



Bridging Ideas and Competencies: An Integrated Writing Approach for Vocational High School Teachers in Crafting Sustainable Tourism Module

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Abstract. Sustainable tourism education in vocational high schools presents significant challenges in effectively integrating sustainability concepts with practical training. This qualitative case study explores how vocational high school teachers in Malang, Indonesia, perceive and integrate sustainability principles into tourism module development. Through semi-structured interviews, questionnaires, and document analysis, the research investigated teachers' approaches to incorporating sustainable tourism content and writing skills into instructional modules. The study revealed varied levels of sustainability awareness among teachers, with significant challenges including limited professional training, technological integration difficulties, and a lack of comprehensive resources. Key findings demonstrated that teachers employ diverse strategies such as role-playing, digital platforms, and interdisciplinary communication tasks to enhance sustainability education. The research identified an integrated writing approach as a transformative educational strategy that enables students to synthesize complex information and develop holistic understanding of sustainable tourism principles. The study highlights the critical need for targeted professional development programs, standardized sustainability curriculum resources, and enhanced technological training for vocational educators. By emphasizing an interdisciplinary approach to writing and module development, the research offers insights into improving tourism education's capacity to prepare students for responsible and sustainable industry practices.

Keywords: Integrated Writing, Professional Development, Sustainable Tourism, Tourism Pedagogy, Vocational Highschool

1 INTRODUCTION

Sustainable tourism has garnered significant attention in recent years as a strategy to safeguard the environment while supporting local communities through responsible travel practices (Streimikiene et al., 2021; Williams & Ponsford, 2009). However, the effective integration of sustainability concepts and practices into vocational tourism education poses several challenges. These challenges include the need for specialized curricula, the alignment of practical training with sustainability principles, and the balancing of economic, environmental, and social priorities in the tourism industry (Booyens, 2020a; Chandra et al., 2022; Jafari & Ritchie, 1981). Additionally, vocational programs often face constraints in terms of resources, instructor expertise, and institutional support, which can hinder the full adoption of sustainability-focused content. Furthermore, students may struggle to understand the relevance of sustainability to their future careers if it is not embedded into the core competencies of their training. To address these issues, educational institutions must adopt a holistic approach, ensuring that sustainability becomes a fundamental component of vocational training rather than an ancillary topic (Booyens, 2020b; Žalėnienė & Pereira, 2021). This involves not only revising course materials and assessment methods but also fostering partnerships with the tourism industry to provide real-world experience in sustainable practices. In doing so, vocational programs can better prepare graduates to contribute meaningfully to a more sustainable tourism sector.

In Indonesia, vocational high schools hold a crucial role in preparing the future workforce for the tourism industry (Ana et al., 2016; Mahfud et al., 2022). However, a significant challenge arises from the fact that many vocational teachers, while possessing extensive practical experience in the tourism sector, often lack formal pedagogical training (Rusdiyanto & Tjaraka, 2021). This deficiency can impede their ability to design educational modules that effectively integrate real-world tourism operations with sustainability principles. Furthermore, sustainability is a multifaceted concept that requires an interdisciplinary approach, encompassing competencies in hospitality management, environmental conservation, and community involvement (Streimikiene et al., 2021; Žalėnienė & Pereira, 2021). The absence of pedagogical expertise among vocational educators can lead to gaps in curriculum development (Silitonga, 2021; Utari et al., 2024; Yusuf et al., 2018), where the practical aspects of tourism may be emphasized, but critical components such as sustainability, ethical tourism practices, and long-term community benefits are overlooked. This presents an opportunity for targeted professional development programs aimed at enhancing teachers' instructional strategies, particularly in integrating sustainability into vocational education. Addressing these gaps is essential, not only to align with global trends in sustainable tourism but also to ensure that graduates are equipped with the knowledge and skills necessary to foster responsible tourism development in Indonesia. An interdisciplinary approach is required to address the interconnectedness of tourism, environmental impact, and societal well-being.

Furthermore, integrating writing across sustainability tourism modules is a strategic approach to fostering interdisciplinary learning outcomes. By intentionally designing writing prompts and tasks that require students to synthesize knowledge from various

competency domains, educators can enhance the depth and breadth of student learning (Park, 2016; Tangpermpoon, 2008). For instance, assigning students to develop a proposal for a new sustainable tourism initiative in a local community necessitates drawing on multiple modules, such as hospitality management, environmental sustainability, and community development. To effectively address such a prompt, students must not only incorporate technical knowledge from each domain but also critically engage with broader issues, including the social, economic, and environmental impacts of their proposals. Instructors can further guide students' learning by providing targeted questions that encourage them to analyze these interconnected factors through a systems-thinking approach. This method promotes a more nuanced understanding of sustainability, where competencies are viewed as interrelated rather than discrete. Additionally, the provision of comprehensive feedback is crucial for refining students' ability to articulate sustainability issues through an integrated lens (Arslan, 2013). Well-structured writing tasks across modules thus enable a more holistic assessment of student competence, as they demonstrate their proficiency in applying interdisciplinary perspectives to real-world sustainability challenges. Ultimately, such integration aligns educational objectives with the complexities of sustainability in practice, fostering more effective and well-rounded graduates in the field of tourism.

Moreover, several studies have highlighted significant challenges in the integration of sustainability within Indonesia's vocational tourism education system (Silalahi, 2021; Syahida & Siminto, 2023; Utari et al., 2024; Wibowo et al., 2022; Yusuf et al., 2018). For instance, Silalahi (2021) report by the Indonesian Sustainable Tourism Alliance revealed that many graduates of tourism-related vocational programs possess only a superficial understanding of sustainability principles. These graduates are often ill-prepared to implement sustainable practices in their professional roles within the tourism industry. The report emphasized the need for enhanced incorporation of sustainability concepts across various vocational modules, ensuring a more comprehensive and practical education in sustainability. In alignment with these findings, Yusuf et al. (2018) study conducted by the Ministry of Tourism further identified that sustainability competencies were being taught in isolation, rather than through an integrated and cohesive approach across the curriculum. This fragmented method of instruction limits students' ability to fully grasp the interconnectedness of sustainability with other aspects of tourism. The study stressed the necessity of embedding sustainability throughout the educational framework to cultivate professionals equipped with holistic knowledge and practical skills. Addressing these gaps requires a systemic shift towards integrating sustainability into every facet of vocational tourism education.

The current disparity between the recognized necessity for sustainability competencies within the tourism industry and the level of preparation that vocational students receive highlights a critical gap in vocational education. To address this issue, this research focuses on developing an integrated writing approach model specifically tailored for vocational educators. The aim is to enable these teachers to design sustainability tourism modules that not only bridge theoretical concepts and practical competencies but also align with the needs of the evolving industry. By employing this model, educators can create more cohesive, application-oriented learning experiences that foster students' ability to apply sustainability principles in real-world tourism contexts. This

model emphasizes a structured approach to writing and module development that integrates sustainability concepts with vocational training, encouraging teachers to develop content that is both relevant and pedagogically sound. This current research was arranged to answer three research questions: (1) How do vocational high school teachers in Malang perceive and integrate sustainability concepts into their tourism module development?, (2) What challenges do vocational high school English teachers encounter when incorporating sustainable tourism content and writing skills into their instructional modules?, and (3) How can an integrated writing approach enhance the development of sustainability competencies among vocational tourism students?

4. METHODOLOGY

1.1 Research Design

This research takes up a qualitative case study to explore perceptions and competencies of vocational high school's (SMK) teachers in developing teaching modules (Dingwall et al., 1998). In-depth interviews seek to collect the insights of teachers from a professional development workshop and establish challenges that teachers face both in learning and in the creation of modules. This approach provides the detailed understanding of teachers' experience and skills, as well as the real-world application of the training, by focusing on a specific case.

In this case study, a number of vocational high school teachers are selected to participate in module-writing workshops (Wirza, 2018). Individual interviews allow teachers to discuss their experiences and challenges in depth. Documents from the workshop are analyzed, namely, training documents and module drafts, to establish the relationship between workshop content and module quality. This qualitative case study is intended to expose how the teachers' opinion of the training material corresponds with the effectiveness of developing curriculum-aligned modules. This study offers specific suggestions for teachers to design effective instructional modules through the identification of challenges and practical applications of workshop material. These results will expose the gaps in teacher professional development, informing strategies to raise instructional quality in vocational high schools.

1.2 Data Source and Settings

This study investigates the practices of English teachers at vocational senior high schools in Malang. These teachers share expertise in delivering vocational English instruction yet differ in their backgrounds, teaching periods, and teaching environments. By exploring the perspectives of educators with varied service lengths and institutional associations, this research aims to gather comprehensive insights into their professional experiences and instructional approaches. The study's data sources include semi-structured interviews with teachers, classroom observations, and analysis of key vocational English teaching documents, such as syllabi, lesson plans, and assessment rubrics. The observations provide a close-up view of the instructional techniques, adjustments, and

pedagogical strategies that these teachers use to address the unique needs of their students and comply with their schools' expectations.

The research spans multiple vocational schools in Malang, each presenting distinct teaching methods and contextual challenges. This variation among schools highlights how institutional goals, resources, and student demographics influence teaching styles and instructional outcomes. By examining these different settings, the study identifies specific strategies vocational English teachers employ to support their students' practical language development, including real-life simulations, task-based learning, and industry-focused vocabulary instruction. Moreover, findings reveal common challenges such as resource limitations, student motivation, and time constraints, which shape the instructional decisions these teachers make. Generally, this study contributes to a broader understanding of effective vocational English teaching by highlighting both the strengths and the obstacles encountered by teachers in this specialized field.

1.3 Data Collection

In the data collection process, the researcher utilized a questionnaire designed through the Google Forms application. The questionnaire was specifically crafted to gather information aligned with the research topic, the use of Google Forms served as a practical tool, enabling the researcher to collect data efficiently from respondents regardless of time or location. This approach provided several advantages (Bhalerao, 2015). First, it allowed for the dissemination of the questionnaire to a broader audience, increasing the likelihood of receiving diverse and representative responses. Second, the digital format facilitated easy accessibility, enabling respondents to participate using their preferred devices. Third, Google Forms automatically organized and stored responses, significantly reducing the time required for data compilation and analysis. The researcher designed the questionnaire to elicit detailed insights into the experiences and perspectives of vocational high school teachers regarding sustainable tourism module development. By employing a structured set of questions, the researcher aimed to bridge theoretical concepts with practical competencies. This methodology ensured that the data collected was not only relevant but also actionable for refining and validating the proposed integrated writing approach.

1.4 Data Analysis

Then, about the data analysis, this research was used qualitative data analysis process for the collected questionnaire responses would begin with data cleaning and preparation, where the researcher would review the responses for completeness and ensure that all relevant data are intact (Ricci et al., 2019). Incomplete or irrelevant answers would be excluded from the analysis. Following this, the researcher would conduct a thematic analysis of the open-ended responses, systematically identifying recurring themes, patterns, and categories related to the research topic, such as challenges faced by vocational high school teachers in crafting sustainable tourism modules, or their perceptions of the integrated writing approach. Each response would be coded and grouped into themes, allowing for a detailed exploration of the nuances in teachers' experiences and perspectives.

The researcher also paid close attention to variations in responses based on factors such as teaching experience or subject specialization, which could provide additional insights into the influence of these factors on teachers' attitudes toward sustainable tourism and writing practices. The analysis would focus on interpreting the meaning and context behind respondents' answers rather than quantifying the data, with the goal of understanding the deeper issues, beliefs, and motivations of vocational high school teachers in relation to the research topic. Throughout the analysis, constant comparison was employed, where the researcher would continuously compare new data with previous responses to refine the emerging themes. Finally, the researcher would synthesize the findings by providing a narrative summary that connects the key themes, highlighting the key challenges, opportunities, and suggestions for improving the integration of sustainable tourism content and writing competencies in vocational education. This in-depth qualitative analysis would offer rich, contextual insights that could inform the development of more effective teaching strategies and curriculum design.

5. FINDINGS AND DISCUSSION

In the participants' findings, the researcher discovered varied results. The data from these findings are presented in the table below. These results provide insight into the diverse responses and perspectives of the participants, highlighting the complexity and nuance of the issue being investigated. The variations in the data could reflect different contextual factors, individual experiences, or different interpretations of the research topic. This diversity is crucial in understanding the broader implications of the study and offers a deeper understanding of the phenomena under investigation. By examining these varied findings, the researcher aims to draw meaningful conclusions and identify patterns that contribute to the generally analysis.

Table 1. Data Findings

Parti- pants' Code	Years Teaching	ICT Used	Tools	Integrated Skill Ap- proach	Sustaina- ble Tour- ism Inte- gration	Main Chal- lenges
TEC 1	12 years	Online ap- plication for listen- ing/reading		Skills-fo- cused chap- ter activi- ties	Want to raise awareness about eco- tourism	Internet connectiv- ity
TEC 2	14 years	Laptop, smartphone, Google Classroom		Quizizz, videos, Google docs	Need to learn more about sus- tainable tourism	Develop- ing listen- ing materi- als

TEC 3	14 years	Updated ICT tools, social media	Explanations and assignments	Introduce tourism terms	Learning newest ICT tools
TEC 4	14 years	ICT for comprehension and assessment	Role play, games, debates	Match teaching materials to tourism goals	Student vocabulary
TEC 5	24 years	Basic presentation tools	Film watching and summarizing	Understand tourism impacts	Limited training curriculum
TEC 6	13 years	Presentation tools	Presentation tools	Role-playing tour guide	Local tourism awareness
TEC 7	18 years	LMS, Quizizz, Google Classroom	LMS, Quizizz, Google Classroom	Various text and communication activities	ESP approach to tourism
TEC 8	14 years	Moodle, e-learning platforms	Moodle, e-learning platforms	Integrated lesson activities	ICT tool integration
TEC 9	8 years	Smartphone apps, text-to-speech	Smartphone apps, text-to-speech	Audio sharing, creative presentations	Major-related content
TEC 10	20 years	Video-based	Video-based	Role-playing	Role-playing for vocabulary
TEC 11	3,5 years	ICT-based learning media	ICT-based learning media	Integrated materials	Project-based learning
TEC 12	23 years	Videos, PowerPoint	Videos, PowerPoint	Role-playing	Language skill development
TEC 13	13 years	PowerPoints, games	PowerPoints, games	Audio-written message exchanges	Responsible tourism principles

Based on the data above, the researchers spread the data into three themes, consist of sustainability awareness and integration in vocational tourism education, Challenges in sustainable tourism content development, and Integrated writing as a transformative educational strategy.

1.1 Sustainability Awareness and Integration in Vocational Tourism Education

The research reveals a nuanced landscape of sustainability awareness among vocational high school teachers in Malang, demonstrating varying levels of understanding and implementation of sustainable tourism concepts. Teachers are actively exploring innovative approaches to integrate sustainability principles into their instructional modules, with different strategies emerging across educational settings. For instance, TEC 1 specifically aims to raise awareness about ecotourism, while TEC 3 concentrates on introducing specialized tourism terminology that reflects sustainable practices. The data from the research highlights significant variations in teachers' approaches to sustainability integration. Some educators, like TEC 2, acknowledge the need to learn more about sustainable tourism, indicating an ongoing professional development process. Others, such as TEC 6, focus on practical implementations like role-playing tour guide scenarios that incorporate sustainable tourism principles. This diversity suggests that while sustainability is increasingly recognized as important, its practical integration remains a complex and evolving challenge.

Technological tools and innovative pedagogical methods play a crucial role in facilitating sustainability education. Many teachers utilize digital platforms like Google Classroom, Moodle, and various presentation tools to enhance their sustainability-focused instruction. For example, TEC 7 employs Learning Management Systems (LMS) and Quizizz to deliver content related to tourism communication and sustainability, while TEC 9 uses smartphone apps and text-to-speech technologies to create engaging learning experiences that incorporate sustainable tourism concepts. Despite the growing awareness, teachers still face significant challenges in fully integrating sustainability into their vocational tourism modules. These challenges range from limited training curricula and ICT tool integration to developing appropriate learning materials that effectively communicate sustainable tourism principles. The research indicates that while teachers are enthusiastic about incorporating sustainability, they require additional support, professional development, and resources to create comprehensive and meaningful educational experiences that prepare students for the evolving tourism industry.

Furthermore, for the discussion the findings of the research showed a complex landscape regarding the integration of sustainability in vocational tourism education within Malang's high schools. On one hand, there is a marked enthusiasm among teachers to incorporate sustainability principles into their curricula (Ferguson et al., 2021). This is evidenced by the various innovative strategies employed, such as the focus on ecotourism by TEC 1 and the introduction of specialized terminology by TEC 3. These initiatives reflect a proactive approach to raising awareness and enhancing students' understanding of sustainable practices in tourism. However, the research also reveals significant challenges that educators face in this integration process. While some teachers, like TEC 2, recognize the necessity for ongoing professional development to deepen their understanding of sustainable tourism, others grapple with practical implementations. For instance, TEC 6's role-playing exercises demonstrate a commendable effort to apply sustainability concepts in real-world scenarios, yet this approach is not uniformly adopted across all educational settings. The variation in teachers' methodologies

indicates a lack of cohesive training and resources (Malik, 2018), which can hinder the overall effectiveness of sustainability education (Nuraeni & Henigusnia, 2021).

Moreover, the use of technological tools and innovative pedagogical methods emerges as a double-edged sword (Romadhon & Heriyawati, 2023). On the positive side, platforms like Google Classroom and LMS tools enable teachers to deliver engaging and interactive content (Martín-Sómer et al., 2024), as seen with TEC 7 and TEC 9. These technologies facilitate a more dynamic learning environment that can enhance students' engagement with sustainable tourism concepts. However, the reliance on digital tools also presents challenges, particularly for educators who may lack adequate training in ICT integration. This gap can result in inconsistent application of sustainability principles across different classes and institutions, ultimately undermining the potential benefits of technology in education.

1.2 Challenges in Sustainable Tourism Content Development

The research uncovered significant challenges faced by vocational high school teachers in developing sustainable tourism modules. Teachers like TEC 2 and TEC 5 reported substantial difficulties in acquiring comprehensive knowledge about sustainable tourism, highlighting a critical gap in professional training and resources. These challenges are not merely technical but deeply rooted in the complex nature of integrating sustainability principles across different educational contexts. The lack of a standardized approach to sustainable tourism education means that teachers must often rely on their individual interpretations and limited resources. Technological integration emerged as a critical factor in module development, with teachers employing diverse ICT tools to enhance learning experiences. Participants such as TEC 7 and TEC 8 utilized Learning Management Systems (LMS), Quizizz, and e-learning platforms to create more interactive and engaging sustainability-focused content. However, the research revealed that technological proficiency varies significantly among educators, with some struggling to effectively incorporate digital tools into their instructional strategies. This technological disparity creates uneven learning experiences for students across different vocational schools.

The research highlighted the importance of an interdisciplinary approach to sustainable tourism education. Teachers demonstrated various strategies for integrating sustainability concepts, ranging from role-playing activities to creative communication exercises. TEC 6 and TEC 10 emphasized role-playing scenarios that simulate real-world tourism situations, while TEC 9 focused on audio sharing and creative presentations. These diverse approaches reflect the complex nature of sustainability education, which requires students to develop a holistic understanding of tourism's environmental, social, and economic dimensions. Professional development and continuous learning emerged as critical themes in the study. With teaching experiences ranging from 3.5 to 24 years, teachers showed varying levels of adaptability and willingness to incorporate new sustainability concepts. The research suggests that more targeted training programs are necessary to support educators in developing comprehensive sustainable tourism modules. Participants like TEC 13 demonstrated an interest in understanding responsible

tourism principles, indicating a broader desire among educators to evolve their instructional approaches and meet the changing demands of the tourism industry.

Then, the research reveals significant challenges faced by vocational high school teachers in Malang when attempting to develop sustainable tourism modules. Teachers such as TEC 2 and TEC 5 highlighted their struggles to acquire comprehensive knowledge about sustainable tourism, pointing to a critical gap in professional training and available resources. This deficiency not only hampers their ability to teach effectively but also underscores a broader systemic issue within vocational education, where the integration of sustainability principles remains complex and inconsistent. The absence of a standardized approach to sustainable tourism education forces educators to rely on their individual interpretations, which can lead to varied educational outcomes and confusion among students. On the positive side, the integration of technology emerged as a vital component in the development of engaging and interactive learning experiences.

Then, teachers like TEC 7 and TEC 8 successfully employed Learning Management Systems (LMS), Quizizz, and e-learning platforms to create sustainability-focused content that resonates with students. This technological incorporation can enhance student engagement and foster a more dynamic learning environment (Luthfiyyah et al., 2021; Wina et al., 2023). However, the research also highlights a concerning disparity in technological proficiency among teachers. Some educators struggle to effectively utilize digital tools, resulting in uneven learning experiences for students across different vocational schools. This inconsistency can undermine the potential benefits of technology, emphasizing the need for comprehensive training that equips all educators with the necessary skills to leverage these tools effectively (Grassini, 2023). The study further underscores the importance of an interdisciplinary approach to sustainable tourism education. Teachers implemented a variety of strategies to integrate sustainability concepts, ranging from role-playing activities to creative communication exercises. For instance, TEC 6 and TEC 10 utilized role-playing scenarios to simulate real-world tourism situations, while TEC 9 focused on audio sharing and creative presentations. These diverse methodologies reflect the multifaceted nature of sustainability education, which requires students to understand the environmental, social, and economic dimensions of tourism comprehensively. However, the effectiveness of these approaches hinges on the educators' adaptability and willingness to embrace new concepts, which varies significantly among teachers with differing levels of experience.

1.3 Integrated Writing as A Transformative Educational Strategy

The research reveals integrated writing as a powerful pedagogical approach for developing sustainability competencies among vocational tourism students. By requiring students to synthesize complex information and articulate sustainable solutions through various communication formats, this strategy transcends traditional learning boundaries. Teachers like TEC 7 and TEC 8 are pioneering integrated lesson activities that strategically combine communication skills with tourism-specific content, demonstrating the approach's transformative potential. The integrated writing methodology en-

courages students to engage with sustainability concepts through multifaceted communication tasks. For instance, educators reported assigning projects that require students to develop comprehensive tourism proposals, write detailed sustainability reports, and create communication materials that address environmental, social, and economic dimensions of tourism. These assignments compel students to draw knowledge from multiple competency domains, including hospitality management, environmental conservation, and community development.

Technology plays a crucial role in facilitating this integrated approach. Teachers utilize diverse digital platforms such as Learning Management Systems (LMS), Quizizz, Google Classroom, and specialized language learning applications to support integrated writing experiences. These technological tools enable more interactive, collaborative, and personalized learning experiences that can effectively bridge theoretical knowledge with practical application. The data suggests that digital platforms not only enhance writing skills but also provide students with opportunities to explore sustainability concepts through innovative, technology-mediated approaches. The research highlights the importance of feedback and reflective practices in integrated writing strategies. Educators emphasized the need for comprehensive, constructive feedback that guides students in refining their understanding of sustainability principles. By providing targeted questions and structured reflection opportunities, teachers help students develop a more nuanced, systems-thinking approach to tourism sustainability. This method goes beyond traditional assessment, transforming writing tasks into opportunities for deep learning and critical analysis of complex tourism challenges. Critically, the integrated writing approach addresses a significant gap in vocational tourism education by fostering interdisciplinary competencies. Rather than treating sustainability as an isolated concept, this strategy encourages students to view it as an interconnected framework that requires holistic understanding. Teachers reported that students engaged in such integrated writing tasks demonstrated improved ability to analyze tourism scenarios from multiple perspectives, developing more sophisticated and practical approaches to sustainable tourism development.

Moreover, the research highlights integrated writing as a transformative pedagogical approach that significantly enhances sustainability competencies among vocational tourism students. This method requires students to synthesize complex information and articulate sustainable solutions through various communication formats, thereby transcending traditional educational boundaries. Teachers like TEC 7 and TEC 8 are at the forefront of implementing integrated lesson activities that combine essential communication skills with tourism-specific content. This innovative approach not only engages students but also empowers them to comprehend sustainability concepts through multifaceted tasks, such as developing comprehensive tourism proposals and writing detailed sustainability reports (Grassini, 2023). This synthesis of knowledge from diverse domains, including hospitality management, environmental conservation, and community development, demonstrates the potential of integrated writing to foster a more holistic understanding of sustainable tourism (Firdaus et al., 2023).

On the positive side, the integration of technology plays a crucial role in facilitating this approach. By utilizing digital platforms like Learning Management Systems (LMS), Quizizz, and Google Classroom, educators create interactive, collaborative, and

personalized learning experiences (Ducar & Schocket, 2018; Salsabila et al., 2020). These tools not only enhance writing skills but also allow students to explore sustainability concepts in innovative ways. The data suggests that technology-mediated approaches can effectively bridge the gap between theoretical knowledge and practical application, making learning more relevant and engaging for students. This integration of technology also supports diverse learning styles, catering to various student needs and preferences. However, the research also reveals challenges associated with the integrated writing approach. While the methodology emphasizes the importance of feedback and reflective practices, educators noted that providing comprehensive, constructive feedback can be resource-intensive and time-consuming. The need for targeted questions and structured reflection opportunities requires teachers to invest significant effort in guiding students' understanding of sustainability principles (Žalėnienė & Pereira, 2021). This can be particularly challenging in larger classes where individualized attention may be limited. Additionally, while the approach fosters interdisciplinary competencies, it may also require educators to possess a broad knowledge base across various fields, which can be a barrier for some teachers who may feel less confident in certain domains.

6. CONCLUSION

The research on integrating sustainability concepts in vocational tourism education reveals a complex landscape of challenges, opportunities, and innovative approaches among vocational high school teachers in Malang, Indonesia. Addressing three critical research questions, the study uncovered significant insights into the current state of sustainable tourism education, demonstrating teachers' varying levels of sustainability awareness and highlighting the need for targeted professional development. Teachers displayed remarkable creativity in incorporating sustainability concepts, utilizing digital platforms, role-playing scenarios, and innovative pedagogical methods despite facing challenges such as limited professional training, technological integration difficulties, and insufficient understanding of interdisciplinary sustainability principles. The integrated writing approach emerged as a transformative educational strategy, enabling students to synthesize complex information across multiple domains and encouraging critical thinking about environmental, social, and economic dimensions of tourism. By moving beyond traditional instructional methods, the research underscores the importance of creating more interconnected, practical, and forward-thinking educational experiences. Future research recommendations include developing comprehensive training models, exploring advanced technological integrations, and establishing stronger connections between educational institutions and the tourism industry. Longitudinal studies and comparative analyses could provide deeper insights into effective implementation strategies, emphasizing the systematic and interdisciplinary approach required for sustainable tourism education. The study provides a foundational understanding of embedding sustainability principles within vocational tourism education, calling for collaborative efforts among educators, policymakers, and industry stake-

holders to prepare the next generation of tourism professionals. Recognizing the interconnected nature of sustainability and education, institutions can develop more responsive and impactful learning experiences addressing complex global challenges in the tourism sector. While the research's limitations, including its geographic specificity and small sample size, present opportunities for future investigations, the findings underscore the critical need for expanding research scope, developing standardized curriculum guidelines, and continuously refining pedagogical approaches. As the global tourism industry evolves, the demand for well-prepared, sustainability-focused professionals becomes increasingly crucial, making research in this domain both timely and essential for shaping future tourism education and practices.

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