysis using the Wilcoxon test, it is known that the results of p (Asymp.Sig. (2-tailed)) = $0.000 < \alpha$ (0.05), it can be concluded that there is a significant influence between the knowledge of junior high school students of the IBS Raudhlatul Musthofa on the intervention provided, namely counseling on hemoglobin in the pretest and posttest results and for behavior levels such as consuming dietary restrictions, namely sea fish, eggs, papaya, nuts that can affect iron intake, and not taking blood-enhancing supplements for female students to be reduced (Hidayati, 2021). From the resultant data, it can be seen that 24 students of Raudlatul Musthofa Junior High School can understand the material about anemia delivered so that later they can improve individual health in order to avoid anemia.

CONCLUSION

From the results of activities that have been carried out at IBS Roudlatul Musthofa regarding the examination of hemoglobin levels, we can conclude as follows: (1) From the results of the quiz given before counseling to students of the IBS Roudlatul Musthofa, the average pretest score was 80; (2) Counseling activities regarding hemoglobin were carried out at IBS Roudlatul Musthofa Tulungagung Regency on May 15, 2023; (3) From the results of the quiz given after counseling to students of IBS Roudlatul Musthofa Tulungagung Regency, the average posttest score was 94; and (4) The results of the analysis show that p (Asymp.Sig. (2-tailed)) = 0.000 < α (0.05), which means that there is a significant influence between the knowledge of students at IBS Roudlatul Musthofa Tulungagung Regency and hemoglobin counseling conducted.

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Scabies education and detection at Raudlatul Musthofa junior high school

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-07-29 Revised: 2023-11-03 Accepted: 2023-11-07 Published: 2023-11-07 Keywords Fungi Personal hygiene Scabies Skin diseases	Scabies is a skin disease endemic in tropical and subtropical climates that is highly contagious and generally affects groups of people with low socioeconomic conditions, poor personal hygiene and sanitation. This activity aimed to make efforts to prevent, provide education, and assist public health development so that it is expected to improve public health in boarding schools students. This study aims to make efforts to prevent, provide education, and assist public health development so that it is expected to improve public health in boarding schools. The sample to be analyzed was 19 students from Raudlatul Junior High School. Examination of parasites that cause scabies is done with a skin swab. The results of observations that have been made of Raudlatul Musthofa Junior High School students show that the majority of students have carried out personal hygiene well, namely all 19 students (100%) bathing at least twice a day using soap, keeping hands and feet clean, and changing clothes when dirty. A total of 14 students (74%) do not exchange personal items such as towels, do not take turns in clothes, and do not dry clothes in the room. A total of 15 students (79%) cleaned the bed, 18 students (95%) did not lend toiletries such as soap, and 16 students (84%) did not experience symptoms of frequent itching at night, rashes (spots), wounds, or dry and crusty skin. The results of skin swab examinations on 19 students at Raudlatul Musthofa seen under a microscope obtained as many as 13 students (68%) samples contained bacteria and as many as 6 students (32%) samples contained fungi.
Kata Kunci Jamur Kudis Penyakit kulit Personal hygiene	Edukasi dan deteksi kejadian kudis di SMP Raudlatul Musthofa. Kudis merupakan penyakit kulit yang endemis di wilayah beriklim tropis dan subtropis yang sangat mudah menular dan umumnya menyerang sekelompok orang dengan kondisi sosial ekonomi yang rendah, personal hygiene dan sanitasi yang buruk. Kegiatan ini bertujuan untuk melakukan upaya dalam mencegah, memberikan edukasi, dan membantu pembangunan kesehatan masyarakat sehingga diharapkan dapat meningkatkan kesehatan masyarakat di pondok pesantren. Sampel yang akan dianalisa berjumlah 19 santri dari SMP Raudlatul. Pemeriksaan parasit penyebab kudis dilakukan dengan swab kulit. Hasil observasi yang telah dilakukan terhadap siswa SMP Raudlatul Musthofa diketahui bahwa mayoritas siswa sudah melaksanakan personal hygiene dengan baik yaitu keseluruhan siswa sejumlah 19 siswa (100%) melakukan mandi minimal 2x dalam sehari menggunakan sabun, menjaga kebersihan tangan dan kaki, dan mengganti pakaian ketika kotor. Sebanyak 14 siswa (74%) tidak bertukar barang pribadi seperti handuk, tidak bergantian pakaian, dan tidak menjemur pakaian di dalam kamar. Sebanyak 15 siswa (79%) membersihkan tempat tidur, 18 siswa (95%) tidak meminjamkan alat mandi seperti sabun, dan sebanyak 16 siswa (84%) tidak mengalami gejala sering gatal pada malam hari, muncul ruam (bintik-bintik), luka, atau kulit kering dan berkerak. Hasil pemeriksaan swab kulit pada 19 siswa di Raudlatul Musthofa yang dilihat dibawah mikroskop diperoleh sebanyak 13 siswa (68%) sampel terdapat bakteri dan sebanyak 6 siswa (32%) sampel terdapat jamur. Copyright © 2023, Puspitasari et al This is an open access article under the CC-BY-SA license

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INTRODUCTION

According to the World Health Organization (WHO) in 2020 the incidence of scabies can affect more than 200 million cases with an average prevalence of 5-10% in children in boarding schools. The estimated prevalence of the incidence of scabies in 2020 ranges from 0.2% to 71% of the total population (Nurhayati et al., 2023). According to the Ministry of health

of the Republic of Indonesia, the prevalence of scabies in Indonesia amounted to 5.6%-12.59% of the total population in 2017 (Tajudin et al., 2023).

In Raudlatul Musthofa boarding school students live together and study under the guidance of teachers who are better known as kiai and have a dormitory for students to stay (Heriyaandi, 2022). The students are 2 in a complex that also provides a mosque for worship, space for study, and other activities (Hendrastuty, 2021). With the gathering of students in the dormitory resulting in dense occupancy resulting in frequent direct contact between others resulting in the easy spread of a disease, especially scurvy (Azmi et al., 2023).

Scabies is a skin disease endemic to tropical and subtropical climates that is highly contagious. Scabies in Indonesian is often called "scabies", Javanese call it "gudig" (Navlasari et al., 2022). This disease is also often referred to as body lice disease, budukan, gatas agogo caused by the parasite *Sarcoptes scabiei* variant *hominis* (a type of lice or mites) is characterized by complaints of itching, especially at night and is transmitted through direct or indirect contact through bedding and clothing (Rahmadayani, 2021).

The onset of scurvy caused unhealthy behavior of some students (Navlasari et al., 2022). Most of them consider their habits in maintaining personal hygiene is sufficient and will not cause health problems, especially skin diseases, from some skin diseases such as scabies most often result from unhealthy behavior such as hanging clothes in the room, exchanging clothes and personal objects, such as Combs and towels, influenced also by lack of knowledge about personal hygiene (Khikmah et al., 2021). Such as the intensity of bathing, the use of towels that often borrow memimjam, clothes, toiletries, and bedding that are used simultaneously (Triana & Razi, 2020). Hygiene or cleanliness is an effort to maintain a healthy life that includes personal hygiene, community life, and cleanliness in work (Triani et al., 2017). Efforts are made to deal with scabies infection in addition to maintaining the cleanliness of the body and the environment also need to be given the correct treatment so as to break the life cycle of mites *Sarcoptes scabiei* (Murniati & Rohmawati, 2018).

Community service activities aim to educate and detect scurvy. Examination is carried out microscopically where previously taking samples from respondents, primary data obtained through questionnaires and interviews while preventive activities (prevention) to minimize scurvy. Based on the activities carried out, it acts as a contribution to realizing the 3rd goal of the SDGs. The goal is to ensure the health and well-being of people at all ages (Wisudanto et al., 2022).

METHOD

In the implementation of Public Health Development Practices scurvy extension activities are carried out. The implementation of the activity program has been adjusted to the problems and conditions at Raudlatul Musthofa Islamic boarding school. There is an agenda implemented in this activity, including: Public Health Development Practices; (1) Identifying problems within the Raudlatul Musthofa Islamic boarding school; (2) Formulate the problems that occur in the Raudlatul Musthofa Islamic boarding school; (3) Counseling activities at Raudlatul Musthofa Islamic boarding school; (4) Conducting scurvy-related examinations with samples from Raudlatul Musthofa Islamic boarding school students in the Microbiology Laboratory of stikes Utama Abdi Husada Tulungagung; and (5) Observation and preparation of Group reports.

Public Health Development Practice (PPKM) activities were carried out on April 2023 with counseling activities carried out at the Raudlatul Musthofa Islamic boarding school Pundunsari Hamlet, Rejotangan Village, Rejotangan District, Tulungagung Regency. Where this activity began by providing counseling which was then carried out examinations related to scurvy with samples from Raudlatul Musthofa Islamic boarding school students at the STIKes Utama Abdi Husada Tulungagung Microbiology Laboratory located at Jl. Dr. Wahidin Sudiro Husodo No. 1 Tulungagung.

Table 1. Extension Event Unit

Extension Time	Extension Activities	Student Activities
Opening 10 minutes	Introduction	
	1. Convey greetings	1. Answering greetings
	2. Explaining the purpose	2. Listening
	3. Time contract	3. Give a response
Core 90 minutes	Core	
	1. Submission of materials on scabies	1. Students fill out a questionnaire
	2. Filling out the questionnaire sheet	2. Students listen to the material presented
	3. Fill out a willingness sheet to be a respondent	3. Students fill out a sheet of willingness to respondent
	4. Sampling	
Closing 10 minutes	Closure	
	1. FAQs	1. Asking the unclear
	2. Summing up the material	2. Actively summing up the material
	3. Saluting	3. Answering greetings

RESULTS AND DISCUSSION

This analysis was conducted to determine whether there is an effect of interventions conducted in the form of counseling on scurvy education with lecture method on the knowledge of Junior High School students Raudhlatul Musthofa Tulungagung. The Figure 1 is the documentation that is done when doing counseling.



Figure 1. Counseling session

Tabel 2. Results of participant observation sheet of Public Health Development Practice on education and detection of scabies incidence

Question	Frequency	Percentage (%)
Do you shower at least 2 times a day using soap?		
Yes	19	100%
No	0	0%
Total amount	19	100%
Do you exchange personal items such as towels with friends?		
Yes	5	26%
No	14	74%
Total amount	19	100%
do you often wash your bed?		
Yes	15	79%
No	4	21%
Total amount	19	100%
Do you keep your hands and feet clean?		
Yes	19	100%
No	0	0%
Total amount	19	100%
Do you often change clothes with your friends?		
Yes	5	74%
No	14	26%
Total amount	19	100%
Do you hang clothes or underwear in your room?		
Yes	5	26%

Question	Frequency	Percentage (%)
No	14	74%
Total amount	19	100%
Do you sleep together in one bed with a friend?		
Yes	4	21%
No	15	79%
Total amount	19	100%
Do you use blankets together with a friend?		
Yes	1	5%
No	18	95%
Total amount	19	100%
Do you often shake hands when meeting ustad/ustadzah and friends?		
Yes	18	95%
No	1	5%
Total amount	19	100%
Do you use prayer equipment alternately with friends?		
Yes	10	53%
No	9	47%
Total amount	19	100%
Do you often wash bed linen or pillowcases?		
Yes	13	68%
No	6	32%
Total amount	19	100%
Do you often exchange pillows or bolsters with your friends?		
Yes	7	37%
No	12	63%
Total amount	19	100%
Do you often lend toiletries such as soap to your friends?		
Yes	1	5%
No	18	95%
Total amount	19	100%
Do you change clothes when they get dirty?		
Yes	19	100%
No	0	0%
Total amount	19	100%
Do you experience symptoms of frequent itching at night, rashes (spots), sores, or dry, crusty skin?		
Yes	3	16%
No	16	84%
Total amount	19	100%

Table 3. Results of Public Health Development Practice (PPKM) examination on education and detection of scabies

Examination Results	Frequency (n)	Percentage (%)
<i>Sarcoptes scabiei</i>	0	0%
Bacteria	13	68%
Fungi	6	32%
Total	19	100%

Public Health Development Practice (PPKM) study program D-III Medical Laboratory Technology STIKes Hutama Abdi Husada Tulungagung has been implemented in accordance with a schedule that has been planned well and smoothly. In the implementation, there are several activities carried out, among others, counseling in accordance with a predetermined theme and sampling. Then the sample will be taken to the Microbiology Laboratory at STIKes Hutama Abdi Husada Tulungagung for examination (Figure 2).



Figure 2. The process at Microbiology Laboratory

Raudlatul Musthofa junior high school is one of the units of Raudlatul Musthofa Islamic boarding school. In the boarding school students or students will be provided a place to stay. In addition to a place to stay, there is also a mosque for worship, space for study, and other activities within the boarding school. The density of occupancy due to the gathering of students in the dormitory will result in frequent direct contact between others. Thus facilitating the spread of a disease, especially scurvy (Melizar & Yunizar, 2016).

The onset of scurvy caused unhealthy behavior of some students (Qomariyah et al., 2022). In boarding schools the tendency to contract skin diseases due to lack of personal hygiene is very high (Zakiudin & Shaluhiah, 2016). Transmission occurs when personal and environmental hygiene is not properly maintained (Harini et al., 2016). Plus unhealthy behavior, such as hanging clothes in the room or exchanging personal objects, such as combs and towels (Zakiudin, 2016). Lack of knowledge about personal hygiene such as the intensity of bathing, the use of towels that are often borrowed memimjam, clothing, toiletries, and bedding that are used simultaneously are also factors causing skin diseases (Parman et al., 2017).

Hygiene behavior that can be applied is with personal hygiene to maintain one's cleanliness and health for the sake of physical and psychological well-being (Mustikawati & Faradillah, 2013). Many health problems that a person suffers because of not maintaining good personal hygiene (Prayogi & Kurniawan, 2016). Physical disorders that often occur are skin disorders such as skin diseases, disorders of the oral mucous membranes, infections of the eyes and ears, and physical disorders of the nails (Fatmawati & Ftariawati, 2017). Students with good personal hygiene will be more difficult to be infested with mites because by bathing using soap, changing clothes when dirty and washing clothes with soap, and not wearing towels or clothes alternately will eliminate mites that may infect (Tuharea et al., 2021).

From the observation that has been done to Junior High School students Raudlatul Musthofa known that the majority of students have implemented personal hygiene well that the overall number of students 19 students (100%) take a bath at least 2 times a day using soap, keep clean hands and feet, and change clothes when dirty. A total of 14 students (74%) did not exchange personal items such as towels, did not change clothes, and did not dry clothes in the room. A total of 15 students (79%) cleaned the bed, 18 students (95%) did not lend toiletries such as soap, and as many as 16 students (84%) did not experience symptoms of frequent itching at night, rashes (spots), wounds, or dry and crusty skin.

Based on the observation of the overall students in junior high Raudlatul Musthofa as many as 19 students showed that the majority of students have applied good personal hygiene compared to students who do not apply good personal hygiene. "Knowledge of which is good for his health, but in making it happen is still not fully done" is a statement that can be used to describe the results of observations of this activity. This is due to different individual habits. This PPKM activity, added the knowledge of students in this junior high school to pay more attention to their health, especially in terms of personal hygiene in preventing skin diseases, especially scabies. After the counseling, the level of knowledge of students increases, this is known when there is a question-and-answer session conducted.

So that the results of the examination conducted on students in the Junior High School as a whole 19 students (100%) did not find the presence of *Sarcoptes scabiei* on observation under a microscope by taking skin swabs that indicate scurvy. The possibility of not finding *Sarcoptes scabiei* mites due to simple retrieval methods or indeed the absence of these mites.

However, the discovery of *Sarcoptes scabiei* mites does not rule out the possibility that there are other causes that cause skin diseases (Nisa & Rahmalia, 2019). From the results obtained skin diseases experienced by 19 students in Raudlatul Musthofa caused by bacteria as many as 13 students (68%) and fungi as many as 6 students (32%). Skin infections caused by bacteria can cause complications that if developed can become chronic kidney disorders (Prakoeswa et al., 2022).

After knowing the cause of the skin disease suffered by the student, we give an ointment to treat the skin disease according to the cause. In addition, counseling conducted to students is recommended to maintain personal hygiene and apply good personal hygiene. So, from this PPKM activity it can be concluded that overall, 19 students in Raudlatul Musthofa did not suffer from scurvy.

CONCLUSION

Based on the results of research conducted on 19 student respondents in Raudlatul Musthofa, as many as 13 students have bacterial skin diseases (68%) and fungal skin diseases as many as 6 students (32%). It was also found that as many as 16 students (84%) also experienced symptoms of frequent itching at night, rashes (spots), wounds, or dry and crusty skin.

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Effectiveness of public service program related cocoa fermentation sop in increasing the knowledge of cocoa farmer

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-05-02 Revised: 2023-07-03 Accepted: 2023-07-06 Published: 2023-11-08 Keywords Cocoa farmers Counseling Harvest capacity Human resources Kata Kunci Kapasitas panen Penyuluhan Petani kakao Sumber daya manusia	Cocoa farmers in this area were not familiar with post-harvest processing, usually, the cocoa bean was sold directly without any fermentation. This public service objective provides information on good quality control of cocoa plant beans, such as fermentation pH, sorting, and contained water content. Followed to improve the knowledge about fermented cocoa bean's characteristics, especially about fine flavor cocoa (FFC) which has a flavor profile and also several active compounds for healthy. Data collection was carried out by filling out questionnaires from 25 farmer respondents. The results of the service showed that as many as 52% of the respondents have been cocoa farmers for more than 5 years. Most of the cocoa farmers produced more than 500 kg/harvest. Many farmers do not ferment cocoa beans because the fermentation process takes a long time, while farmers want to sell cocoa beans quickly. This causes the selling price of cocoa beans to become low. Efektivitas program sosialisasi sop fermentasi kakao dalam meningkatkan pengetahuan kelompok tani kakao. Kakao merupakan salah satu komoditi unggulan di daerah Sumbermanjing Wetan, Malang Selatan, Indonesia. Petani kakao di daerah tersebut belum terbiasa dengan pengolahan pasca panen dari kakao, biasanya hasil panen kakao dijual tanpa adanya proses fermentasi. Pengabdian ini dilakukan untuk memperoleh gambaran tentang tahapan mekanisme pada teknologi fermentasi dan pengolahan biji kakao. Pengumpulan data dilakukan melalui pengisian kuisioner kepada 25 responden petani. Hasil pengabdian menunjukkan bahwa terhitung sebanyak 52% responden sudah menjadi petani kakao selama lebih dari 5 tahun. Sebagian besar petani kakao dalam sekali panen dapat menghasilkan lebih dari 500 kg. Banyaknya petani yang tidak melakukan fermentasi biji kakao karena proses fermentasi memerlukan waktu yang cukup lama, sedangkan petani ingin menjual biji kakao dengan cepat. Hal tersebut menyebabkan harga jual biji kakao rendah.

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INTRODUCTION

Cocoa is one of the leading commodities in the Ringin kembar villages of Sumbermanjing Wetan, Malang District Indonesia. Based on the International Cocoa Organization (2012), defined Indonesia is one of the third largest cocoa producers, after Gading and Ghana. It means that cocoa in Indonesia can compete in the world, but improvement in the fermentation process is needed. Indonesia has extensive cocoa plantations which spread at Sumatra (16.3%), East Nusa Tenggara, West Nusa Tenggara, and Bali (4%), Sulawesi (63.8%), Maluku and Papua (7.1%), Java (5.3%), Kalimantan (3.6%) (Ditjenbun, 2013; Ditjenbun 2012). The total area of cocoa plantations in 2018 was 1,678,268 hectares which had a total yield of cocoa pods of 593,833 tons. Meanwhile, the productivity level was 756 kg/hectare (Ministry of Agriculture Indonesia, 2019). Martiningsih et al., (2018), Sari et al., (2017), and Rinaldi et al., (2013) described that the main problems of cocoa management in Indonesia namely, the productivity of cocoa plants are quite low, low yield, pests, and unfermented cocoa pods. The unique cacao aroma, brightly colored, hollow seeds, reducing bitter and astringent taste were affected by fermentation and roasting (Manalu, 2019). Unfermented cocoa pods affected the low yield quality compared to the Gading, Swiss, Nigeria, dan Ghana (LIPI, 2017; Onumah et al., 2013; Besseah, & Kim, 2014).

The efforts to increase yield quality and production are tough challenges for farmers, such as the high costs of production and facilities, especially labor and seed costs. Therefore the accurate and efficient post-harvest process, knowledge and welfare of farmers, and proper management should be sustainably improved (Effendy, 2015). In this case, farmers need a lot of technical guidance about, managing cocoa properly and the post-harvest process correctly (Aneani & Ofori-Frimpong, 2013; Awotide, et al., 2015). If the quality of cocoa beans from farmers is more guaranteed, expected to increase the marketing and promotion to the supplier of raw materials. The existence of guidance or an educational process for cocoa cultivators is certainly causal to the quality of the cocoa beans that comply with the standards in Indonesia and can spread in the international market. By improving and increasing technology every joint production process can provide a high probability of opening the gate to perfection in the quality and quantity of cocoa beans produced. Therefore an increase in land productivity, the yield of product, and waste treatment could improve quality and be very useful for increasing the value of the product (Manalu, 2019; Towaha, 2013).

Ringinkembar Village is one of the highest cocoa producers in Indonesia that has yield of 8 ton/month, with the highest yields from July to October. The local farmers are not familiar with post-harvest processing. The harvested cocoa is usually sold to chocolate industries without any fermentation process. But, the farmers just fermented when the industries request it. However, the fermentation carried out by farmers has not implemented the Minimum Standards for Postharvest Processing of Cocoa Beans (SNI 2323: 2008) and International Cocoa Bean Quality Standards (ISO 2292: 2017). Therefore, this public service aims to provide information on good quality control of cocoa plant beans, such as fermentation pH, sorting, and contained water content. Followed to improve the knowledge about fermented cocoa beans characteristics, especially about fine flavor cocoa (FFC) which has a flavor profile and also several active compounds for healthy.

This community service program is relevant in the context of achieving the Sustainable Development Goals (SDGs) with a focus on the Sumbermanjing Wetan area, South Malang, Indonesia. In relation to SDG 1, this program discusses efforts to increase the knowledge of cocoa farming groups about the importance of fermenting cocoa beans in an effort to reduce poverty by improving the selling price of their products. This program also supports the achievement of SDG 2 by increasing food security through increasing crop yields and cocoa bean quality. In addition, these community service activities also have the potential to contribute to SDG 8 and SDG 12 by helping cocoa farmers increase their income and promote sustainable agricultural practices.

METHOD

Ringinkembar Village, Sumbermanjing Wetan, Malang District, East Java Province is one of the highest cocoa producers in Indonesia. Based on the Malang Statistics, Sumbermanjing Wetan has a cocoa plantation area of about 512 Ha (2020) and 455 Ha (2021) with a total production of 609 kg (2020) and 532 kg (2021). Ringin kembar village has 125 Ha of cocoa land with a yield of 8 tons/month. The location of Ringinkembar village could be observed in Figure 1.

The implementation of this program was 2 weeks and consisted of (1) a location survey and discussion with representatives of farmers and extension workers regarding the problems encountered. (2) Focus Group Discussion(FGD) with cocoa farmers. FGD activities conducted by the University of Muhammadiyah Malang consisted of 4 teams. The counseling discusses the process of fermenting cocoa beans consisted mechanization stages, reaction stages, formation of active compounds, and halal critical points. After that, filling the questionnaire containing the experiences of cocoa farmers. The respondents were 25 cocoa farmers. Analysis of the data used is the collection of data on quantitative service.

The questionnaire content included (1) The size of the cultivated land, (2) the Duration as a cocoa farmer, (3) the Type of cocoa seed used, (4) The harvest results obtained at one time, (5) Sales distribution of cocoa yields, (6) Selling price of cocoa in 1 kg, (7) The reason for not carrying out the fermentation process, (8) Constraints in the cocoa fermentation process. While, the results of identifying problems during the survey in Sumbermanjing Wetan village described that

quality of cocoa beans that were not standard, the selling price of cocoa beans was cheap and unstable, inhomogeneous fermentation SOP, the production of cocoa beans every farmer was insufficient for their fermentation, and several diseases attack cocoa.

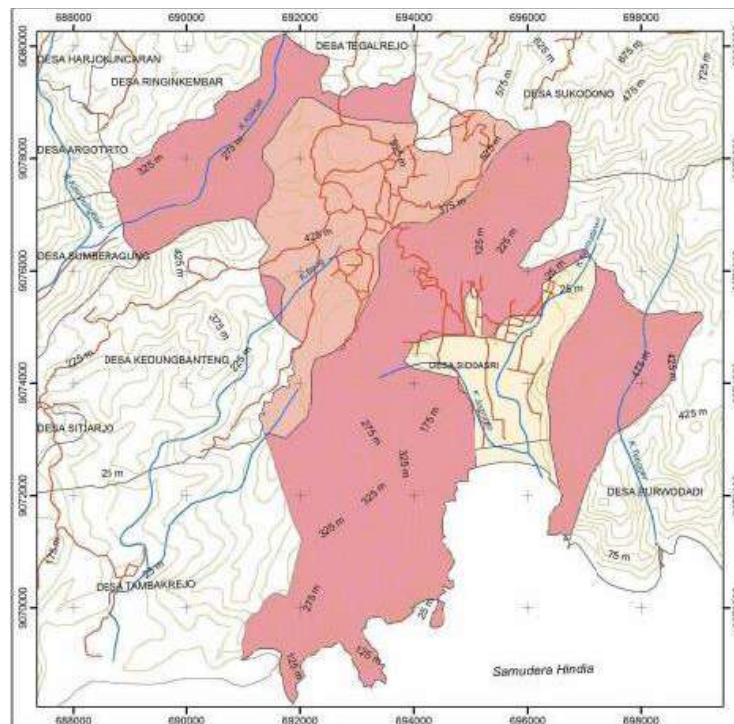


Figure 1. Map of Ringinkembar village

Notice some problems, it was agreed for the next program FGD issues related to post-harvest cocoa beans, while pre-harvest issues such as cocoa bean disease. The existence of guidance or an educational process, technical guidance, strict supervision, and control of cocoa beans for farmers or industries who are involved in buying and selling cocoa is very much needed to indoctrinate the importance of quality cocoa beans that can compete internationally which will certainly provide benefits to the country's micro-economy. Standardization of patents to maintain the quality of food that will be consumed by humans is needed. The regulations that cover the standardization of cocoa beans have been clearly stated in the Regulation of the Minister of Agriculture Number 51/Permentan/OT.140/9/2012 concerning Guidelines for Postharvest Handling of Cocoa. The existence of legal certainty over an object has its urgency, the existence of this regulation is a form of effort to maintain, improve and monitor the quality of cocoa beans to produce cocoa beans that can compete in the international trade market with guaranteed quality which will have direct causality on state income. To realize this expectation, the farmers and contributors to maintaining cocoa quality are needed, even though regulations have been issued, these regulations cannot be perfectly actualized due to educational inequality and a lack of work ethic of the cocoa cultivation success team. The lack of enforcement and the absence of sanctions against cocoa bean cultivators has contributed to the atmosphere of a lack of quality cocoa beans, so it is strongly recommended that local governments intervene to quell the banality of intellectual decline regarding the importance of maintaining and establishing standards for each cocoa bean product to be sold for the sake of income.

RESULTS AND DISCUSSION

The public service implementing on Sunday, September 25, 2022, at Ringinkembar Village. It started with one of the lecturers from the Food Technology Program at the University of Muhammadiyah Malang delivering counseling material on academic synergy and the real application of cocoa farmer groups. It was followed by a Focus Group Discussion session which was following the expectations of the authors, this session was very active as evidenced by the nuances of argumentation warfare from the cocoa farmers, this showed that the farmers were enthusiastic about the topic of discussion given (Figure 2). The topic of discussion in the Focus Group Discussion included four stages of fermentation including the stages of mechanization, reaction stages, formation of active compounds, and halal critical points.

The Head of the Food Technology Study Program explained that the fermentation process has an important role in the cocoa industry because it improves the taste of cocoa beans. This process is important, but many cocoa farmers in Indonesia do not know about it. Therefore, the counseling focused on the stages of cocoa fermentation. This activity had high enthusiasm of farmers because of the exchange of experiences. At the end of the activity, farmers were asked to filling a questionnaire (Figure 3), after which they continued to see the existing cocoa plantations in the village which can be seen in Figure 4 and Figure 5.



Figure 2. Focus Group Discussion



Figure 3. Filling questioners



Figure 4. Fermentation box



Figure 5. Land survey

The results showed that most respondents were aged 30-49 years with 64% of 25 respondents (Table 1). In this case mean that the farmer was categorized as elderly, who had a lot more experienced than young farmers. It also defined that the farmers have a prefrontal cortex with primordial experience that is accurate in calculating risks and benefits in cocoa production. In the dynamics of the agricultural world, there is a very significant disparity between old and young farmers. It was proven that old farmers have used their prefrontal cortex for peeling all the planting exordium of obstacles and risks, while young farmers tend to produce various kinds of post-harvest innovations (Idawati, 2016).

Table 1. Respondent identity

Variables	Group	Total	Percentage (%)
Age (years)	15-29	2	8
	30-49	16	64
	50-69	7	28
Gender	Female	23	92
	Male	2	8
Education	Elementary School	6	24
	Middle School	6	24
	High School	13	52

Table 1 also defined that the cultivation of cocoa plants is close to patriarchal principles, which require male masculinity for its success. According to the large number of male cocoa farmers respondents dominated by 92% or 23 people compared to female farmers (Table 1). The lack of optimal performance of these female cocoa cultivators is affected by a lack of physical abilities when compared to the masculinity of the men working on the land (Karmila, 2020). Although it slightly demonstrated the principle of gender equality in cocoa cultivation, the field identified that the performance of female farmers is less efficient in realizing the expected cocoa cultivation production. Gender is an indirect factor because there are no feminist principles of planting that absorb the notion of masculinity to be implemented so that male farmers control the dynamics of cocoa culture production. The results of the questionnaire also showed that based on level of education, the highest percentage of cocoa farmer respondents was obtained by high school level with 52%. It means that the farmers will have causality on how to think and easily understand theories before to be actualized. This is following Robiyan et al., (2014), that farmers would be more capable to work effectively because of their educational background.

Table 2. The land ownership

No.	Land Area	Respondents	Percentage (%)
1	< 50 m ²	9	36
2	50-100 m ²	4	16
3	100-1 Ha	7	28
4	other	3	12
5	unidentified	2	8
Total		25	100

Land area is one of the vital points for the cocoa production accumulation, and yield productivity in Sumbermanjing Wetan. The area has several problems that must be considered by cocoa land contributors such as increasing the knowledge from plantation experts to utilize effective and efficient for utilize and create high-quality seeds, that are useful for forming a better production stability chain. In terms of land area, some farmers did haven't large land with simple technology. These farmers also contributed not only to families but also to provide income to the state and the international area when succeed in exporting products. However, this plan is not easily achieved because cocoa production lacks the technology and human resources capability to penetrate global markets (Najera, 2017). The causality effect between land area and accumulated production is related because large land can produce more cacao than narrow land. Based on the Table 2 described that 36% or 9 farmers managed <50 m² of land and 8% or 2 farmers didn't know the size of the managed land. This was related to the interest in cocoa cultivation in Ringinkembar village had decreased and switched to coffee cultivation. These factors cause the amount of cocoa produced to be < 500 kg in one harvest was the highest yield of 72% (Table 3).

Table 3. The cacao yields

No.	The cacao yields	Respondents	Percentage (%)
1	< 500 kg	18	72
2	1-5 Ton	2	8
3	Other	5	20
Total		25	100

Based on the results of the respondents, the majority of these cocoa farmers opened a price of IDR 25,000-28,000 with a percentage of 64% (Table 4). The determining factor for the selling price of cocoa is seen in the quality and quality of the cocoa beans produced. The existence of the fermentation process can increase the selling price of cocoa (Yastika et al., 2013), for the organic acids created by the microbes of the fermenters by breaking down the sugar and citric acid in the pulp (Meersman et al., 2013; Fahrurrozi et al., 2020). The existence of the fermentation process is not empty, there is a big goal along with the process, namely the results of the fermentation process revolutionize a more perfect cocoa taste by reducing the bitter and astringent character of the original taste of cocoa beans, and there are factors that are very important for the success of the process of manifesting the perfection of taste. by greasing the cocoa beans, the mixing procedure, the fermentation time, and finally the fermentation box (Tambunan et al., 2021).

Tabel 4. The Cacao Price

No.	Cacao price (IDR)	Respondents	Percentage (%)
1	< 25.000	7	28
2	25.000-28.000	16	64
3	> 31. 000	1	4
4	Other	1	4
Total		25	100

Table 4 described that the majority of these cocoa farmers opened a price of IDR 25,000-28,000 with a percentage of 64%. The determining factor for the selling price of cocoa is the quality of the beans produced. The existence of the fermentation can increase the selling price of cocoa, from the organic acids created by the microbes of the fermenters by breaking down the sugar and citric acid in the pulp (Meersman et al., 2013). The existence of the fermentation process revolutionizes a more perfect cocoa taste by reducing the bitter and astringent character of the original taste of cocoa beans, and it is very important for the perfection of taste. The factors of successful fermentation are greasing the cocoa beans, the mixing procedure, the fermentation time, and the fermentation box (Tambunan et al., 2021).

In 2007 – 2010, the Indonesia Central Statistics Agency (CSA) stated that Indonesian cocoa beans and processed cocoa have dominated international trade flows in terms of value and volume (Ministry of Trade Indonesia, 2014). Processed cocoa beans have a greater value such as cocoa powder reaching IDR 100.000/ kg than cocoa beans IDR 23.000 to Rp27.000/ kg (Engelen & Akuba, 2016). The highest cocoa powder value was depending on the brand and quality of the powder. But in the dynamics of the cocoa bean trade, the value of the beans was determined by the level of drying and quality of the beans (Herawati et al, 2015).

The main obstacle for the farmers in Ringinkembar villages in Sumbermanjing Wetan is the incomplete implementation of the cocoa bean fermentation method which resulted in a low-income index for the cocoa bean cultivators. There was the unmotivated and instantaneous process which was the primordial thing for farmers who didn't ferment the cocoa beans cultivated. Moreover, there was a phenomenon of farmers selling directly to middlemen before harvesting. In addition, the reasons for not carrying the fermentation were the unavailability of the machine and the high price of the cocoa bean fermenter, the constraints on funds, and the improving skills and knowledge of cocoa farmers.

CONCLUSION

The results concluded that the majority of farmers in Ringinkembar village Sumbermanjing Wetan have not implemented cocoa fermentation, causing the selling price of cocoa beans to become low. Factors that influence unimplementing the of cocoa fermentation were lack of knowledge about the fermentation, the equipment availability and price was expensive, followed the fermentation took a long time.

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Strengthening organizational capacity to enhance the sustainability of ornamental fish community cooperatives-based in Malang

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-08-06 Revised: 2023-11-07 Accepted: 2023-11-08 Published: 2023-11-08 Keywords Cooperative Community ornamental Fish Institutions Strengthening Kata Kunci Koperasi Komunitas Ikan Hias Penguatan Kelembagaan	<i>Cooperatives play a crucial role in the Indonesian economy, cooperatives have high values in helping to improve the country's economic welfare. Therefore, the development of a cooperative-based Indonesian economy is urgently needed to help boost the economy. Partners in this service activity are the Nusantara Ornamental Fish Malang community. Institutional strengthening is very influential in developing cooperative-based community businesses. This is based on the problems found in the form of weak ornamental fish community institutional systems, more optimal ornamental fish production, limited access to capital, and limited access to ornamental fish marketing. This service activity aims to provide knowledge and assistance in strengthening cooperative-based community business institutions. Assistance provided in the form of cooperative training and procedures for its establishment, cooperative management, facilities for procuring ornamental fish seeds, and ornamental fish marketing galleries. The result is the formation of an ornamental fish production cooperative that can run well and it is hoped that it will be able to help cooperative members and fish farmers in dealing with various problems including access to capital and assistance from the government.</i> Penguatan kapasitas organisasi untuk meningkatkan keberlanjutan koperasi komunitas ikan hias yang berbasis di Malang. Koperasi memiliki peran penting dalam perekonomian Indonesia, koperasi memiliki nilai tinggi dalam membantu meningkatkan kesejahteraan ekonomi negara. Oleh karena itu, pengembangan ekonomi berbasis koperasi di Indonesia sangat diperlukan untuk membantu menggerakkan perekonomian. Mitra dalam kegiatan pengabdian ini adalah komunitas Ikan Hias Nusantara Malang. Penguatan institusi sangat berpengaruh dalam pengembangan bisnis komunitas berbasis koperasi. Hal ini berdasarkan masalah yang ditemukan dalam bentuk sistem institusi komunitas ikan hias yang lemah, produksi ikan hias yang tidak optimal, akses terbatas ke modal, dan akses terbatas ke pemasaran ikan hias. Kegiatan pengabdian masyarakat ini bertujuan untuk memberikan pengetahuan dan bantuan dalam penguatan lembaga bisnis komunitas berbasis koperasi. Bantuan yang diberikan dalam bentuk pelatihan koperasi dan prosedur pendiriannya, manajemen koperasi, fasilitas untuk pengadaan benih ikan hias, dan galeri pemasaran ikan hias. Hasilnya adalah terbentuknya koperasi produksi ikan hias yang dapat berjalan dengan baik dan diharapkan dapat membantu anggota koperasi dan petani ikan dalam mengatasi berbagai masalah, termasuk akses ke modal dan bantuan dari pemerintah. Copyright © 2023, Putra et al. This is an open access article under the CC-BY-SA license

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INTRODUCTION

The global ornamental fish market reached increasing demand every year. Ornamental fish have become part of the lifestyle of various groups of people who like brightly colored fish and the unique characteristics of these fish (Wulandari et al., 2021). Malang Regency is known as one of the freshwater ornamental fish farming areas which are scattered in several districts such as Dau, Karangploso, Bululawang, Wajak, Turen, and Gondanglegi as ornamental fish cultivation centers in Malang Regency. Ornamental fish communities can become agents of environmental education and conservation by educating the public about the importance of protecting aquatic ecosystems and the sustainability of the ornamental fish hobby (King, 2019; Walster et al., 2015)).

The participation of human resources communities has great potential in the success of local development. Developing participation several people with make a community is important to share knowledge about the development and cultivation of ornamental fish to developing economic value (Sutarjo & Handajani, 2023). However, the development of freshwater ornamental fish cultivation in Malang, ornamental fish cultivators experience several problems that weaken their bargaining power such as management skills to negotiate, managing relationships and value chain for increasing economic values (Watson, 2000). In addition, ineffective community group dynamics can hinder collaboration, decision making, and problem solving. This weakens the negotiating position of ornamental fish cultivators and is easily influenced by middlemen. As a result, middlemen and other downstream traders benefit more from ornamental fish farming than the ornamental fish farmers themselves (Purcell et al., 2017; Kaminski et al., 2020).

Ornamental fish farmer community needs solid human resources backed by infrastructure, equipment, and credit (access to modal) to face the middleman. Therefore, ornamental fish farmers' community development is need to to protect ornamental fish farmers in farming activities with support in the form of policies and institutions ranging from central to local (Rimmer et al., 2013; Haryanti et al., 2023)). And community strengthening of ornamental fish requires the participation of many stakeholders, including academics (Tlusty et al., 2013; Pouil et al., 2020). Community strengthening through legal institutions envisaged that ornamental fish farmers in Malang Regency would have a stronger negotiating position through improving institutions. Additionally, ornamental fish farmers will find getting benefit for their ornamental fish farming business by legal institution (Bondad-Reantaso et al., 2005).

Ornamental fish lovers communities in the Malang area include the Malang Nishikigoi Community and the Nusantara ornamental fish Malang community. The ornamental fish Nusantara Malang community was established in 2020 with 25 members of ornamental fish farmers spread across several sub-districts in Malang Regency, such as Dau, Karangploso, Singosari, Gondanglegi, Wajak to Ampelgading Districts. This community was founded to be a forum for exchanging ideas about ornamental fish cultivation between its members. Therefore, a cooperative-based ornamental fish community business institutional strengthening program was created. The establishment of the cooperative is anticipated to address the challenges its member ornamental fish producers (Ratnawati et al., 2021). The community business that will be assisted in this case is the Nusantara ornamental fish Malang community. Nusantara ornamental fish Malang community was chosen as a service partner because most of its members are ornamental fish farmers, although most of its members cultivate Koi ornamental fish, there are also some members who cultivate Betta and Canna ornamental fish.

Nusantara ornamental fish Malang community has not been able to solve the problems of its members related to access to modal, production, practices, and expanding market reach. Strong group dynamics are essential for a supportive and cooperative atmosphere. Therefore, ornamental fish farmers, related institutions and other stakeholders may need assistance to collaborate and develop the sector. Cooperative-based ornamental fish community business can be one potential solution to address the challenge of limited access to capital is the implementation of cooperative-based mechanisms that facilitate the provision of rotating capital. The existence of cooperatives has the potential to enhance the business capabilities of its members and augment the income and overall well-being of both members and the wider Community (Yuliarmi et al., 2020). Therefore, institutional strengthening of the Malang Nusantara Ornamental Fish Cooperative is needed to help provide solutions to the problems of ornamental fish farming groups in Malang. The limited study and community service related to ornamental fish communities are challenges that need to be overcome within the framework of this study. To overcome these limitations, we strive to develop innovative approaches and methodologies while providing valuable contributions to understanding the dynamics of ornamental fish communities in greater depth.

The cooperative model has been selected as a means of strengthening this institution because it is in accordance with the societal traits of Indonesia, which are rooted in the notion of kinship (Hasan & Ardi., 2020). The establishment of cooperatives aims to reduce the difficulties that ornamental fish growers who are associated with these cooperative entities face. The implementation of a cooperative system that facilitates the availability of rotating capital can effectively address issues like limited accessibility to capital. The cooperative has the potential to build a marketing gallery that would serve as a platform for exhibiting the items derived from the ornamental fish production of its members. Furthermore, the cooperative has the capacity to arrange ornamental fish competitions, serving as a means to attract potential consumers and overcome challenges related to market accessibility. Hence, the existence of a cooperative has the potential to augment the commercial capabilities of its members, elevate their earnings, and foster the overall well-being of both the members and the surrounding community in pursuit of sustainable development goals.

METHOD

The initiation program for the establishment of ornamental fish community cooperatives consists of several stages, beginning with the pre-establishment phase, followed by the establishment phase, and concluding with the operational phase. The cooperative's pre-establishment phases take the form of socialization, which the community service team in Malang Regency conducts in collaboration with the cooperative and UMKM services. The stages of establishing this cooperative are carried out by community service team assists the ornamental fish community in the submission process and manages cooperative administration. In addition, the team also assisted in the process of establishing the cooperative legal entity. The operationalization phases of this cooperative include socialization and training on cooperative administration, finances, and marketing cooperatively produced items. During the program, the community service team provided ornamental fish broodstocks and supporting equipment such as pumps, aerator, and aquarium for the cooperative marketing gallery. Survey of location is shown in Figure 1.



Figure 1. Survey of location

RESULTS AND DISCUSSION

The implementation of the initiation program for the establishment of ornamental fish cooperatives began with discussions between the heads of the Nusantara ornamental fish Malang community, the Doctor of community Service team, and the Department of Cooperatives and Micro Enterprises of Malang Regency and provide suggestions for carry out the cooperative's pre-establishment socialization activities (shown in Figure 2), which attend the participation of members of the Nusantara ornamental fish Malang community. Representatives from the Office of Cooperatives and Micro Enterprises of Malang Regency will deliver this socialization material, which contains the requirements and steps for establishing a cooperative legal entity. This activity was carried out on February 6, 2022, and was attended by the Head of Cooperative Counseling and HR Development, namely Istiana Rahayu, and representatives of the Nusantara ornamental fish Malang community.

The activities of the Community Service team continue with activities to assist in the establishment of cooperatives. Members of the Nusantara ornamental fish Malang community who have received socialization from the Office of Cooperatives and Micro Enterprises of Malang Regency are advised to immediately hold an internal meeting to discuss all matters relating to the preparation plan for the establishment of cooperatives such as the name of the cooperative and the AD/ART of the cooperative. In the internal meeting it was agreed that the name of the cooperative to be used was: Nusantara Koi Farm. This name was chosen because the majority of community members are koi fish farmers. And it was also agreed that Akied Lahnudin Abbas would serve as chairman of the cooperative.



Figure 2. Socialization of the establishment of cooperatives

The process of establishing the cooperative continues with the selection of a notary to assist in the process of deed of establishment of the cooperative. In this case the selected notary must be a certified notary who can make the deed of establishment of a cooperative or a Notary for Making Cooperative Deeds (NPAK) from the Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia. The notary finally chosen was Maharjani SH (shown in Figure 3). At the end of February 2022, a deed of establishment of the cooperative was issued which was ratified by the Ministry of Law and Human Rights with a decree numbered AHU-0015828.AH.01.26. In 2022, which authorized the establishment of the Nusantara Koi Farm producer cooperative based on Jl. Guava No. 29 RT 04 RW 01 Gadingkulon Village, Dau District, Malang Regency.

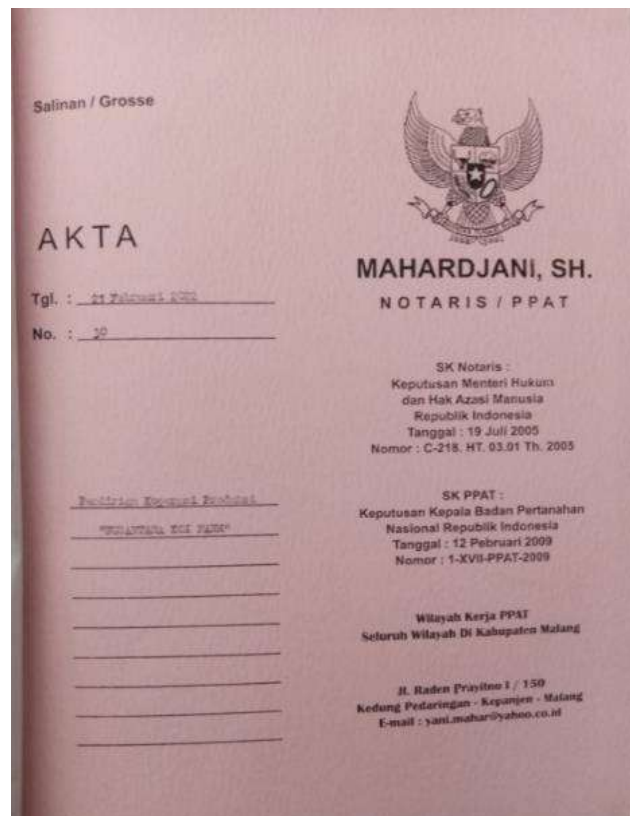


Figure 3. Cooperative legal entity

The formation of a cooperative legal entity that oversees the ornamental fish community will not necessarily answer the problems of its members. Like other organizations, cooperatives also need good management so that cooperative goals are achieved effectively and efficiently. The next activity carried out by the Doctor Serving team is cooperative management training for cooperative administrators and members (see Figure 4). The implementation of this cooperative management patihan takes the form of face-to-face class meetings packaged in a relaxed and kinship atmosphere. This training was held on July 5, 2022.

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Figure 4. Management organization and cooperative administrations training

The problem that is also faced by the partners of the Doctor of Service program is the difficulty of opening wider market access. The solution to the problem offered by the team is the establishment of an ornamental fish marketing gallery. This gallery will be equipped with several aquariums, and a tarpaulin pond whose function is to display koi fish harvested by members of the cooperative. With this gallery, buyers can come directly to the location to choose the fish to be purchased. In addition, this marketing gallery also makes it easier for cooperative members to take photos of fish to sell through social media and marketplaces. Just like the domicile of the cooperative, this marketing gallery is also located at Jl. Guava No. 29 RT 04 RW 01 Gadingkulon Village, Dau District, Malang Regency (shown in Figure 5). The place used as a marketing gallery was formerly a chicken coop which was later converted into an ornamental fish marketing gallery.

The role of cooperatives in improving the quality of ornamental fish communities is vital and has a significant impact. Cooperatives, as community-based entities, can act as catalysts to advance the ornamental fish industry and improve the quality of life of members of the community (Mahanayak & Panigrahi, 2021). Cooperatives can be a means of combining common interests. In the ornamental fish industry, there are various stakeholders, including fish farmers, collectors, retailers, and ornamental fish hobbyists (Tlusty, 2002; Weerakoon, 2020). Cooperatives can serve as a platform that connects all these parties and ensures that profits from the ornamental fish industry are distributed fairly among community members. In this way, cooperatives can help create economic stability and improve members' welfare (Ankrah Twumasi et al., 2021).

Furthermore, cooperatives can facilitate access to resources and capital. One of the main challenges in the ornamental fish industry is access to the capital and resources needed to manage the business well (Ladislau et al., 2019; Tarihoran et al., 2023). Cooperatives can help overcome this problem by providing shared resources, such as rotating capital, infrastructure, and shared facilities. In this way, members of the ornamental fish community can more easily develop their businesses and improve the quality of ornamental fish production. In addition, cooperatives can also play an important role in education and training (Lawrence et al., 2023). Through training programs organized by cooperatives, members of the ornamental fish community can gain the knowledge and skills necessary to manage their businesses more effectively. This can include best practices in ornamental fish farming, financial management, and marketing. By improving these skills, the quality of ornamental fish production can be improved significantly (Stevens et al., 2017). Cooperatives can also

promote sustainable practices in the ornamental fish industry. By understanding the long-term interests of ornamental fish communities, cooperatives can motivate members to implement sustainable cultivation practices, preserve the environment, and adhere to high ethical standards (Yan et al., 2023). This can create a positive reputation for the ornamental fish community and strengthen their position in the market.



Figure 5. Procurement of sales galleries

Strengthening cooperative institutions is a crucial step in maintaining business sustainability in the ornamental fish community (Muliyati et al., 2023). The existence of cooperatives is not just a business entity but also a center of activity that binds members of the ornamental fish community within a larger framework (Abidin et al., 2019). Cooperative institutions enable members of the ornamental fish community to collaborate more effectively. In addition, cooperative institutions enable sustainable management of resources and the environment. In ornamental fish cultivation, maintaining water quality and environmental conditions is very important (Shahady & Boniface, 2018). Cooperatives can ensure that members follow sustainable practices in keeping ornamental fish and protecting their environment. This helps maintain the long-term sustainability of ornamental fish businesses and protects the local ecosystem (Ross et al., 2019; Engle & van Senten, 2022). Cooperatives have a very important role in improving the quality of ornamental fish communities. By facilitating collaboration, providing access to resources, providing education and training, and encouraging sustainable practices, cooperatives can contribute significantly to the development of the ornamental fish industry and improve the quality of life for members of the ornamental fish community. In this way, cooperatives become a solid foundation to maintain the sustainability of the ornamental fish business in the long term and provide benefits to the entire ornamental fish community.

CONCLUSION

Community Service Activities "Strengthening Cooperative-Based Community Business Institutions" that have been carried out include the establishment of the "Nusantara Koi Farm" cooperative legal entity, cooperative management training, training on aeromonas handlers on freshwater fish, and also the provision of a sales gallery. From the results of discussions with management and members of the cooperative starting from the beginning of coordination and during the implementation of the service, they really hope for training like this, especially in cooperative management, fish farming and handling diseases to marketing the harvested fish. It is hoped that this activity will not end in community service activities, but collaboration between Brawijaya University and the Nusantara Koi Farm cooperative can be formed, for example, fish farming locations can be used as research locations for lecturers and students, application of appropriate technology as a result of lecturer research.

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Enhancing student competencies through entrepreneurship and cultural collaboration: A community engagement approach

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ARTICLE INFO	ABSTRACT
Article history Received: 2023-10-23 Revised: 2023-11-03 Accepted: 2023-11-15 Published: 2023-11-16 Keywords Community engagement Cultural collaboration Entrepreneurship MSMEs Student competencies	Entrepreneurship plays a crucial role in the global economy, Driving job creation, fostering innovation, and contributing to economic growth. However, Indonesia faces challenges in increasing the number of entrepreneurs and enhancing economic productivity. This article presents a case study on the Faculty of Economics and Business at Syiah Kuala University's community engagement activities aimed at developing students' entrepreneurial and cross-cultural competencies. The activities encompass experiential learning, mentorship, networking, and cultural collaboration, aligning with achieving Sustainable Development Goals (SDGs). Through experiential learning, students gain practical knowledge, problem-solving skills, and a global mindset, equipping them for entrepreneurship and business. Collaborative initiatives with international partners, such as Universiti Kebangsaan Malaysia, and interactions with Indonesian diaspora entrepreneurs in Singapore enhance students' cross-cultural competence. They learn to respect diversity, adapt to different cultural norms, and collaborate effectively across cultures. The activities also facilitate networking and collaboration, enabling students to establish connections with diaspora entrepreneurs and international peers. These connections can lead to future partnerships and collaborative efforts. The community engagement activities empower students with the skills, knowledge, and global perspective necessary to excel as entrepreneurs and positively impact the achievement of SDGs. The emphasis on economically viable, culturally sensitive, environmentally sustainable, and socially responsible entrepreneurship aligns with the broader goals of sustainable development, contributing to the development of sustainable entrepreneurship in higher education.
Kata Kunci Kewirausahaan Kolaborasi budaya Kompetensi mahasiswa Pengabdian kepada masyarakat UKM	Peningkatan kompetensi mahasiswa melalui kewirausahaan dan kolaborasi budaya: Pendekatan pelibatan masyarakat. Kewirausahaan memiliki peran penting dalam perekonomian global, mendorong penciptaan lapangan kerja, inovasi, dan berkontribusi pada pertumbuhan ekonomi. Namun, Indonesia menghadapi tantangan dalam meningkatkan jumlah wirausahawan dan meningkatkan produktivitas ekonomi. Artikel ini menyajikan sebuah studi kasus tentang kegiatan pengabdian masyarakat Fakultas Ekonomi dan Bisnis di Universitas Syiah Kuala yang bertujuan untuk mengembangkan kompetensi kewirausahaan dan kolaborasi lintas budaya mahasiswa. Kegiatan-kegiatan tersebut mencakup pembelajaran berbasis pengalaman, bimbingan, jaringan, dan kolaborasi lintas budaya, yang tentunya sejalan dengan pencapaian Tujuan Pembangunan Berkelanjutan (SDGs). Melalui pembelajaran berbasis pengalaman, mahasiswa mendapatkan pengetahuan praktis, keahlian dalam memecahkan masalah, dan pemahaman global yang mempersiapkan mereka untuk berwirausaha dan berbisnis. Inisiatif-inisiatif kolaboratif dengan mitra internasional, seperti dengan Universiti Kebangsaan Malaysia, dan interaksi dengan pengusaha diaspora Indonesia di Singapura telah memberikan dampak pada peningkatan kompetensi kewirausahaan dan lintas budaya mahasiswa. Mereka belajar untuk menghormati keragaman, beradaptasi dengan norma budaya yang berbeda, dan berkolaborasi secara efektif dengan rekan dari lintas budaya. Kegiatan-kegiatan tersebut juga memfasilitasi jaringan dan kolaborasi, memungkinkan mahasiswa untuk menjalin hubungan dengan pengusaha diaspora dan rekan-rekan internasional, yang dapat mengarahkan pada kemitraan dan upaya kolaboratif di masa depan. Tentunya, berbagai

kegiatan pengabdian masyarakat yang memberdayakan mahasiswa dengan keahlian, pengetahuan, dan pandangan global ini sangat diperlukan untuk sukses sebagai wirausahawan, serta memberikan dampak positif pada pencapaian SDGs. Penekanan pada wirausaha yang layak secara ekonomis, sensitive terhadap perbedaan budaya, berkelanjutan secara lingkungan, dan bertanggung jawab sosial sejalan dengan tujuan pembangunan berkelanjutan, dan berkontribusi pada pengembangan kewirausahaan berkelanjutan di perguruan tinggi.

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INTRODUCTION

Entrepreneurship has become increasingly important in economic theory due to its significant role in the development of today's global economy, and its impact extends beyond business growth and achieving business-environment sustainability (Apostolopoulos et al., 2018; Hannon, 2013; Isac et al., 2023; Mariani et al., 2022). Entrepreneurship also plays a vital role in achieving the United Nations Sustainable Development Goals (SDGs). Entrepreneurial activities usually cover multiple SDGs, promoting economic growth, innovation, and social and environmental sustainability. For example, SDG 8 aims to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. Entrepreneurship contributes to achieving this goal by creating new businesses and jobs, particularly in emerging economies. Therefore, governments consider encouraging new entrepreneurship a significant political purpose, from its contribution to business development and job creation and social and environmental perspectives (Isac et al., 2023). Sustainable entrepreneurship pursues economic, ecological, and social goals integrated into business operations. While recognizing and using business opportunities, entrepreneurs can support social transformation by favoring more sustainable products and services, which contributes to achieving several SDGs (Apostolopoulos et al., 2018; Isac et al., 2023).

Entrepreneurship is a process of creating, developing, and managing businesses with specific objectives, including increasing profits, innovation, and meeting market needs. Entrepreneurship encompasses activities such as start-ups, micro-enterprises, new product development, new divisions within large businesses, and non-profit endeavors. To date, entrepreneurship has become a vital foundation in the global economy because, in addition to creating job opportunities and generating innovation, it has proven itself as a pillar of the local economy and has contributed to the economic growth of a country. This is evidenced by the numerous Small and Medium Enterprises (SMEs) that have been able to withstand periods of economic downturn, such as the 1998 monetary crisis and the COVID-19 pandemic. Based on data from the Ministry of Cooperatives and Small and Medium Enterprises (SMEs) in 2021, the contribution of domestic gross product from SMEs amounted to 61.07% or IDR 8,573.89 trillion, with a workforce absorption rate of 97% and the ability to attract investments in Indonesia amounting to 60.4% (djkn.kemenkeu.go.id). According to the Global Entrepreneurship Index in 2021, on average, developed countries have approximately 14% of their population engaged in entrepreneurship. However, Indonesia ranks at the lowest position in Southeast Asia, with only 3.1% of its population involved in entrepreneurship, which is lower than Singapore at 8.76%, Malaysia at 5%, and Thailand at 4.26% (www.jawapos.com, accessed on October 11, 2023). Indonesia's low number of entrepreneurs reflects the country's relatively low economic productivity level. According to the World Bank, Indonesia's Total Factor Productivity (TFP) is 0.7. This is further supported by data from UNCTAD and UNDP in 2021, which concluded that the main factors contributing to Indonesia's low TFP include the low quality of human resources, limited research capacity, a lack of creativity and innovation, and entrepreneurship.

Building and developing entrepreneurship is a process that involves the development of skills, knowledge, and a mindset for creating and managing a successful business. This is because entrepreneurship is a dynamic and ongoing process that requires continuous learning, adaptation, and overcoming obstacles (Lackeus, 2015). Therefore, individuals must optimize all available resources, such as learning from successful entrepreneurs, drawing from their own experiences, and remaining open to new opportunities and ideas. This aligns with the findings of Politis (2005), who identified three main components in the entrepreneurial learning process: the career experiences of entrepreneurs, the transformation process, and entrepreneurial knowledge in terms of effectively recognizing and acting on entrepreneurial opportunities and the ability to deal with setbacks.

Wei et al. (2019) mention that entrepreneurship education plays a significant role in developing skills in both business and personal life, fostering attributes such as creativity, innovation, and self-confidence. Their study, conducted on 269 young entrepreneurs in the health sector in China, revealed a positive relationship between the perception of entrepreneurship education and innovation. Furthermore, their research found that entrepreneurial skills and

opportunities mediate the relationship between entrepreneurship education perception and innovation. This underscores the importance of entrepreneurship education in enhancing business skills and nurturing qualities that can benefit individuals in various aspects of life. The importance of understanding entrepreneurship is also emphasized by Nasrullah et al. (2016) in their study of undergraduate students at Bahawalpur University, which showed a positive relationship between entrepreneurship education and academic performance. This aligns with the view of the European Commission in 2005, which believes in the significance of teaching entrepreneurship at all levels of education and the need for support for entrepreneurial activities among students, researchers, and university members through education and training systems. Additionally, institutions and socializing agents such as the media are essential in promoting a society oriented towards entrepreneurship education for developing and exploiting students' entrepreneurial capital.

The importance of universities in developing and exploiting students' entrepreneurial capital is highlighted by empirical evidence (Hannon, 2013; Hassan, 2020; Isac et al., 2023; Sharma et al., 2020; Vig, 2023). Universities serve as incubators for entrepreneurial talent and play a pivotal role in creating an environment that fosters entrepreneurial mindsets (Hassan, 2020). Universities provide students with the essential knowledge and skills to start and run a business. Entrepreneurial education equips students with a strong entrepreneurship and business management foundation, covering business planning, marketing, finance, and strategy. University training and entrepreneurial education also help develop graduates' motivation and capabilities to engage effectively in entrepreneurial activities. It instils in them the confidence and skills needed to take on the challenges of entrepreneurship, helping to shape their entrepreneurial intentions and developing an entrepreneurial way of thinking and skills (Isac et al., 2023). They encourage students to think creatively, take calculated risks, and explore innovative solutions. This mindset is essential for identifying opportunities and challenges in the business world. Additionally, the knowledge, attitudes, and skills acquired in the education system, particularly through entrepreneurial education in universities, are transferred to the economic system. This knowledge transfer leads to the creation of new companies and enhances their viability. Entrepreneurial graduates are well-prepared to establish and manage businesses. The university's role in developing and exploiting students' entrepreneurial capital is to support the implementation of SDG 4 by providing quality education and promoting lifelong learning, including the development of students' entrepreneurial capital. This aligns with the broader mission of ensuring equitable and sustainable education opportunities for all. Additionally, the entrepreneurial skills and mindset fostered by universities can contribute to achieving other sustainable development goals, such as SDG 8, which aims to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all, and foster innovation and develop new technologies and products, which can contribute to achieving SDG 9. Therefore, it is necessary to continuously develop several entrepreneurial-educational programs, curricula related to entrepreneurship, and extracurricular activities for entrepreneurial education in universities (Hassan, 2020; Isac et al., 2023).

Furthermore, cultural collaboration is another way to develop and exploit students' entrepreneurial capital and competencies (Stephan, 2022; Mariani et al., 2022). Cultural collaboration is a process of working with people from various cultural backgrounds to achieve common goals and promote understanding and appreciation of each other's cultures. It can involve multiple forms of cooperation in the fields of (1) Arts, such as joint art exhibitions, performances, or displays; (2) Education, involving collaborations with educational institutions, cultural exchange programs, and more; (3) International business, encompassing joint product and service development, entering global markets, or understanding the needs and preferences of consumers from different cultural backgrounds; and (4) Social, comprising social and humanitarian initiatives as well as cultural diplomacy. Incorporating cultural collaboration into the student experience through joint projects, exchange programs, cultural events, and international business ventures can be a powerful way to develop students' entrepreneurial capital and competencies. It equips them with practical skills and broadens their horizons, making them better prepared to navigate the complex and interconnected world of entrepreneurship. For example, exposure to different cultural perspectives and values through collaboration helps students develop cultural competence, leads to the development of unique and innovative solutions in entrepreneurship, and provides an opportunity for students to build a diverse network of contacts, which is essential for entrepreneurial success, enhance language skills and facilitating effective communication in a global business context, market expansion, promotes tolerance, inclusivity, and appreciation of diversity, and foster positive relations between different cultures and nations. The Cultural collaboration embodies the spirit of SDG 17, which emphasizes the importance of partnerships for achieving sustainable development. These partnerships can contribute to achieving multiple SDGs as they promote cultural exchange, economic growth, and social inclusion (Stephan, 2022; Mariani et al., 2022).

Entrepreneurship and cultural collaboration significantly impact each other (OECD, 2022; Thurik et al., 2023). Cross-cultural experiences positively affect the entrepreneurial ecosystem's performance (Shen et al., 2003). Entrepreneurial culture also positively moderates the relationship between an individual's entrepreneurial personality and innovation (Ahmetoglu et al., 2018). Furthermore, culture influences innovation through four theoretical perspectives: cultural fit, cultural mismatch, cultural, social support, and culture as a resource (Stephen, 2022). Entrepreneurial culture also acts as a positive driver for workplace culture, promoting innovation, creativity, and risk-taking, which helps organizations become more competitive (OECD, 2022). Promoting entrepreneurial culture through training programs or internships can assist students in gaining practical experience in their areas of interest. One common characteristic of successful start-ups is having charismatic, enthusiastic founders with a competitive mindset. This is because courage and a willingness to take risks are ways to overcome disappointment from the failures that start-ups often encounter. Successful entrepreneurs must understand the current work environment, which is significantly different from the year 2000. They need to comprehend the diversity and values in their workplace, as approximately one-third of the world's population is now

composed of millennials who demand values aligned with their perspectives. This aligns with the views of Brattstrom and Wennberg (2021), who depict entrepreneurship as a solution to current challenges. This is reflected in the active role played by governments and private organizations worldwide in focusing on entrepreneurship programs and initiatives.

Based on the elaboration above, it can be concluded that entrepreneurship plays a crucial role in the economy, and the contribution of the Small and Medium Enterprises (UMKM) sector to Indonesia's economy is significant. However, this remains a challenge regarding increasing productivity and the number of entrepreneurs in Indonesia. Therefore, this community service aims to provide an understanding of entrepreneurship and cultural collaboration in enhancing students' competencies. This includes developing business skills and fostering performance in the entrepreneurial ecosystem, such as innovation, creativity, and the courage to take risks in facing the challenges of the present time. Faculty of Economics and Business Universitas Syiah Kuala, as one of the formal education institutions, strives to support the government's program to encourage 4 million young entrepreneurs to strengthen the national economic structure. One of the activities is the cultural collaboration program for students at the Faculty of Economics and Business. The goal is for students to learn and understand cross-cultural values, which can enhance their competencies, expand their business networks, and open opportunities for additional resources in business development. This program supports the United Nations Sustainable Development Goals (SDGs) by promoting sustainable entrepreneurship, creating jobs, driving economic growth, addressing environmental challenges, and enabling youth to turn their creative energy into ideas. The link between entrepreneurship and cultural collaboration is significant in developing students' entrepreneurial cultures, which, in turn, influences students' training and education in higher education. The program also supports the government's program to encourage 4 million young entrepreneurs to strengthen the national economic structure. The program's activities align with SDG 4, which aims to promote quality education, and SDG 8, which aims to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. Finally, this program also embodies the spirit of SDG 17, which emphasizes the importance of partnerships for achieving sustainable development—collaborative projects between individuals, institutions, and nations from different cultural backgrounds foster cooperation and international understanding.

METHOD

The core objectives of the community service program are centered on enhancing students' competencies in entrepreneurship through cultural collaboration, focusing on practical experience, creativity, confidence, networking, and fostering positive impacts at both the individual and community levels. The program employs the experiential learning approach to achieve these goals and emphasizes partnership and collaboration as its primary method. Experiential learning is a highly effective method for this program, emphasizing "learning by doing" to provide students with practical experience, the application of theoretical knowledge, and the development of essential skills in real-world contexts (Koustas & Salehi, 2021; Gemmell & Kolb, 2013). Experiential learning is crucial for several reasons, as it helps students develop practical skills, gain a deeper understanding of course material, increase engagement and motivation, foster personal growth and development, and prepare students to face the challenges of the working world (Kong, 2021; Bates, 2019). Several studies have highlighted the positive impact of experiential learning on students' competencies in a professional context (Lin et al., 2023). Experiential learning is recognized as a valuable approach to entrepreneurship education. Experience-based learning positively influences learning by helping students develop practical skills, better understand the material, increase motivation and engagement, and shape more reliable personal attributes (Motta & Galina, 2023). Experiential learning provides a valuable framework for fostering entrepreneurial creativity and innovation, assisting entrepreneurs in solving customer problems and generating innovative products and services (Gemmell & Kolb, 2013).

This method can be a powerful tool in preparing students to become influential entrepreneurs and culturally competent individuals (Couetil et al., 2016). Furthermore, the program also employs cultural collaboration to enhance students' competencies in entrepreneurship. This collaboration encourages students to learn, share knowledge, and effectively manage resources, enhancing their real-world capabilities (Hoekstra et al., 2018; Nystrom et al., 2018; Bansal et al. (2019). The approach helps students develop new skills and become resilient and reliable individuals. The implementation of the cultural collaboration approach among students in the Faculty of Economics and Business aims not only to build a culture of partnership but also to eliminate barriers, identify market opportunities, create cross-sector and cross-country collaborations, thus fostering a more collaborative and effective work environment capable of producing better outcomes. The importance of students building a culture of partnership is to create entrepreneurs who can collaborate across cultures, accept differing viewpoints, and compromise in uncontrollable conditions. To develop and enhance cultural collaboration to improve students' competencies, the Faculty of Economics and Business employs the following steps. These steps are comprehensive in fostering cultural collaboration among students and promoting cultural competence:

1. Introduce a cultural awareness program that educates students about the importance of cultural collaboration and provides insights into different cultures, traditions, and values. The goal is to help students understand and appreciate cultural diversity within the classroom, building cross-cultural competencies and confidence.

2. Incorporate diverse learning activities encouraging students to collaborate in multicultural teams, nurturing understanding and respect for different perspectives. This promotes collaboration and interaction among students and helps them work together more effectively, building teamwork skills.
3. Create an inclusive environment where students feel valued and respected regardless of their cultural backgrounds, fostering open communication and collaboration among peers. Establish a supportive educational environment where students are encouraged to share their cultural experiences and perspectives, fostering a sense of belonging and cultural appreciation.
4. Organize intercultural workshops and training sessions to equip students with the necessary skills to communicate and collaborate effectively with individuals from diverse cultural backgrounds. Guide students through team-building stages to help them understand the collaboration process and develop teamwork skills.
5. Implement cross-cultural projects requiring students to work with peers from diverse backgrounds, enabling them to develop cross-cultural communication skills and a deeper understanding of cultural differences. Facilitate cultural exchange programs that allow students to interact with individuals from different cultures, promoting mutual understanding and cultural collaboration.
6. Encourage students to engage with the local community and participate in cultural events and activities, enabling them to immerse themselves in various cultural experiences and develop a broader cultural understanding.
7. Provide training to faculty and staff on promoting cultural collaboration and competence, enabling them to effectively support and guide students on their cultural learning journey. Regularly evaluate the effectiveness of cultural collaboration initiatives and gather feedback from students to identify areas for improvement and make necessary adjustments to enhance the learning experience.

To implement experiential learning activities relevant to entrepreneurship and cultural collaboration, the Faculty of Economics and Business at Universitas Syiah Kuala employs a variety of approaches, including business simulations, cultural immersion programs, project-based learning, and service learning that enable students to apply their entrepreneurial and cross-cultural competencies to address community needs, and collaborative community projects. In 2023, the UKM INKUBATOR Usahawan Muda FEB USK, under the guidance of Dr. Iskandarsyah, SE, MM, organized visits to Malaysia and Singapore. These visits involved 30 students from various academic levels who were part of the UKM INKUBATOR. The purpose of these visits was to provide students with firsthand insights into the role of culture in entrepreneurship development, allowing them to experience cultural collaboration and entrepreneurship in action in different countries. These experiential learning activities help students develop practical skills, gain cultural insights, and apply their knowledge to real-world scenarios, ultimately enhancing their entrepreneurship and cultural collaboration competencies.

We employed some qualitative measures to measure the program's effectiveness or success. Qualitative measures are relevant because they provide a comprehensive and in-depth understanding of the program's impact on individuals, communities, and cultural collaboration. They help uncover personal experiences, behavioral changes, and contextual factors that quantitative measures alone may not capture. This qualitative data is essential for a holistic evaluation of the program's effectiveness. For instance, qualitative measures allow us to capture program participants' personal experiences and stories. This is particularly important in assessing the impact of a program that aims to enhance individual competencies and cultural understanding. Qualitative data can reveal the depth and nuances of how the program has influenced students' lives. The qualitative measure is well-suited to reflect cultural experience and cross-cultural competencies. It can capture how participants have developed cultural empathy, adaptability, and the ability to collaborate effectively with individuals from diverse backgrounds.

Therefore, to measure the effectiveness of this program, we employed qualitative data collected through observation during activity and interviews with the program's participants. Qualitative data is well-suited to assess the program's effectiveness in enhancing cultural understanding, adaptability, and collaboration skills, which are critical components of entrepreneurship and cross-cultural competence. These insights will provide a holistic and human-centered evaluation of the program's impact (Creswell & Creswell, 2023). The qualitative data and participants' responses to questions were recorded, documented, exported into transcripts, and analyzed using thematic analysis (Hsieh & Shannon, 2005). Thematic analysis is a qualitative research method that involves identifying patterns of meaning within data and interpreting them concerning the research question (Hsieh & Shannon, 2005; Creswell & Creswell, 2023). The use of thematic analysis can help evaluate the effectiveness of the community service program at the Faculty of Economics and Business Universitas Syiah Kuala in reinforcing students' entrepreneurial value orientation and equipping them with knowledge, skills, and sustainability education to encourage entrepreneurial success. The program supports the government's program to encourage 4 million young entrepreneurs to strengthen the national economic structure and aligns with SDG 4 and SDG 8.

RESULTS AND DISCUSSION

The core objectives of the community service program are centered on enhancing students' competencies in entrepreneurship through cultural collaboration, focusing on practical experience, creativity, confidence, networking, and fostering positive impacts at both the individual and community levels. The approach taken by the Faculty of Economics and Business at Syiah Kuala University to enhance students' competency in entrepreneurship and cultural collaboration is commendable. It aligns with the broader goal of preparing students for success in a globalized and diverse business

environment. It involves a combination of educational strategies, field practices, and ecosystem support. This includes incorporating entrepreneurship curriculum into the coursework of students across various disciplines. The approach ensures that entrepreneurial knowledge and skills are integral to their education, irrespective of their chosen field of study.

Another approach formal educational institutions can employ to enhance entrepreneurial competency is cultural immersion programs. These programs allow students to visit foreign countries and interact directly with entrepreneurs in those regions. This firsthand experience helps them understand different cultures and gain specific perspectives on entrepreneurship in diverse cultural contexts. Such programs enable students to gain a deep and practical insight into the challenges and opportunities that entrepreneurs may face in various cultural settings. All these approaches, including curriculum integration and cultural immersion programs, aim to prepare students to become more competent entrepreneurs with a broader understanding of the global challenges in the business world. Through the combination of these strategies, formal educational institutions can play a crucial role in supporting inclusive and sustainable entrepreneurial growth.

The Faculty of Economics and Business at Syiah Kuala University organizes annual visits to various ASEAN countries to enhance students' competence through cultural integration. The student activity unit (UKM) manages these visits, "INKUBATOR Usahawan Muda FEB USK." The purpose of these visits is to provide students with insights into the role of culture in entrepreneurship development. In 2023, the UKM INKUBATOR Usahawan Muda FEB USK visited Malaysia and Singapore under Dr Iskandarsyah, SE, MM. These visits were attended by 30 students who were part of the UKM INKUBATOR from various academic levels.

In Malaysia, the initial activities began with a visit to Pusanika, Universiti Kebangsaan Malaysia. Associate Professor Dr. Noor Azuddin bin Yakob (the Director of UKM CESMED) and Associate Professor Dr. Muhamad Azry bin Khoiry (the Deputy Director of UKM CESMED) welcomed the contingent. The welcoming gesture by Associate Professor Dr. Muhamad Azry bin Khoiry from Universiti Kebangsaan Malaysia demonstrates the spirit of collaboration and hospitality. Such receptions create a positive and inclusive atmosphere for the visiting students. The collaborative activities with Universiti Kebangsaan Malaysia were conducted in several sessions, which included a sharing session with speakers featuring Dr. Iskandarsyah, SE, MM, representing Syiah Kuala University, and Associate Professor Dr. Muhamad Azry bin Khoiry, representing Universiti Kebangsaan Malaysia. The activities also included networking opportunities and a joint exhibition showcasing products from each country.

The sharing sessions featuring Dr. Iskandarsyah from Syiah Kuala University and Associate Professor Dr. Muhamad Azry bin Khoiry from Universiti Kebangsaan Malaysia are valuable components of knowledge exchange (shown in Fig 1). These sessions provide insights, expertise, and diverse perspectives on entrepreneurship and cultural collaboration. During the sharing session, both speakers emphasized the changes occurring in the business landscape, where entrepreneurs are compelled to understand and accommodate the needs and desires of customers. Therefore, entrepreneurs must continuously learn about market changes by fostering cross-country and cross-cultural collaborations. This is because each culture possesses unique characteristics that can only be comprehended when entrepreneurs explore the potential of each culture. For example, Indonesia and Malaysia share cultural similarities, but each country has unique attitudes and behaviours that reflect the values of their respective cultures. Therefore, through this joint engagement program, both educational institutions hope for the exchange of knowledge and entrepreneurial insights.



Figure 1. Sharing session by Dr. Iskandarsyah, SE, MM, and Associate Professor Dr. Muhamad Azry bin Khoiry

Overall, these sharing sessions contribute to developing students' entrepreneurial and cross-cultural competencies, enhance their understanding of entrepreneurial practices, and prepare them for the complexities of the global business landscape. The emphasis on continuous learning and exploring diverse cultures aligns with the program's objectives. From these sharing sessions, some impressive achievements are appropriate as best practices for the development of students' entrepreneurial and cross-cultural competencies, including:

1. Enhanced entrepreneurial knowledge and practical perspectives: Dr. Iskandarsyah and Associate Professor Dr. Muhamad Azry bin Khoiry, as experienced professionals and educators, bring insights and expertise to the sharing sessions. Their knowledge and perspectives on entrepreneurship and cultural collaboration enrich the learning experience for students. Additionally, the sessions provide practical perspectives on entrepreneurship by sharing real-world experiences and challenges. This practical understanding prepares students for the complexities they might encounter in their entrepreneurial ventures.
2. Cultural understanding: The presence of speakers from different institutions and countries provides students with diverse perspectives on entrepreneurship. This diversity is essential for broadening students' knowledge of business practices and cultural nuances. Students learn to appreciate and understand cultural nuances, values, and behaviors. This cultural understanding is crucial for conducting business in diverse cultural contexts and collaborating effectively with individuals from different backgrounds. Students also learn that there are multiple ways of approaching business and understanding cultural nuances. This exposure helps them appreciate the complexity and richness of different cultural contexts.
3. Cross-Country and Cross-Cultural Collaborations: The speakers highlight the significance of cross-country and cross-cultural collaborations to understand and leverage unique cultural characteristics. This promotes a global mindset among students. They enforce to think beyond their local or national contexts and consider the global implications of their entrepreneurial endeavors. Therefore, students acquire skills related to cross-cultural collaboration, such as effective communication, negotiation, and conflict resolution. These skills are essential for building global business relationships.
4. Adapting to market changes: The emphasis on understanding and accommodating the changing needs and desires of customers or preferences in the evolving business landscape is a crucial lesson. It underscores the importance of agility and adaptability in entrepreneurship. Students also gain insights into different markets and consumer behaviors in various cultural contexts. This understanding helps them tailor their entrepreneurial strategies to specific markets. Therefore, students learn how to be innovative and adaptive in their business approaches. Additionally, exposure to diverse perspectives encourages open-mindedness among students. They become more receptive to new ideas and approaches essential for entrepreneurship and problem-solving.
5. Cultural similarities and differences: The recognition that Indonesia and Malaysia share cultural similarities and have unique cultural attitudes and behaviors underscores the importance of cultural sensitivity and awareness in business interactions. The sharing sessions also promote a culture of respect for diversity. Students learn to value and celebrate cultural differences, essential for fostering inclusive and sustainable entrepreneurship.
6. Exchange of knowledge: The joint engagement program between the two educational institutions aims to facilitate the exchange of knowledge and entrepreneurial insights. This collaborative approach benefits students by giving them a broader perspective on entrepreneurship.
7. Networking opportunities: The sessions provide networking opportunities, allowing students to connect with experts and peers from different cultural backgrounds. These connections can lead to future collaborations and business partnerships.

In summary, these sharing sessions contribute to the holistic development of students' entrepreneurial and cross-cultural competencies by providing knowledge, practical skills, cultural understanding, and a global perspective. This well-rounded development prepares students to excel in the global business landscape and engage in cross-cultural entrepreneurial activities effectively. The various benefits of these sharing sessions are also reinforced by Raysa's perspective (the club's leader), who states that sharing sessions with experienced professionals and educators improves club members' entrepreneurial and cross-cultural competencies (shown in Fig 2). Raysa mentions that the benefits of these sharing sessions include:

1. Hands-on experience: Direct involvement in developing business ideas, running businesses, managing resources, and receiving market feedback.
2. Mentorship and coaching: Dr. Iskandarsyah and Associate Professor Dr. Muhamad Azry bin Khoiry, as experienced professionals and educators, provide students with guidance and insights that help students design business ideas and develop businesses.
3. Access to resources: The sharing session offers access to resources such as consultation space, legal and financial advice, and networking opportunities.
4. Cross-cultural collaboration: Students gain communication and cross-cultural collaboration skills by organizing events that promote cultural exchange and create a multicultural environment.
5. Presentation and pitching skills: Students are encouraged to participate in activities where they present their business ideas to entrepreneurship experts to attract funding and partnerships.



Figure 2. Collaboration between the Faculty of Economics Incubator Club (UKM INKUBATOR FEB USK) and UKM-CESMED Universiti Kebangsaan Malaysia.

The second stage of this student engagement activity involves networking opportunities or networking events. To enhance the student's competence, the UKM INKUBATOR FEB organized cultural exchange events, including cultural exhibitions, food festivals, and art exhibitions representing various cultural backgrounds (shown in Fig 3). The goal is to promote interaction and understanding among different cultures and create an entrepreneurial ecosystem. Ultimately, students are prepared to compete in business and succeed in the global marketplace. During the event in Malaysia, the students showcased a cultural exhibition that featured traditional clothing from various Acehese ethnic groups. They also hosted a food festival, introducing well-known Acehese products such as Gayo Arabica coffee, Acehese cakes (boi, karah), and melinjo crackers. On the other hand, students from UKM-CESMED UKM presented Malaysia's local food products like cendol, traditional clothing, and handicrafts created by UKM students.



Figure 3. Networking Opportunities and Networking Events

The cultural exchange events, including cultural exhibitions, food festivals, and art exhibitions representing various cultural backgrounds, can significantly increase students' entrepreneurial competence. For example, students gain insights into the global marketplace by showcasing products and cultural elements from diverse backgrounds. They become more aware of consumer preferences and potential market niches. Exposure to different cuisines, art forms, and cultural products can inspire students to create innovative products that blend cultural elements or cater to specific cultural markets. The cultural exchange events also create networking opportunities. Students can connect with individuals from various cultures, potentially leading to international business partnerships or collaborations. Additionally, these events provide a unique opportunity for students to conduct market research on a small scale. They can gather feedback and insights from visitors to improve their products or business strategies. Finally, immersion in different cultures helps students develop cultural competence, an asset in international business dealings. They understand the nuances and intricacies of different cultures, making them more effective entrepreneurs. Therefore, students develop a more profound

respect for cultural diversity and recognize its value in entrepreneurship. This can influence their business decisions and practices positively. In summary, cultural exchange events provide a rich learning experience beyond traditional entrepreneurship education. They expose students to the complexities and opportunities of a multicultural business world, enhancing their entrepreneurial competence and preparing them for success in global markets.

Finally, the community engagement activities ended with a visit to the Indonesian diaspora engaged in business in Singapore. The theme of the activity is the role of Indonesian SME players in Singapore. The activities arranged for students to learn experiential from the diaspora engaged in business in Singapore (shown in Fig 4). Experiential learning from diaspora entrepreneurs in Singapore is a powerful educational approach that equips students with practical knowledge from real-world experiences, mentorship, networking opportunities, and the skills necessary to become competent entrepreneurs. These experiences enhance students' readiness to enter entrepreneurship and succeed in a global and culturally diverse business environment. There are several achievements for the increasing development of students' entrepreneurial and cross-cultural competencies to be achieved through this activity:

1. Building student's self-confidence: Meeting and discussing with businesspeople who have been active in business will motivate students to become entrepreneurs. Furthermore, consulting with experts will help students better understand the entrepreneurship landscape, encouraging them to take risks, predict risks, and develop innovative ideas. At the same time, students can learn from real-life examples in the field, hearing stories and struggles of businesspeople competing in Singapore while maintaining Indonesian product characteristics such as Indonesian cuisine and batik. On this occasion, the students from the UKM INKUBATOR FEB gained an understanding of business in Singapore, such as how to make a business successful in a highly heterogeneous society with people from various cultures.
2. Cultivating a global perspective: Through interactions with international entrepreneurs and participation in international events, it is expected that FEB students will know various business models, market trends, and cultures, enabling them to compete in the global market. Another goal of this activity is to encourage students to have empathy by listening and understanding the perspectives of different cultures so that they develop a sense of care and appreciation for the cultural viewpoints of others. In addition, cultivating a global mindset can also help students understand:
 - a. Cultural sensitivity: assisting students in navigating the cultural scope in business interactions, and this understanding becomes an asset for those who want to enter the global market.
 - b. Customer understanding: entrepreneurs with empathy understand the needs and preferences of their consumers, allowing them to develop products and services suitable for diverse cultural markets.
 - c. Conflict resolution: equipping students to resolve conflicts effectively and diplomatically. This skill is crucial for entrepreneurs in business negotiations and compromises.
 - d. Networking: students with empathy will quickly build relationships that lead to partnerships, collaborations, and mentoring opportunities in the business world.
 - e. Innovation: understanding various perspectives encourages innovative thinking.
 - f. Adaptability: enhancing resilience and understanding and appreciating changes in market demands, consumer behavior, and cultural trends that allow them to design or modify their entrepreneurial strategies for business improvement.



Figure 4. Experiential Learning with the Indonesian Diaspora in Singapore

The community engagement activities described contribute significantly to developing students' entrepreneurial and cross-cultural competencies and align with achieving Sustainable Development Goals (SDGs). Engaging in collaborative activities with Universiti Kebangsaan Malaysia and Indonesia's diaspora entrepreneurs in Singapore and participating in cultural exchange events fosters cross-cultural competence among students. They learn to respect diversity, adapt to different cultural norms, and effectively collaborate across cultures. These activities' experiential learning, mentorship, and real-world exposure enhance students' entrepreneurial competencies. They acquire practical knowledge, problem-solving skills, and a global mindset, making them better equipped to pursue entrepreneurship and create businesses aligned with SDG 8 (Decent Work and Economic Growth). Furthermore, the activities facilitate networking and collaboration, enabling students to build connections with diaspora entrepreneurs and international peers. These connections can lead to future partnerships and collaborative efforts aligned with SDG 17 (Partnerships for the Goals). All these described activities empower students with the skills, knowledge, and global perspective necessary to excel as entrepreneurs and positively impact the achievement of SDGs. They prepare students to engage in entrepreneurial endeavors that are economically viable, culturally sensitive, environmentally sustainable, and socially responsible, aligning with the broader goals of sustainable development to develop sustainable entrepreneurship.

CONCLUSION

In conclusion, the community engagement activities conducted by the Faculty of Economics and Business at Syiah Kuala University have profoundly impacted the development of students' entrepreneurial and cross-cultural competencies. Through experiential learning, mentorship, and real-world exposure, students have acquired the practical knowledge, problem-solving skills, and global mindset necessary to thrive in the entrepreneurial landscape. These activities have prepared students for entrepreneurship and aligned with Sustainable Development Goals, particularly SDG 8 (Decent Work and Economic Growth) and SDG 17 (Partnerships for the Goals).

The collaborative initiatives with Universiti Kebangsaan Malaysia and the interaction with Indonesian diaspora entrepreneurs in Singapore have fostered cross-cultural competence among students. This experience has taught them the value of diversity, the ability to adapt to different cultural norms and effective collaboration across cultures. Furthermore, the activities have facilitated networking and collaboration, enabling students to establish connections with diaspora entrepreneurs and international peers, potentially leading to future partnerships aligned with SDG 17.

These community engagement activities empower students with the skills, knowledge, and global perspective necessary to excel as entrepreneurs and positively impact the achievement of SDGs. The focus on economically viable, culturally sensitive, environmentally sustainable, and socially responsible entrepreneurship aligns with the broader goals of sustainable development, contributing to sustainable entrepreneurship development. Overall, the Faculty of Economics and Business at Syiah Kuala University exemplifies how formal educational institutions can play a pivotal role in nurturing competent entrepreneurs and fostering a global perspective, ultimately contributing to the sustainable development of economies and societies. Therefore, the Faculty of Economics and Business Universitas Syiah Kuala, need to continue to promote and support entrepreneurship and cultural collaboration programs to empower students with the skills, knowledge, and global perspective necessary to excel as entrepreneurs and positively impact the achievement of SDGs. They prepare students to engage in entrepreneurial endeavors that are economically viable, culturally sensitive, environmentally sustainable, and socially responsible, aligning with the broader goals of sustainable development to develop sustainable entrepreneurship.

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INTRODUCTION (bold, 11pt)

This section could also provide the expected results. The introduction must be written in single line spacing. The introduction comprises of:

- 1) Analysis of the general situation (global) and followed by a description of the main problems of the target community. The authors must explain that the problem is a problem related to 17 goals/169 targets of SDGs. Summary of literature review: theoretical studies, results of the present study, and report/article on the publication of previous community service activities, which shows that the problem is indeed "strong" (state of the art). Do not describe the literature review as author by author but should be presented as a group per method or topic reviewed, which refers to some kinds of literature)
- 2) The sentence confirms that the problem must immediately require a solution (gap analysis).
- 3) The problem solves planning (Describe the novelty of the technology / approach used to solve the problem).
- 4) Affirmation sentence about the purpose of community service.
- 5) Affirmation about the purpose of writing the article.
- 6) Affirmation of article contribution (a. For the development of science and technology, b. For the achievement of SDGs).

The introduction section must be written in Calibri Light, font size 10, 0 pt before spacing, and 0 pt after spacing.

METHOD (bold, 11pt)

This section must contain:

- 1) The description of the target community (description of the "background" of the community, how many people are, and how is the role/involvement of community in this community service activity).
- 2) The parties involved in this service activity (including the number and role or contribution of each, not explaining the name but background/expertise).
- 3) Implementation method that explains the stages or steps in implementing the solution offered to resolve the problem.
- 4) Overview of science and technology transferred/introduced.
- 5) Instruments or tools and materials used in community service activity (including to measure the success of service activities).
- 6) Data collection techniques
- 7) Measures / indicators of success of community service activities, and
- 8) Data analysis techniques.

The method section must be written in Calibri Light, font size 10, 0 pt before spacing, and 0 pt after spacing.

RESULTS AND DISCUSSION (bold, 11pt)

Guidelines for writing results and discussion:

- 1) Results must be relevant to the objectives and methods.
- 2) The results explanation of the activities must be simple and straightforward.
- 3) Write data in the form of figures or tables (highly recommended, especially those relating to indicators of success of activities).
- 4) Describe clearly the data and various results of the resolution of relevant problems.
- 5) Discussion of activities: comparing with theory and similar community service activities that have been published or reported (it is highly recommended to cite references that appear in the introduction, especially the state of the art and gap analysis).
- 6) Describe the successes or impressive achievements that are appropriate as best practices for other servants/authors (associate with contributions to the achievement of SDGs).
- 7) Figures or tables must be related to explanatory text (narration in paragraphs).
- 8) Don't put figures/illustrations that are not discussed in the text
- 9) Describe the obstacles that might be encountered in the community service activities (the obstacles must be logical, not solely because of the weak implementation of the activity, completely beyond the control of the team, and existing references support these constraints).

The results and discussion section must be written in Calibri Light, font size 10, 0 pt before spacing, and 0 pt after spacing.

Figures and Tables

Place the labels above for tables and below for figures. Write the table label in specific, for example Table 1, in case the author refers the Table 1 mentioned. The example of writing table and figure information is as below.

Table 1. Table format			
Table Head	Table Column Head		
	Table column subhead	Subhead	Subhead
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^a. Sample of a Table footnote. (Table footnote)

Figures must be discussed in paragraphs. The figures quality must be good and high resolution. Figures are numbered in the order in which they are presented (Figure 1., etc.). The title of the figure is placed under the image with the center position (center justified).

Fig. 1. Example of figure information

CONCLUSION (bold, 11pt)

Guidelines for writing a conclusion:

- 1) Relevant to the objectives written in the introduction.
- 2) Claims in conclusion must be supported by facts/data from the results of activities.
- 3) Write the conclusions concisely.
- 4) The implications of the activities need to be put forward to clarify the benefits resulting from the service activities.

The conclusion section must be written in Calibri Light, font size 10, 0 pt before spacing, and 0 pt after spacing.

ACKNOWLEDGMENT (bold, 11pt)

This section can be written in case there are certain parties need to be acknowledged, such as sponsors/funding (complete with contract number and year). The acknowledgement must be written in brief and clear. Besides, avoid hyperbole acknowledgment.

The conclusion section must be written in Calibri Light, font size 10, 0 pt before spacing, and 0 pt after spacing.

REFERENCES (bold, 11pt)

Citation and referencing must be written based on APA style 6th Edition which is organized by using Mendeley software's latest version. References used at least 30, 80% primary sources (reputable journals and research reports or community service report) and 10 (ten) years of publication. All references must be tracked online (have DOI or URL).

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