



Exploring technologies and challenges in English writing classes in a rural area by millennial lecturers

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Article Info

Article History:
Received on 3 July
2024
Approved on 28 October
2024
Published on 30
November 2024

*Keywords: Challenges
in integrating
technology; millennial
lecturers; rural area
education; technologies
in English writing
classes*

Abstract

Research on the use of technology in English writing instructions has indeed been extensively conducted. However, studies examining the utilization of technology in writing classes by millennial lecturers in rural areas are still scarce. Hence, this research addresses the underexplored domain of technology integration in writing classes by millennial lecturers in colleges within a rural area, focusing on the types of technology used and associated challenges. Conducted in North Tapanuli, North Sumatra, Indonesia, the study involves six participants chosen through purposive sampling based on specific criteria. Data collection utilizes semi-structured interviews and open-ended questionnaires, employing thematic analysis for interpretation. Findings reveal eight technology categories employed by millennial English lecturers in a rural area, including social media, video conferencing platforms, AI-powered software, language learning apps, word-processing software, online creative platforms, email, and web-based publication. Challenges faced are categorized into student, lecturer, and university constraints, covering economic limitations, technological unfamiliarity, grading difficulties, professional development needs, and resource constraints. Overall, the study provides relevant contributions for educators, institutions, and policymakers striving to enhance technology integration in rural college areas, emphasizing inclusivity and effective learning environments.

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INTRODUCTION

In the rapidly evolving landscape of education, the integration of technology has become a focal point, revolutionizing instructional methods and fostering dynamic learning environments. The traditional chalk-and-board model has given way to a digital frontier where the pedagogical landscape is continuously shaped by the infusion of technological tools. In this era of unprecedented connectivity and access to information, educators are compelled to reconsider and adapt their instructional strategies to align with the changing needs and expectations of students. The integration of technology into education is not just a mere adoption of gadgets; rather, it signifies a paradigmatic change in how knowledge is imparted and acquired.

The application of technology in writing instructions stands as a compelling testament to this transformative trend (Abubakir & Alshaboul, 2023; Collins, Tate & Warschauer, 2019; Mali & Salisbury, 2021). Writing, once confined to the realms of pen and paper, has now expanded its horizons to include an array of digital tools and platforms. The needs of contemporary writing instruction are intricately linked to the demands of a digitized society. Technology provides a gateway to engage students in interactive and collaborative writing processes (Selfa-Sastre, Pifarré, Cutillas & Falguera, 2022; Teng, 2021). It offers a diverse range of mediums for expression, accommodating varied learning styles and preferences. In a world where effective written communication is crucial, the integration of technology not only enhances the traditional writing pedagogy but also equips students with the digital literacy skills essential for success in the information age.

The integration of technology into writing classrooms in the modern era is not limited to educational settings in urban areas but is also prevalent in educational institutions situated in rural areas (Kormos & Wisdom, 2021; Wang, Tigelaar & Admiraal, 2019; Wang, Yang, Iqbal & McGuckin, 2023), particularly in higher education institutions. Nevertheless, it is unrealistic to expect uniformity in the adoption of technology in writing instruction across all educational sectors globally. This includes the likelihood that the utilization of technology in rural colleges may differ significantly from colleges in urban settings, both in terms of application and the challenges encountered. It is imperative to recognize the contextual variations that may influence the implementation and efficacy of technological tools in writing instruction, acknowledging that the landscape of technology integration in education is multifaceted and context-dependent. Understanding these particulars is essential for educators to craft tailored and effective strategies that cater to the specific needs and challenges present in diverse educational environments, particularly for millennial lecturers who are anticipated to serve as pioneers in the utilization of technology (Jha, Sareen & Potnuru, 2019; Kottler & Armstrong, 2014) in college learning.

The millennial generation, born between the early 1980s and mid-1990s (Codrington & Grant-Marshall, 2011; Dimock, 2019), has been characterized by its familiarity and comfort with technology, having come of age during the rapid advancement of digital tools and the internet. Raised in an era of technological proliferation, millennials tend to exhibit a natural affinity for digital communication, information retrieval, and interactive platforms. This technological fluency positions them as potentially influential figures in educational settings, capable of bridging the digital divide and leveraging technology to enhance learning experiences. Within the academic sphere, millennial lecturers, as members of this tech-savvy generation (Loganathan & Hashim, 2020), are uniquely positioned to introduce and integrate technology into teaching practices. Given their intrinsic familiarity with digital tools, these educators are not only expected to navigate the technological landscape adeptly but also serve as pioneers in introducing innovative teaching methodologies (Galván, Medina, Bernárdez-Gómez & Pruaño, 2023; Loganathan & Hashim, 2020). Particularly in rural college areas, where access to advanced technology may be limited, millennial lecturers play a crucial role in mitigating disparities by incorporating digital resources, thereby enriching the educational experience for students who may otherwise have limited exposure to such tools. The expectations placed on millennial lecturers extend beyond traditional pedagogical approaches, underlining their potential as catalysts for technological integration and transformation within educational environments.

Research on the utilization of technology in writing classes has been conducted extensively across various regions worldwide. A study conducted in the United States by Collins, Tate & Warschauer (2019), for instance, addressed how technology can aid American adolescents struggling to develop effective writing skills. Their research highlighted that integrating technology in secondary schools can enhance adolescent writing within initiatives focused on writing pedagogy.

The study indicated that students benefit the most when provided with systematic, explicit instruction in scientifically based writing strategies, the writing process, and effective utilization of digital tools as part of the writing process. Another study by Abubakir & Alshaboul (2023) explored preparatory English as a Foreign Language (EFL) teachers' mastery of TPACK (Technological Pedagogical and Content Knowledge) in writing classes in Qatar. The findings revealed a need to enhance teachers' use of advanced technology to address the native digital needs in teaching writing, and the study also demonstrated that gender, years of experience, and professional development influence teachers' TPACK. Meanwhile in an Indonesian context, research by Mali & Salsbury (2021) closely examined lecturers' reflections on integrating technology to support students in completing English language learning tasks in an EFL writing classroom. Data analysis indicated that the most successful experiences with technology occurred in the planning stage, while technology applications in drafting, editing, and revising phases were primarily used for submission and providing feedback.

Moreover, research on millennial educators, although not extensive, has been quite prevalent, particularly in Indonesia. These studies cover a range of aspects, from the performances of millennial lecturers during the COVID-19 pandemic (Meilani, 2021) to their engagement, job satisfaction (Dara, Eliyana & Hamidah, 2020), and attitudes toward incorporating online applications in the EFL classroom (Sari, Brameswari & Haratikka, 2020). Additionally, investigations have been conducted on the effect of self-efficacy on organizational behavior (Sofiah, Hartono & Sinambela, 2023) and the impact of the transformation of organizational cultural values on performance (Hutagalung, Silalahi, Dalimunthe & Putra, 2021) among millennial lecturers. These studies demonstrate that issues related to millennial lecturers are garnering attention in Indonesia. However, research specifically addressing the use of technology and challenges in integrating the technology in writing classes by millennial lecturers in rural area colleges has not yet been identified. Consequently, this study seeks to address this research gap with these following research questions:

1. What kinds of technology do millennial English lecturers in a rural area use in their writing classes?
2. What challenges do the millennial English lecturers in a rural area face when incorporating technology into writing classes?

Thus, this study aims to fill a critical gap in existing research by specifically investigating the utilization of technology and the challenges associated with its integration into writing classes conducted by millennial lecturers in colleges within a rural area. By exploring these aspects, the study endeavors to provide practical implications for educators, institutions, and policymakers, fostering informed strategies for effective technology integration in writing classes, especially in rural areas.

METHODS

This study adopts a qualitative research design in order to collect the data and address all the research questions. The study involves six participants from two colleges in North Tapanuli, North Sumatra, Indonesia, selected through purposive sampling based on specific criteria such as a minimum of two years of English teaching experience, a demonstrated and consistent integration of technology in teaching English (for at least one full semester of a writing class), and an age range of 31-39 years (millennials), and a willingness to participate. The participants consist of three male and three female lecturers. The data are collected through semi-structured interviews and a concise open-ended questionnaire, consisting of three items. Thematic analysis (Braun & Clarke, 2021) is applied to the gathered data, allowing for the identification of patterns and themes related to the types of technology used and challenges faced. Ethical considerations include obtaining institutional review board approval, securing informed consent from participants, and ensuring anonymity. The research is situated in the rural context of North Tapanuli, and limitations include the regional focus. Member checking is employed for data validation, and data saturation determines the appropriate sample size to ensure comprehensive analysis into the experiences of millennial English lecturers in integrating technology into writing classes in a rural area colleges.

FINDINGS AND DISCUSSION

From the analysis of interview data and information gathered from the open-ended questionnaires provided by the six participants, the following findings were identified.

Kinds of technology used by millennial English lecturers in writing classes in colleges within a rural area

The results from both interviews and questionnaires regarding the varieties of technologies utilized by millennial English lecturers in their writing classes in a rural area are displayed in Table 1.

Table 1. Kinds of technology used by millennial English lecturers in writing classes in a rural area

No	Category	Type	Frequency	Percentage
1	Social media	WhatsApp	6	100%
		Instagram	1	16.67%
		Youtube	3	50%
2	Video conferencing platforms	Zoom	2	33.33%
		Google Meet	4	66.67%
3	AI-powered software	Grammarly	2	33.33%
		Quillbot	1	16.67%
		StoryBird	1	16.67%
4	Language learning apps	Online Dictionary	6	100%
		Google Translate	1	16.67%
		Duolingo	1	16.67%
5	Word processing software	PowerPoint	2	33.33%
		Word	2	33.33%
		Google Docs	4	66.67%
6	Online creative platforms	Canva	1	16.67%
		Adobe Spark	1	16.67%
7	Email	Email	1	16.67%
8	Web-based publication	WordPress	1	16.67%

From the table above, it can be concluded that there are at least eight categories of technology utilized by millennial English lecturers in rural colleges of North Tapanuli in writing classes. These categories include social media, video conferencing platforms, AI-powered software, language learning apps, word-processing software, online creative platforms, email, and web-based publication. Among these, the most widely used categories are language learning app especially online dictionary, and social media particularly WhatsApp, with a utilization rate of 100% each. This finding will be elaborated as follows.

Social media

The findings derived from both interview data and questionnaires underscore a unanimous reliance on social media among all participants for teaching writing. WhatsApp, particularly its group feature, emerges as the overwhelmingly preferred platform, with every lecturer (100% of the participants) leveraging this tool to streamline the dissemination of instructions, information, and learning materials pertinent to writing classes across all enrolled students. One of the respondents commented during the interview, stating:

"Written communication through WhatsApp is conducted almost daily without any time constraints."

This indicates that the utilization of WhatsApp groups is considered highly efficient due to its flexibility, allowing communication from any location and at any time, ensuring instant accessibility for students. This finding aligns with a study conducted by Naghdipour & Manca (2022), which found that in language learning, shared WhatsApp groups functioned as small, close-knit communities where students could consistently access teachers for assistance, feedback, and clarification of content. Therefore, it is favored by educators as a communication medium that provides numerous benefits (Ajani, 2021; Annamalai, 2019; Rahmadi, 2020). The resonance of these findings with existing studies suggests a broader applicability of WhatsApp as a valuable communication medium for educators, transcending geographical and contextual boundaries. The

seamless and asynchronous nature of communication through WhatsApp groups caters to the dynamic and diverse schedules of both educators and students, facilitating an environment conducive to continuous learning and support.

In addition to WhatsApp, YouTube stands out as a favored social media platform for teaching writing, as endorsed by half of the millennial lecturers involved in the study (50% of the participants). Specifically from the data analysis, it was found that the participants noted the abundance of English-language educational content available on YouTube, exemplified by channels such as BBC Learning English. The inclination of millennial lecturers towards YouTube as a preferred social media platform for teaching writing aligns with the findings of Trang (2020), highlighting the importance of YouTube in tertiary education, emphasizing its role in providing valuable information for university students engaged in authentic writing activities. The recognition of YouTube as a beneficial resource by millennial lecturers further emphasizes the platform's versatility in serving diverse learning styles and preferences, promoting autonomy and independent learning, and enriching the writing instruction experience for students.

However, the study reveals a notable contrast in the adoption of Instagram, with only one participant (17.67%) incorporating this platform into their writing instruction practices. This becomes intriguing considering that despite numerous studies highlighting the benefits of Instagram in enhancing students' writing performance particularly in Indonesia (Nurtajali, Inawati & Susanti, 2023; Saleh & Muhayyang, 2021; Sulistyorini & Rahmawati, 2019), millennial lecturers seem to show less interest in integrating this platform into their writing classes in the rural area. Several factors may contribute to this observed contrast. Firstly, it may be indicative of a generational preference or familiarity bias, where certain social media platforms are more ingrained in daily practices for communication and information-sharing. Additionally, the specific pedagogical goals and instructional strategies employed by millennial lecturers might not align seamlessly with Instagram's features, leading to a lower inclination for its integration. Nevertheless, further exploration into the specific challenges, perceptions, and preferences associated with Instagram in the context of rural writing classes could cast light upon the factors influencing its limited adoption.

Video conferencing platforms

Facilities such as these also emerge as a favored technology among the lecturer participants in this study. From the results of data analysis, it is evident that all of them (100%) have experienced using video conferencing platforms in teaching writing, with the highest usage occurring during the Covid-19 pandemic. Subsequently, post-pandemic, this facility is only utilized when lecturers are on official business or are unable to physically attend classes. Of particular note is that, from Table 1 above, it is apparent that more millennial lecturers prefer using Google Meet (66.67%) over Zoom (33.33%) for video conferencing in their writing classes. This observation is intriguing as it contrasts with several research findings in Indonesia (Arifin, et al., 2021; Hasna 2021; Wibowo, Rahmawati & Matrisiswadi, 2021), which indicate a preference for using Zoom over Google Meet, especially in terms of features. However, a study in the Philippines (Santos, Olan, Perez, Foz, & Borres, 2021) indicates a preference for Google Meet over Zoom, citing reasons such as better customer service. Given the results of this research, the current findings make sense because, despite Zoom offering more features than Google Meet, these features are only available in the paid (premium) version of Zoom. The free version of Zoom does not provide these features and even imposes time limits on conferencing (automatic cutoff every 40 minutes for free Zoom services). On the other hand, Google Meet offers unlimited time for usage in their free services. This might be a significant consideration, especially in teaching situations, making Google Meet the preferred choice for millennial lecturers in rural areas. Moreover, if (as in this case) the university does not provide paid Zoom services for millennial lecturers, whose income is relatively modest (see Cowless, 2022; Kalish, 2016; Lusardi & Oggero, 2017), Google Meet becomes a favored alternative. Hence, this finding points to the need for institutions to carefully consider the accessibility and affordability of technology solutions provided to educators, particularly in contexts where financial constraints may impact their choices and preferences.

AI-powered software

The findings from the analysis of interview data and questionnaires, as presented in Table 1, reveal that AI-powered software serves as a notable platform employed by millennial lecturers in teaching writing to students in rural colleges. Among the selected platforms, Grammarly is utilized by 33.33%

of the participants, while Quillbot and StoryBird are each employed by 16.67% of the lecturers. This inclination towards AI-powered tools reflects a contemporary approach in integrating technology to enhance the teaching and learning of writing. The utilization of Grammarly, known for its grammar checking and writing enhancement features, suggests a focus on refining students' language proficiency and written expression. Quillbot, renowned for its paraphrasing capabilities, indicates a consideration for promoting creativity and diverse expression in writing. Similarly, the incorporation of StoryBird, recognized for its storytelling and visual aspects, points towards an emphasis on fostering narrative skills and engaging content creation. The varied selection of AI-powered platforms underscores the adaptability and diversity in instructional strategies among millennial lecturers, aiming to address different aspects of writing skills and accommodate individual student needs. This aligns with the evolving landscape of writing instruction, where AI-powered tools contribute to a varied approach in cultivating effective written communication skills (Nazari, Shabbir, Setiawan, 2021; Utami, Andayani, Winarni, Sumarwati, 2023). Furthermore, this indicates that millennial-generation lecturers tend to be more open to the use of AI tools in the teaching-learning process (Bali, Kumalasari & Yunilasari, 2022; Chan & Lee, 2023; Phillips, 2023), and are likely to be sufficiently creative and innovative in their integration into writing classes to mitigate potential negative impacts that may arise if used improperly.

Language learning apps

From Table 1, it is evident that language learning apps, particularly online dictionaries, are also a preferred choice among the array of technological options that can be integrated into writing classes by millennial lecturers in rural colleges. As observed from the responses of the six participants, all of them (100%) utilize online dictionaries. Among these, some simultaneously incorporate Duolingo (one participant or 16.67%) and Google Translate (also one participant or 16.67%) to support the teaching and learning process of writing in their classrooms. This widespread use of language learning apps, especially online dictionaries, underscores the significance of digital language resources in the instructional practices of millennial lecturers. The ubiquity of online dictionaries reflects their utility in enhancing students' language proficiency, aiding in vocabulary expansion, and providing real-time language support during writing activities. The supplementary inclusion of Duolingo and Google Translate suggests a discerning perspective to leveraging language learning apps, where diverse tools are strategically employed to meet the needs of distinct aspects of language acquisition. This aligns with contemporary pedagogical trends that acknowledge the potential benefits of integrating carefully selected language learning apps (Metruk, 2021; Nami, 2020) into writing instruction, supporting a holistic and technology-enhanced language learning experience.

Word processing software

Word processing software is still utilized by millennial lecturers in writing classes in rural colleges. In this category, the software that emerge as integrated tools for writing instruction include Google Docs (66.67%), Microsoft PowerPoint (33.33%), and Microsoft Word (33.33%). The findings in this regard are somewhat intriguing because, based on the researcher's experience since undergraduate studies in 2007, PowerPoint has long been a staple for almost all educators in presenting materials to students in the classroom. This observation contrasts with the results of the current research, indicating that PowerPoint seems to be gradually phased out by lecturers, particularly those belonging to the millennial generation. This is likely attributed to the abundance of other technologies that offer more engaging features to support lecturers' presentations compared to PowerPoint (Dawson, 2023; Velarde, 2023). This perception leads millennial-generation lecturers to find PowerPoint somewhat mundane and less captivating (Velarde, 2023). Additionally, Microsoft Word appears to be less favored among lecturers. Instead, Google Docs is preferred in writing classes. This popularity of Google Docs among millennial lecturers suggests a shift towards collaborative and document-centric approaches in writing classes. Google Docs, known for its collaborative features, allows real-time collaboration and seamless sharing of documents, enhancing interactive and cooperative writing activities in the classroom. The observed shift away from traditional tools like Microsoft Word and PowerPoint towards more collaborative platforms like Google Docs among millennial lecturers indicates a broader transformation in instructional methods. Additionally, this trend might be indicative of a growing awareness among millennial educators regarding the benefits of technology in enhancing the learning experience. Collaborative platforms not only facilitate real-time collaboration but also allow for immediate feedback, nurturing

a more dynamic and participatory classroom environment. The adaptability of these tools to different learning styles and the emphasis on student-centered learning approaches further underscore their significance.

Online creative platforms

The findings regarding the utilization of platforms in the category of online creative platforms are noteworthy. In this category, two platforms, namely Canva and Adobe Spark, emerge as digital tools incorporated by millennial lecturers in writing instruction in rural colleges, each accounting for 16.67%. The inclusion of these creative platforms suggests an intentional integration of multimedia and visual elements into the teaching of writing. Canva and Adobe Spark are recognized for their user-friendly interfaces and capabilities in creating visually appealing content, offering educators the means to enhance the visual aspects of their instructional materials. This approach resonates with the principles of Universal Design for Learning (UDL), where multiple means of representation are employed to provide diverse learning styles and preferences (Almeqdad, Alodad, Alquraan, Mohaidat & Al-Makhzoomy, 2023; Boothe, Lohmann, Donnell & Hall, 2018). The incorporation of Canva and Adobe Spark in writing classes signifies a deliberate effort by millennial lecturers to leverage digital tools that transcend traditional textual modes, promoting a richer and more interactive learning environment. By integrating visually stimulating elements, educators not only enhance the aesthetics of instructional materials but also potentially stimulate creativity and engagement among students.

Email and web publishing platform

The technology pertaining to the last two categories, namely email and web-based publication, both share the lowest frequencies in their incorporation into writing classes in rural colleges by millennial lecturers. Both email and web publishing, represented by WordPress blog in this context, have a frequency of 16.67% each, indicating a comparable level of utilization. The lower prevalence of these technologies in the context of writing instruction may suggest a lower emphasis and teaching preference on direct communication through email and blog content in these particular settings. The low utilization of email may signify a somewhat limited reliance on traditional email communication channels among millennial lecturers, and they might prefer other communication media that can provide instant feedback to their students. Furthermore, regarding blogging, despite numerous studies indicating that blogging can enhance students' writing abilities (Han, 2023; Sütçü, 2020), most millennial lecturers in rural areas are reluctant to harness this technology, and the rationale of this will be elucidated in the subsequent subsection of this research report.

Challenges faced by millennial English lecturers when incorporating technology in English writing classes in colleges within a rural area

From the data analysis of interview and open-ended questionnaires, it was found that there are quite a number of challenges faced by millennial lecturers in integrating technology into teaching writing in rural colleges. All identified obstacles have been categorized into three groups: student constraints, lecturer constraints, and university constraints. All of these will be outlined and discussed as follows.

Student constraints

There are several challenges faced by lecturers that fall into this category. The first and foremost is that not all students have access to technology, as implied by a comment from one of the lecturers in the interview data below.

“Not all students have laptops. It might sound strange, but this is the situation at our university, where the majority of students come also from rural areas and from families with low economic status.”

This undoubtedly poses a difficult challenge for lecturers, as the use of all software and platforms that can support writing instruction must be supported by the availability of gadgets. No matter how advanced the technology is, it would be impossible to use if students do not have laptops. In relation to this, another lecturer expressed the following in a questionnaire:

“Writing a blog using a smartphone is difficult, especially for simultaneously uploading photos. So, they have to go to an internet cafe to type because most of them don't have laptops.”

This result explains why millennial lecturers are reluctant to use blog for their writing instructions. Economic limitations are the primary factor behind this challenge. In fact, students studying at universities in rural areas mostly come from lower to middle-class families, and the main reason is the more affordable tuition fees compared to those in urban universities.

The second challenge in this category is that most students struggle or do not understand how to use the technology. This is reasonable, as they do not even possess laptops, which severely limits their access to new technologies. Besides economic constraints, many students in rural areas (as mentioned by the lecturer in the interview excerpt above) also come from remote villages, where even the signal in their hometowns might be very limited. This also contributes to their unfamiliarity with technology. Consequently, lecturers have to spend time teaching them how to use applications and technology repeatedly until they understand and can use it by themselves.

The last challenge falling into this category is that students have different learning preferences and still tend to choose alternative learning over technology-based activities. This resistance to technology-based activities may stem from a combination of limited exposure and unavailability of supporting gadgets, and it causes a pedagogical challenge as it requires lecturers to adopt a flexible and adaptive teaching approach. These results are in alignment with the study conducted by Wang & Shen (2022) that socioeconomic status impacted the quality of education in rural areas.

Lecturer constraints

Challenges also arise from the limitations of the lecturers. In this category, three challenges were identified from the analysis of both interview and questionnaire data. Challenges also arise from the limitations of the lecturers. In this category, three challenges were identified from the analysis of both interview and questionnaire data. The first challenge is that lecturers often find it difficult to grade and assess digital assignments, particularly those that include multimedia elements. These assignments may involve various forms such as written text, video presentations, audio recordings, or interactive digital content, all of which can complicate the grading process. For instance, a digital assignment might require students to create a video essay that combines visual storytelling with written analysis, or to develop an interactive infographic that integrates text, images, and hyperlinks. The complexity of these assignments necessitates a more nuanced evaluation process, as lecturers need to consider not only the written content but also the effectiveness of the multimedia integration and the overall presentation. Consequently, this situation highlights the need for lecturers to creatively explore and develop effective assessment rubrics tailored to the diverse formats of students' digital work, in order to ensure that each component is evaluated appropriately (Bearman, Nieminen & Ajjawi, 2023; Smith, 2016).

The second challenge in this category revolves around the limitation of developing technology that aligns with lecturers' teaching techniques, as quoted from the response of one lecturer in the questionnaire:

“To keep up-to-date with evolving technologies and successfully incorporate them into my teaching techniques, I might require professional development opportunities.”

This indicates that while there are numerous technological options available for teaching writing, there is no one-size-fits-all product that perfectly aligns with the diverse teaching strategies and techniques of lecturers, as well as the varying needs of students. For instance, digital products can include software applications designed for writing instruction, such as learning management systems or collaborative writing tools, which often have complex interfaces and steep learning curves. Although millennial lecturers are generally tech-savvy and have the potential to create these materials, they may lack formal training in developing digital content, which can include not only software but also multimedia resources that enhance learning. This highlights the importance of continuous professional development to bridge the gap between technological advancements and the teaching practices of English language educators, enabling them to effectively integrate and create diverse digital products tailored to their students' needs.

The last challenge identified within this category is that teaching writing through technology can consume both time and financial resources. This observation aligns with the earlier research

findings discussed above. The time aspect involves not only the duration required for educators to instruct students on using a particular technology but also the time educators need to master the technology before imparting it to their students. Additionally, beyond time constraints, financial investment is essential for obtaining full access to a given technology. In practice, nearly all technologies offer limited features for free services, reserving more advanced features exclusively for premium, paid versions. As discussed earlier, the financial constraints faced by millennial lecturers contribute significantly to this challenge. Thus, the combination of time and monetary demands reinforces the notion that integrating technology into writing classes requires careful consideration and strategic planning.

University constraints

In addition to individual challenges, obstacles also arise from campus limitations, particularly in terms of facilities. Within this category, two challenges have been identified. The first is internet connectivity problems. From the interview and questionnaire results, it is revealed that WiFi networks are available on both campuses in the rural area that served as the research locations. However, the issue lies in the notably slow network, especially when accessed simultaneously by all lecturers and students.

The second challenge is the limited availability of projectors, as indicated by a comment from one lecturer in the interview excerpt below:

“Even to use PowerPoint is difficult as the number of InFocus in the college is limited. Not as colleges in big cities, in our college the InFocus are not installed in the classrooms, and there are not many InFocus available, so we often run out of InFocus to use.”

The comment reveals that even fundamental tools such as PowerPoint presentations become challenging due to the limited number of projectors, and the absence of installation in classrooms further exacerbates the issue. Unlike larger urban institutions that might have more extensive resources, the rural colleges face shortages in the availability of projectors. This shortage puts forth a significant impediment to incorporating technology-based teaching methods effectively, limiting the scope of visual aids and multimedia presentations. The findings align with the study conducted by Vanbuel (2022), which also indicates that limitations in resources such as hardware, software, educational materials, and network access manifest challenges in rural education.

CONCLUSION

In conclusion, this study aimed to explore the integration of technology in writing classes by millennial English lecturers in rural colleges and to identify the challenges they face. The findings reveal a diverse range of technologies employed by millennial lecturers, including social media platforms like WhatsApp, video conferencing tools such as Google Meet, AI-powered software like Grammarly, language learning apps, word processing software including Google Docs, and online creative platforms like Canva. These technologies respond to the varied needs of students and align with the contemporary trends in writing classes. However, there are some challenges faced by the millennial lecturers in integrating technology in rural area colleges. The challenges identified in this study are categorized into student, lecturer, and university constraints. The student constraints include economic limitations and technological unfamiliarity, while lecturer constraints involve difficulties in grading digital assignments, the need for professional development, and time and financial issues. In addition, university constraints entailing the slow internet connectivity and limited access to projectors, further compound the challenges faced by millennial lecturers.

The findings underscore practical implications for educators, institutions, and policymakers. To address economic constraints, institutions should facilitate access to necessary technologies, and tailored professional development opportunities can empower millennial lecturers in integrating technology effectively. Investing in internet infrastructure and ensuring sufficient technological resources are crucial steps for universities.

This research study creates opportunities for additional investigations to explore deeper into specific aspects. Exploring the impact of individual technologies on student outcomes, investigating how educators overcome the barriers in incorporating technology into English language teaching, and/or examining the role of institutional support in technology integration are areas that warrant additional investigation.

ACKNOWLEDGEMENT

This research does not receive any fundings from any agencies or institutions.

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