Technology-Driven Project-Based Learning to Elevate Students' English Writing Skills: Bridging Indonesian Local Culture and English Mastery

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Abstract. This study explores the integration of Indonesian local culture and English language through project-based learning to enhance students' writing skills. The project involved creating an English minibook with locally relevant cultural content, supported by tools like Google Translate, Quillbot, and Grammarly. Conducted with 65 participants in an English writing course using a classroom action research design, the study employed diverse instruments, including writing assessments, project templates, observation checklists, and reflective journals. Findings reveal significant improvements in students' writing skills and highlight the broader benefits of cultural integration in learning. The approach not only boosted motivation and engagement but also deepened students' appreciation for their cultural heritage and diversity. This research underscores the value of culturally relevant projects in fostering holistic development, enriching both language proficiency and cultural understanding.

Keywords: Google Translate; Grammarly; Minibook Project; Teaching Material; Quillbot

1 Introduction

In the current landscape of language education, the integration of Indonesian local culture within English language teaching and learning has gained considerable attention as a means to enhance linguistic proficiency while nurturing cultural identity [1]. This approach acknowledges the inseparable connection between language and culture, highlighting that language is not only a communication tool but also a carrier of cultural values and perspectives. The significance of bridging local culture ands language instruction is particularly evident in the context of elementary school preservice teachers. These educators-in-training, who may not specialize in English, often encounter difficulties in crafting coherent English sentences that are culturally resonant [2]. The disconnect between linguistic competence and cultural sensitivity underscores a need for innovative pedagogical approaches that address both aspects concurrently.

However, within this realm, a significant research gap emerges—specifically, the limited exploration of how the integration of local culture can potentially mitigate the challenge of negative language transfer from the students' first language (L1) to their second language (L2). This study seeks to address this gap by attempting to integrate the English writing classroom with local culture, employing a novel approach that engages students in the creation of an English mini book centered around local traditions for elementary school students. Preliminary

observations indicate that students often struggle to construct coherent sentences, exhibiting difficulties attributable to the negative transfer of L1 linguistic structures to their L2 writing. This issue impedes their ability to express themselves effectively in English. The innovative approach of involving students in crafting the mini book serves as a pivotal intervention, encouraging them to adopt simpler and more concise sentence structures. By doing so, students not only refine their language skills but also embrace a more culturally informed linguistic expression, thereby potentially mitigating the influence of negative language transfer.

This research endeavors to address this challenge by synergizing language and local culture within the domain of English language teaching. The objective of this study is to guide elementary school preservice teachers in producing coherent English sentences by grounding their linguistic practice in basic structures while infusing local cultural elements. By merging language learning and cultural understanding, this research aims to foster a holistic approach to language education. Through the integration of local culture in language learning, participants are not only encouraged to enhance their grasp of English language usage but also to appreciate the richness of their cultural heritage [3]. This project also unveils an intriguing connection between language learning and technology, as participants exhibit a proclivity to utilize tools like Google Translate, Quillbot, and Grammarly to refine their writing. This highlights the evolving landscape of language education, where technology complements teaching and learning process [4].

1.1. Technology-Driven Project-Based Learning (Tech-PjBL)

This study emphasized Technology-Driven Project-Based Learning (Tech-PjBL), where students engaged in real-world projects throughout the semester, integrating technological tools to enhance learning outcomes. Five distinguishing characteristics defined this approach [5] that makes PjBL different from most projects done at school [6]: (1) a driving question that guided the project, (2) situated inquiry to address real-world challenges, (3) collaboration among peers, (4) the strategic use of technology, and (5) the creation of a tangible artifact. Students actively researched, constructed, and applied knowledge to solve complex problems while collaborating with peers [7]. Technology played a pivotal role, supporting project management, instructional delivery, and product creation [8]. Tools like digital platforms, multimedia software, and communication apps facilitated planning, resource sharing, and feedback, enabling students to produce innovative outputs such as digital presentations or interactive prototypes. By blending PjBL with technology, the study showcased how Tech-PjBL fosters active learning while equipping students with the skills needed in a technology-driven world.

Besides PjBL, the project in this study also underpinned the process approach in writing involving planning, drafting, and revising, and publishing the final product [9], and the stages might be recursive wherein the students oscillate from one stage to another [10]. The key features of process approach in writing include: (1) provision of adequate time, (2) importance of ownership, (3) value of constructive feedback, and (4) collaborative environment [11]. In other words, teacher have to provide enough time for the students to construct their knowledge during the writing process through working collaboratively and responding to teachers or peers' feedbacks. The feeling of ownership will evolve through the whole writing process because the process approach suggests teachers to allow the students taking control of their writing starting from choosing the topic, making an outline, reviewing their draft, and correcting errors. Students might need their peers' assistance to help them cope with those responsibilities, rather than working alone [12].

Both PjBL and process approach in writing share common characteristics by nature. They simultaneously emphasize the process rather than the product, in which the process is worth more because all crucial learnings, inquiry learning, autonomous learning, collaborative learning [11], occur after students finish creating the product, while the product is merely as a result of students' sustainable efforts. The process, according to [13], could assist students to develop the cognitive, affective, and verbal process. Besides, the two learning approaches provide more time and opportunity for students to take control of their learning by working collaboratively [5].

When the minibook project is brought into classroom practice (see Figure 1), students will eventually develop several skills throughout the process such as cognitive skill, affective skill, and verbal skill. Students' cognitive skills are developed when they planned to write their minibook, searched for sources, wrote, edited, and provided peer feedback by thinking critically and creatively. The affective skills are promoted through the ownership in which the students felt responsible for the whole processes of the minibook writing and the value of constructive feedback by which they were encouraged to improve their essay. Finally, verbal skills occur through the social process between students and their peers or teachers while working collaboratively to provide feedback and giving advice as peers' evaluation that can eventually improve their communicative skills. By underlining the PjBL key characteristics, students are supposed to use a technology that aids them to carry out all the writing processes when working individually as well as collaboratively with their peers.
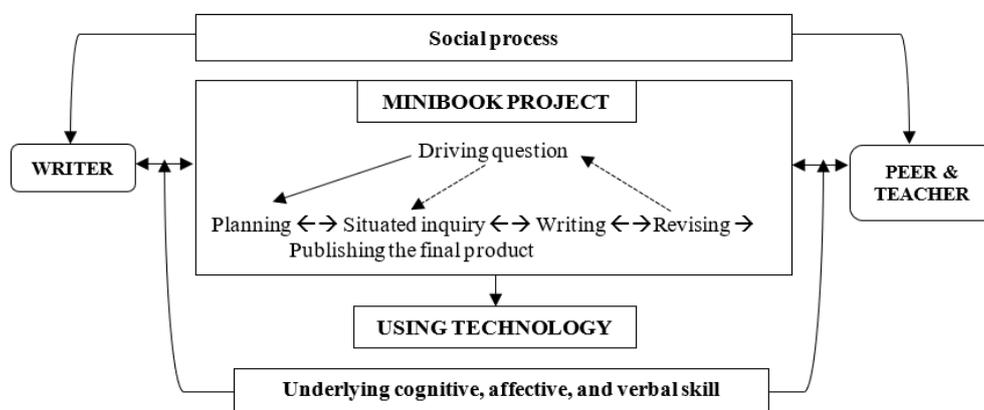

Figure 1. Flowchart of Minibook Project Adapted from Key Characteristics of Process Writing (Coe, 1988) and Project-Based Learning (Krajcik & Shin, 2014)

1.2 Incorporating Indonesian Local Culture in English Teaching Material

Teaching materials constitute a crucial facet of the educational process, wielding a significant influence on students' achievements and learning motivation. As pedagogical paradigms shift from teacher-centric to student-centric, the role of teaching materials has taken center stage within the teaching landscape [1]. In this dynamic context, effective teaching materials can be the pivotal factor that determines the outcomes of learning endeavors. With the evolution of

education, educators often find themselves crafting tailored materials to suit students' specific needs [16], [17]. Such well-crafted resources not only facsilitate the learning process but also infuse it with a sense of enjoyment and engagement [18]. Additionally, teaching materials that provide ample space for students' growth foster and sustain a sense of independent learning [19].

A comprehensive approach considers students' cultural backgrounds, recognizing the integral connection between language and culture. This connection is particularly pronounced when teaching English as a Foreign Language, where both the English language culture and students' own cultural contexts necessitate consideration [20]. Incorporating local culture becomes especially advantageous when teaching English to non-native speakers [21]. It can be achieved through various means, such as using authentic texts, multimedia resources, and real-world scenarios that resonate with students' cultural experiences.

By infusing language materials with local cultural elements, educators create a rich and authentic language learning environment that reflects the complexity and diversity of language use in real-life situations. Local culture refers to the way of life and traditions of people who have lived in a particular place for a long time [14]. In this case, it specifically relates to the cultural background of the students. The incorporation of local culture within the realm of English language teaching has garnered considerable attention within the field, signifying an evolving pedagogical approach that acknowledges the intricate interplay between language and culture [3]. It is widely acknowledged that language is a dynamic reflection of cultural identity—a notion that underpins the philosophy of integrating local cultural elements into language instruction. This integration serves to catalyze multifaceted benefits, extending beyond mere linguistic competence to encompass the nurturing of intercultural understanding and enhanced communication abilities [15].

In today's interconnected world, where borders blur and global communication is paramount, English emerges as a bridge connecting diverse cultures. The integration of local culture within English instruction offers students a unique opportunity to cultivate language proficiency hand in hand with an enriched appreciation for diverse perspectives [3]. By contextualizing language learning within culturally relevant content, education transcends the conventional boundaries, infusing learning experiences with depth and resonance. This synergistic approach extends its influence beyond linguistic acquisition, actively fostering the development of cultural competence—a fundamental capacity that empowers learners to navigate the intricate tapestry of cross-cultural interactions with heightened sensitivity and efficacy.

1.3 The Nature of English Teaching Material for Elementary School Students

Designing learning materials that effectively cater to the needs of young elementary students is a nuanced endeavor that demands meticulous consideration of their developmental stage and learning requirements. Esteemed scholars like [22] accentuate the significance of harmonizing instructional materials with these factors. Central to this is the art of aligning the materials with their age group, ensuring that the chosen topics are not only suitable but also resonate with their cognitive and emotional development. Furthermore, employing language that is accessible and comprehensible is essential, as it empowers students to engage with the content meaningfully. Equally vital is the interactive nature of these materials, as they captivate students' attention and maintain their active participation [23]. This multifaceted approach serves to foster a conducive learning environment that optimally caters to their learning preferences.

In elementary education, storybooks are particularly valuable. They capture children's interest with colorful pictures, relatable characters, and interesting stories [22]. Beyond being engaging, storybooks also help students with listening and understanding, as well as reading and talking. However, storybooks can be even more valuable when they include elements from the local culture. When stories reflect local traditions and values, they become bridges between students' own culture and the wider world. This connection allows students to learn more about their own culture while also understanding other cultures better [24]. Students delve deeper into their own cultural heritage, cultivating a stronger sense of identity and appreciation for their roots. Simultaneously, the inclusion of local cultural dimensions facilitates cross-cultural understanding, enabling students to embrace diverse perspectives and cultures with heightened empathy.

1.4 Research Questions

With the backdrop of relevant literature that emphasizes the fusion of language, culture, and effective pedagogy, this research is guided by three research questions.

1) How does integrating local cultural content to the minibook project affect students' writing skills?
2) How do students use technological tools during the minibook project?
3) What do students think about integrating the local culture content in the minibook project?

2 Research Method

2.1 Participants

The study involved 65 future elementary school teachers who were taking a course on writing in English. These participants were not specializing in English but were studying various aspects of teaching for elementary students. They were in the final stages of their teacher training program. We chose these participants for our study based on convenience, meaning they were easily accessible and suitable for our research context [25]. Before participating in this study, the students had already taken one English language course that covered general language skills. In this study, they were taking a second course focused specifically on writing in English.

When the study began, the students were asked to write a short essay about themselves. Surprisingly, most of them seemed to avoid getting straight to the point and instead wrote sentences that went around the main idea. This behavior resembled how they might write in their own language. When students transition from writing in Indonesian to writing in English, they might unconsciously carry over elements of their native language's writing style as depicted in the example of student's writing below.

> *Being a qualities of a good teacher, the most important is, can adapt to the new environment. Besides, being a good teachers also have to be able to understand the lessons that will be knowing to the students, being able to controlling the class, and a good teachers need to have a strong communicators, besides that we also have to be able to recognize our students, because not all students have the same skills. Each student has character and intelligence in their respective fields.*

In terms of coherence, the first sentence appears slightly fragmented due to its structure. A potential revision could be: "*One of the essential qualities of a good teacher is the ability to adapt to new environments.*" This change creates a more connected sentence that flows

smoothly. Conciseness could also be improved throughout the excerpt. For instance, the phrase "*the most important is*" could be revised to "*most importantly*" for brevity. Similarly, "*being able to understanding*" could be condensed to "*understanding*," and "*being able to controlling*" could be shortened to "*controlling*."

The provided example demonstrates certain tendencies often observed in Indonesian communication styles. Indonesian communication often includes more elaborate sentence structures, which can lead to sentences that are longer and less concise. This can sometimes affect the overall clarity and coherence of the message. This tendency might contribute to the inclusion of additional words and phrases that could be streamlined to achieve greater sentence clarity and coherence. By adopting a more concise writing style, the message could be communicated more effectively, aligning with the trend toward concise communication often found in English language usage. This approach enhances sentence coherence by ensuring that each sentence presents a clear and cohesive idea, leading to a more easily comprehensible piece of writing.

2.2 Research Design

This study employed a classroom action research (CAR) design to investigate the synergistic integration of language and local culture in the context of English language teaching. CAR was chosen due to its participatory nature, allowing educators to actively engage in their professional growth and collaboratively explore innovative pedagogical strategies [26]. The iterative nature of CAR aligns with the study's objective of refining instructional practices through continuous cycles of planning, action, observation, and reflection. Data collection occured over multiple cycles of action and reflection. Table 1 shows each cycle involves the following phases.

Table 1. The CAR Cycles and Classroom Activities

CAR Cycle	Classroom Activities
Planning Phase	The planning phase involved conceptualizing a minibook that not only aligned with language learning goals but also seamlessly incorporated local cultural elements. The project's structure, themes, and content were strategically outlined to ensure it effectively engaged participants while fostering language development and cultural understanding.
Action Phase	The action phase encompassed the implementation of the minibook project within the English writing course. During this phase, participants actively engaged in the creative process of crafting the minibook. They brainstormed, wrote content, integrated cultural elements, and designed illustrations. This hands-on involvement facilitated a practical application of language skills and cultural knowledge. The action phase was also an opportunity for participants to exercise autonomy and collaborative skills as they collectively contributed to the minibook's creation.
Observation Phase	In the observation phase, we closely monitored and documented the participants' interactions, behaviors, and outcomes during the minibook project. The focus was on capturing both overt and subtle actions, responses, and challenges that arose. We noted how participants navigated language barriers, collaborated to incorporate cultural elements, and engaged in the creative process. This phase shed light on how the participants negotiated language and culture within the project,

CAR Cycle	Classroom Activities
	revealing insights into their learning experiences and potential areas for improvement.
Reflection Phase	After the minibook project was completed, the participants assessed their contributions, linguistic development, and cultural engagement through the minibook. This phase offered a space for participants to articulate their experiences, challenges, and achievements. Besides, the reflection facilitated us a deeper understanding of how the project's integration of language and culture impacted participants' learning journeys. This phase also laid the groundwork for refining future iterations of the minibook project or similar initiatives.

2.2 Research Instruments for Minibook Project

In order to effectively gather data that aligns with each stage of the data collection process, specific research instruments were employed. These instruments were thoughtfully designed to capture insights and information relevant to the unique aspects of each phase.

2.2.1 Students' Writing

At the beginning of the project, participants submitted their writing samples. These samples were collected to evaluate participants' writing skills and to gather their thoughts on language and cultural elements that could enhance the minibook project. Analyzing these writing samples provided insights into participants' language proficiency and their ideas for incorporating cultural aspects. This information guided the project's development to align with participants' preferences and needs.

2.2.2 Project Guidelines and Templates

Detailed project guidelines and templates were provided to participants as essential tools for creating their minibooks. These instruments offered step-by-step instructions on content creation, cultural incorporation, and overall project structure. By following these guidelines and utilizing the templates, participants were able to execute the project in a manner that aligned with the intended objectives

2.2.3 Observation Checklist

The observation checklist was employed as a structured tool during project sessions. Researchers used this instrument to systematically document participants' interactions, collaborative dynamics, and engagement with both language and cultural elements throughout the minibook creation process. This checklist facilitated the capture of valuable non-verbal cues, dialogue patterns, and teamwork dynamics, contributing to a comprehensive understanding of participants' behaviors and linguistic strategies.

2.2.4 Reflective Journals

Participants were encouraged to maintain reflective journals upon completing the minibook project. These journals provided an unfiltered outlet for participants to express their personal thoughts, challenges, insights, and reflections on how the project influenced their understanding of language and culture. These entries served as introspective resources, illuminating the nuanced ways in which participants engaged with the project and internalized its outcomes.

3 Result And Discussion

This section presents a comprehensive analysis of the data collected from the research instruments and delves into the key themes that emerged from the study. Through a detailed exploration of these themes, this section elucidates the project's impact on students' writing achievement, technology usage, and perceptions of the minibook project. The insights garnered from the data offer valuable insights into the effectiveness of integrating local culture in language instruction and shed light on the dynamic interplay between language, culture, and pedagogical strategies.

3.1 The process of developing the minibook and students' writing achievement after the project

Throughout the course of the mini-book project, we closely observed the behavior of participating students. By examining the students' involvement in each stage, we gain valuable insights into the ways in which they connect with the project, express their cultural identities, and refine their writing skills. Below, we delve into each of these stages, shedding light on the students' roles and contributions.

Table 2. Students' Behaviour and Activities during the Study

Writing Stages	Students' Behaviors and Activities
Planning	The planning phase began with an introduction to the mini-book project. This introduction outlined the goals, objectives, and expectations of the project, giving students a clear sense of what lied ahead. Students actively participated in the selection of a topic for their mini-books, ensuring it aligned with their cultural interests and personal passion. They engaged in research, enthusiastically gathering content that was appropriate to their chosen cultural theme. Students collaboratively created an outline, discussing sections, subtopics, and the flow of their mini-books. They were also involved in brainstorming ideas for visuals, such as illustrations or photos, that would enhance the cultural richness of their projects.
Drafting	In the drafting phase, students were the creative force behind their mini-books. They actively put pen to paper (or fingers to the keyboard) to bring their chosen topics to life. Writing became an outlet for their creativity, self-expression, and cultural exploration. Simultaneously, students took ownership of the visual design, deciding on layout, fonts, and how best to integrate images that complement their content. They also participated in peer review sessions, offering thoughtful feedback on their classmates' drafts, contributing to a collective sense of improvement and mutual support.
Revising	The revising phase placed students in the spotlight as they presented their work to the class. They explained the content and design choices they made, articulating their thought processes and creative decisions. The peer feedback session was a forum for students to actively listened, learned, and provided constructive feedback on their peers' projects. It's a collaborative effort aimed at strengthening the entire class's work. Students then took these insights and

Writing Stages	Students' Behaviors and Activities
	suggestions into account when revising their own mini-books, actively working to enhance clarity, cultural relevance, and overall quality.
Publishing	Before publishing, the students incorporated the feedback and improvements from the revising phase into their work. Depending on available resources and their choices, students might decide whether to print physical copies of their mini-books, actively overseeing the production process. Alternatively, they explored digital publishing tools to share their creations online, extending their cultural insights to a broader audience. The culmination of the project sees students presenting their final mini-books to classmates, teachers, and, ideally, a wider community, showcasing their cultural awareness, enhanced writing skills, and design aptitude. This stage marks the celebration of their efforts and accomplishments.

Upon analysing the writing samples accumulated during the minibook project, a substantial enhancement in students' writing skills became readily apparent. The results illuminated pronounced improvements across key dimensions: cohesion, vocabulary, and sentence structure. The majority of participants exhibited a heightened level of coherence in their sentences, revealing a marked progression in their ability to construct content that is both succinct and meaningful. This improvement was underpinned by a discernible rise in the application of cohesive devices, fostering a smoother flow of ideas. Additionally, there was an observable refinement in sentence structures, as evidenced by greater clarity and organization. Remarkably, participants demonstrated a deliberate incorporation of culturally relevant terms and expressions within their writing. This not only testified to an enhanced grasp of contextual language use but also underscored the project's efficacy in promoting cultural integration within language expression.

Table 3. Students' Writing Score

Writing Assessment	Pre-Project Mean	Post-Project Mean
Cohesion	65	85
Vocabulary	70	90
Structure	60	80

Table 3 shows the observed improvement in writing skills is underscored by quantitative data, where coherence scores increased significantly from a pre-project mean of 65 to a post-project mean of 85. Similarly, vocabulary usage exhibited growth, with participants achieving a post-project mean of 90, compared to a pre-project mean of 70. Sentence structure displayed similar progress, with a post-project mean of 80, up from a pre-project mean of 60. These scores affirm the tangible benefits of cultural integration on diverse facets of writing skills. This enhancement in writing skills, with specific attention to cohesion, vocabulary, and structure, aligns harmoniously with existing literature that underscores the interrelation between cultural context and language proficiency [18]. The infusion of local cultural elements served as a scaffolding mechanism, enabling participants to construct coherent and culturally embedded sentences. These outcomes underscore the pivotal role of culturally relevant pedagogical approaches in optimizing language use and fostering a profound connection between language and culture.

3.2 Students' use of technological tools during the minibook project

During the study, students actively engaged with technology tools, notably utilizing Google Translate as a resource for translating phrases from their native language to English. This approach, however, yielded certain challenges. Notably, not all translated vocabulary proved suitable within the context. For instance, the term "front yard" was inaccurately translated as "front page" in the phrase "this is the front page," which was not contextually appropriate as it referred to the yard of a specific place. Recognizing this issue, students were prompted to enhance their sentence structure and vocabulary choices using Quillbot, a paraphrasing tool.

The students' interaction with Quillbot involved a deeper analytical process. In this regard, the students were encouraged to carefully consider the context of the sentences. Quillbot offered multiple word choices for each sentence, prompting students to select the most fitting option (see Figure 2). When presented with word alternatives for "front page," students might perceive these options as being better suited for books or websites rather than describing a physical location. This perspective highlights how word choices can carry certain connotations that may not align with the intended context, underscoring the importance of selecting vocabulary that accurately reflects the specific setting or situation being discussed. By actively evaluating the context and appropriateness of the provided options, students honed their language skills and gained a more nuanced understanding of word usage. This two-step process of translation via Google Translate followed by refinement through Quillbot not only enhanced students' command of language but also cultivated their critical thinking abilities in terms of selecting precise language for the intended context.
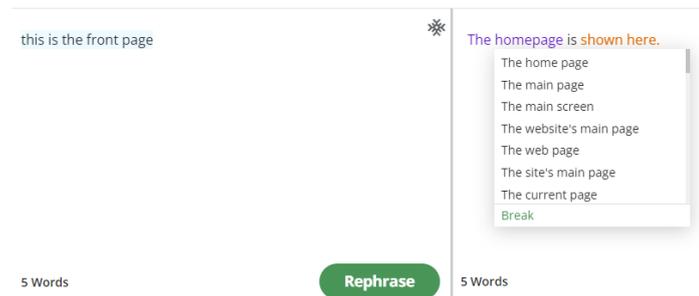

Figure 2. Rephrase Menu in Quillbot

Subsequently, the students employed Grammarly to enhance the structure of their sentences, resulting in writing that was more lucid and systematically organized. By utilizing Grammarly, they were able to identify and rectify errors in their sentence construction, leading to improved coherence and readability in their written work. This step facilitated a clearer and more structured presentation of their ideas, thereby elevating the overall quality of their writing output. Regarding the design aspect, the majority of students opted to utilize Canva for crafting visually appealing layouts for their minibooks. Canva served as a preferred platform for designing due to its user-friendly interface and versatile features. Through Canva, students were able to exercise their creativity by incorporating captivating visuals and arranging elements in an engaging manner within their minibooks. This choice of design tool allowed students to seamlessly integrate aesthetic and functional components, contributing to the overall attractiveness and effectiveness of their minibook presentations.

This versatile use of technology tools aligns with the idea of blended learning, where digital resources complement traditional teaching methods [28]. The findings support the idea that technology can enhance language learning by making it more engaging and providing new learning paths. The use of Google Translate to bridge cultural gaps highlights its role in promoting cross-cultural understanding. In short, the different ways students used technology tools show their potential to not only improve language skills but also enhance cultural awareness. The combination of digital resources with language learning matches modern education approaches, providing students with a comprehensive and interactive way to learn languages. Exploring how technology can help in language and cultural learning opens new possibilities for creative teaching methods that suit different learning preferences and needs.

3.3 Students' perception toward the minibook project

In this section, the students' perceptions have been categorized into distinct themes (see Table 4), each highlighting a specific aspect of their experiences with the minibook project. These themes were derived from the students' own words, capturing their sentiments and insights. The categorization allows for a comprehensive exploration of the multifaceted impact of the project, shedding light on how cultural integration influences motivation, connection, appreciation for diversity, engagement, and the understanding of language and culture.

Table 4. Students' Perceptions toward the Minibook Project

No	Theme	Selected Excerpts
1	Enhanced Motivation through Cultural Integration	● Learning language through cultural stories made me excited to participate. ● I felt more motivated to learn when I saw how language connects to our culture. ● Cultural aspects in language learning brought a new energy to our studies.
2	Deeper Connection to Learning	● I felt like I was exploring my own culture while learning a new language. ● Seeing our culture in the language lessons made me feel more involved. ● It was like discovering a new world through familiar stories.
3	Appreciation for Diversity	● The project helped me appreciate other cultures and languages. ● Learning about different cultures made me more open-minded. ● I realized how important it is to learn about others' backgrounds.
4	Engagement and Enjoyment	● I looked forward to each lesson because of the cultural stories. ● The project made learning more enjoyable and less intimidating. ● I felt more connected to the language because of the cultural context.
5	Holistic Learning Experience	● The project showed me that language and culture are intertwined.

No	Theme	Selected Excerpts
		• I learned that language is more than just words; it's about understanding people.
		• This project made me see how language is a window into a culture's heart.

The perceptions shared by students reflect a range of positive outcomes resulting from the integration of cultural elements within the minibook project. These outcomes resonate with established educational theories and practices, reinforcing the project's significance in language and cultural learning. The students' heightened motivation due to cultural integration underscores a key finding of the project. When language is interwoven with familiar cultural contexts, it triggers a sense of enthusiasm and relevance. This aligns with motivational theories that emphasize the importance of creating meaningful learning experiences [1]. By catering to students' intrinsic curiosity and linking language acquisition with their cultural identity, the project successfully kindled a stronger commitment to learning.

The sense of deeper connection observed among students speaks to the project's ability to foster a more immersive learning environment. By embedding language within cultural narratives, students felt like they were navigating their cultural heritage while acquiring language skills. This mirrors sociocultural theories that highlight the role of context in shaping learning experiences [14]. By placing students within the framework of their culture, the project facilitated active participation and meaning-making, leading to a richer understanding of both language and culture.

The students' increased appreciation for cultural diversity is another noteworthy outcome. Exposure to various cultural perspectives through the project promoted an open-minded and inclusive attitude. This effect resonates with the objectives of global education that emphasize the importance of intercultural competence [3]. By promoting understanding and respect for different cultures, the project not only enhanced language skills but also nurtured skills essential for effective communication across diverse contexts.

The heightened engagement and enjoyment reported by students highlight the transformative impact of cultural integration on the learning experience. Participants' anticipation of cultural narratives and the joy they found in learning suggest that the project succeeded in creating an interactive and enjoyable learning atmosphere. This shift towards active engagement aligns with constructivist theories that emphasize the role of learners as active participants in knowledge construction. The project's approach to integrating cultural elements facilitated a dynamic and participatory learning environment, enhancing retention and application of knowledge.

Finally, the students' realization of the interdependence of language and culture signifies the project's success in providing a comprehensive learning experience. By immersing students in cultural narratives, the project facilitated a profound understanding of the intrinsic link between language and identity. This aligns with theories highlighting the inseparability of language and culture in communication. The project's emphasis on cultural narratives not only enriched language proficiency but also nurtured a sense of cultural competence, a vital skill for effective communication in diverse contexts.

4 Conclusion

This study set out to explore the integration of local cultural elements in a minibook project and its impact on students' writing skills, technology use, and perceptions of language learning and culture. The findings reveal the transformative potential of incorporating cultural context into language projects, shedding light on the intricate interplay between language, culture, and pedagogy. The results underline the positive influence of local cultural integration on students' writing skills. The improved coherence, sentence structure, and incorporation of culturally relevant terms within their writing indicate that cultural context serves as a foundation for effective language use. Moreover, the diverse use of technology tools, from translation to sentence refinement, highlights the multifaceted role of technology in supporting both language and cultural learning. The overwhelmingly positive student perceptions emphasize the efficacy of culturally integrated pedagogical approaches in fostering enthusiasm for language learning and promoting cross-cultural understanding. While the study provides valuable insights, it is not without limitations. The research was conducted within a specific context, potentially limiting the generalizability of findings. Additionally, the extent to which technology tools influenced cultural exploration requires further investigation, as the study focused on patterns of usage rather than in-depth analysis. Educators can leverage the findings by designing language projects that integrate local cultural elements to enhance writing skills and cultural understanding. Encouraging mindful use of technology tools for language enhancement and cultural exploration could further enrich the learning experience. Future research could delve into the nuanced interaction between technology, language, and culture, exploring the extent to which technology can facilitate deep cultural comprehension. Furthermore, expanding the study's scope across different contexts and age groups could offer a broader understanding of the efficacy of culturally integrated language projects.

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