

A Case Study into Turkish EFL Pre-Service Teachers' CALL-Mediated Professional Development for Global Citizenship Education Through Inclusive Webquest Task Design

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Abstract

Being inquiry-oriented and socio-constructivist, web-quests offer multiple experiential project-based learning opportunities for 21st century inquiry-oriented EFL pre-service teachers' professional development via collaborative knowledge construction and peer scaffolding. As contemporary EFL teachers need to address culturally and linguistically diverse learner profiles, they need to raise their awareness of how to incorporate global citizenship elements into their future teaching contexts and align their curricula accordingly to foster inclusive classroom practices. The current eight-week exploratory case study focused on 19 EFL pre-service teachers' insights into the impact of a Webquest project integration related to global citizenship education into K-12 curricula on students and the impact of their collaborative Webquest design experience on their professional development in an online elective course called World Englishes and Culture at the foreign language education department of a Turkish state university. The data were collected via online pre-service teacher reflections, and semi-structured interviews and were analysed via thematic analysis. Findings indicated pre-service teachers' self-reported gains regarding pedagogical and digital competencies regarding the creation of online collaborative, differentiated tasks aligned with global citizenship for diverse learner profiles, as well as their favourable insights into the integration of Webquests into K-12 curricula as a catalyst to foster a global mindset.

Keywords: Global citizenship education, English as a Foreign Language (EFL) pre-service teachers, Inclusive practices, K-12 curricula, Pedagogical and digital competencies, Webquest

Introduction

In the face of the rapidly evolving educational landscape of the 21st century, which is characterized by unprecedented linguistic and cultural diversity, today's educators have a mission to assist their learners in their global literacy development (Yang & Kuo, 2023). Students are expected to develop an inquiry-oriented critical understanding of the world at local, national, and global levels as autonomous individuals with civic responsibility and effective communication skills to interact with those from diverse cultural backgrounds (see Campillo-Ferrer & Miralles-Martínez, 2023; Yoon, 2018). The ever-growing diversity in learner profiles prompts educators to develop inclusive curricula with a view to empowering linguistically and culturally diverse learners in inclusive instructional settings (UNESCO, 2015). The necessity to effectively navigate blended or fully online learning environments of the 21st century, which are driven by the inquiry-oriented and socio-constructivist philosophy of learning (see Vygotsky, 1978), to foster learner engagement, collaborative learning and critical thinking skills in an inclusive manner is a pressing concern for both pre-service and in-service teachers. Today's learners need to be introduced to digital forms of knowledge (co-)construction and acquisition in safe technologically-enhanced instructional realms (Dousti & Amirian, 2023), which will inclusively embrace their multivocality, multiple ways of expression, and the manifestation of their unique identities. In fact, the technology-enhanced blended or fully online learning environments of the 21st century enable digital tools such as Webquests that promote learners' engagement, collaborative learning, problem-solving, and higher-order thinking skills to promote second language acquisition and foreign language learning (Aydın, 2016; Sen & Neufeld, 2006; Vidoni & Maddux, 2002).

Considering the aforementioned state of affairs in the contemporary educational landscape, there is an urgent call for engaging pre-service teachers in teacher education programs in the development of inclusive technology-enhanced online task design addressing global issues in the K-12 curricula (see Davis, 2015; Kjelin & Stier, 2008). The extant literature reveals the scant attention paid to global issues at different levels of education (see Dana et al., 2017; Steiner, 1992, as cited in Robbins et al., 2003 for the case in K-12 education; Teräs, 2016) worldwide, as well as the lack of importance attached to the digital inclusive curricula welcoming culturally-diverse learners. In the Turkish context, the literature on digital citizenship seems to be limited to social studies (Öztürk et al., 2012). In fact, Webquests have been proposed to contribute to the construction of such inquiry-oriented digital and inclusive learning environments to promote global citizenship education (see Aydın, 2016). Hence, the current eight-week exploratory case study explored 19 English as a Foreign Language (EFL)

pre-service teachers' insights into the differentiated online task design process for global citizenship in K-12 curricula through an online collaborative Webquest project in an online elective course at a Turkish state university. The study addresses the following research questions:

RQ1. What are the pre-service teachers' insights into the impact of Webquest integration into the K-12 curricula on the promotion of global citizenship?

RQ2. What are the pre-service teachers' insights into the impact of their Webquest design process engagement regarding global citizenship education in the K-12 curricula on their professional development?

Review of Literature

Webquests and Online Task Design

Webquests, which are based on an information gap resolution model in an authentic socio-constructivist context where interaction is facilitated through collaboration (Felix, 2002) in an online engaging experiential learning environment for EFL learners (Simina & Hamel, 2005). They mostly involve convergent and problem-solving tasks that are based on collaborative work with an ample amount of peer scaffolding through the utilization of online resources (Godwin-Jones, 2004; March, 1998) as well as an engaging safety zone for peer learning (Aydın, 2016). As the Webquest tasks involve collaborative work, learners assume particular roles in task accomplishing, promoting peer learning opportunities further (Simina & Hamel, 2005). The continual provision of scaffolding via the availability of information flow at learners' disposal promotes learners' self-reliance and self-confidence (March, 1998). The teachers' role as facilitators is crucial in this regard (Aydın, 2016). The student-centered webquest environments enable instructors to provide the necessary scaffolding for students to achieve the intended learning outcomes, empowering them pedagogically (Zheng et al., 2008). Teachers' engagement in the Webquest design also promotes their technopedagogical (TPACK) knowledge (Mishra & Koehler, 2006) and the development of teacher agency (Martin & Quintana, 2011), as well as informing them of the challenges related to technology integration (Tseng & Yeh, 2019). The Webquest design process provides affordances for not only the development of TPACK knowledge but also for the potential challenges of technology integration (see Tafazoli & Farshadnia, 2023).

As regards the Webquest design, an authentic scenario with some background information and ample scaffolding is provided for learners to assist them with their online task completion. Online links to certain websites are also provided for learners to make their task

endeavour purposeful and goal-oriented (Simina & Hamel, 2005). Webquests provide a mastery learning experience for pre-service teachers via the project-oriented task design (Nami, 2022). Webquests contextualize the content, and the task completion becomes a meaningful attempt for learners in a situated context (Kuimova et al., 2015; Simina & Hamel, 2005). The integration of multimodality into the online task design, in the form of visuals, photographs, audio clips, and videos, enhances learner engagement (see Lee & Boling, 1999). The multi-layered task design, the integration of various degrees of guidance into the task design process as well as the opportunity to reflect on the learning process individually and collaboratively add to the affordances of learners' Webquest engagement. Consequently, it is of pivotal importance for pre-service teachers to be provided with online task design experiences (e.g., the Webquest design) so that they can establish student-centered and active learning environments (Altstaedter Jones, 2009; Godwin-Jones, 2004) and gain expertise in the effective management of technology integration into instructional environments (Peters, 2006).

All these aforementioned features contribute to the establishment of a socio-constructivist computer-assisted language learning (CALL) environment. (Simina & Hamel, 2005). The Webquests are aligned with the principles of Universal Design for Learning (UDL), which aim to design curricula to ensure the adjustment of learners with diverse learning preferences, styles, abilities, and educational backgrounds (Rose & Meyer, 2002). The UDL advocates multiple means of representation, multiple means of learner engagement, and multiple means of expression and performance (Rose & Meyer, 2002). UDL-aligned instruction involves the promotion of learner engagement through the presentation of content in diverse ways and the provision of alternative means for learners to demonstrate their understanding by creating a safe zone of expression (Rose & Meyer, 2002). The inclusive learning environment of Webquests, propelled by the UDL principles, is characterized by a learner-centered, inquiry-driven, multimodal, differentiated, and scaffolded pedagogy (Gulbahar et al., 2010; Synekop, 2020, Wang, 2021). In fact, Webquests are likely to enhance students' literacy development through the representation of knowledge in multiple ways and create a meaningful learning opportunity for learners via links to authentic contexts, which was pointed out by Ikpeze and Boyd (2007). Learners can also enjoy meaningful learning experiences when engaged in Webquest tasks by interacting with other group members to overcome challenges in authentic tasks (Caine et al., 2002). To this end, they activate their higher-order thinking processes such as evaluating, analysing, and synthesising information (Awada et al., 2020; Crawford & Brown, 2002; Lamb & Teclehaimanot, 2005; Liang & Fung, 2020; Mahtioudaki & Gkaravelas, 2023; March, 1997; Polly & Ausband, 2009). As Sole and

Mardomingo (2004) and Sen and Neufeld (2006) indicated, the constructivist approach enabled deep learning experiences in instructional settings, promoting learner autonomy and self-awareness.

As to the Webquest structure, it is composed of six steps: introduction, task, process, information source, evaluation, and conclusion for group activities (Dodge, 1997). The goal of a short-term Webquest is the acquisition of knowledge and integration of knowledge, while the long-term Webquest focuses on the extension and refinement of knowledge. The introduction step gives an overview of what the theme of the Webquest is and then lists a scenario or focus on the task. The task stage includes descriptions of tasks and subtasks for a particular topic. In the process stage, directions are provided for students in a step-by-step manner, and the information source step introduces teacher-selected useful online sources for task completion. At this stage, teachers provide guidance for learners to help them overcome their task-related challenges. The evaluation stage involves students' comparing and contrasting their learning gains. Teachers might facilitate this process via the provision of a rubric for assessment. In the end, the conclusion stage acts as a wrap-up or consolidation of learners' gains and to what extent they have achieved what they set to achieve at the beginning (Halat, 2007; Harrison, 1998).

Webquests and Global Literacy Development

The integration of technology into the classroom is considered to support global literacy development (Lanham & Zhou, 2003). Global citizenship adopts "a multifaceted approach, employing concepts and methodologies already applied in other areas, including human rights education, peace education, education for sustainable development and education for international understanding" (UNESCO, 2015, p.15). It is geared towards the development of three attributes in learners: critical literacy, social connectedness, and respect for diversity, as well as ethical responsibility and engagement (UNESCO, 2015). Technology-mediated discussions on global perspectives enrich and motivate the learning process, promoting its accessibility as well as enhancing the development of global literacy in a ubiquitous manner (Piedmont, 2020; Yang & Kuo, 2023). The establishment of a community of practice, particularly in culturally diverse learning environments, is conducive to global literacy learning (Lanham & Zhou, 2003). In such communities, learners are presented with various opportunities for meaningful negotiations, problem-solving, and collaborative decision-making (Zacharia et al., 2011). The safe expression and learning zone in the scaffolded Webquest environment contribute to the linguistic and extra-linguistic affordances (Aslanyan-

rad, 2024). Inquiry-based activities using Webquests were found to facilitate students' higher-level thinking skills for global literacy development (Chatel & Nodell, 2002; Moss & Van Duzer, 1998). In a web-based inquiry-oriented framework, students are prompted to undergo a transformative process where they are engaged in the creation of new intellectual products as a result of their reflective and creative thinking engagement in their recently acquired knowledge (Chen, 2021).

Global Citizenship Curriculum

In line with the global citizenship curriculum (OXFAM, 2006, p. 4), a global citizen is defined as someone who

- is aware of the wider world and has a sense of their own role as a world citizen,
- respects and values diversity,
- has an understanding of how the world works; is passionately committed to social justice,
- participates in the community at a range of levels, from the local to the global,
- works with others to make the world a more equitable and sustainable place,
- takes responsibility for their actions.

Global citizenship curriculum is geared towards the development of three attributes in learners: critical literacy, social connectedness, and respect for diversity, as well as ethical responsibility and engagement (UNESCO, 2015). The socio-constructivist learning environment of Webquests promotes interactivity, negotiation of meaning, collaborative construction of knowledge, and situated learning practices. This is also likely to enhance equity, sustainability, and civic responsibility in instructional settings, which constitute the pillars of the global citizenship curriculum (Laborda, 2009; McMahon, 1997).

Global citizenship education is developed on the basis of cognitive, socio-emotional, and behavioural dimensions of learning (UNESCO, 2015). The “cognitive domain of learning” is concerned with knowledge and thinking skills development to attain an in-depth understanding of global issues (UNESCO, 2015, p. 22). The “socio-emotional domain of learning” is related to the development of values and attitudinal and social skill parameters to foster learners' emotional, psychosocial, and physical development and their social harmony in a peaceful and respectful atmosphere. (UNESCO, 2015, p. 22). On the other hand, the “behavioral dimension” is pertinent to “conduct, performance, practical application and engagement” (UNESCO, 2015, p. 22). These three domains are interconnected and

incorporated into the learning process in the form of learning outcomes, key learner attributes, topics, and learning objectives.

Methods

Research Design

The exploratory case study design was adopted for the current study. This approach lends itself to the detailed investigation examination of situations and processes contained in a particular case and provides answers to the what, how, and why questions in research (Yin, 2014). It was appropriate for addressing the research questions in the current study as it the potential impact of the Webquest project integration into the K-12 curricula on the promotion of global citizenship and the impact of the EFL pre-service teachers' Webquest design engagement on their professional development. The current study was approved by the institutional research ethics committee prior to its conduct.

Participants

Nineteen junior pre-service teachers at the Department of Foreign Language Education Department at an English-medium state university in Turkey (15 females and four males) with an advanced level of proficiency in English participated in the study. The participants were all enrolled in a departmental elective course *World Englishes and Culture*, in the fall semester of the 2023 and 2024 academic year. They were chosen via convenience sampling and took part in the study on a voluntary basis. Their consent for participation was granted prior to their involvement in the study. Table 1 illustrates the demographic information about the study participants.

Table 1

Demographic Information about the Study Participants

Participants (P)	Age	Gender	Academic level
P1	24	Male	4 th year
P2	23	Male	4 th year
P3	23	Female	4 th year
P4	21	Female	4 th year
P5	21	Female	4 th year
P6	21	Female	4 th year
P7	22	Male	4 th year
P8	20	Female	3 rd year
P9	19	Female	3 rd year
P10	19	Female	3 rd year
P11	19	Female	3 th year
P12	20	Male	4 th year
P13	19	Female	3 rd year
P14	19	Female	3 rd year
P15	19	Female	3 rd year
P16	19	Female	3 rd year
P17	19	Female	3 rd year
P18	20	Female	3 rd year
P19	20	Female	4 th year

The Study Context

The eight-week Webquest project was integrated into the syllabus of an online 14-week departmental elective course *World Englishes and Culture* at a large English-medium university in central Anatolia/ Turkey in the fall semester of the 2023 and 2024 academic year. The course aimed to develop the pre-service teachers' awareness of the interplay between World Englishes, English as a Lingua Franca and culture, intercultural developmental stages, cultural dimensions, the role of culture in English language teaching, and the cultural differences for effective communication and intercultural communication strategies. The global citizenship education and global citizenship curriculum and practical activities to raise Turkish prospective teachers of EFL were also incorporated into the course curricula.

The elective course incorporated an emphasis on both the theoretical and the practical aspects regarding *World Englishes and Culture*, including global citizenship education. The participants were assigned readings on the aforementioned aspects and engaged in pedagogical activities such as case-based scenarios, role plays, and discussions in class. The Webquest project was launched on the sixth week of the semester, and the EFL pre-service teachers were engaged in a differentiated online task design process for the promotion of global citizenship in K-12 curricula (see the following QR codes for sample Webquests: <https://meqr.com/1SR6aw33> and <https://myqrcode.mobi/17848627>)

Procedure

The primary researcher, who was also the course instructor, asked the participants to create a Webquest to enhance the global citizenship competencies of a target learner group of their own choice (i.e., the age and proficiency level) in groups of three or four. They were supposed to choose one main topic, a specific learner profile, a particular learning outcome, and one key theme related to the main topic from Table B: Topics and elaborated learning objectives provided by UNESCO (2015, pp. 31-40) while creating their Webquests on an online free educational platform *Myschoolsnetwork* (<https://www.myschoolsnetwork.com>). They were asked to choose from a learner profile with the following age groups and levels of proficiency: Pre-primary/lower primary (5-9 years), upper primary education (9-12 years), lower secondary (12-15 years), upper secondary (15-18+ years). Each learning objective in the UNESCO document (UNESCO, 2015) was presented in line with a particular level of complexity. Hence, ‘a spiral curriculum approach’ was adopted so that concepts are introduced and taught in a manner with a gradual depth and complexity throughout different levels of education (UNESCO, 2015). They were supposed to pay attention to the learning outcomes and the listed key themes pertinent to each learner profile and specified learning outcomes. The following is an illustration (UNESCO, 2015, p. 37):

- The main topic (B.6): Difference and respect for diversity
- The learner profile: Pre-primary & lower primary (5-9 years)
- Learning objective: Distinguish between sameness and difference and recognise that everyone has rights and responsibilities

Key themes:

- What makes us similar and what makes us different from other people in the community (language, age, culture, ways of living, traditions, characteristics)
- Importance of respect and good relationships for our well-being
- Learning to listen, understand, agree and disagree, accept different views and perspectives
- Respecting others and self and appreciating differences

The pre-service teachers needed to adopt a five-stage template composed of the following steps: introduction, task, process, information source, evaluation, and conclusion for group activities. They were asked to prepare two tasks in the project: one individual task and one to be done in pairs or in groups. They were engaged in a training program on Webquest preparation before their involvement in the project. The program lasted for two weeks prior to the study. It totaled 6 hours, 3 hours per week. Both theoretical and practical aspects related to the Webquest design were incorporated into the training program. Table 2 illustrates the content and activities incorporated into the training program concisely.

Table 2

The Training Program Schedule

Weeks and duration	Content and activities in the training program
Week 1: 3 hours	The conceptual knowledge-building phase: A tutorial on Webquests and components, a discussion on the affordances and challenges of Webquest use in language learning, and the theoretical frameworks of Webquests how to prepare a Webquest on the platform
Week 2: 3 hours	The procedural knowledge-building phase: Multi-layered online task design, hands-on practice on the collaborative preparation of Webquest on the online platform Myschoolsnetwork, and peer feedback and reflection on the Webquests produced during the session

Data Collection

The data were collected via online pre-service teacher reflections as well as semi-structured interviews. With respect to online pre-service teacher reflections, the pre-service teachers in the study were asked to write an individual reflection based on their collaborative Webquest design experiences in the *World Englishes and Culture* course. The reflective report was supposed to be around 750 words (see Appendix I).

As regards the online semi-structured interviews with the pre-service teachers, online semi-structured interviews were held with the twelve of the pre-service teachers who participated in the project (see Appendix II). The interviews were composed of open-ended questions geared towards the identification of the participant's perceptions of the impact of the Webquest integration focusing on global citizenship into the K-12 curricula on their professional development and their challenges related to the Webquest design focusing on global citizenship. They were held in Turkish, the native language of the participants, to avoid any language-related difficulties that might arise while pre-service teachers were expressing themselves.

Data Analysis

The data were analysed via thematic analysis (Braun & Clarke, 2006). The current study adopted inductive thematic analysis, where the themes are strongly related to the data rather than the researchers' theoretical perspectives (Braun & Clarke, 2006). To ensure the trustworthiness and validity of the data collected in the study, interrater reliability and member-checking procedures were utilised. For interrater reliability purposes. The primary researcher, who was also the course instructor, collaborated with another researcher, who is a departmental colleague and an expert in qualitative analysis, at the data analysis stage. Both researchers were involved in the coding process; each worked independently from the other, achieving an inter-coder reliability of 90%. For member checking, the transcripts of the self-reported data from online semi-structured interviews were sent to participants for verification.

In the coding stage, each code was categorized by its relevance to the research questions. Initially, codes were formulated. The researchers negotiated some of the codes to attain a consensus whenever the need arose. The initial codes led to the identification of broader themes later on. Subsequently, they were refined through an iterative process and then categories were created and finally the main and sub-themes emerged. Two main themes emerged in relation to the first research question and three main themes emerged regarding the

second research question as a result of the data analysis. The main and sub-themes in the study can be seen in Appendix III.

The researchers adopted data triangulation and investigator triangulation during the data analysis stage (Miles & Huberman, 1994). Data triangulation involves comparing the findings from multiple sources for the confirmation and clarification of results for validation purposes. Investigator triangulation refers to the multiple researchers' engagement in the independent analysis of the same data set. In the current study, the data obtained from the pre-service teachers' project reflections and the semi-structured interviews with the pre-service teacher interviews were triangulated. The trustworthiness and validity of the data were consolidated via member-checking procedures through which participants checked the accuracy of their self-reported data.

Findings

Data analysis revealed five main themes: 1) the role of Webquests in the development of global citizenship values, 2) the empowering role of Webquests in enhancing K-12 learners' civic responsibility and agency, 3) pre-service teachers' insights into the impact of the Webquest design engagement on their professional development, 4) the holistic perspective of pre-service teachers towards the integration of global citizenship education into the K-12 curricula, and 5) pre-service teachers' development of a thorough understanding of the task-related challenges for the Webquest design.

The Role of Webquests in the Development of Global Citizenship Values

The pre-service teachers indicated a strong alignment of Webquests with the global citizenship features. The following quote by Participant 2 (P2) is quite revealing in this respect:

The project emphasizes interconnectedness, critical analysis of global issues, and a proactive approach to positive change. It aligns with Oxfam's key elements by nurturing an understanding of global interconnectedness, fostering critical thinking, and promoting values essential for responsible global citizenship (P2).

Pre-service teachers opined that Webquests play a pivotal role in K-12 students' internalization of diverse global citizenship features. They pointed out that Webquests are likely

to act as a facilitator for the promotion of global literacy at the K-12 level: “The Webquest centered around welcoming aliens stands as a dynamic and innovative tool, strategically designed to instill essential global citizenship values and skills within young learners” (P15).

The pre-service teachers described K-12 learners’ Webquest engagement as an important asset for the enhancement of global awareness and their global citizenship development process. In fact, they underlined that the technology-enhanced engagement in global issues was conducive to the K-12 students’ global literacy development. The participant pre-service teachers underscored that K-12 learners’ Webquest engagement might contribute to their global interconnectedness. The following quote by P7 during the online semi-structured interviews is representative of the abovementioned sentiments: “The integration of Webquests into K-12 curricula helps high school students actively engage with global issues, develop essential skills, and embrace values crucial for responsible citizenship” (P7).

The pre-service teachers also pointed out the importance of integrating a global literacy component into the K-12 curricula. They added that focusing on global literacy in K-12 contexts via Webquests is likely to foster critical thinking skills and critical literacy development as well as students’ social/cultural competencies and ethical stance. The prospective teachers emphasized the favorable impact of the K-12 students’ Webquest task engagement on their global literacy skills in a ubiquitous manner. In fact, P3 expresses these abovementioned affordances concisely in her reflective journal:

The Webquest, as a dynamic tool, not only addresses a critical societal challenge but also opens doors for continuous improvement and refinement. I am confident that its positive impact on fostering responsible global citizens will resonate beyond the classroom, leaving a lasting impression on students’ perspectives and contributions to the world. The journey has been uplifting, and I look forward to the continued positive ripple effects of this educational endeavour.

The Empowering Role of Webquests in Enhancing K-12 Learners’ Civic Responsibility and Agency

The empowering role of Webquests in enhancing K-12 learners’ civic responsibility and agency was highlighted in the study. The prospective teachers emphasized that when the students at K-12 level are engaged in a Webquest project on a particular theme of global citizenship education, they are likely to assume the role of active agents responsible for creating

and co-creating knowledge with their peers as to how to create an equitable and sustainable world with respect for diversity and as to how to promote social justice and eliminate inequalities. In fact, P10 added that the inclusive learning environment that Webquest layout provides also cultivated a sense of global citizenship among students: “The Webquests underscore the significance of designing inclusive and adaptable learning experiences that cultivate a sense of global citizenship among students.”

The pre-service teachers pointed out in their reflective journals that the integration of Webquests on global citizenship education into the K-12 curricula is likely to act as a catalyst for fostering K-12 learners’ intercultural and cross-cultural understanding and higher-order thinking skills, such as critical thinking skills in diverse cultural environments. These affordances are likely to act as a catalyst for the development of learner agency for global citizenship. The participant prospective teachers also pointed out that the Webquest task design is in alignment with UNESCO’s (2015) learning objectives. The following quote is quite revealing in this sense: “the Webquest makes significant strides toward achieving UNESCO’s (2015) learning objectives, promoting intercultural understanding and critical thinking among students” (P7).

The pre-service teachers revealed in the semi-structured interviews that the multimodality features embedded in the Webquest task design appeared to be conducive for the global citizenship development of K-12 learners. They mentioned that the videos and pictures they utilized in their Webquest design are likely to be quite appealing for the K-12 students and promote their global literacies, enabling them to grow as global citizens. They added that the multimodal features of Webquests via videos and audio materials are likely to enhance the students’ motivation to learn. Apart from the multimodality features, the creativity-inducing properties of the Webquest tasks tend to fuel the cognitive development of learners. All these aforementioned features are effectively conveyed in the following quote by P8 during the semi-structured interviews: “Webquests provide videos and explanations from sources so that learners can quickly assemble creative thinking, self-awareness and reflection, conflict resolution and take practical actions.”

The pre-service teachers in the study remarked that the Webquest-integrated learning environments allow the provision of necessary scaffolding for students to achieve the learning outcomes that were set in advance and render students pedagogically empowered, emphasizing their agentic role in global citizenship education. Webquests enable them to enhance their metacognitive awareness through their goal-oriented aspects propelled via learning outcomes as well as the reflective nature of the tasks. The provision of scaffolding at different stages of

the learning process for different purposes (for tasks that require reception, transformation, and production) is crucial for sustaining student motivation and engagement as it helps students navigate their way through the Webquest implementation confidently. The provision of scaffolding for the establishment of a sound knowledge basis for innovative intellectual products via the layered Webquest design can be considered an invaluable asset for the K-12 level.

The facilitative role of layered task design Webquest engagement for EFL learners' collaborative agency development was pointed out related to students' agency development. The interactive and collaborative problem-solving tasks that involve negotiation skills on the Webquests appear to further contribute to the establishment of an inclusive learning environment and support global literacy skills. The peer interaction embedded in the task design enables the EFL learners to learn how to resolve conflicts and manage misunderstandings in pair or group work tasks. The students tend to develop individual accountability and positive interdependence while working on the Webquest tasks.

Getting engaged and taking action is in accordance with the given tasks, as learners are required to accomplish both individual and pair or group functions group tasks promote cooperation and taking suitable actions while managing possible complexities or misunderstandings throughout the project (P9).

The Webquests' differentiation facility was also conducive to the promotion of learner agency for global literacy development. The overwhelming majority of the pre-service teachers emphasized the tasks' adaptability to diverse learning profiles and learning environments. They remarked that Webquests are adaptable to diverse learning profiles and learning environments. They also added that the task variety and the options allowing for differentiation at content, process, and product levels might also sound appealing for K-12 learners. They also pointed out that the wide range of topic options available for the Webquest design also helped foster global citizenship education. The following quote is representative in this respect:

The Webquest project's adaptability for different learner profiles lies in adjusting the depth of research, complexity of analysis, and expectations for creative output. It seamlessly integrates into existing lesson plans, particularly in subjects related to social studies,

economics, or ethics, offering a robust platform for engaging students in global citizenship education (P5).

The pre-service teachers highlighted that the project's capacity to adjust to various learner profiles can be considered one of its strong points for promoting learner agency for global citizenship education. They proposed that the proficiency and age levels of learners as well as their cultural backgrounds could all be taken into consideration when the activities and materials are modified. They remarked that linking Webquests to current curricular objectives, ensuring their relevance to students' areas of interest, and encouraging ongoing student participation through discussions and updates on a regular basis are all parts of incorporating it into the teaching process.

Pre-service Teachers' Insights into the Impact of the Webquest Design Engagement on their Professional Development

The pre-service teachers remarked that the Webquest design process proved to be a professionally empowering experience for them in terms of how to integrate global citizenship goals into K-12 curricula. The prospective teachers underlined that their Webquest engagement enhanced their self-efficacy and fostered their agency related to how to teach global issues and how to cultivate skills, attitudes, and values of global citizenship education at the K-12 level. In fact, they described their Webquest project engagement as a truly rewarding professional learning experience for them. The following quote by P12 from his reflective journal reveals the abovementioned gain concisely: "This reflective Webquest engagement provided valuable insights for my professional growth on global citizenship education and enabled me to reflect on how to refine my current instructional practices to integrate this into curriculum."

Participant pre-service teachers also mentioned the refined and elaborate understanding they developed regarding how to integrate global citizenship education into the Webquest design. To illustrate, P7 underscored the affordance the Webquest project granted him in terms of social justice in her reflective journal. Upon designing a project promoting social justice in global citizenship education, he pointed out that he raised awareness towards the pivotal role social justice plays in raising global citizens and how to utilize Webquests to convey social justice-related values to the K-12 learners:

The Webquest project positively impacted my understanding of global citizenship. By analysing films from diverse cultures, I gained a deeper appreciation for the interconnectedness of our world and the importance of intercultural dialogue. The project's emphasis on critical thinking and empathy equipped me to engage with different perspectives and advocate for social justice. (P7).

The development of novel pedagogical perspectives into the integration of global citizenship education into K-12 curricula emerged as a result of pre-service teachers' Webquest design engagement. The pre-service teachers emphasized that the Webquest design project engagement provided them with a new understanding in terms of how to address students with culturally diverse backgrounds and how to enrich their courses with a global citizenship perspective by introducing them to novel concepts such as civic responsibility, autonomous learning, inclusivity, diversity, and sustainability. They also gained new perspectives as to how to enhance intercultural communication and understanding via conflict resolution and how to avoid communication breakdowns in intercultural encounters. They underlined the affordance of empathy building in conflict-laden situations with linguistically and culturally diverse learner profiles.

Pre-service teachers also reported developing new pedagogical perspectives related to how to incorporate the individual and collective dimensions of global citizenship into the English classes. These perspectives were not integrated into the pre-service teacher education curriculum that they were exposed to in the teacher education program they were enrolled in. They remarked that the adoption of such perspectives into global citizenship education through Webquest project engagement was a great pedagogical asset to her professional development. P11 illustrates this quite effectively in her reflective journal:

Thanks to our Webquest project, we were able to embrace the changes related to being a global citizen. Personally, I feel more aware of people's potential abilities to make a change in the world both individually and as a community for a better future. The Webquest project design process enlightened me on the value of diversities, and how important it is to have a more structured emphatic understanding, and appreciate emotions (P11).

The Holistic Perspective of the Pre-service Teachers Towards the Integration of Global Citizenship Education into the K-12 Curricula

The pre-service teachers underscored the importance of addressing not only the cognitive but also affective and behavioral learning outcomes through Webquest tasks to be able to effectively foster global citizenship attitudes, skills, and values among students. For instance, they remarked that students need to gain familiarity with the concepts that lie at the core of global citizenship, such as diversity, empathy, and critical thinking skills. They recommended that the Webquest tasks should be designed in such a way as to incorporate all these aforementioned dimensions: “As young minds engage with the various tasks, they are not merely welcoming hypothetical aliens; they are navigating through a rich landscape of perspectives, cultivating empathy, and honing critical thinking skills in the process” (P5).

Closely connected with the aforementioned novel perspectives, the pre-service teachers in the study mentioned a holistic perspective they developed into the cultivation of a global mindset for EFL learners through online task design in their reflective journals. They shared their insights that fostering students’ awareness of pressing global issues such as equality, sustainability, diversity, and social justice through Webquest tasks is likely to support their identity development as global citizens. To illustrate, P1 remarked during the semi-structured interview that “the Webquest project deepened my understanding of its broader impact on fostering a global mindset in the next generation”. Pre-service teachers remarked that the emphasis on the socio-emotional dimension of global citizenship education made them realize the importance of fostering attitudes of empathy for the establishment of an inclusive classroom environment. P12 highlights his awareness of the concept of global citizenship in the following way during the semi-structured interviews: “I believe the Webquest project design engagement underscores the essential role of education in nurturing informed global citizens equipped to address the challenges of our interconnected world” (P12). In a similar vein, in her reflective journal P3 summarizes the impact of her experiential learning experience related to Webquest design on her professional development:

The Webquests might be considered to serve as a road map for pre-service teachers to offer inclusive educational practices, which is illustrated in the quote concisely: “I aim to share this valuable learning experience (the Webquest design) with a wider audience and contribute to fostering a more understanding and inclusive world” (P3).

Pre-service Teachers' Development of a Thorough Understanding of the Task-related Challenges for the Webquest Design

The participant pre-service teachers pointed out certain hardships at the design stage of their tasks. They reported having a hard time choosing a workable theme to work on to raise K-12 students' awareness towards global citizenship and developing tasks aligned with the learning outcomes they set at the beginning. They also remarked that adapting tasks to diverse learning needs and creating while maintaining coherence in the Webquest proved challenging for them. They mentioned the challenges they encountered while trying to implement the principles of UDL: multiple means of representation, multiple means of engagement, and multiple means of action and expression. They reported having a hard time creating a safe learning environment welcoming multivocality and diversity. Producing the tasks in alignment with the specific age group and level of language proficiency was depicted as the major obstacle for the pre-service teachers in the study. In addition, balancing task complexity for varied proficiency levels was another source of challenge for the pre-service teachers. They indicated that they would address this challenge by providing additional resources to support further exploration based on individual student capabilities.

Discussion

The current study highlighted the EFL pre-service teachers' insights into the Webquest integration into the K-12 curricula to promote global citizenship education and inclusive learning environments, as well as their insights into the impact of Webquest design engagement on their professional development. As to the pre-service teachers' perspectives regarding the integration of Webquests into K-12 contexts for global literacy development, the findings revealed the pivotal role Webquest design process played in reinforcing global citizenship education from the pre-service teachers' perspective. The socio-constructivist tenet the Webquests adopts, with an emphasis on social interaction, the context, the construction/co-construction of knowledge, meaning negotiation and shared understanding in the language learning and teaching processes, is conducive to the fulfilment of the aims of global education such as the cultivation of civic literacy, social responsibility and the establishment of an equitable and sustainable world, which was emphasized in Laborda (2009), McMahon (1997), and Simina and Hamel (2005). In this sense, the socioconstructivist features of the Webquests can be considered to act as a catalyst for the formation of inclusive learning environments. Webquests are regarded as highly instrumental in terms of promoting inclusive classroom practices through learner-centered, inquiry-oriented, and differentiated pedagogical tasks with

ample scaffolding and multimedia (Synekop, 2020). The incorporation of multimodal features into the design process is conducive to learner engagement in literature (Simina & Hamel, 2005), as well as boosting learners' self-efficacy through the scaffolding mechanism embedded into the online task design process (March, 1998). In a similar vein, with its goal-oriented nature and multi-layered task design, Webquests are likely to promote students' self-regulation.

In addition to the aforementioned affordances of the Webquest project engagement for students' cognitive development, the development of social skills such as positive interdependence and individual accountability (Zheng et al., 2008) is also likely to promote the global citizenship education goals, particularly from the dimension of personal and civic responsibility, which was stated by UNESCO (2015). The findings also underscored that working on online tasks as a community of practice to understand, find solutions, negotiate meanings, or design a product is likely to enhance K-12 students' interpersonal relationships and sharpen their reasoning, as Zacharia et al. (2011) previously pointed out. The development of these aforementioned skills is crucial in raising students as global citizens equipped with global literacy skills. The Webquest project engagement is likely to help students excel in problem-solving skills, which was underscored in Aydın (2016), as they are provided with opportunities to "plan, organize, make their points, and arrive at a consensus about issues" (Moss & Van Duzer, 1998, p. 1) in pairs or teams.

Furthermore, while they are engaged in online task completion in the Webquest-integrated learning environments, students tend to be actively involved in searching for data on the internet through a process of discovery learning, reflection, and higher-order critical thinking, which are conducive to the learners' critical literacy development, which echoes Mahtioudaki and Gkaravelas (2023). As Aydın (2016), Gulbahar et al. (2010), and Wang (2021) stated, Webquests provide ample opportunities for learners to develop their problem-solving competencies in a scaffolded learning environment of Webquests. Webquests also provide a secure learning environment for students, facilitating their self-expression and assisting them with their linguistic and extra-linguistic acquisition (Aslanyan-rad, 2024). The establishment of a safe learning environment is conducive to the identity development of students with different cultural and linguistic backgrounds as it is likely to promote diversity and respect for others and reinforces social justice and multivocality among them in alignment with global citizenship education goals indicated by UNESCO (2015).

Apart from highlighting the significance of Webquest integration into the K-12 curricula for the promotion of global citizenship education and inclusive classroom practices, the study shed light on the impact of Webquest design engagement on the the EFL pre-service

teacher development. The findings of the current study in this respect appeared to be in alignment with the previous research proposing the beneficial impact of Webquest integration into the professional development of prospective teachers in pre-service teacher education programs (see Aydın, 2016, for an extensive discussion).

The study brought to the fore how Webquest environments nurture and welcome inclusive classroom practice in an increasingly diverse digital global landscape through their adoption of the UDL principles, such as multiple means of representation of information, multiple means of learner engagement, and multiple means of action and expression, consistent with Rose and Meyer (2002). It was observed that the project-oriented task design process via Webquests served as an enriching “mastery” learning experience for prospective teachers (Nami, 2022, p. 120), contributing to their professional development and to their knowledge of technology and pedagogy integration (Wang et al., 2010). The pre-service teachers’ Webquest design engagement provided them with novel pedagogical perspectives in terms of how to promote global citizenship in their classes by designing multi-layered online tasks incorporating social justice, equity, equality, intercultural understanding, and awareness towards global issues. Consequently, they gained insights into how to cultivate a global mindset in their future learning environments. The creativity-enhancing environment of the Webquests also motivated pre-service teachers to find innovative solutions to participate in and offer contributions to contemporary global issues at local, national, and global levels as informed and responsive members of their communities, which was considered to play a vital role in global citizenship education as stated by Global Citizenship Education (2015).

The pre-service teachers in the study attained relatively enhanced situated cognitive levels through their Webquest design engagement. This is likely to help them formulate a roadmap for online task design in alignment with global citizenship education in their local contexts. Engaging in an experiential professional learning process through the online task design requiring K-12 learners to offer solutions to contemporary global issues not only on a local and national but also on a global level is likely to provide valuable insights into how they can shape their curricula for their future K-12 students or modify existing curricula in accordance with global citizenship goals. The Webquest design engagement is likely to empower pre-service teachers pedagogically by helping them develop insights into task design promoting civic literacy and social responsibility (Laborda, 2009; Simina & Hamel, 2005). This engagement is also likely to highlight how pre-service teachers can help learners develop attributes of global citizens such as critical literacy, social connectedness, respect for diversity as well as ethical responsibility, which are in line with UNESCO (2015).

Webquest-integrated learning environments are conducive to the development of critical thinking skills such as responsible and non-routine thinking, criteria application, and sensitivity. The facility to hone these skills appears to raise pre-service teachers' awareness towards concepts such as equity and equality as well as social justice. It also encourages them to generate solutions to gender/age-related, socio-economic, and religious issues and discriminations. These aforementioned concerns were also raised in previous research by Aydın (2016), Sen and Neufeld (2006), and Vidoni and Maddux (2002).

The current study also highlighted the beneficial impact of the pre-service teachers' Webquest design engagement on their technopedagogical competency and agency development (Martin & Quintana, 2011). It depicted the salience of "developing not only technological knowledge but also expertise in technology-pedagogy integration" for teachers (Tafazoli & Farshadnia, 2023, p. 101). Teachers with a high level of technopedagogical competence are likely to effectively apply critical skills for civic literacy, including information technology for effective integration of global citizenship education goals, into the K-12 curricula (UNESCO, 2015). This highlights the importance of teacher training pertinent to the seamless integration of pedagogy, technology, and content, which is also called TPACK (Mishra & Koehler, 2006), into pre-service, as well as in-service, teacher education programs. The challenges that pre-service teachers in the study encountered in designing pedagogical tasks promoting global citizenship features indicated the need for the provision of ongoing scaffolding and support for pre-service teachers in relation to the effective integration of technology into pedagogy. The current study echoes the findings of previous research, indicating the affordances of computer-assisted professional development opportunities such as those via Webquests (Nami, 2022; Tseng & Yeh, 2019). It also pointed out that the technological pedagogical content knowledge development and the application of such knowledge appear to pose a challenge, just as the aforementioned studies revealed.

The current study emphasized the importance of enhancing pre-service teachers' global literacy and raising their awareness towards different dimensions of global citizenship education, as well as how to effectively and seamlessly integrate various features of global citizenship in teacher education programs via Webquests. Teacher educators might consider integrating diverse features of global citizenship education into English language teaching methodology and practicum classes (UNESCO, 2015). It is also important to integrate a component into methodology classes in teacher education programs to train prospective teachers of English in terms of how they can introduce their future students to global citizenship education through lesson planning. The pre-service teachers might be asked to implement

lesson plans focusing on diverse global themes for real students at different levels of proficiency in English at practicum schools.

Teacher educators also need to devote more time to develop pre-service teachers' digital competencies so that the latter can gain competence in designing online tasks and creating inquiry-oriented, student-centered collaborative and active learning environments via Webquests (Altstaedter & Jones, 2009; Godwin-Jones, 2004). Pre-service teachers also need to be provided with opportunities to focus on how to prepare motivating digital content to teach global issues and to design diverse online Webquest tasks on global issues and global citizenship education in different formats (Piedmont, 2020). The emphasis on digital literacy in pre-service teacher education programs should be geared towards enabling prospective teachers how to use technology instead of merely introducing them to different types of technology, as aligned with Peter's (2006) remarks. In other words, in response to the contemporary teachers' need to upgrade in relation to technological pedagogical knowledge, which might appear as an obstacle to their adaptation to online teaching (see Tafazoli & Farshadnia, 2023), the focus of teacher training should be placed on the development of TPACK from a holistic perspective (Cheng, 2017).

Conclusion

The current qualitative case study revealed the EFL pre-service teachers' insights into the possible impact of the integration of Webquests focusing on global citizenship education into K-12 curricula on students. It also depicted the pre-service teachers' perspectives regarding the impact of their Webquest project design experience regarding global citizenship education on their professional development. The findings suggested that the engagement of EFL pre-service teachers' Webquest project design experience acted as a catalyst to promote their awareness of global citizenship features and inquiry-based, learner-centered inclusive practices. They also indicated the pre-service teachers' favourable perceptions related to the pivotal role Webquest integration into the K-12 curricula is likely to play in raising students' awareness towards global citizenship education from attitudinal, skill- and value-related dimensions. The study provided a road map for the inquiry-oriented CALL professional development and the training of EFL pre-service teachers related to the integration of global citizenship education into EFL curricula at the K-12 level via Webquests, as well as the alignment of the extant curricula with global citizenship education goals. The findings brought clarity to the affordances of Webquests in terms of how to establish a context-sensitive, inclusive online learning

atmosphere for learners with a particular emphasis on the promotion of their creativity, criticality, and problem-solving skills.

Although the findings of the current study cannot be generalized to other EFL contexts due to limitations such as its relatively short duration and the small number of participants, the study emphasises the importance of providing scaffolded experiential project-based learning opportunities for pre-service teachers to delve into the exploration of digital technologies for teaching languages in their pedagogical contexts to create engaging learning experiences, in a way similar to what Nami (2022) put forward. For further research, a longitudinal study might be carried out into the classroom practices of pre-service teachers who received training on the Webquest design on global citizenship education after their graduation from the teacher education programs. Studies that explore the long-term impact of online project-based professional development programs for pre-service teachers with a focus on inclusive educational practices in authentic classroom settings can also be recommended.

References

- Altstaedter, L.L., & Jones, B. (2009). Motivating students' foreign language and culture acquisition through web-based inquiry. *Foreign Language Annals*, 42(4), 640–657. <https://doi.org/10.1111/j.1944-9720.2009.01047.x>
- Aslanyan-rad, E. (2024). A systematic review and meta-analysis of Webquest technologies application in 21st-century practices of teaching and learning. <http://dx.doi.org/10.13140/RG.2.2.31405.91364>
- Awada, G., Burston, J., & Ghannage, R. (2020). Effect of student team achievement division through Webquest on EFL students' argumentative writing skills and their instructors' perceptions. *Computer Assisted Language Learning*, 33, 275–300. <https://doi.org/10.1080/09588221.2018.1558254>
- Aydin, S. (2016). Webquests as language-learning tools. *Computer Assisted Language Learning*, 29(4), 765-778. <https://doi.org/10.1080/09588221.2015.1061019>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Caine, G., Caine, R. N., & McClintic, C. (2002). Guiding the innate constructivist. *Educational Leadership*, 60(1), 70-73.
- Campillo-Ferrer, J.-M., & Miralles-Martínez, P. (2023). Impact of an inquiry-oriented proposal for promoting technology-enhanced learning in a post-pandemic context. *Frontiers Education*, 8, 1204539. <https://doi.org/10.3389/educ.2023.1204539>

- Chatel, R. G., & Nodell, J. (2002, November 14). *Webquests: Teachers and students as global literacy explorers*. [Paper presentation]. Connecticut Reading Association 51st Annual Conference, Cromwell, Connecticut. <https://files.eric.ed.gov/fulltext/ED471843.pdf>
- Chen, C. (2021). Effects of the application of Webquest to technology education on business management students' critical thinking psychology and operation capability. *Contemporary Educational Technology*, 13(1), ep290, <https://doi.org/10.30935/cedtech/9320>
- Cheng, K-H. (2017). A survey of native language teachers' technological pedagogical and content knowledge (TPACK) in Taiwan. *Computer Assisted Language Learning*, 30(7), 692-708. <https://doi.org/10.1080/09588221.2017.1349805>
- Crawford, C.M., & Brown, E. (2002). *Focusing upon higher order thinking skills: Webquests and the learner-centered mathematical environment*. <http://files.eric.ed.gov/fulltext/ED474086.pdf>
- Dana, N. F., Pape, S. J., Griffin, C. C., & Prosser, S. K. (2017). Incorporating practitioner inquiry into an online Professional development program: The prime online experience. *Professional Development in Education*, 43(2), 212–231. <https://doi.org/10.1080/19415257.2016.1152592>
- Davis, K. (2015). Teachers' perceptions of Twitter for professional development. *Disability and Rehabilitation*, 37(17), 1551–1558. <https://doi.org/10.3109/09638288.2015.1052576>
- Dodge, B. (1997). Some thoughts about Webquests. *The Distance Educator*, 1(3), 12-15. http://Webquest.sdsu.edu/about_Webquests.html
- Dousti, M., & Amirian, Z (2023). The effect of web-mediated, blended, and purely online learning on EFL learners' writing achievement in the Iranian context: A comparative study. *Education and Information Technologies*, 28, 1675–1696. <https://doi.org/10.1007/s10639-022-11215-0>
- Felix, U. (2002). The web as a vehicle for constructivist approaches in language teaching. *ReCALL*, 14(1), 2-15. <https://doi.org/10.1017/S0958344002000216>
- Halat, E. (2008). A good teaching technique: Webquests. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 81(3), 109-112. <https://doi.org/10.3200/TCHS.81.3.109-112>
- Harrison, R. (1998). The evolution of networked computing in the teaching of Japanese as a foreign language. *Computer Assisted Language Learning*, 11(4), 437-452.

- Godwin-Jones, B. (2004). Emerging technologies: Language in action: From Webquests to virtual realities. *Language Learning & Technology*, 8(3), 9-14. <http://dx.doi.org/10.125/25246>
- Gulbahar, Y., Madran, R., & Kalelioglu, F. (2010). Development & evaluation of an interactive Webquest environment: Web Macerasi. *Educational Technology & Society*, 13(3), 139–150.
- Ikpeze, C. H., & Boyd, F. B. (2007). Web-based inquiry learning: Facilitating thoughtful literacy with Webquests. *The Reading Teacher*, 60(7), 644-654. <https://doi.org/10.1598/RT.60.7.5>
- Kjellin, M. S. & Stier, J. (2008). Citizenship in the classroom: transferring and transforming transcultural values. *Intercultural Education*, 19(1), 41-51. <https://doi.org/10.1080/14675980701852384>
- Kuimova, M. V., Golousenko, M. A., Nikiforov, D. S., & Shcherbakov, V. V. (2015). Advantages of using Webquests in EFL classes in a technical university. *World Journal on Educational Technology*, 7(3), 167–171. <https://doi.org/10.18844/wjet.v7i3.204>
- Liang, W., & Fung, D. (2020). Development and evaluation of a Webquest-based teaching programme: Students' use of exploratory talk to exercise critical thinking. *International Journal of Educational Research*, 104, 101652. <https://doi.org/10.1016/j.ijer.2020.101652>
- Lee, S. H., & Boling, E. (1999). Screen design guidelines for motivation in interactive multimedia instruction: A survey and framework for designers. *Educational Technology*, 39(3), 19-26.
- March, T. (1998) *Why Webquests? An introduction*. <http://ozline.com/Webquests/intro.html>
- McMahon, M. (1997, December). *Social constructivism and the world wide web - a paradigm for learning*. [Paper presentation]. The ASCILITE conference, Perth, Australia.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: A sourcebook of new methods* (2nd ed.). Sage
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>.
- Moss, D., & Van Duzer, C.H. (1998). *Project-based learning for adult English language learners*. National Center for ESL Literacy Education.
- Nami, F. (2022). Developing in-service teachers' pedagogical knowledge of CALL through project-oriented tasks: The case of an online professional development course. *ReCALL*, 34(1), 110–125. <https://doi.org/10.1017/S0958344021000148>

- Laborda, J.G. (2009). Using Webquests for oral communication in English as a foreign language for tourism studies. *Educational Technology & Society*, 12(1), 258-270.
- Lamb, A., & Teclehaimanot, B. (2005). A decade of Webquests: A retrospective. In M. Orey, J. McClendon, & R. M. Branch (Eds.), *Educational media and technology yearbook* (pp. 81-101). Springer.
- Lanham, E., & Zhou, W. (2003). Cultural issues in online learning - Is blended learning a possible solution? *International Journal of Computer Processing of Languages*, 16, 275-292. <https://doi.org/10.1142/S0219427903000930>
- Mathioudaki, K., & Gkaravelas, K. (2023). Critical literacy through information and communication technologies in the primary educational systems of Spain and Switzerland: A comparative study based on the example of Webquests. *International Journal of Educational Innovation and Research*, 2(1), 47–58.
- Öztürk, C., Yiğit, E. Ö. & Karaduman, H. (2012). Examination of technology in Turkish social studies curricula. *Procedia-Social Behavioral Sciences*, 64, 85-94. <https://doi.org/10.1016/j.sbspro.2012.11.011>
- OXFAM. (2006). *Education for global citizenship: A guide for schools*. Oxfam GB. http://www.oxfam.org.uk/~media/Files/Education/Global%20Citizenship/education_for_global_citizenship_a_guide_for_schools.ashx
- Peters, M. (2006). Developing computer competencies for pre-service language teachers. In P. Hubbard & M. Levy (Eds.), *Teacher education in CALL* (pp. 153–166). John Benjamins.
- Piedmont, E. V. (2020). Exploring COVID-19 in a social studies methods course: Pre service teachers harness the current pandemic to design inquiry-based Webquests for elementary learners. *Journal of International Social Studies*, 10, 113–126. <https://iajiss.org/index.php/iajiss/article/view/561/391>
- Polly, D., & Ausband, L. (2009). Developing higher-order thinking skills through Webquests. *Journal of Computing in Teacher Education*, 26(1), 29–34. <https://doi.org/10.1080/10402454.2009.10784628>
- Robbins, M., Francis, L. & Elliott, E. (2003). Attitudes toward education for global citizenship among trainee teachers. *Research in Education*, 69, 93–98. <https://doi.org/10.7227/RIE.69.8>
- Rose, D. H., & Meyer, A. (2002). *Teaching every student in the digital age: Universal Design for Learning*. The Association for Supervision and Curriculum Development.
- Ruano, J. C., Galef, D. A., & Ponczek, R. L. I. (2014). The cosmodernity paradigm: An emerging perspective for the global citizenship education proposed by UNESCO.

Transdisciplinary Journal of Engineering & Science, 5, 21–34.
<https://doi.org/10.22545/2014/00056>

- Sen, A., & Neufeld, S. (2006). In pursuit of alternatives in ELT methodology: Webquests. *The Turkish Online Journal of Educational Technology*, 5(1), 49–67.
<http://files.eric.ed.gov/fulltext/ED501437.pdf>
- Simina, V., & Hamel, M.J. (2005). CASLA through a social constructivist perspective: Webquest in project-driven language learning. *ReCALL*, 17(02), 217-228.
<https://doi.org/10.1017/S095834400500052>
- Sole, C. R., & Mardomingo, R. (2004). Trayectorias: A new model for online task-based learning. *ReCALL*, 16(1), 145-157. <https://doi.org/10.1017/S0958344004001119>
- Synekop, O. (2020). Webquest as technology of differentiated ESP instruction at university level. *Journal of Teaching English for Specific and Academic Purposes*, 8, 43–52.
<https://doi.org/10.22190/jtesap2001043s>
- Tafazoli, D., & Farshadnia, S. (2023). Teachers' complexities of moving to online language teaching. *Computer-Assisted Language Learning Electronic Journal (CALL-EJ)*, 24(3), 89-106.
- Teräs, H. (2016). Collaborative online professional development for teachers in higher education. *Professional Development in Education*, 42(2), 258–275.
<https://doi.org/10.1080/19415257.2014.961094>
- Tseng, S.-S., & Yeh, H.-C. (2019) Fostering EFL teachers' CALL competencies through project-based learning. *Journal of Educational Technology & Society*, 22(1), 94–105.
<https://www.jstor.org/stable/26558831>
- UNESCO (2015). *Global citizenship education: Topics and learning objectives*. The United Nations Educational, Scientific and Cultural Organization.
<https://doi.org/10.54675/DRHC3544>
- Vidoni, K.L., & Maddux, C.D. (2002). Webquests: Can they be used to improve critical thinking skills in students? *Computers in the Schools*, 19(1-2), 101-117.
https://doi.org/10.1300/J025v19n01_09
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wang, Y. H. (2021). Integrating modified Webquest activities for programming learning. *Journal of Computer Assisted Learning*, 37(4), 978-993.
<https://doi.org/10.1111/jcal.12537>

- Wang, Y., Chen, N.-S., & Levy, M. (2010). Teacher training in a synchronous cyber face-to-face classroom: Characterizing and supporting the online teachers' learning process. *Computer Assisted Language Learning*, 23(4), 277–293. <https://doi.org/10.1080/09588221.2010.493523>
- Yang, Y. & Kuo, N. (2023). Blended learning to foster EFL college students' global literacy. *Computer Assisted Language Learning*, 36 (1-2), 81-102. <https://doi.org/10.1080/09588221.2021.1900874>
- Yin, R. K. (2014). *Case study research design and methods* (5th ed.). Sage.
- Yoon, B., Yol, Ö., Haag, C., & Simpson, A. (2018). Critical global literacies: A new instructional framework in the global era. *Journal of Adolescent & Adult Literacy*, 62(2), 205–214. <https://doi.org/10.1002/jaal.763>
- Zheng, R., Perez, J., Williamson, J., & Flygare, J. (2008). Webquests as perceived by teachers: Implications for online teaching and learning. *Journal of Computer Assisted Learning*, 24(4), 295-304. <https://doi.org/10.1111/j.1365-2729.2007.00261.x>
- Zacharia, Z.C., Xenofontos, N.A., & Manoli, C.C. (2011). The effect of two different cooperative approaches on students' learning and practices within the context of a Webquest science investigation. *Educational Technology Research and Development*, 59(3), 399-424. <https://doi.org/10.1007/s11423-010-9181-2>

Appendix I: Reflective Report Guidelines

- a) You need to account for your choice of the learner profile and the key theme for the project
- b) You need to evaluate to what extent and in what ways the Webquest you have prepared contributed to the achievement of the learning objective specified in the document by UNESCO (2015).
- c) You need to reflect on which of the following knowledge, skills, and values your Webquest is likely to develop and how. Please justify your response by referring to the task objectives and task requirements.
- d) You need to evaluate the strengths of the Webquest and possible points for the improvement of it.
- e) You need to mention the challenges that you have faced preparing the project and how you handled these challenges.
- f) Please explain how your web-quest project engagement affected your perception of the concept 'global citizenship' by referring to the knowledge and understanding, skills and values, and attitudes.
- g) You need to highlight how your project can be adapted to different learner profiles and how you are planning to integrate the Webquest that you have prepared to your teaching.

Appendix II: Online semi-structured interview prompts

1. What do you think of the impact of the Webquest integration with a focus on global citizenship into the K-12 curricula on their professional development?
2. What are the challenges you encountered in relation to the Webquest design focusing on global citizenship?

Appendix III. The Main and Sub-themes in the Study

Research Questions	Main themes	Sub-themes
1. The pre-service teachers' insights into the impact of Webquest integration focusing on global citizenship into the K-12 curricula,	a) The role of Webquests in the development of global citizenship values	i. The K-12 learners' technology-enhanced engagement in global issues ii. The development of K-12 learners' critical thinking skills and critical literacy development as well as students' social/cultural competencies and ethical stance.
	b) The empowering role of Webquests in enhancing K-12 learners' civic responsibility and agency	i. Creating and co-creating knowledge with their peers to making decisions ii. Creating an equitable and sustainable world with respect for diversity and making decisions iii. Promoting social justice and eliminate inequalities iv. Fostering K-12 learners' intercultural and cross-cultural understanding and higher-order thinking skills v. The multimodality feature embedded in the Webquest task design vi. Enhanced their metacognitive awareness through their goal-oriented aspects and reflective tasks vii. The facilitative role of differentiated task design for EFL learners' collaborative agency development viii. Promoting learner diversity
2. Pre-service teachers' insights into the impact of the Webquest design process engagement on their professional development	a) A professionally empowering experience for them in terms of how to integrate global citizenship goals into K-12 curricula	i. The refined and elaborate understanding they developed regarding how to integrate global citizenship education into the Webquest design ii. The development of novel pedagogical perspectives into the integration of global citizenship education into K-12 curricula
	b) The development of novel pedagogical perspectives into the integration of global citizenship education into K-12 curricula	
	c) Pre-service teachers' development of a thorough understanding of the task-related challenges in relation to the Webquest design	i. Theme selection ii. Task differentiation iii. Creating a safe learning environment welcoming multivocality and diversity.