

Development of English materials for sustainable tourism based on technology

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ABSTRACT

The development of English teaching materials related to sustainable tourism in vocational high schools still faces various challenges, despite the significant growth of the tourism industry in Indonesia. This Community Service Program aims to enhance the teaching abilities of English teachers at vocational high schools in Malang by helping them develop teaching materials that incorporate various aspects of sustainable tourism through an intensive educational and mentoring approach. A total of 20 teachers participated in this workshop and training program. During implementation, they received training to develop online learning materials that simultaneously enhance reading, listening, and writing skills while also providing practice in tour guiding. Additionally, they were trained in utilizing technology to present interactive teaching materials aligned with advancements in the modern tourism industry. As a result, the teachers' ability to develop digital-based learning materials improved significantly, enabling them to guide students more effectively. In line with the teachers' enhanced ability to design innovative and sustainable learning materials, this initiative aims to raise educational standards at the vocational high school level and support students in adapting to advancements in the tourism industry.

INTRODUCTION

In this modern era, the development of English language teaching materials for the tourism sector is still limited, even though the tourism sector in Indonesia continues to grow rapidly (Murti & Kusuma, 2023). Malang City, known as the "Education City," is also one of the leading tourist destinations that attracts many domestic and foreign tourists. Based on data from the Central Bureau of Statistics (BPS) for Malang City in 2023, it was recorded that more than 35,000 foreign tourists visited this city (Badan Pusat Statistik Kota Malang, 2023). This fact shows that the tourism sector has great potential to support the regional economy. However, the sustainability of this sector requires a competent workforce, including in English-speaking communication aspects (Maricar et al., 2024; Rahmawati et al., 2022).

In the context of tourism reform which emphasizes the principles of sustainable tourism, the need for human resources who have good English language skills is increasingly urgent. Unfortunately, to date, English language teaching materials in vocational high schools (SMK) still do not specifically accommodate the needs of the sustainable tourism industry (Mustain et al., 2022). The existing curriculum tends to be general in nature and has not adapted to developing trends and demands of the sustainable tourism industry. Apart from that, English teachers in vocational schools also face limitations in developing material that is relevant to industry needs (Aryawan, 2023).

One of the main challenges in learning English for sustainable tourism is the lack of teaching materials that suit the needs of students, schools and communities. Apart from that, limited knowledge and skills of teachers in the field of tour guiding which focuses on sustainable tourism is also an obstacle in improving the quality of vocational education (Rauf et al., 2025). Therefore, efforts are needed to develop more specific and contextual teaching materials to be able to increase the competency of vocational school students in the tourism sector.

To overcome these challenges, this community service program (PKM) focuses on developing technology-based English teaching materials for vocational school teachers in Malang City. The application of information technology in the preparation of teaching materials is a solution that can facilitate teachers in accessing and developing learning materials that are more in line with industry needs. However, in its implementation, the use of information and communication technology (ICT) still faces various obstacles, such as limited infrastructure, teachers' technical skills, and the time available to develop teaching materials (Sumintono et al., 2012).

As a strategic step, PKM collaborates with the English Subject Teachers' Conference (MGMP) at vocational school level in Malang City as a partner (Miatun et al., 2024). Before carrying out the activity, observations were carried out through interviews and field surveys with the MGMP chairman. Observation results show that MGMP members are active in improving the quality of teaching and preparing teaching materials. One of the activities that will be carried out in 2024 is "Exploring Talking Tourism: A Virtual Showcase for Vocational English Teachers," which presents speakers from SMK Negeri 2

Malang and SMK Negeri 12 Malang. Based on these findings, this program aims to overcome two main problems faced by partners, namely (1) the unavailability of English language teaching materials specific to sustainable tourism, and (2) limited knowledge and skills of teachers in the field of tour guides oriented towards sustainable tourism.

With this program, it is hoped that vocational school teachers can obtain more relevant teaching materials and increase their competence in teaching English for the sustainable tourism sector. It is also hoped that the integration of technology in the preparation of teaching materials will facilitate more effective access and distribution of materials for educators.

METHOD

The implementation method in this community service program is designed to increase the competency of vocational school teachers in developing English learning materials that focus on the theme of sustainable tourism through a technology-based approach. This activity began with socialization of the program through the Malang City Vocational School English MGMP. This socialization aims to introduce the program and objectives of the training that will be implemented, so that participants have an initial understanding of the benefits of this activity.

After socialization, training is carried out using a practice-based method, where participants take part in a series of workshops facilitated by experts. The training is divided into two main sessions, namely reading material development and Tour Guide training which focuses on sustainable tourism. In the reading material development session, participants were trained in compiling teaching materials that are in accordance with the concept of sustainable tourism, by utilizing digital resources and various academic references. Tour guide training sessions involve hands-on practice regarding effective communication strategies, visitor management, as well as an in-depth understanding of the local ecosystem and local community culture. Participants are also provided with guidelines for interacting with tourists in a professional and ethical manner to promote sustainable practices.

The application of technology in learning is the main focus in this activity. Training includes the use of e-learning platforms, mobile applications, as well as interactive media that are relevant for English language learning. Participants are given the opportunity to try out various technologies to improve their digital literacy and teaching effectiveness. Challenges in implementing technology, such as infrastructure and time limitations, are overcome through independent practice sessions guided by the service team.

After the main training, mentoring sessions are conducted to support participants in implementing the training results in the classroom. The service team provides direct guidance, monitors the use of digital-based teaching materials, and assists participants in dealing with technical and pedagogical obstacles. This assistance also includes discussion and reflection on the effectiveness of the teaching strategies that have been implemented.

Program evaluation is carried out by collecting feedback from participants using satisfaction questionnaires, observing the implementation of teaching materials in class, and interviews regarding the challenges faced. The evaluation results are used to refine technology-based learning strategies and ensure the sustainability of program implementation in the long term. The service team also reflected on the overall effectiveness of the activity by considering participants' competency achievements and the impact of the program on improving the quality of sustainable tourism-based English language teaching.

RESULT AND DISCUSSION

The implementation of training activities, application of technology, and mentoring in the Student Creativity Program (PKM) has shown significant results, which are reflected in various aspects that have been improved and enhanced. One of the main results of this program is increasing the capacity of participants in utilizing the latest technology to support community activities. The evaluation data collected showed that 85% of participants experienced an increase in their technical abilities, where they were able to more confidently integrate technology in their daily activities.

Technical skills tailored to local needs have also seen a significant increase. For example, the training participants succeeded in developing ICT-based teaching materials that were relevant to the tourism context in their area. This not only increases their competency, but also provides direct benefits to the students they teach. In this training, 20 English teachers at Malang City Vocational Schools were trained to develop teaching materials based on sustainable tourism. As a result, as many as 90% of teachers felt more prepared and able to teach material related to global and local issues.



Figure 1. Training activities (*workshop*)

This program has also succeeded in implementing more effective methods in overcoming community problems, which can be seen from the positive feedback received from participants and the local community. With a collaborative approach that includes the community, educational institutions and other stakeholders, a more solid collaboration network is created. For

example, training participants hold workshops involving local communities to discuss the challenges they face and solutions that can be implemented. This not only increases community involvement, but also ensures that the solutions produced are relevant to their needs.



Figure 2. Providing workshop materials

The results of this PKM activity are not only beneficial in the short term, but are also able to create long-term impacts that support sustainable development at the community level. Impact assessments are carried out every six months, involving the community and participants in the evaluation process. Evaluation results show that 75% of people feel more empowered to overcome their own problems after participating in this program. In this way, the positive impact of this program can be maintained and developed in the long term, making a real contribution to improving community welfare.



Figure 3. Collaborative activities

Furthermore, the success of this program reflects that locally designed solutions are able to provide contributions that are more relevant and appropriate to community needs. In this context, it is important to note that the application of technology is not universal. Evaluation results show that participants who focused on a local approach to technology use experienced greater improvements in skills and understanding. With this approach, the

results of this community service activity can be replicated in other areas that have similar challenges. Therefore, this program model has the opportunity to become an inspiration for the development of sustainable development policies at the national and international level.

This training program has made a significant contribution in improving the competency of 20 English teachers at Malang City Vocational Schools. They are equipped with the skills to develop ICT-based teaching materials with an integrated writing approach that is relevant for sustainable tourism. This training is aligned with content-based teaching theory that emphasizes topic relevance (Mínguez et al., 2021). The integration of sustainable tourism content can increase students' understanding of fundamental global issues, so that teachers are better prepared to face the challenges of teaching in this modern era.

Study by Widiatmoko et al. (2024) emphasize that training with an English for Specific Purposes (ESP) approach, especially those focused on the tourism sector, plays a role in connecting language skills and professional skills. In this case, vocational school teachers who take part in the training are able to develop task-based and contextual teaching materials. The resulting collection of essays on sustainable tourism is concrete evidence of the application of theory in teaching practice.

Project-based approaches, such as developing teaching materials through essay writing, have proven effective in strengthening students' understanding of the material being taught. Research findings by Yulianti & Cancer (2022) show that project-based learning promotes active student involvement and real-world relevance. Therefore, the collection of essays resulting from this training is not only a learning product, but also an important tool in supporting students' understanding of the principles of sustainable tourism. Thus, the development of project-based teaching materials makes a significant contribution to student learning outcomes.



Figure 4. Project based activities

At the technology application stage, the teachers involved in this training were able to produce ICT-based online teaching materials. This is in line with global trends in technology-based learning, which according to Magdalena et al. (2020), allows for more flexible and interactive learning. The use of

technology simplifies the process of disseminating learning materials, in this case in the form of Teacher-Created Online Reading Materials which can be accessed by students online. Thus, students can learn anytime and anywhere, increasing the accessibility of education.

The importance of technology integration in language teaching is also emphasized by research conducted by Magdalena et al. (2020), who emphasize that technology plays a significant role in increasing the accessibility and flexibility of the learning process. This allows the use of more interactive and collaborative methods, which in turn can increase teaching effectiveness. In the context of sustainable tourism, information and communication technology is central to the development of teaching materials. The use of ICT facilitates the delivery of more efficient and targeted information regarding environmental and social issues related to tourism.

Furthermore, by integrating technology, educators can provide relevant and current material, allowing students to access up-to-date information that helps them understand the global challenges facing the tourism industry. Thus, technology not only functions as a learning aid, but also as a medium for instilling environmental and social awareness that supports sustainable tourism development.



Figure 5. Discussion and reflection activities

The study by Kindangen & Katuuk (2023) emphasizes that the use of online platforms in language education also allows teachers to adapt learning materials according to students' specific needs. In this training, the teachers succeeded in designing teaching materials that were not only relevant to the curriculum, but also supported students' understanding of the importance of sustainable tourism. During the training, participants are encouraged to discuss and reflect on the material they have been taught, which gives them the opportunity to review the teaching methods they have used.

Overall, the implementation of technology in this training showed a positive impact on teachers' ability to modernize their teaching methods. The results of this application support the findings of Siringoringo & Alfaridzi (2024), who stated that the integration of technology in education can improve students' learning experiences by providing access to wider resources and more

interactive learning. By increasing the competence of teachers in using technology, it is hoped that students will be able to get greater benefits from the learning process implemented.

However, it cannot be denied that the implementation of this program also faces a number of challenges. One of the main challenges is resistance to change from some teachers and students who are used to traditional teaching methods. To overcome this, it is important to provide ongoing training and adequate technical support. In addition, active involvement of all stakeholders, including parents and the community, is essential to create a supportive learning environment.

In the process of implementing training, feedback from participants becomes very valuable. Many participants expressed the need for more time for exploration of best practices in technology use. Therefore, training organizers plan to hold follow-up sessions focused on hands-on practice, where teachers can share experiences and learn from each other. This is expected to increase the effectiveness of the training and ensure that all participants can better apply the knowledge gained.

In conclusion, the training program implemented in the PKM context showed very positive results in improving the skills and capacity of participants. With a collaborative approach, appropriate use of technology, and community involvement, this program has succeeded in creating a significant impact in the context of education and community development. Although challenges remain, the successes that have been achieved provide hope for further development in the future. Through continuous evaluation and continuous improvement, this program model has the potential to be replicated in other regions and make a positive contribution to sustainable development more broadly.

CONCLUSION

This community service program (PKM) succeeded in achieving its main objective, namely increasing the competency of vocational school teachers in Malang City in developing English language teaching materials that focus on sustainable tourism through a technology-based approach. Based on the data obtained, around 85% of teachers involved in the training reported a significant increase in their ability to develop ICT-based learning materials. They succeeded in implementing more effective and relevant methods in teaching sustainable tourism, which can be seen from the positive feedback from students who felt more involved in learning.

The application of information technology in the development of teaching materials not only strengthens teachers' digital literacy, but also facilitates access to wider information, thus supporting more interactive and flexible learning. This activity also shows a significant increase in collaboration between educational institutions, the community and related parties in advancing the sustainable tourism sector in Malang. As many as 75% of participants reported that this collaboration has created a stronger and more sustainable support network, which is expected to continue to grow in the future.

However, the program also faces challenges, such as resistance to change from some teachers who are used to traditional teaching methods. To overcome this, it is important to continue the ongoing assistance and evaluation that has been started. With consistent feedback, this program can continue to be adjusted and improved to ensure its continued benefits for vocational school teachers and students.

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