# The transformative integration of generative AI in fostering Global Citizenship Education: Implications for pedagogy and policy

#### Global Journal of Social Sciences Studies

Vol. 11, No. 2, 22-36, 2025. e-ISSN: 2518-0614





(© Corresponding Author)

Dipak Tatpuje<sup>1</sup>
Vaibhav Jadhav<sup>2</sup>
Satish Shende<sup>3</sup>

'Sanjay Ghodawat University, Atigre (Kolhapur) India.

'Asia-Pacific Regional GCED Network, UNESCO Bangkok, Thailand.

'Email: dipak.tatpuje@gmail.com

<sup>2</sup>School of Open Learning, Savitribai Phule Pune University, Pune, India.

<sup>2</sup>Email: vaibhav.jvg@gmail.com

<sup>8</sup>VidyaDeep Foundation, Satara, India.

<sup>s</sup>Email: <u>sassatara5@gmail.com</u>

### **ABSTRACT**

This exploratory research with literature and survey through open-ended questionnaires collectively examines global citizenship education (GCED) from various angles, including its conceptual frameworks, implementation strategies across different educational levels and regions, particularly the Asia-Pacific, and its relationship with sustainable development and national identities by policy recommendations and practical guidance for integrating GCED into national education systems, curricula, and teacher training, emphasizing the need for stakeholder engagement and addressing issues such as inequality and diversity. It critically analyzes different typologies and ideologies within GCED, such as neoliberal, liberal, and critical perspectives. In contrast, others have investigated the measurement of GCED outcomes in large-scale assessments and the role of adult learning and education in fostering global citizenship. The impact of emerging technologies, such as generative AI, on GCED is also considered in terms of ethical implementation and equitable access to it.

**Keywords:** Adult learning and education (ALE), Education for sustainable development (ESD), Generative AI, Global citizenship education (GCED), Internationalization, Transnationalization, UN-SDG 2030.

**DOI:** 10.55284/gjss.v11i2.1578

Citation | Tatpuje, D., Jadhav, V., & Shende, S. (2025). The transformative integration of generative AI in fostering Global Citizenship Education: Implications for pedagogy and policy. Global Journal of Social Sciences Studies, 11(2), 22–37.

**Copyright:** © 2025 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

Funding: This study received no specific financial support.

Institutional Review Board Statement: Not Applicable

**Transparency:** The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

History: Received: 24 July 2025 / Revised: 19 August 2025 / Accepted: 29 August 2025 / Published: 18 September 2025

Publisher: Online Science Publishing

# Highlights of this paper

- This research highlights definitions and categorization of the various conceptualizations of Global Citizenship Education (GCED) and analyzes different theoretical orientations, such as neoliberal, liberal, and critical global citizenship education (GCED).
- It also covers typologies based on cosmopolitan and advocacy approaches.
- This study is an ongoing effort to clarify the meaning of GCED and to provide a crucial understanding of its potential impact with Generative AI.

### 1. INTRODUCTION

In an increasingly interconnected world, Global Citizenship Education (GCED) has emerged as a critical approach to prepare learners to navigate transnational challenges and contribute to a more just and sustainable future (APCEIU, 2021). Recognized as a key component of the United Nations' Sustainable Development Goal (UN-SDG: 2030) Target 4.7, GCED aims to equip individuals with the necessary knowledge, skills, values, and attitudes to become responsible global citizens (Chung & Park, 2016). The emphasis on fostering individuals who can "think globally and act locally" underscores the growing acknowledgement of the need for a global orientation in education.

However, the concept of Global Citizenship is far from monolithic. It encompasses diverse interpretations and priorities, leading to the development of numerous theoretical frameworks and typologies. Andreotti (2006) distinguishes between various approaches to GCED, highlighting the different assumptions about societal change. GCED often focuses on common humanity and shared progress, whereas critical GCED emphasizes justice, complicity in harm, and multiple perspectives. Similarly, Oxley and Morris (2013) offer "a comprehensive typology based on cosmopolitan and advocacy approaches, further delineating various forms of GCED.' Their work underscores the fuzzy nature of the concept, as noted by Duarte and Robinson-Jones (2022). According to Deardorff and Ling (2023) "Global citizenship education: a handbook for parents, community and learners in Asia-Pacific," the handbook aspires "to engage and involve parents, caregivers, and the community to join the mission of developing every learner into a global citizen. To achieve this, parents, caregivers, and the community must be empowered with knowledge and skills related to the GCED. In this handbook, GCED-related concepts are introduced, alongside adaptable step-by-step action plans and best practices collected across the Asia-Pacific region to support parents and the community in acting to develop GCED competencies in learners."

The book by Yemini (2017) illuminates and analyzes a set of key tensions in internationalization across multiple levels of schooling and across the domains of popular discourse, policy, curriculum, pedagogy, and student identity by connecting or reconnecting the process of internationalization and its outcomes at the individual level of GCED. At the local level, in the context of any country, intracultural competencies for the internationalization of education can be introduced through a GCED-integrated curriculum.

These theoretical conceptualizations are often rooted in broader discussions within globalization studies and political theory, reflecting various discursive orientations, including neoliberal, liberal, and critical ones. Pashby, Da Costa, Stein, and Andreotti (2020) applied a heuristic that considers these three main aspects and their interfaces to map the different GCED categorizations. Their analysis reveals areas of confluence and conflation within the literature, acknowledging the influence of the "modern/colonial imaginary" in shaping these discussions.

"The construct of transnationalism as a conceptual lens to examine the tenets of educating for global citizenship. While the goals of educating students in global citizenship are important, this chapter's key argument is that the meaning of 'global' should be depicted as trans-centric rather than nation-centric. Furthermore, within an age of mobility, transnationalism can offer new insights into the importance of global citizenship" (Soong, 2018).

While theoretical frameworks provide valuable tools for understanding the complexities of GCED, examining how educational stakeholders perceive and implement these concepts in specific contexts is crucial. Exploratory research,

such as the study by Duarte and Robinson-Jones (2022) which focuses on Dutch secondary education, bridges the gap between theory and practice by investigating the ideological orientations underpinning the implementation of GCED. Understanding these practical realities is essential for fostering global citizenship in diverse educational settings such as universities. Therefore, it delves further into the theoretical landscape of GCED, drawing on key typologies and frameworks, including the work of Andreotti (2006); Andreotti (2014); Oxley and Morris (2013) and Pashby et al. (2020) to provide a comprehensive overview of the concept and its contested meanings in the field of education. Understanding these theoretical underpinnings is vital for interpreting empirical research and informing future GCED policy and practice.

Generative AI is a contemporary and rapidly evolving area (Generative AI) within the established field of Global Citizenship Education (GCED) that is relevant to various educational and policy-related roles. Gemini (Google), ChatGPT (Open AI), Claude (Anthropic) are the few text and code generation tools. Generative AI is moving beyond such single-modality capabilities. The possible roles this research focus could align with include Educational Technology Specialist, Project Manager in EdTech Initiatives, Curriculum Developer, Learning Experience Designer, AI Ethics in Education Researcher, Consultant, Policy Analyst in Education Technology, Teacher Trainer, Research Associate.

A Policy Analyst in Education Technology understands that AI and GCED could be valuable in analyzing and advising on policies related to integrating AI in education to achieve global citizenship goals. An Educational Technology Specialist explores and implements new technologies, such as generative AI, to enhance teaching and learning processes. Your research on the transformative potential of AI in GCED is directly relevant. As a curriculum Developer with expertise in both GCED and AI, you could contribute to designing innovative curricula that leverage AI tools to promote global citizenship competencies in learners. Educators must be equipped to understand and effectively use new technologies such as generative AI. Your research could inform the development of training programs that help teachers integrate AI into their GCED teaching practice. A Project Manager in EdTech Initiatives leads projects that involve development. Learning Experience Designer: This role creates engaging and compelling learning experiences that foster meaningful learning experiences. Your research on AI's potential of AI could inform the design of personalized and interactive GCED learning modules powered by AI.

AI Ethics in Education: A Researcher/Consultant Integrates Education, Understanding, and Addressing Ethical Implications. Research could focus on the "ethical considerations" of using generative AI within the context of GCED, aligning with the need to "educate on validating work to safeguard against bias" and understand "ethical risks and responsible AI." A Research Associate/Fellow in Educational Innovation, who conducts further research on the applications and impact of generative AI in GCED, would be a natural progression, contributing to the knowledge base in this emerging field and implementing AI-powered solutions for GCED in educational institutions or organizations.

## 2. OBJECTIVES OF THIS STUDY

- 1. To examine the GCED conceptual framework to inform implementation.
- 2. To identify GCED policy perceptions of ideological orientation in GCED.
- 3. To identify graduate-level students' perceptions of GCED with ideological orientations.
- 4. To explore AI in education with ethical implementation and GCED.
- To address the gap between the theoretical concepts of GCED and how education stakeholders perceive implementation with pedagogical practices.

#### 3. METHODOLOGY

The research methodologies adopted for this study include an analysis of GCED, with a literature survey and analysis of primary data collected from selected population from India and secondary data from South Korea. This approach involves a standard method that combines a literature review and content analysis. This study examines how ESD and GCED define and perceive the implementation of global citizenship in context of Genrative AI by analyzing primary data sources, including academic studies and official documents from organizations such as UNESCO. Focused content analysis helps to review keywords and concepts related to citizenship, global citizenship, human rights, and peace. Another significant methodology is social cartography, which maps and analyzes the typologies and conceptualizations of GCED. Litmap tools were used to map the research papers. This involves applying heuristics with discursive orientations, such as neoliberalism, liberalism, and criticality, to identify commonalities, distinctions, and interfaces between different GCEDs. Qualitative methods, such as semi-structured interviews with management staff and teachers and focus group discussions with college students from the Satara district, were also employed to gather perceptions on implementing GCED in specific educational and Generative AI contexts. These qualitative data are often analyzed using content analysis tools such as NVivo, which involves both deductive coding based on theoretical frameworks and inductive coding to identify emerging themes. Some analyses have also adopted a literature review approach to map the academic discourse on GCED. Furthermore, critical discourse analysis is employed in specific contexts to examine policy documents and reveal the underlying assumptions and power dynamics in the conceptualization of citizenship education.

### 4. LITERATURE ANALYSIS

In the literature analysis, researchers have focused on defining and conceptualizing Global Citizenship Education (GCED) from various perspectives. Andreotti (2014) and earlier Andreotti (2006) along with Oxley and Morris (2013) offer typologies to distinguish between different conceptions of GCED, such as "soft" vs "critical" and cosmopolitan vs. advocacy approaches. Pashby et al. (2020) conduct a meta-review of these typologies, applying a heuristic of liberal, critical discursive, and neoliberal orientations to map commonalities, distinctions, and interfaces, while considering the influence of the "modern/colonial imaginary." This meta-analysis aims to critically reflect on and complexify the understanding of GCED in the literature. Goren and Yemini (2017) systematically reviewed empirical studies on GCED to reveal dominant and less addressed themes and discussed methodological and conceptual issues.

AI can be a transformative tool for GCED, but its implementation must be carefully managed to align with ethical principles of GCED. AI-powered platforms can personalize learning, expose students to diverse global perspectives, and simulate complex issues. They can also analyze student data to provide tailored feedback to enhance critical thinking and intercultural competence. This prepares students to become proactive and informed global citizens. However, ethical considerations are of paramount importance. Bias is a significant concern; if AI systems are trained on skewed data, they can perpetuate stereotypes and misinformation, undermining the goal of creating inclusive global citizens.

Data privacy and security are also critical, as AI in education often involves the collection of sensitive student information. We must ensure that robust safeguards are in place. Furthermore, the digital divide could be exacerbated if access to AI tools is inequitable, creating new forms of educational inequality. To ensure ethical implementation, we must focus on human oversight, transparency and accountability. Educators must use AI to augment, not replace, human interaction, and guide students to critically evaluate AI-generated content. Ultimately, the goal is to use AI to empower students with the knowledge and skills to navigate a complex, interconnected world responsibly and foster empathy and collaboration across borders.

Milana and Tarozzi (2021) examine the role of GCED in adult learning and education (ALE) from a theoretical perspective, arguing that ALE should be framed *as* a subset of GCED. Research papers were mapped using Litmap, as shown in Figure 1.

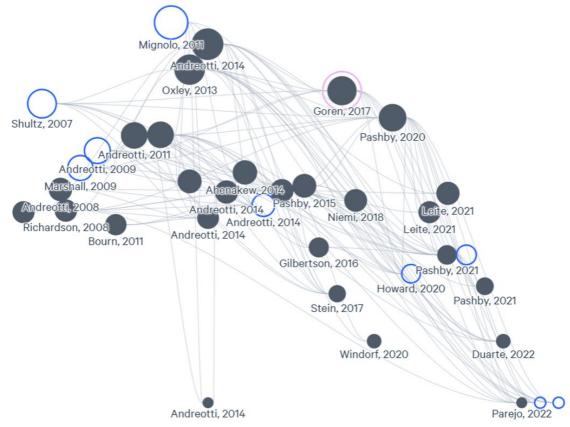


Figure 1. Research paper mapping using litmap.

The literature also explores the implementation and integration of GCED in educational contexts. Duarte and Robinson-Jones (2022) focused on Dutch secondary education, investigating how management, teaching staff, and pupils perceive and implement GCED, as well as the ideological orientations. Sung and Hwang (2024) analyze the content of GCED in the social studies curriculum, comparing the 2015 and 2022 revisions, in consideration of UNESCO's framework and Oxley and Morris (2013) typology. Pashby (2015) critically analyzed the curriculum and designed related lesson plans in Alberta, Canada, examining the relationship and conflation between multicultural education and GCED. The handbooks by APCEIU (2021); APCEIU (2022) and APCEIU & UNESCO (2023) aim to raise awareness and equip policymakers, teachers, and the broader community in the Asia-Pacific region with knowledge and practical guidance on Global Citizenship Education (GCED). The "Handbook of Practice and Research in Study Abroad" (Lewin, 2009) examines the role of studying abroad in higher education in fostering global citizenship. The University Grants Commission (2021) emphasizes the importance of GCED in Indian higher education, aligning with Sustainable Development Goal 4.7.

The relationship between the GCED and other educational agendas is also a key focus. Chung and Park (2016) explicitly investigated the main "similarities and differences" between ESD and GCED in the context of the SDGs. Damiani and Fraillon (2025) use international assessment data to examine the conceptualization and measurement of GCED-ESD within Civic and Citizenship Education (CCE). Leite (2022) discusses mainstreaming Global Citizenship Education (GCED) within the framework of the Sustainable Development Goals (SDGs). In the literature, one source

shifts the focus to the role of technology. UNESCO Bangkok (2023) hosted a roundtable discussion on the responsible integration of generative AI in education in the Asia-Pacific region, touching upon its potential to enhance aspects of learning relevant to global citizenship. Neag (2014) analyzed media literacy education in the Hungarian National Core Curriculum, exploring its goals and connections to citizenship education.

The extract of the findings of the methodologies helps to investigate global citizenship education (GCED) and related concepts. One prominent approach is a literature review that focuses on the content analysis of publications and academic studies related to GCED and ESD. This involved an in-depth analysis of official documents and publications from the UNDESD and UNESCO, along with searching, reviewing, and counting keywords such as citizenship, global citizenship, human rights, and peace in selected reports, books, and articles.

One handbook for policymakers suggests a four-step process for developing and implementing GCED policy: analysis, planning, implementation, and evaluation, drawing from UNESCO's Handbook on Education Policy Analysis and Programming. This includes conducting a policy review of existing educational policies. Another study explicitly undertook a policy analysis based on Critical Discourse Analysis (CDA) to uncover the Hungarian policy process related to media literacy education, which is linked to broader citizenship education. This CDA framework contextualized the policy by examining policy levers and drivers (intended aims) and warrants (justifications) and deconstructing the policy text using analytical lenses derived from CDA and Critical Literacy Analysis.

Surveys conducted by researchers in the Satara district were also used to gather data on GCED awareness and perceptions of its implementation. Fifty-five female graduate students participated in this survey with open-ended questions. Qualitative research methods, including interviews and focus groups, were used to explore perceptions and the implementation of GCED. A study in Dutch secondary education employed semi-structured interviews with principals, bilingual education coordinators, and teachers, as well as focus group discussions with pupils, to identify their perceptions of how Global Citizenship Education (GCED) is implemented. These qualitative data were analyzed using content analysis to identify salient GCED orientations and interfaces. Meta-reviews synthesize the existing research on GCED typologies. A meta-review that critically reflects on and maps the commonalities and distinctions in frameworks and approaches to GCED across a set of typologies found in journal articles. This meta-review applies a heuristic of three main discursive orientations —neoliberal, liberal, and critical —and their interfaces to create a social cartography of how different articles categorize GCED.

The concept of social cartography is a key methodology that has been discussed and applied. It is described as complexifying imaginaries to make the contradictions and limits of typical discursive assemblages visible. In the context of GCED, social cartography involves selecting relevant texts, identifying the positions within these texts that describe the types of GCED, and mapping how they intersect and overlap. It is understood as performative and situated, aiming to prompt active engagement and further conversation rather than providing definitive representation. Conceptual analysis was employed to clarify the various principles, including the definitions of GCED and ALE, and to identify their commonalities and differences. This involves examining related terms and concepts, such as global learning and education for sustainable development. Literature reviews were conducted to analyze patterns in contemporary research on GCED. One study conducted a systematic conceptual review of empirical studies over the last decade to identify dominant themes and potential gaps in the existing research. Another study extended a systematic literature review of GCED research in higher education to engage with critiques of global citizenship as a concept rooted in the Global North.

The methodologies employed in the references to study GCED are diverse, reflecting the multifaceted nature of the field, and are used to draw conclusions. They range from broad analyses of existing literature and policies to indepth explorations of stakeholder perceptions and the development of theoretical frameworks for understanding and categorizing GCED. The use of meta-reviews and social cartography highlights the effort to critically engage with the existing body of knowledge and map the complexities and nuances within the field. Qualitative methods provide valuable insights into educators and learners lived experiences and interpretations of GCED. Simultaneously, policy and critical discourse analyses shed light on how GCED is framed and implemented within educational systems. These methodological approaches contribute to a better understanding of GCED, both in theory and practice.

### 5. RESEARCH GAPS

The review of studies on GCED reveals a potential gap in the existing research and suggests a framework for future development. More research is needed in non-English-speaking countries, such as India, and from the Global South to address the current bias in the literature. To address this gap, researchers provided GCED literature in Marathi to the students who participated in this survey. Furthermore, a more detailed analysis is necessary to comprehend the long-term effects of various approaches to GCED on learners' attitudes, behaviors, and engagement as global citizens.

"Based on the identified research gaps and emerging trends, the researchers suggest the following:

- Three specific research questions were developed based on existing findings.
- Required methodological expertise for each question.
- Industry sectors where this research expertise is valuable include.
- Specific job roles that align with these research directions are as follows.

Based on the research gaps and emerging trends identified, here are three specific research questions, the required methodological expertise, valuable industry sectors, and aligned job roles.

Research Question 1: How do educators in diverse national contexts (including the Global South) understand and navigate the interconnectedness of GCED and ESD in their pedagogical practices, and what are the implications for curriculum design and implementation?

Qualitative research methods included semi-structured interviews with educators, classroom observations, and content analysis of curriculum documents. Comparative education research expertise analyzes practices across different national contexts. Expertise in thematic analysis to identify recurring patterns and nuances in educators' understanding and practices. Knowledge of critical perspectives on GCED and ESD for analyzing potential biases and power dynamics. Education (primary, secondary, higher education, vocational training), Educational Non-Governmental Organizations (NGOs), International Development Organizations (e.g., UNESCO, World Bank), Teacher Training and Professional Development Providers are the sectors for the Specific Job Roles as Curriculum Developer, Teacher Educator, Education Policy Analyst, Research Associate in Education, International Education Consultant, Program Manager for Educational Initiatives (NGO/International Organization), Qualitative Data Analyst.

Research Question 2: What are the perceived impacts and ethical considerations of integrating generative Artificial Intelligence (AI) tools in GCED pedagogy from the perspectives of learners and educators in the Asia-Pacific region, and how can these insights inform the development of responsible and practical AI-enhanced GCED learning experiences?

A mixed-methods research design, combining quantitative surveys to gauge perceptions of impact and ethical concerns with qualitative methods such as focus groups and interviews, will be used to explore these issues in depth. Expertise in educational technology research, specifically in the application and evaluation of AI in learning. Knowledge of ethical frameworks for AI in education. Familiarity with GCED principles and learning outcomes. Statistical analysis skills for survey data and thematic analysis skills for qualitative data for sectors such as

Educational Technology Companies, Educational Institutions (integrating AI), Educational Research Organizations, Policy-making bodies in education, and organizations focused on AI ethics and responsible innovation are considered for Specific Job Roles as Learning Experience Designer (with AI focus), Educational Technology Researcher, AI in Education Specialist, Ethics in AI Education Consultant, Research Scientist in Educational Technology, Policy Advisor for EdTech, User Experience (UX) researcher (focus on learning platforms).

Research Question 3: How do ALE programs framed as GCED address issues of historical and ongoing colonial legacies and power imbalances in their curriculum and pedagogical approaches, and what are the perceived impacts on adult learners' critical consciousness and engagement in local and global civic action?

Qualitative research methods, including case studies of ALE programs, participatory action research involving adult learners, critical discourse analysis of curriculum materials and program documentation, and in-depth interviews and focus groups with educators and learners in ALE settings, expertise in postcolonial and decolonial theories to analyze power dynamics and knowledge systems, are used. Understanding the principles and practices of GCED in ALE contexts for sectors such as Adult Education Centers and Institutions, Community Development Organizations, Literacy and Numeracy Programs for Adults, NGOs focused on social justice and global citizenship, and international organizations working on lifelong learning and adult education (UNESCO UIL) are considered for Specific Job Roles as Adult Education Program Developer, Community Educator, Research Associate in Adult Education, Social Justice Education Facilitator, Program Evaluator (Focusing on the impact of ALE on civic engagement), and Policy Analyst in Adult and Lifelong Learning.

These research questions are designed to build upon the identified gaps by focusing on the practical application of GCED in specific contexts (diverse national settings, AI integration, adult learning), addressing limitations in existing frameworks (colonial imaginary), and exploring key stakeholders' perspectives (educators and learners). The suggested methodological expertise aligns with the nature of each question, and the identified industry sectors and job roles demonstrate the relevance and potential career pathways associated with these research directions.

Current research on the impact of GCED on learners is diverse. While significant work has been done to define the concept and analyze its presence in curricula, the field is increasingly focusing on assessing and understanding the perspectives of educators and learners. However, existing research has recognized limitations and biases, highlighting the need for more diverse perspectives and a deeper understanding of the impact of various GCED approaches on fostering informed and engaged global citizenry.

# 5.1. Comparative Analysis

This comparative analysis of GCED and its related concepts includes ESD and the CCE. These resources encompass theoretical frameworks, empirical studies, policy discussions, and considerations of emerging technologies such as AI.

Several sources have delved into the theoretical conceptualizations of GCED. Andreotti (2006) and subsequent studies established a foundational distinction between "soft" and "critical" GCED, where soft GCED emphasizes humanity and a singular idea of progress, whereas critical GCED focuses on justice, complicity in harm, and multiple perspectives. This binary is a recurring theme, noting that UNESCO's recent conceptualization of GCED aligns closely with the global citizenship, socio-emotional, and behavioral domains.

Building on this, Pashby et al. (2020) conducted a meta-review of GCED typologies, applying a heuristic. Their analysis revealed a strong confluence within the neoliberal orientation, the most significant number of types within the liberal orientation, and a conflation within the critical orientation. This meta-review highlights the complexity and contested nature of GCED, supporting Andreotti's initial observation and suggesting that even within "critical"

approaches, there are significant variations. The meta-review also points out that existing typologies essentially refer to Global North Countries and English-speaking contexts, a limitation echoed by Goren and Yemini (2017) and the "Rethinking Global Citizenship Education from Asia-Pacific Perspectives," which calls for more research from the Global South. AI holds significant potential for fostering GCED by personalizing learning and providing immersive global simulations. In pedagogy, AI tools can tailor content to individual student needs, facilitating critical thinking about complex global issues and fostering intercultural empathy.

Several studies have focused on the empirical analyses of GCED in educational settings. Sung and Hwang (2024) analyze the GCED content in the South Korean social studies curriculum revisions, using UNESCO (2015) and Oxley and Morris (2013) as frameworks. Their findings indicate shifts in emphasis across cognitive, socio-emotional, and behavioral domains at different school levels and reveal a strong connection between GCED and ESD. Damiani and Fraillon (2025) examine the representation of GCED-ESD in the ICCS assessment frameworks and test instruments, highlighting the overlapping nature of these domains and their progressive inclusion in civic and citizenship education assessments.

The "Bridging theory and practice" paper analyzes teachers' and coordinators' perspectives on GCED in Dutch secondary education using (Pashby et al., 2020) cartography. It identifies the dominance of a liberal orientation while also highlighting critical orientations. This study also acknowledges the limitations of applying Global North-centric frameworks and the need for further refinements.

The relationship between GCED and ESD is explicitly addressed, and GCED is compared to ESD as a new proposal for Sustainable Development Goals (SDGs). It posits that while differentiated, they share standard components and highlights the need for clarity in their articulation within primary UNESCO international documents. Sung and Hwang (2024) analysis further supports this connection by identifying an "environmental global citizenship" perspective in geography and social studies curricula.

The policy dimensions of GCED were also considered. The APCEIU materials provide policymakers with resources and reflection points for integrating GCED into national policies and curricula, including teacher preparation and assessment strategies. The UGC framework emphasizes the importance of GCED in the context of India's National Education Policy (NEP-2020) and Sustainable Development Goals (SDGs). This case study examines media literacy education within Hungary's National Core Curriculum, offering a methodological approach (Critical Policy Discourse Analysis) that can be applied to analyzing GCED policy documents. Tarozzi (2017) uniquely focuses on GCED in ALE, arguing for a perspective of ALE as GCED rather than just viewing GCED as a topic within ALE. This perspective emphasizes social transformation, equity and social justice.

The UNESCO report addresses the emerging field of generative AI in education. It includes discussions on transforming teaching and learning, with challenges related to data privacy, misinformation, and ethical considerations. Although not directly focused on GCED, this highlights a crucial contemporary context that inevitably intersects with how GCED is taught and learned.

The literature collectively presents a multifaceted and evolving landscape. They reveal ongoing debates about the theoretical underpinnings of GCED, diverse approaches to its implementation and assessment in educational curricula, and complex relationships with related fields such as ESD and CCE. Furthermore, they underscore the importance of contextualizing GCED beyond Western perspectives and considering its role in adult education, while also acknowledging the transformative potential and challenges posed by emerging technologies. The comparative analysis reveals both areas of consensus, such as the complexity of GCED, and areas of divergence, particularly in the emphasis and interpretation of critical approaches and the influence of different regional and theoretical lenses.

#### 6. KEY FINDINGS

The balance of GCED domains (cognitive, socio-emotional, and behavioral) improved at the secondary level (weakened cognitive, increased socio-emotional/behavioral). However, an imbalance deepened at the elementary level, with a sharp increase in the cognitive domain of the latter. The highest proportion of topics in the cognitive domain relates to community interaction at various levels. A low proportion of issues in the behavioral domain related to ethically responsible behavior and acting. The "Environmental global citizenship" perspective was common in geography and general social studies, indicating a link between Global Citizenship Education (GCED) and Education for Sustainable Development (ESD).

The 2015–2022 curriculum shows a stronger tendency to recognize global citizenship based on multiple citizenship perspectives, moving away from a nationalist perspective. Efforts were made to maintain a neutral expression without bias towards neoliberal or radical positions. "Media literacy Education" and GCED are strictly demarcated, with no connection between them. The literature provides several key findings regarding GCED and its related concepts. One significant area of discussion is the relationship between GCED and ESD. While these are often mentioned in primary international organization documents, articulated explanations for their relationship are lacking.

However, some curricula demonstrate a strong link, particularly in areas such as geography and general society, revealing a perspective of 'environmental global citizenship.' This suggests an overlap between environmental concerns and broader themes of global citizenship. It further delves into the conceptualization and dimensions of GCED. It is understood that nurturing competencies in knowledge about the world, cognitive skills such as discerning information, socio-emotional skills such as empathy, and behavioral skills to address problems is essential. UNESCO's work includes identifying topics and learning objectives for GCED and employing methodologies from human rights education, ESD, EIU, and peace education. The three domains of GCED learning are cognitive, socio-emotional, and behavioral ones. Effective GCED teaching requires empowered, knowledgeable, and skilled teachers who need support and training.

Different approaches and typologies of GCED have been highlighted in the academic literature. A meta-review identifies neoliberal, liberal, and critical orientations towards Global Citizenship Education (GCED). Liberal orientation appears dominant in some educational contexts, focusing on political and moral themes, while critical orientations challenge current power structures and Western-centric perspectives. Some scholars distinguish between 'soft' and 'critical' GCED, with 'soft' approaches sometimes based on the notion of common humanity without critically analyzing inequalities. The concept of a 'modern/colonial imaginary' is also raised as a metanarrative that can limit these discursive orientations.

The implementation of GCED has been explored in various contexts. Due to workload concerns, it is often integrated into existing subjects rather than being a dedicated subject on its own. In Malaysia, for example, schools integrate GCED elements into Mathematics, Science, History, and Geography for Grades 7–12 using Project-Based Learning (PBL). Survey data from the Asia-Pacific region reveal that many teachers are enthusiastic about learning and teaching GCED, often drawing on their social and cultural backgrounds. GCED practices usually cover cognitive and socio-emotional domains, with some activities integrating all three: cognitive, socioemotional, and behavioral. Examples of activities include inquiring about local challenges in a global context and analyzing root causes to develop a deeper understanding and empathy.

Furthermore, the literature has touched upon GCED in ALE. It is viewed as a form of GCED, emphasizing social transformation, equity, and social justice. A four-component approach to ALE, as the GCED model considers aims, content, processes/pedagogies, and actors/learning environments. The integration of GCED with the SDGs,

particularly SDG 4 on quality education, is a key theme. Monitoring and evaluating the achievement of SDG targets to education, including qualitative indicator with an analysis of learning effects (ALE).

Immersive simulations and AI-powered virtual reality environments allow GCED learners to experience diverse cultures and perspectives firsthand, fostering intercultural empathy and understanding. These tools also provide real-time feedback, helping students develop the critical thinking and problem-solving skills necessary to engage with a globalized world. AI empowers educators to move from a one-size-fits-all approach to a more customized, effective, and engaging learning experience.

Finally, the assessment of GCED is discussed in the context of international studies, such as the IEA International Civic and Citizenship Study (ICCS). While GCED and ESD were implicitly integrated within Civic and Citizenship Education (CCE) in earlier cycles, the ICCS 2022 more explicitly represented these as areas of interest. There is considerable overlap in the content of GCED and ESD when viewed through the ICCS framework, and both can be measured within a broader CCE dimension.

Overall, the sources highlight the evolving understanding and implementation of GCED, its complex relationship with ESD, the importance of critical perspectives, and the ongoing efforts to integrate it into diverse educational settings and align it with global agendas such as the SDGs. The role of educators, the need for effective pedagogies, and the challenges of conceptualization and assessment are central to the ongoing discourse on GCED.

## 7. DISCUSSION

The Role of UNESCO and the International Framework UNESCO promotes GCED globally through its frameworks, publications, and initiatives. The SDGs, notably Target 4.7, have also impeded the research and implementation of GCED and ESD, with several limitations concerning the conceptualization, study, and implementation of GCED and related concepts. One significant limitation lies in the scope and focus of the existing research. Empirical studies on GCED highlight discernible differences in how GCED is framed in studies conducted in different countries and regions.

One study focusing on Dutch secondary education also acknowledges that its results do not represent mainstream Dutch secondary education, as it primarily sampled more academically oriented tiers and schools with a global or bilingual profile. This suggests a potential bias in the existing literature towards specific geographical and educational contexts. The methodological limitations are also highlighted. One study using a social cartography approach acknowledges that while it aims to map existing conversations, it does so from the perspective of the mapper(s), meaning only parts defined as relevant are included and made meaningful, thus lacking a disinterested position of omniscience.

The study analyzing the Dutch context also recognizes that the overlapping nature of different GCED orientations and interfaces made coding the interview data challenging and necessitated further refinement of social cartography. Furthermore, a study analyzing the integration of GCED/ESD in the ICCS assessment points out that its insights are limited to measuring student achievement in civic knowledge and do not examine the evaluation of GCED-ESD and CCE, including the attitudinal and behavioral dimensions. The study also noted that the identification of measurement dimensionality relies on both test item content and the manifestation of latent traits within the assessed population, meaning that conceptual congruence might not always translate to measurement dimensionality.

Conceptual ambiguities and conflations present another set of limitations of this study. The meta-review identifies conflations of GCED within a critical orientation. It also argues that, despite the diversity of GCED orientations, the field remains primarily framed by limited possibilities due to the modern/colonial imaginary, which

hinders the imagination of viable alternatives to the status quo. A study analyzing the curriculum in Alberta found a conflation of different versions of liberalism, leading to a false sense of multiple perspectives and a foreclosure of the potential for more critical approaches to GCED. Finally, some limitations relate to the accessibility and application of the research. One article notes that while in-depth social analyses are crucial, they must be accessible to different discursive communities. However, translation and synthesis can simplify complex discussions and create seemingly fixed distinctions. In policy development, one handbook for policymakers offers a four-step process but does not delve into the practical challenges and contextual variations that can affect implementation.

The study of GCED is limited by its disproportionate focus on the Global North, methodological challenges in capturing its multifaceted nature, conceptual ambiguities, and the ongoing need to bridge the gap between theoretical research and practical application in diverse contexts.

### 8. CONCLUSION

The merging or blurring of different concepts or approaches, such as the conflation of various types of critical GCED or multicultural education and GCED. Overlapping areas or ambivalences between different discursive orientations, where the same terms can be used with multiple meanings. Examples include neoliberal-liberal and liberal-critical interfaces among them. Some studies have found a prevalence of liberal approaches to GCED in practice. Existing research and typologies often focus on the Global North and English-speaking contexts, indicating the need for more diverse perspectives. In curriculum analysis, this refers to an uneven focus on the cognitive, socio-emotional, and behavioral domains of GCED. In the assessment context, this refers to whether items designed to measure different constructs (e.g., GCED, ESD, and CCE) measure distinct underlying abilities or knowledge dimensions.

The usage of these terms often varies depending on the specific focus and theoretical underpinnings of each study. For example, the definition and categorization of 'critical' GCED differ across typologies, and the aspects of GCED analyzed in curriculum documents vary based on the analytical framework used. Similarly, the understanding and application of social cartography as a methodology might differ slightly in its emphasis across various research projects.

Current research on the impact of GCED on learners reveals several key themes and approaches, as listed below.

A significant portion of the research has been dedicated to defining and categorizing the various conceptualizations of GCED. Studies have analyzed different theoretical orientations, such as neoliberal, liberal, and critical GCED, as well as typologies based on cosmopolitan and advocacy approaches. This ongoing effort to clarify the meaning of GCED is crucial for understanding its potential impact on education. Several sources highlight the growing interest in the relationship between GCED and ESD. There is a recognition that these two fields are interrelated and often intersect, aiming to equip learners with the knowledge and skills to address global challenges. Some studies have focused on integrating these concepts into national education policies and curricula.

Generative AI policies must address key challenges, such as the need for strong governance to ensure equitable access to AI, mitigate algorithmic biases that could perpetuate stereotypes, and protect data privacy. By balancing technological innovation with ethical oversight, we can leverage AI to empower future generations of informed and responsible global citizens.

Several studies have analyzed curriculum content to understand how GCED is addressed in different educational contexts. For instance, one study examined the social studies curriculum in Alberta, noting its potential for critical approaches and the conflation of various versions of liberalism, which might limit a truly crucial engagement with diversity. Another study compared the 2015 and 2022 revisions of a social studies curriculum, examining changes in

the emphasis on the cognitive, social-emotional, and behavioral domains of the general curriculum for educational development. This type of research provides insights into the intended impact on learners through a planned curriculum.

Assessing learning outcomes related to GCED and sustainability has received increasing attention. The OECD's PISA 2018 results included an assessment of students' readiness to thrive in an interconnected world, highlighting the importance of global competence. The ICCS has also started analyzing the integration of GCED and ESD concepts into its assessments. This research examines the feasibility of operationalizing and measuring GCED and ESD within the framework of civic and citizenship education assessments.

Some research has explored how teachers understand and implement GCED in their practice. These studies reveal that teachers' interpretations of GCED and their pedagogical approaches significantly influence learners. Understanding these perspectives is crucial for effectively promoting GCED in educational settings. A few studies have investigated learners' perspectives on the implementation of GCED. Exploring how students experience and understand GCED is crucial for gauging its impact and ensuring relevance. The research also highlights several critiques and challenges in the field of GCED. These include the lack of a universally agreed-upon definition, the potential for Western biases in its conceptualization, and tensions between different agendas (e.g., instrumentalist vs. normative) within GCED policy and practice. Some scholars advocate a more critical and decolonial approach to GCED, particularly from a Global South perspective.

The literature supports the idea that GCED is a complex and contested concept with multiple interpretations and approaches. For instance, Pashby et al. (2020) meta-review explicitly maps the commonalities and distinctions in groupings of frameworks and methods to GCE across different typologies, acknowledging the diversity of conceptualizations. Similarly, Andreotti (2006) distinguished GCED, highlighting different underlying assumptions and implications, a distinction referenced by other sources. Goren and Yemini (2017) also noted the lack of an agreed-upon definition for GCED.

Multiple sources support the idea that neoliberal agendas can influence and shape the GCED framework. Schattle (2008) identifies a "neoliberal" ideological constellation within global citizenship education programs, focusing on improving competencies to compete in the global economy. Pais and Costa (2020) reinforce the importance of focusing on ideologies by identifying a neoliberal discourse that often appears alongside critical democracy discourses in GCE. The meta-review by Pashby et al. (2020) also identifies "neoliberal" as one of the main discursive orientations in GCE literature.

Several authors have emphasized the importance of critical approaches to GCED that address power relations, social justice, and historical context. Andreotti's work consistently advocates for vital literacy and transnational literacy as essential components of GCED, challenging the notion of "single stories of progress." In their meta-review, Pashby et al. (2020) emphasized "critical" as a key discursive orientation.

Multiple sources highlight the relationship between GCED and other educational agendas such as ESD and CCE. The explicit differences and similarities between GCED and ESD suggest areas of overlap and separation in their implementation in teacher education. Damiani and Fraillon (2025) discuss the integration of GCED-ESD within CCE in large-scale assessments, such as ICCS, highlighting the blurred boundaries between these areas.

While several sources acknowledge the importance of critical approaches, the meta-review by Pashby et al. (2020) confounds various types of GCE within the necessary orientation, suggesting that this category might group distinct approaches. This challenges simplistic understandings of what constitutes critical GCED, as presented in some individual typologies. They also pointed out that many critical approaches retain interfaces with liberal orientations.

The relationship between ESD and GCED, which remains unarticulated in primary IO documents (such as the Muscat Agreement and Incheon Declaration), can be seen as a challenge to the idea that these fields are seamlessly integrated into policy. Although they appear side by side, the underlying connections and distinctions may not be clearly defined.

Andreotti (2006); Andreotti (2014) and Pashby et al. (2020) implicitly challenge soft or purely competency-based approaches to GCED, arguing that they often lack critical analyses of power, inequality, and historical context, potentially reinforcing existing dominant perspectives. This contrasts with approaches that present a more superficial understanding of global interconnectedness without addressing underlying injustices.

These examples illustrate how different sources engage with and build upon each other's conclusions, sometimes offering supporting evidence or similar analyses, presenting critiques, identifying limitations, or highlighting alternative perspectives. This ongoing scholarly dialogue contributes to a nuanced understanding of the complex field of GCED.

### **REFERENCES**

Andreotti, V. (2006). Soft versus critical global citizenship education. *Policy and Practice: A Development Education Review*, 3, 40-51. Andreotti, V. (2014). *Actionable postcolonial theory in education*. New York: Palgrave Macmillan.

APCEIU. (2021). Global citizenship education: A policymaking awareness and advocacy handbook. Seoul, South Korea: APCEIU.

APCEIU. (2022). Empowering teachers to promote global citizenship education: A handbook. APCEIU: APCEIU.

- APCEIU & UNESCO. (2023). Empowering minds: A round table on generative AI and education in Asia-Pacific: Outcome statement. Seoul, South Korea: APCEIU & UNESCO.
- Chung, B. G., & Park, I. (2016). Global citizenship education in the context of the United Nations sustainable development goals: Focusing on SDG 4.7. *Journal of Education and Learning*, 5(3), 157–165.
- Damiani, V., & Fraillon, J. (2025). The inclusion of global citizenship education and education for sustainable development within civic and citizenship education: An analysis of ICCS 2016 and 2022. *International Journal of Citizenship and Social Justice*, 1(1), 1–22.
- Deardorff, D. K., & Ling, T. S. (2023). Global citizenship education: A handbook for parents, community and learners in Asia-Pacific. In (1st ed., pp. 1–17). Paris, France: UNESCO
- Duarte, J., & Robinson-Jones, C. (2022). Bridging theory and practice: Conceptualizations of global citizenship education in Dutch secondary education. *Globalisation*, *Societies and Education*, 20(4), 555-571. https://doi.org/10.1080/14767724.2022.2048800
- Goren, H., & Yemini, M. (2017). Global citizenship education redefined—A systematic review of empirical studies on global citizenship education. *International journal of educational research*, 82, 170-183. https://doi.org/10.1016/j.ijer.2017.02.004
- Leite, S. (2022). Using the SDGs for global citizenship education: Definitions, challenges, and opportunities. *Globalisation, Societies and Education, 20*(3), 401-413. https://doi.org/10.1080/14767724.2021.1882957
- Lewin, R. (2009). Handbook of practice and research in study abroad: Higher education and the quest for global citizenship (1st ed.). UK: Routledge.
- Milana, M., & Tarozzi, M. (2021). Rethinking adult learning and education as global citizenship education: A conceptual model with implications for policy, practice and further research. *International Journal of Development Education and Global Learning*, 13(1), 46-60. https://dx.doi.org/10.14324/IJDEGL.13.1.04
- Neag, A. (2014). From schools to start-ups? A report on media literacy education in Hungary. In S. H. Culver & P. Kerr (Eds.), Global citizenship in the digital world. Millennium Yearbook. In (pp. 115–125). Gothenburg, Sweden: NORDICOM

- Oxley, L., & Morris, P. (2013). Global citizenship: A typology for distinguishing its multiple conceptions. *British Journal of Educational Studies*, 61(3), 301–325.
- Pais, A., & Costa, C. (2020). Neoliberalism and global citizenship education: A critical analysis of policy and practice. *Globalisation*, Societies and Education, 18(5), 583–597.
- Pashby, K. (2015). Conflations, possibilities, and foreclosures: Global citizenship education in a multicultural context. *Curriculum Inquiry*, 45(4), 345-366. https://doi.org/10.1080/03626784.2015.1064304
- Pashby, K., Da Costa, M., Stein, S., & Andreotti, V. (2020). A meta-review of typologies of global citizenship education. *Comparative education*, 56(2), 144-164. https://doi.org/10.1080/03050068.2020.1723352
- Schattle, H. (2008). The practices of global citizenship. Lanham, MD: Rowman & Littlefield.
- Soong, H. (2018). Transnationalism in education: Theoretical discussions and implications for teaching global citizenship education. In:

  Davies, I., et al. The Palgrave Handbook of Global Citizenship Education. London: Palgrave Macmillan.
- Sung, H., & Hwang, S. (2024). Exploring global citizenship education in Dutch secondary schools: Perspectives of management, teaching Staff, and students. *Journal of Global Citizenship Education*, 12(2), 45-67.
- Tarozzi, M. (2017). Policy, curriculum, and the making of global citizens: A critical policy discourse analysis approach. *Journal of Curriculum Studies*, 49(5), 663–680.
- UNESCO. (2015). Global citizenship education: Topics and learning objectives. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000232993
- UNESCO Bangkok. (2023). Empowering minds: A round table on generative AI and education in Asia-Pacific: Outcome statement.

  Thailand: UNESCO Bangkok.
- University Grants Commission. (2021). Educational framework for global citizenship in higher education. India: University Grants Commission.
- Yemini, M. (2017). Internationalization and global citizenship. Policy and practice in education, 10, 973-978.

Online Science Publishing is not responsible or answerable for any loss, damage or liability, etc. caused in relation to/arising out of the use of the content. Any queries should be directed to the corresponding author of the article.