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EXPLORING STUDENTS' SELF-EFFICACY IN VOCABULARY AND PRONUNCIATION LEARNING THROUGH CULTURALLY RESPONSIVE DIGITAL GAME-BASED LEARNING

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Abstract

This study explores students' self-efficacy in learning English vocabulary and pronunciation through Culturally Responsive Digital Game-Based Learning (CRDGBL) at SMP Negeri 1 Nggaha Ori Angu, East Sumba, Indonesia. The research was conducted to investigate how culturally integrated digital game-based instruction influences students' language learning experiences and self-efficacy development. A basic qualitative research design was employed, involving seven seventh-grade students selected through purposive sampling. Data were collected through classroom observations, semi-structured interviews, activity logs, researcher field notes, and documentation, and analyzed thematically following Merriam and Tindell's (2015) qualitative analysis procedures. The findings reveal that CRDGBL supported vocabulary learning by connecting learning materials to students' local culture, enabling meaningful retention through contextualized and interactive activities. In pronunciation learning, repeated exposure to audio models, teacher guidance, and peer interaction gradually improved students' accuracy and speaking confidence. Furthermore, students' self-efficacy increased through mastery experiences, vicarious experiences, verbal persuasion, and positive emotional states during learning activities. Overall, the study demonstrates that integrating local cultural content into digital game-based learning creates an engaging and supportive environment that enhances both linguistic skills and learners' confidence. These findings highlight the importance of culturally responsive and technology-enhanced pedagogy in rural EFL contexts to improve students' English learning outcomes and self-beliefs.

Keywords: Vocabulary and Pronunciation Learning, Culturally Responsive Digital Game Based Learning, Student's Self-Efficacy

INTRODUCTION

Vocabulary is a fundamental component of English language learning because it supports learners' ability to comprehend meaning and communicate effectively. Vocabulary mastery contributes to the development of other language skills, whereas insufficient vocabulary knowledge often hinders learners from understanding and using English appropriately (Pikulski & Templeton, 2004; Susanto, 2017). However, many EFL learners still encounter difficulties in memorizing words, understanding meanings, and applying vocabulary in different contexts (Kesmez, 2024; Lutfiyah et al., 2022). These challenges indicate the need for more engaging and meaningful instructional approaches to facilitate vocabulary development.

Pronunciation is another essential aspect of language learning because it determines the intelligibility of spoken communication. Nevertheless, pronunciation is often considered difficult by EFL learners due to differences between the sound systems of their mother tongue and English (Baran-Łucarz, 2014). In the Indonesian context, mother-tongue interference frequently leads to inaccurate pronunciation and misunderstandings (Huda et al., 2024). Moreover, learners often experience difficulties in connecting spelling with pronunciation and retaining the correct forms of words (Lawati, 2025; Sammour-Shehadeh et al., 2023). Many challenges may reduce learners' confidence and willingness to communicate in English. Therefore, effective instructional approaches are required to support learners in developing both vocabulary and pronunciation.

One instructional approach that has attracted considerable attention is Digital Game-Based Learning (DGBL). Previous studies have shown that digital games facilitate vocabulary learning and pronunciation practice by providing interactive, contextualized, and low-anxiety learning environments (Chowdhury et al., 2024; Rahayu & Utami, 2023; Zhang et al., 2024). Features such as immediate feedback, repetition, and adaptive learning experiences contribute to students' motivation and engagement. However, many educational games are predominantly designed from Western perspectives and often fail to represent learners' local cultures and experiences (Albirini, 2006; Hammer & Davidson, 2017). Consequently, culturally irrelevant learning materials may reduce learners' engagement and the meaningfulness of language learning.

To address this limitation, Culturally Responsive Teaching (CRT) emphasizes the integration of students' cultural backgrounds, experiences, and identities into the learning process (Gay, 2002). By connecting instructional content with learners' lived experiences, culturally responsive practices have been shown to enhance student engagement, motivation, and emotional safety (Aguayo et al., 2024; Azis et al., 2024). In language learning, culturally relevant materials provide meaningful contexts that encourage learners to actively participate and construct knowledge based on familiar experiences. Therefore, integrating cultural responsiveness into digital learning environments can make language learning more engaging and relevant to students' needs.

This study is grounded in Bandura's Social Cognitive Theory, particularly the concept of self-efficacy, which refers to individuals' beliefs in their capabilities to successfully perform specific tasks (Bandura, 1997). Self-efficacy plays an important role in language learning because it influences learners' motivation, persistence, and willingness to employ learning strategies when facing difficulties (Heidari, 2012; Raoofi et al., 2012). Students with higher levels of self-efficacy tend to demonstrate greater confidence and resilience in learning activities, including vocabulary and pronunciation practice. Therefore, strengthening students' self-efficacy is essential for successful language learning.

Previous studies have highlighted the potential of combining cultural relevance and digital learning environments to support language development. Adriyanti et al. (2022) developed a Balinese culture-based vocabulary game and found that integrating local traditions and stories enhanced students' engagement and promoted cultural awareness. Likewise, Basnet (2024) reported that culturally embedded role-playing games enabled learners to practice English through familiar daily contexts, thereby increasing motivation and participation. In terms of self-efficacy, previous studies have consistently demonstrated that learners with stronger self-efficacy tend to apply more effective learning strategies and achieve better language outcomes (Raoofi et al., 2012; Heidari, 2012). Furthermore, digital learning environments providing immediate feedback and repeated practice have been found to foster learners' confidence and self-efficacy (Berry, 2021; Fanania & Priyatmojo, 2025). These findings suggest that integrating cultural relevance and digital games has considerable potential to enhance both language learning and students' confidence.

However, despite these promising findings, previous studies have mainly examined digital game-based learning and culturally responsive teaching separately. Research on Culturally Responsive Digital Game-Based Learning (CRDGBL) remains limited, particularly in English language learning contexts. Moreover, most existing studies have focused on language achievement, motivation, and engagement, while relatively little attention has been given to students' self-efficacy in vocabulary and pronunciation learning. Therefore, this study aims to explore how Culturally Responsive Digital Game-Based Learning facilitates students' vocabulary and pronunciation learning and influences their self-efficacy especially in Indonesian junior high schools and rural educational settings.

LITERATURE REVIEW

Vocabulary and Pronunciation Learning

Vocabulary is a core component of English language learning because it serves as the foundation for all language skills, including listening, speaking, reading, and writing. It refers to the collection of words that learners understand and use in communication (Hornby et al., 1974; Nunan, 1999), and is widely

recognized as a key indicator of overall language proficiency (Richards & Renandya, 2022). However, vocabulary knowledge is not merely about memorizing word lists, but involves deeper dimensions such as form, meaning, and use that develop progressively through exposure and practice (Beck et al., 2013). Despite its importance, EFL learners frequently encounter challenges in vocabulary acquisition, particularly in retaining new words, using them in context, and pronouncing them correctly (Afzal, 2019; Thornbury, 2006). These difficulties are often caused by limited exposure to meaningful input and an overreliance on rote memorization, indicating the need for more interactive and contextualized learning approaches.

Pronunciation is equally essential in English learning because it determines how effectively meaning is conveyed in spoken communication. It involves segmental features such as vowels and consonants as well as suprasegmental features including stress, rhythm, and intonation, which collectively influence intelligibility (Linse & Nunan, 2005; Yates & Zielinski, 2009). Effective pronunciation is not only about producing correct sounds but also about ensuring that speech is understandable and communicatively appropriate in real-life contexts (García Suárez, 2018; Ur, 1996). However, learners often experience pronunciation difficulties due to interference from their first language, differences in phonological systems, and limited opportunities for practice, which result in inaccurate articulation and reduced speaking confidence (Baran-Łucarz, 2014; Huda et al., 2024). In addition, pronunciation is frequently underemphasized in classroom instruction, leading to a gap between learners' knowledge of language forms and their ability to produce intelligible speech (Gilakjani, 2017; Kelly, 2006).

Digital Game-Based Learning (DGBL)

Digital Game-Based Learning (DGBL) is an instructional approach that integrates game elements such as challenges, rewards, feedback, and competition into learning activities to enhance student engagement and motivation. In the context of English language learning, DGBL has been shown to support vocabulary acquisition and pronunciation development by providing interactive, repetitive, and contextualized learning experiences that encourage active participation (Chowdhury et al., 2024; Rahayu & Utami, 2023; Zhang et al., 2024). The immediate feedback feature in digital games also allows learners to recognize errors and improve performance in a low-anxiety environment, which is particularly beneficial for language learners.

However, despite its effectiveness in improving cognitive outcomes, most DGBL studies tend to focus on achievement and accuracy rather than affective factors such as confidence, anxiety, and self-efficacy. Moreover, many digital learning games are designed based on Western cultural contexts, which may not fully reflect learners' local identities and sociocultural experiences (Albirini, 2006; Hammer & Davidson, 2017). This limitation suggests the need for instructional approaches that combine technological engagement with cultural relevance to enhance both linguistic and psychological aspects of learning.

Culturally Responsive Teaching (CRT)

Culturally Responsive Teaching (CRT) is an educational approach that emphasizes the integration of learners' cultural backgrounds, experiences, and identities into the learning process to make instruction more meaningful and effective (Gay, 2000). In English language learning, CRT helps bridge the gap between foreign language content and students' lived experiences, thereby increasing engagement, motivation, and emotional connection to learning (Aguayo et al., 2024; Azis et al., 2024). By contextualizing learning materials within familiar cultural frameworks, students are more likely to construct meaning and actively participate in learning activities.

CRT has been extended into Culturally Responsive Digital Game-Based Learning (CRDGBL), which combines cultural relevance with interactive digital environments. Studies show that CRDGBL enhances vocabulary learning and learner engagement by embedding local cultural elements into game-based tasks and narratives (Adriyanti et al., 2022; Basnet, 2024). However, existing research mainly focuses on engagement and linguistic achievement, while the psychological impact, particularly students'

self-efficacy, remains underexplored. This indicates the need for further investigation into how culturally responsive digital learning environments influence learners' beliefs and confidence.

Students Self-Efficacy

Self-efficacy, as proposed in Bandura's Social Cognitive Theory, refers to learners' beliefs in their capability to perform specific tasks successfully (Bandura, 1997). It plays a crucial role in language learning because it influences motivation, persistence, strategy use, and willingness to engage in challenging communicative activities. Students with higher self-efficacy tend to show better academic achievement and stronger engagement in learning processes (Heidari, 2012; Raoofi et al., 2012). In technology-enhanced learning environments, features such as interactivity, feedback, and learner autonomy have been shown to strengthen learners' confidence and self-efficacy (Berry, 2021; Fanania & Priyatmojo, 2025). However, despite these findings, there is still limited research examining how self-efficacy develops in vocabulary and pronunciation learning within culturally responsive digital game-based learning contexts, particularly in rural EFL settings. This gap highlights the need for an integrated framework that connects language learning, digital pedagogy, cultural responsiveness, and psychological development.

METHOD

This study employed a basic qualitative research design to explore how seventh-grade students constructed meaning from their experiences of learning English vocabulary and pronunciation through Culturally Responsive Digital Game-Based Learning (CRDGBL). Basic qualitative research seeks to understand how individuals interpret their experiences and assign meaning to educational phenomena in natural settings (Merriam & Tisdell, 2015). The study was conducted at SMP Negeri 1 Nggaha Ori Angu, East Sumba, Indonesia, during the even semester of the 2025/2026 academic year. The objective of the study was to explore students' self-efficacy in learning vocabulary and pronunciation through CRDGBL by examining their learning experiences, perceptions, and interactions within a culturally responsive digital learning environment.

The participants were seven seventh-grade students who were selected through purposive sampling because they had direct experience with CRDGBL and could provide rich information regarding the phenomenon under investigation (Creswell & Poth, 2017). As beginning English as a Foreign Language (EFL) learners, they were considered appropriate participants for exploring how culturally responsive digital game-based learning facilitated vocabulary learning, pronunciation development, and self-efficacy. The inclusion criteria required students to have participated in CRDGBL activities, attended English classes regularly, actively engaged in vocabulary and pronunciation learning activities, and been able to communicate their learning experiences during interviews. Formal permission was obtained from the school principal prior to the study, and informed consent was secured from both the students and their parents to ensure that the research complied with ethical principles of basic qualitative.

Data were collected using multiple qualitative methods, including classroom observations, semi-structured interviews, activity logs, researcher field notes, and documentation. Classroom observations were conducted throughout the implementation of CRDGBL to capture students' participation, interactions, vocabulary use, pronunciation practice, and learning behaviors. Semi-structured interviews were employed to explore students' perceptions and experiences regarding vocabulary learning, pronunciation development, and self-efficacy. Activity logs documented students' learning progress during digital game-based activities, while researcher field notes recorded contextual information and reflective observations throughout the learning process. Documentation, including lesson plans, instructional materials, photographs, and students' learning products, was also collected to support data triangulation and strengthen the credibility of the findings.

The data were analyzed using the basic qualitative analysis procedures proposed by Merriam and Tisdell (2015) such as thematic analysis, in which data collection and analysis were conducted simultaneously. First, all interview recordings were transcribed verbatim, and observation notes, activity

logs, researcher notes, and documentation were systematically organized. Second, open coding was performed to identify meaningful units related to vocabulary development, pronunciation development, and students' self-efficacy. Third, similar codes were grouped through axial coding to establish conceptual relationships among the emerging categories. Finally, selective coding was employed to develop broader themes representing students' learning experiences with CRDGBL. To enhance the trustworthiness of the findings, methodological triangulation was conducted by comparing data obtained from interviews, observations, activity logs, field notes, and documentation, while researcher reflexivity was maintained throughout the analysis to minimize bias and strengthen the credibility of the interpretations.

RESULTS AND DISCUSSION

Results

The analysis of interview transcripts, classroom observations, researcher field notes, activity logs, and supporting documentation revealed that students' self-efficacy in learning English vocabulary and pronunciation through Culturally Responsive Digital Game-Based Learning (CRDGBL) developed through four major sources: mastery experiences, vicarious experiences, verbal persuasion, and affective states. These themes consistently emerged across all data sources, indicating that students experienced various forms of confidence-building throughout the learning process. The findings demonstrate that the implementation of CRDGBL provided opportunities for students to engage actively with English learning while interacting with culturally relevant learning materials.

The first finding concerns mastery experiences, which emerged as the most dominant source of students' self-efficacy. Interview data showed that students frequently expressed feelings of pride and satisfaction after obtaining good scores, completing classroom assignments, and successfully presenting their work in front of the class. Several students also reported that they became more confident after repeatedly completing vocabulary and pronunciation exercises through digital games. Classroom observations supported these findings, showing that students gradually became more willing to answer questions, participate in classroom discussions, and complete learning tasks independently. Researcher field notes further indicated that students celebrated successful quiz results, showed greater persistence when facing learning challenges, and relied less on teacher assistance as the learning activities progressed.

The second finding relates to vicarious experiences. Students developed confidence by observing and interacting with their classmates during collaborative learning activities. Interview data revealed that students often memorized vocabulary together, practiced pronunciation with peers, and asked classmates for assistance whenever they encountered difficulties. Observation data demonstrated that students frequently worked in pairs or groups, paid attention to their classmates' performances, and imitated correct pronunciation during classroom activities. Researcher notes similarly documented that student became more confident after observing peers successfully complete learning tasks and frequently adopted learning strategies demonstrated by their classmates.

The third finding concerns verbal persuasion. Throughout the implementation of CRDGBL, students consistently received encouragement, corrective feedback, and guidance from both teachers and peers. Interview responses indicated that students appreciated being corrected whenever they mispronounced English words or misunderstood vocabulary. Several participants explained that teachers patiently provided explanations and encouraged them to continue practicing despite making mistakes. Classroom observations confirmed that teachers regularly provided positive reinforcement and constructive feedback during digital game-based activities. In addition, peer support was frequently observed, as students helped each other understand unfamiliar vocabulary and encouraged classmates who experienced learning difficulties.

The fourth finding is related to affective states experienced during the learning process. Interview data revealed that students generally described the learning activities as enjoyable, interesting, and motivating. Most participants reported feeling happy while participating in vocabulary and pronunciation games because the activities were different from conventional classroom instruction. Observation data also

showed that students appeared enthusiastic throughout the lessons, actively participated in classroom games, smiled frequently, and celebrated their achievements with classmates. Although some students occasionally experienced fear or disappointment after making mistakes, they continued participating in the activities and demonstrated persistence in completing learning tasks. Researcher field notes further indicated that the classroom atmosphere remained positive and supportive throughout the implementation of CRDGBL.

In conclusion, these findings indicate that students' self-efficacy developed through multiple interconnected learning experiences. Successful completion of learning tasks strengthened students' confidence, collaborative interactions enabled students to learn from one another, supportive feedback encouraged continuous improvement, and positive emotional experiences promoted active participation throughout the learning process. These four sources of self-efficacy consistently emerged across interview data, classroom observations, and researcher field notes, demonstrating that the implementation of Culturally Responsive Digital Game-Based Learning provided a supportive learning environment for vocabulary and pronunciation development. Table 1 summarizes the qualitative evidence obtained from interviews, classroom observations, and researcher field notes regarding the four sources of students' self-efficacy identified during the implementation of CRDGBL.

Table 1 Findings of Four Sources of Students' Self-Efficacy

Source of Self-Efficacy	Interview Evidence	Observation and Researcher Notes	Interpretation
Mastery Experiences	1. “I felt proud because I get a good score” (S1, S2); 2. “I felt proud because I was able to present in front of the class” (S6); 3. "I am proud because I can complete assignments on time." (S3) 4. "I am proud because I completed the task." (S4) 5. "I am proud because I can do it." (S5)	Students actively participated after successfully completing quizzes and presentations.	Successful learning experiences strengthened students’ confidence in learning English.
Vicarious Experiences	1. “I memorized the words together with my friends” and “I repeated the material and asked my friends” (S3) 2. I ask my friends for help." (S4, S5)	Students became more willing to participate after observing peers perform successfully.	Observing peers' success increased students’ beliefs in their own abilities.
Verbal Persuasion	1. “The teacher always helped me when I made mistakes” (S6);	Students responded positively to teacher	Positive feedback and encouragement

	2. "The teacher or my friends correct me." (S2, S3) 3. We learn together." (S5) 4. "They explained things that I did not understand" (S7)	encouragement and peer support.	strengthened students' confidence.
Affective States	1. "It was very enjoyable and helped me understand quickly" (S1); 2. "I was happy" (S2–S7); 3. "I feel afraid or disappointed, then I try again." (S1)	Students appeared enthusiastic, relaxed, and actively engaged during learning activities.	Positive emotions contributed to stronger self-efficacy beliefs.

Discussions

The findings revealed that Culturally Responsive Digital Game-Based Learning (CRDGBL) facilitated students' self-efficacy through the four primary sources proposed by Bandura (1997), namely mastery experiences, vicarious experiences, verbal persuasion, and affective states. Evidence obtained from interviews, observation checklists, and researcher notes demonstrated that students gradually developed stronger beliefs in their ability to learn English vocabulary and pronunciation throughout the intervention. Rather than emerging as an isolated psychological construct, self-efficacy appeared to develop alongside students' experiences of learning success, social interaction, supportive feedback, and positive emotional engagement during culturally responsive digital game-based learning activities. These findings suggest that CRDGBL not only enhanced language learning outcomes but also strengthened learners' confidence in their own capabilities.

Mastery Experience

Interview data revealed that students frequently associated successful learning experiences with feelings of pride and accomplishment. For example, S1 and S2 stated, "I felt proud because I get a good score," while S6 reported feeling proud because she was able to present in front of the class. Similarly, S3 explained that he felt proud because he completed assignments on time, whereas S4 and S5 expressed satisfaction after successfully completing learning tasks. Observation data further demonstrated that students became increasingly willing to participate in classroom activities, answer questions, and complete vocabulary and pronunciation tasks independently. Researcher notes also documented those students frequently celebrated successful quiz results and showed enthusiasm when they achieved higher scores than in previous sessions. As the intervention progressed, students demonstrated greater independence in completing learning tasks and relied less on teacher assistance.

These findings indicate that repeated experiences of success played a central role in strengthening students' beliefs about their abilities. According to Bandura (1997), mastery experiences are the most influential source of self-efficacy because they provide direct evidence that individuals possess the capability to perform a task successfully. When learners repeatedly experience success, they begin to interpret those experiences as indicators of competence, which subsequently strengthens their confidence and persistence. Bandura (2005) further explains that successful performance achieved through genuine effort provides stronger efficacy information than external encouragement because learners personally experience the connection between effort and achievement. Within the context of the present study, digital

game-based activities created numerous opportunities for students to experience achievement through quizzes, pronunciation exercises, presentations, vocabulary challenges, and collaborative projects. Each successful performance appeared to reinforce students' confidence and encourage greater participation in subsequent learning activities.

The findings support previous studies demonstrating the relationship between successful learning experiences and self-efficacy development. Mahayanti et al. (2024) reported that digital game-based learning enhanced learners' self-efficacy by providing opportunities to experience success and monitor learning progress. Similarly, Setiawan et al. (2025) found that students developed stronger self-efficacy when they successfully participated in classroom discussions and presentations because these accomplishments provided direct evidence of competence. Likewise, Chantaraphat and Jaturapitakkul (2023) reported that learners' confidence increased after successfully completing speaking tasks and receiving positive outcomes from their efforts. Agostino (2024) further demonstrated that even small academic achievements, such as asking questions, participating in discussions, or successfully communicating in a second language, could strengthen learners' beliefs in their capabilities. More recently, Rezaei et al. (2025) found that repeated success in technology-supported learning environments significantly enhanced students' academic self-efficacy and persistence. These studies collectively suggest that successful learning experiences function as powerful mechanisms for strengthening learners' confidence in their abilities.

However, the present study extends previous findings by demonstrating that cultural responsiveness may amplify the influence of mastery experiences. Students were not simply achieving success within digital games; they were achieving success while learning content connected to their own cultural backgrounds and daily experiences. Vocabulary related to Sumbanese culture, local traditions, food, animals, and community life provided familiar learning contexts that reduced cognitive barriers and enabled students to participate more confidently. Because the learning materials reflected familiar cultural concepts, students were able to understand vocabulary and pronunciation tasks more easily, increasing the likelihood of successful performance. From the researcher's perspective, cultural familiarity reduced learning anxiety and created more opportunities for success, thereby strengthening students' self-efficacy. This suggests that culturally responsive content may function as an additional facilitator of mastery experiences within digital learning environments.

Vicarious Experiences

The findings revealed that vicarious experiences contributed significantly to students' self-efficacy development. Interview data indicated that students frequently learned by observing and interacting with classmates. For example, S3 stated, "I memorized the words together with my friends" and "I repeated the material and asked my friends." Similarly, S4 and S5 explained that they often asked their friends for help when encountering difficulties. Observation checklist data further revealed that students frequently worked collaboratively during learning activities, observed classmates' performances, and learned pronunciation and vocabulary through peer interaction. Researcher notes similarly documented numerous instances in which students imitated peers' pronunciation, followed classmates' learning strategies, and gained confidence after observing others successfully complete tasks.

These findings suggest that students developed self-efficacy not only through their own achievements but also through observing the success of others. According to Bandura (1997), vicarious experiences occur when individuals observe peers performing tasks successfully and subsequently believe that they can achieve similar success. Observing peers who possess comparable abilities can increase learners' confidence because it provides evidence that success is attainable. Bandura (1994) further argues that the effectiveness of vicarious experiences depends largely on the perceived similarity between the observer and the model. Within the present study, collaborative learning activities created opportunities for students to learn from one another and gain confidence through peer modeling. As students observed

classmates successfully answering quiz questions, pronouncing English words, and completing assignments, they became increasingly confident in their own abilities.

The findings align with previous studies emphasizing the importance of observational learning in self-efficacy development. Schunk and DiBenedetto (2020) argue that observing successful peers strengthens efficacy beliefs because learners perceive the demonstrated success as attainable for themselves. Similarly, Setiawan et al. (2025) found that students' confidence increased after observing classmates successfully participate in discussions and presentations. Chantaraphat and Jaturapitakkul (2023) reported that lower-proficiency learners developed greater confidence through observing more proficient peers during peer tutoring activities. Paetsch et al. (2023) also found that novice teachers strengthened their efficacy beliefs after observing colleagues successfully implement digital technologies in teaching. These studies support the present findings by demonstrating that observing successful models reduces uncertainty and strengthens learners' expectations of success.

From the researcher's perspective, observational learning became more effective because students shared similar cultural backgrounds and learning experiences. The culturally responsive learning environment encouraged students to collaborate naturally without feeling intimidated by differences in background or experience. Consequently, observing classmates' success fostered the belief that similar achievements were attainable, thereby strengthening students' self-efficacy.

Verbal Persuasion

Interview data revealed that students frequently received encouragement, guidance, and corrective feedback from teachers and peers. For example, S6 explained, "The teacher always helped me when I made mistakes." Similarly, S2 and S3 stated, "The teacher or my friends correct me," while S7 reported that teachers and classmates often explained things that he did not understand. Observation checklist data revealed that teachers consistently provided feedback, encouragement, and scaffolding during learning activities. Researcher notes also documented frequent interactions in which students received praise, guidance, and support while completing vocabulary and pronunciation tasks.

These findings suggest that verbal encouragement contributed significantly to students' confidence. According to Bandura (1997), verbal persuasion strengthens self-efficacy when learners receive messages that they can succeed. Positive feedback encourages learners to attempt challenging tasks and persist when difficulties arise. Although verbal persuasion is generally considered less influential than mastery experiences, Bandura (2005) argues that supportive feedback from credible sources can significantly influence learners' motivation and persistence. Within the present study, teacher feedback and peer support appeared to reassure students those mistakes were part of the learning process and that improvement was achievable.

The findings are consistent with previous studies emphasizing the importance of supportive feedback in self-efficacy development. Usher and Weidner (2008) found that teacher encouragement and positive verbal feedback significantly strengthened students' efficacy beliefs by helping learners interpret their abilities more positively. Similarly, Lera et al. (2023) reported that positive verbal support strengthened learners' efficacy beliefs because encouragement helped them perceive challenges as manageable rather than threatening. Setiawan et al. (2025) also found that constructive feedback from instructors enhanced students' confidence in speaking English. Furthermore, HadaviBavili and İlçioğlu (2024) argued that verbal persuasion is most effective when feedback comes from credible and trusted sources. These studies collectively highlight the important role of supportive communication in fostering learner confidence and persistence.

From the researcher's perspective, verbal persuasion became particularly meaningful because it occurred within a culturally responsive classroom climate characterized by trust, respect, and collaboration. Students interpreted teacher feedback as supportive guidance rather than criticism, while peer encouragement reinforced the belief that mistakes were natural components of learning. This supportive

social environment encouraged students to continue participating actively despite experiencing learning difficulties.

Emotional Arousal/Affective States

Finally, the findings revealed that affective states played an important role in facilitating students' self-efficacy. Interview data showed that students experienced positive emotions during learning activities. S1 stated that learning was "very enjoyable and helped me understand quickly," while all participants (S2–S7) reported feeling happy during the learning process. Interestingly, S1 also explained, "I feel afraid or disappointed, then I try again," indicating that negative emotions did not necessarily discourage participation but instead motivated persistence. Observation checklist data revealed that students frequently smiled, laughed, and expressed excitement during digital game-based activities. Researcher notes similarly documented high levels of enjoyment and enthusiasm throughout the intervention.

These findings suggest that positive emotional experiences contributed to students' confidence in learning English. According to Bandura (1997), emotional states influence self-efficacy because individuals often interpret positive emotions as indicators of competence and readiness for success. Learners who experience enjoyment and reduced anxiety are more likely to participate actively and persist when encountering challenges. The findings align with Mahayanti et al. (2024), who reported that enjoyment within digital game-based learning environments contributed significantly to learners' self-efficacy. Similarly, Setiawan et al. (2025) found that lower levels of anxiety were associated with greater confidence and participation in English learning activities. Agostino (2024) likewise demonstrated that positive emotional well-being strengthened students' beliefs about their academic capabilities and encouraged greater engagement with learning tasks.

From the researcher's perspective, positive emotional experiences were strongly influenced by the integration of Sumbanese cultural content into digital games. Students appeared more relaxed, enthusiastic, and emotionally connected because the learning materials reflected their own cultural identity and everyday experiences. This familiarity reduced anxiety while increasing students' enjoyment and willingness to communicate in English, suggesting that cultural responsiveness contributed not only to cognitive learning outcomes but also to students' emotional readiness to learn.

Based on the explanation above, it can be concluded that students' self-efficacy developed through the continuous interaction of mastery experiences, vicarious experiences, verbal persuasion, and affective states during the implementation of CRDGBL. These four sources did not function independently; rather, they reinforced one another throughout vocabulary and pronunciation learning. Successful learning experiences encouraged greater participation, peer observation strengthened confidence through social modelling, supportive feedback promoted persistence, and positive emotional experiences reduced anxiety and increased engagement.

From the researcher's perspective, the most significant contribution of this study is the identification of cultural responsiveness as a contextual factor that strengthens all four sources of self-efficacy simultaneously. Unlike previous studies that primarily emphasize the role of digital game-based learning in promoting self-efficacy, the present study demonstrates that integrating culturally relevant content into digital games creates learning experiences that are more meaningful, relatable, and attainable for learners. Consequently, cultural responsiveness should not be viewed merely as instructional content but as a pedagogical approach that supports both language development and psychological development by strengthening students' beliefs in their own capabilities. This finding contributes to the growing body of research on culturally responsive digital game-based learning, particularly within Indonesian EFL contexts where learners' cultural identities play an important role in shaping meaningful learning experiences.

CONCLUSION

This study explored students' self-efficacy in learning English vocabulary and pronunciation through Culturally Responsive Digital Game-Based Learning (CRDGBL). The findings indicate that integrating culturally relevant content into digital game-based learning not only improved students' vocabulary and pronunciation but also strengthened their self-efficacy through the four sources proposed by Bandura (1997): mastery experiences, vicarious experiences, verbal persuasion, and affective states. Students developed greater confidence as they experienced successful learning, observed and collaborated with their peers, received constructive feedback, and participated in enjoyable learning activities. Furthermore, the findings suggest that cultural responsiveness served as an important contextual factor that enhanced meaningful learning experiences, enabling students to engage more actively and confidently in English learning. Therefore, this study contributes to the growing body of research by demonstrating that the integration of local culture into digital game-based learning supports both students' language development and their psychological development, particularly self-efficacy, in rural EFL contexts.

The findings have important implications for English language teaching, particularly in culturally diverse and rural educational settings. English teachers are encouraged to design technology-enhanced learning environments that integrate learners' local culture, daily experiences, and community knowledge to create learning experiences that are meaningful, engaging, and supportive of students' confidence. Future research is recommended to implement CRDGBL across different educational contexts with larger and more diverse participant groups to examine its long-term effects on students' language proficiency, self-efficacy, motivation, and intercultural competence. Such efforts are expected to contribute to the development of more inclusive, contextually relevant, and sustainable English language learning practices.

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