

A Conceptual Framework for Implementing Culturally Responsive Pedagogy in Virtual Spaces to Foster Sustainable Global Citizenship

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ABSTRACT

This study aims to develop a conceptual framework for the implementation of culturally responsive pedagogy in virtual spaces to foster sustainable global citizenship character. The study employed a Systematic Literature Review (SLR) approach combined with conceptual design research. Data were collected through the identification and selection of relevant scholarly literature on culturally responsive pedagogy, digital learning, virtual spaces, and global citizenship education from various reputable academic databases. The data were analyzed using thematic analysis to identify key themes and synthesize them into an integrated conceptual model. The findings reveal that culturally responsive pedagogy in virtual spaces is constructed through five core components: cultural awareness, intercultural dialogue, digital critical literacy, global empathy, and sustainable global citizenship. These components are operationalized through six learning stages, including cultural self-identification, multicultural exposure, intercultural interaction, critical digital reflection, global action projects, and transformative reflection. The proposed model highlights that virtual spaces can function as learning environments that support the development of cultural awareness, the ability to engage in diverse interactions, critical digital literacy, global empathy, and social responsibility. Theoretically, this study extends the discourse on culturally responsive pedagogy into the context of digital learning. Practically, the model may serve as a reference for educators and curriculum developers in designing virtual learning environments that are more inclusive, humanistic, and oriented toward the cultivation of sustainable global citizenship character.

Keywords: Culturally Responsive Pedagogy, Virtual Space, Sustainable Global Citizenship, Digital Learning, Multiculturalism.

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INTRODUCTION

The development of information and communication technologies has fundamentally transformed the ways individuals interact, learn, and construct social identities on a global scale. The rapid expansion of digitalization has led to the emergence of virtual spaces as new

social environments that bring together individuals from diverse cultural, linguistic, religious, and national backgrounds without geographical constraints. In the educational context, the use of Learning Management Systems (LMS), video conferencing platforms, academic social media, and various digital learning applications has created increasingly multicultural and globally connected learning ecosystems (Selwyn, 2022; UNESCO, 2023; Williamson et al., 2020). Virtual spaces no longer function merely as channels for information delivery; rather, they have evolved into arenas of social interaction that significantly influence the formation of students' identities, values, and behaviors (Costa et al., 2023; OECD, 2023).

On the one hand, virtual spaces provide substantial opportunities for fostering intercultural dialogue, global collaboration, and the exchange of perspectives that can enrich students' learning experiences (OECD, 2023; UNESCO, 2023). On the other hand, digital environments also present significant challenges, including social polarization, the spread of misinformation, hate speech, cultural stereotyping, and increasing intolerance in online interactions (Council of Europe, 2023; Ribble, 2023). The nature of digital communication, which often occurs without direct social contact, may reduce sensitivity to cultural differences and increase the risk of identity-based conflicts. Consequently, education plays a strategic role in equipping learners with the social and cultural competencies necessary to participate responsibly in an increasingly digitalized global society (Boix Mansilla & Jackson, 2011; UNESCO, 2023).

These challenges have generated an urgent need to cultivate global citizenship characterized not only by an understanding of cultural diversity but also by ethical awareness, empathy, social responsibility, and a commitment to sustainable coexistence (Torres & Bosio, 2020; UNESCO, 2015). The concept of sustainable global citizenship emphasizes that individuals should possess the capacity to appreciate differences, critically engage with global issues, and contribute to the development of inclusive and equitable societies in both physical and digital environments (Bosio & Schattle, 2021; UNESCO, 2023). From a twenty-first-century educational perspective, the development of global citizenship has become one of the essential competencies that should be fostered through authentic learning experiences that are relevant to learners' lives (OECD, 2023; Reimers, 2020).

One educational approach that holds significant potential for achieving this objective is Culturally Responsive Pedagogy. Originally developed by Ladson-Billings (1995) and further expanded by Gay (2018), this approach views cultural diversity as a valuable educational asset that should be intentionally integrated into the learning process. Culturally Responsive Pedagogy emphasizes the importance of connecting students' experiences, identities, values, and cultural backgrounds with instructional activities, thereby making learning more meaningful and inclusive. Numerous studies have demonstrated that this approach enhances student engagement, social sensitivity, appreciation of diversity, and the ability to interact positively within multicultural environments (Aronson & Laughter, 2016; Gay, 2018; Hammond, 2015).

As educational technologies become increasingly prevalent, Culturally Responsive Pedagogy has begun to be explored within digital learning environments and virtual spaces. In this context, the approach extends beyond the representation of cultural diversity in learning materials to encompass the design of virtual environments that promote equitable participation, intercultural dialogue, global collaboration, and the development of critical digital literacy (Kumi-Yeboah et al., 2020; Paris & Alim, 2017; Yoon et al., 2023). Within culturally responsive virtual environments, learners are encouraged to explore global issues from diverse perspectives, develop empathy toward different communities, and cultivate an awareness of their roles as members of an interconnected global society (Kumi-Yeboah et al., 2020; OECD, 2023).

Although research on Culturally Responsive Pedagogy and global citizenship education has expanded considerably, the integration of these two concepts within virtual learning environments remains underexplored. Most studies on Culturally Responsive Pedagogy continue to focus primarily on face-to-face learning settings and traditional classroom contexts (Gay, 2018; Hammond, 2015). Meanwhile, research on digital citizenship tends to emphasize issues such as digital safety, ethical technology use, and data privacy protection rather than the development of multicultural character and sustainable global citizenship identities (Council of Europe, 2023; Ribble, 2023). Consequently, there remains a significant gap in the literature regarding the development of conceptual frameworks for implementing Culturally Responsive Pedagogy in virtual spaces to foster sustainable global citizenship.

In response to this gap, the present article aims to analyze the implementation of Culturally Responsive Pedagogy within virtual learning environments as a strategy for fostering sustainable global citizenship. The study focuses on developing a conceptual framework that explains the integration of culturally responsive pedagogical principles into digital learning environments, the forms of multicultural interaction that can be facilitated through virtual spaces, and their contributions to the development of global citizenship among learners. Theoretically, this study is expected to enrich the literature on digital pedagogy, multicultural education, and global citizenship education. Practically, the findings may serve as a valuable reference for educators, curriculum developers, and educational platform designers in creating virtual learning environments that are more inclusive, human-centered, and oriented toward fostering a generation of globally minded individuals who are tolerant, responsible, and committed to sustainability.

METHODS

This study employed a Systematic Literature Review (SLR) approach combined with conceptual design research to develop a framework for implementing Culturally Responsive Pedagogy in virtual spaces to foster sustainable global citizenship. This approach was selected because the primary objective of the study was not to empirically test relationships among variables, but rather to synthesize relevant concepts, theories, and research findings in order to construct a conceptual model that can serve as a reference for the development of culturally diverse digital learning environments (Snyder, 2019; Xiao & Watson, 2019).

The review process was conducted through four main stages: literature identification, literature selection, thematic analysis, and conceptual synthesis. During the identification stage, scholarly publications were retrieved from Scopus, Web of Science, ERIC, ScienceDirect, and SpringerLink using the keywords *culturally responsive pedagogy*, *culturally sustaining pedagogy*, *virtual learning environment*, *online learning*, *global citizenship education*, *digital citizenship*, and *multicultural education*. The search was limited to English- and Indonesian-language publications published between 2015 and 2025, while several seminal works were included as foundational theoretical references.

The selection stage was conducted using predefined inclusion and exclusion criteria. Eligible studies were required to directly address culturally responsive pedagogy, digital learning or virtual environments, global citizenship education, and character development within educational contexts. Studies that were not relevant to the research focus, unavailable in full text, or primarily concerned with technical aspects of technology without pedagogical implications were excluded from the analysis.

The collected data were analyzed using thematic analysis as proposed by Braun and Clarke (2021). The analysis involved identifying recurring themes across the selected studies and organizing them into conceptual categories that illustrate the relationships among culturally responsive pedagogy, the characteristics of virtual learning environments, and the development

of global citizenship. The findings were subsequently synthesized into a conceptual framework describing the core components of the model, its implementation mechanisms, and the expected outcomes of applying culturally responsive pedagogy in virtual spaces.

To enhance the credibility of the conceptual synthesis, the model development process incorporated an expert review involving three specialists: one expert in multicultural pedagogy, one expert in educational technology, and one expert in global citizenship education. Feedback from these experts was utilized to evaluate the conceptual appropriateness, coherence among model components, and relevance of the framework to contemporary digital education contexts. The results of the expert validation were then used to refine and strengthen the final conceptual framework.

RESULT AND DISCUSSION

Conceptual Synthesis of Culturally Responsive Pedagogy in Virtual Spaces

The literature synthesis indicates that culturally responsive pedagogy is fundamentally grounded in the principle that students' cultural diversity constitutes a learning asset that should be integrated into the educational process rather than viewed as a learning barrier (Gay, 2018; Ladson-Billings, 1995). In the context of virtual spaces, this principle has expanded in meaning because learning interactions are no longer limited to local communities but take place within digital environments that bring together individuals from diverse cultural backgrounds simultaneously (Selwyn, 2022; UNESCO, 2023). Therefore, culturally responsive pedagogy in virtual spaces requires not only the recognition of students' cultural identities but also the ability to foster productive intercultural dialogue within digital environments.

The analysis of previous studies demonstrates that virtual spaces possess characteristics distinct from conventional classrooms. Interactions in digital environments occur through text, audio, video, and various forms of multimedia representation, enabling broader exposure to diverse cultural perspectives (Costa et al., 2023; Williamson et al., 2020). However, such conditions also create opportunities for cultural bias, stereotyping, intolerance, and digital exclusion when not managed pedagogically (Council of Europe, 2023; Ribble, 2023). Consequently, the implementation of culturally responsive pedagogy in virtual spaces should be directed toward creating learning environments that are inclusive, dialogic, and respectful of diverse perspectives.

Based on the synthesis of theories and empirical findings, this study proposes that culturally responsive pedagogy in virtual spaces is built upon the integration of three foundational elements: cultural recognition, inclusive digital interaction, and global consciousness. These three components interact dynamically to shape learning experiences that enable students to understand cultural diversity while developing the character of responsible global citizens. Thus, virtual spaces function not only as learning media but also as arenas for the socialization of multicultural and global citizenship values (Paris & Alim, 2017; Torres & Bosio, 2020).

Components of the Sustainable Global Citizenship Development Model

Based on the thematic analysis, this study developed a conceptual model consisting of five main components. The first component is *cultural awareness*, defined as learners' ability to recognize their own cultural identity while understanding the cultural diversity of others. Cultural awareness serves as the primary foundation because effective global interaction can only be achieved when individuals understand their cultural position within a pluralistic society (Gay, 2018; Hammond, 2015).

The second component is *intercultural dialogue*, which refers to the ability to communicate and collaborate constructively with individuals from different cultural

backgrounds. Intercultural dialogue is a crucial aspect of virtual learning because it enables learners to exchange perspectives and develop broader understandings of global issues (Boix Mansilla & Jackson, 2011; UNESCO, 2015).

The third component is *digital critical literacy*. In digital environments saturated with information from diverse sources, learners need the ability to evaluate information critically, recognize cultural biases, and understand the social implications of digital technologies (OECD, 2023; Ribble, 2023). Critical digital literacy supports learners in developing reflective thinking and responsible decision-making within virtual spaces.

The fourth component is *global empathy*, which refers to the ability to understand the conditions and experiences of individuals or groups who differ culturally, socially, or geographically. Global empathy plays an essential role in fostering tolerance, solidarity, and respect for diversity (Bosio & Schattle, 2021; Reimers, 2020).

The fifth component is *sustainable global citizenship*, which refers to the character of global citizens demonstrated through social responsibility, respect for human rights, commitment to social justice, and concern for global sustainability (Torres & Bosio, 2020; UNESCO, 2023). This component represents the primary outcome of the proposed model.

Conceptually, the relationships among the model components can be illustrated as follows.

Table 1. Components of the Culturally Responsive Pedagogy Model in Virtual Spaces

Component	Description	Outcome
Cultural Awareness	Awareness of one's own cultural identity and the identities of others	Appreciation of diversity
Intercultural Dialogue	Cross-cultural dialogue and collaboration	Multicultural communication
Digital Critical Literacy	Critical evaluation of information and digital media	Responsible digital literacy
Global Empathy	Understanding the experiences of other groups	Tolerance and solidarity
Sustainable Global Citizenship	Integration of global and sustainability values	Global citizenship character

This model demonstrates that the development of global citizenship character does not occur instantly but results from a learning process that simultaneously integrates cultural, social, digital, and moral dimensions.

Model Implementation Syntax in Virtual Learning

Based on the conceptual synthesis, this study developed an implementation syntax for culturally responsive pedagogy in virtual spaces consisting of six learning stages.

The first stage is *cultural self-identification*. At this stage, learners explore their cultural identities through reflective activities, cultural narratives, or documentation of relevant social experiences. This activity aims to build cultural awareness as the foundation of multicultural interaction (Gay, 2018).

The second stage is *multicultural exposure*. Teachers provide diverse digital learning resources representing various cultural perspectives through videos, articles, podcasts, or global case studies. Such exposure enables learners to understand the complexity of global social realities more comprehensively (UNESCO, 2023).

The third stage is *intercultural interaction*. Learners engage in online discussions, collaborative forums, or cross-cultural virtual projects that allow them to interact directly with diverse perspectives (Kumi-Yeboah et al., 2020).

The fourth stage is *critical digital reflection*. During this stage, learners analyze global issues emerging from their interactions through reflective and critical thinking approaches. The primary focus is to develop the ability to evaluate information and identify cultural biases that may emerge within digital spaces (Ribble, 2023).

The fifth stage is *global action project*. Learners design collaborative projects addressing social, environmental, or humanitarian issues with global relevance. This activity aims to connect learning with real-world action through an action-oriented learning approach (Reimers, 2020).

The final stage is *transformative reflection*. Learners reflect on changes in their perspectives, learning experiences, and values acquired throughout the learning process. This reflection serves to strengthen the internalization of sustainable global citizenship character (Mezirow, 2018; UNESCO, 2015).

Pedagogical Implications and Implementation Challenges

The findings indicate that culturally responsive pedagogy in virtual spaces has important implications for twenty-first-century education. First, the model expands the function of virtual spaces from merely serving as content delivery platforms to becoming learning environments that support the development of students' character and global identity (OECD, 2023; Selwyn, 2022). Thus, educational technology is utilized not only to enhance learning efficiency but also to strengthen values of humanity and diversity.

Second, the model emphasizes the importance of teachers' roles as facilitators of multicultural dialogue and moderators of inclusive digital interactions. In this context, teachers are responsible not only for managing the learning process but also for guiding students in understanding global issues, developing empathy, and cultivating critical digital literacy (Gay, 2018; UNESCO, 2023).

Nevertheless, the implementation of this model faces several challenges. One major challenge is the digital divide and unequal access to technology that still exists across many regions. Infrastructure disparities may hinder students' participation in collaborative virtual learning activities (OECD, 2023; UNESCO, 2023). Furthermore, the success of the model depends heavily on teachers' competencies in integrating cultural diversity into digital learning design. Many educators still require specialized training in multicultural pedagogy, critical digital literacy, and the facilitation of intercultural dialogue in online environments (Kumi-Yeboah et al., 2020; Yoon et al., 2023).

Overall, the findings suggest that culturally responsive pedagogy in virtual spaces has the potential to become a strategic approach for fostering sustainable global citizenship. Through the integration of cultural awareness, intercultural dialogue, critical digital literacy, global empathy, and social participation, virtual spaces can be developed into learning environments that are not only technologically advanced but also inclusive, humanistic, and oriented toward the development of a peaceful and equitable global society.

CONCLUSION

This study proposes a conceptual framework of culturally responsive pedagogy in virtual spaces as a strategy for fostering sustainable global citizenship character. The findings from the literature synthesis indicate that integrating cultural diversity values into digital learning environments can promote the development of cultural awareness, intercultural dialogue, critical digital literacy, global empathy, and social responsibility as the foundational dimensions of global citizenship.

The proposed model consists of five core components—cultural awareness, intercultural dialogue, digital critical literacy, global empathy, and sustainable global citizenship—which

are implemented through six sequential learning stages, ranging from cultural self-identification to transformative reflection. This framework highlights that virtual spaces function not only as learning platforms but also as social environments that can be utilized to cultivate inclusivity, tolerance, and global citizenship values.

Theoretically, this study contributes to the advancement of culturally responsive pedagogy by extending its application into digital learning contexts. Practically, the proposed model may serve as a reference for educators, curriculum developers, and learning platform designers in creating more inclusive virtual learning environments that support character development. Future studies should conduct empirical validation and implementation testing across different educational levels to examine the effectiveness of the model in fostering sustainable global citizenship character.

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