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The implementation of critical pedagogy in Turkish pre-service teacher education: an empirical case study

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Although critical pedagogy has gained increasing attention in teacher education research, there remains a notable lack of empirical studies that systematically model its integration into language-focused courses—particularly within the pre-service teacher education (PSTE) framework of Türkiye. In response to this gap, this study aims to understand how critical pedagogy implementation in a Mass Media Communication course affects Arabic language pre-service teachers' critical thinking and pedagogical perspectives in a PSTE programme. Using an empirical case study design, data came from semi-structured interviews, classroom observations, and reflections from five Turkish pre-service teachers over 15 weeks. The thematic analysis explored changes in their awareness and critical engagement with global socio-political issues. Findings indicate that participants developed enhanced media literacy, critical awareness, and socio-political sensitivity. Classroom discussions enabled them to question media bias, engage with diverse perspectives, and reflect on the role of language in representing power and ideology. While some participants initially hesitated to integrate critical topics into a language course, others acknowledged the pedagogical and intellectual values of such discussions. The study concludes that context-sensitive implementations of critical pedagogy can deepen pre-service teachers' critical perspectives and improve their language proficiency by connecting linguistic development with social consciousness. Recommendations are provided for integrating critical approaches into pre-service teacher education curricula and designing future research.

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Introduction

Critical pedagogy, based on Freire's (2018) idea of liberating individuals from social and cultural hegemony, emphasizes interactive teaching techniques like dialog, problem-solving, and critical thinking to enhance students' critical awareness. Critical thinking involves analyzing, evaluating, and synthesizing information to form reasoned judgments, enabling individuals to avoid biases and misinformation (Bassham et al., 2012). It intersects with critical pedagogy in viewing education as both cognitive and socio-political. Critical pedagogy fosters critical thinking, enhancing problem-solving, evidence-based decision-making, and knowledge creation, while also promoting values-based education, intercultural understanding, and social justice (Brookfield, 2012; Fokong, 2022; Jeyaraj, 2020; Bendraou and Sakale, 2023).

Considering the potential impact of pre-service curricula on educating future educators, it is important that critical pedagogy be enacted within the pre-service teacher education programmes. In second language teacher education, pre-service teachers (PSTs) are expected to be exposed to the language, mind, and culture of the that language, nurturing their critical thinking abilities as well as their proficiency (Lu and Xie, 2024). Therefore, there is an urgent call for teacher educators and policymakers to integrate critical pedagogy into pre-service curricula and to understand the development of these abilities among PSTs through empirical studies in diverse local contexts.

Mass Media Communication courses in teacher education programmes stand out from other courses in developing PSTs' critical thinking skills. They go beyond traditional language instruction to involve students in critically analyzing real-world media content, offering PSTs not only the language but also a significant platform for growth mindset (Hobbs, 2010). While courses like Language Structure, Grammar, or Reading Skills focus primarily on linguistic accuracy and language development, the Mass Media Communication course immerses students in contemporary issues through language media, requiring them to identify biases, evaluate diverse perspectives, and understand the sociopolitical context of the content they study. This course is fundamental in providing students with the skills to understand the broader sociopolitical context, encourage critical thinking, and develop analytical skills by exposing students to real-world media content (Hobs, 2010; Kellner and Share, 2007). Also, in terms of teacher education, the Mass Media Communication course allows pre-service teachers to develop critical thinking skills by equipping them with the skills needed to engage in classroom discussions, make informed decisions, and effectively address real-world issues (Hobbs, 2010; Lithoxoidou and Georgiadou, 2023). In this context, the Mass Media Communication course offers an ideal setting for exploring critical pedagogy. As a language-content integrated course, it exposes pre-service teachers to real-world socio-political discourse and challenges them to critically evaluate how language reflects power, ideology, and cultural representation. Unlike traditional language courses focused primarily on grammatical accuracy, Mass Media Communication enables learners to examine media narratives, question biases, and engage in discussions that merge linguistic development with sociocultural critique (Hobbs, 2010; Lithoxoidou and Georgiadou, 2023). Thus, this course naturally aligns with the aims of critical pedagogy by bridging language learning with critical awareness.

In Türkiye's centrally administered education system, where curricula often prioritize national identity and exam-oriented instruction (Yıldırım Taştı and Yıldırım, 2022), opportunities for pre-service teachers to develop critical consciousness are limited. The need for PSTs who can engage critically with media, navigate socio-political complexity, and foster inclusive classrooms has become increasingly vital (CoHE, 2018). This study aims to address that gap by implementing a critical pedagogy framework in a Mass Media Communication course—a course uniquely positioned to bridge language instruction with real-world, socio-political content.

Critical pedagogy studies in PSTE aim to evaluate the effectiveness of integrating critical pedagogy principles into PSTE programmes (Arnold and Mundy, 2020; Arsal, 2019; Finn, 2023; Nkealah, 2023). Although there have been a number of studies (Marzi Suzani, 2018; Porto, 2022) on the effect of the critical pedagogy approach, studies concerning the implementation of this approach through empiricial design are scarce. Crookes and Ziegler (2021), for example, point to the lack of empiricial studies which model the way critical pedagogy is integrated in the curricula of pre-service teacher education, insufficient emphasis on issues such as critical thinking, social justice, and cultural awareness in the pre-service curricula, insufficient consideration of the social and cultural context in teacher education (Crookes and Ziegler, 2021).

This study was conducted within the framework of critical pedagogy, with a particular emphasis on fostering critical thinking. Drawing on Freire's (2018) view of education as a transformative and political act, the course design aimed to raise awareness of social inequalities and promote student agency through dialog and ideological critique (Stewart, 2021; Yuan et al., 2021). Within this pedagogical context, the study focused on developing students' critical thinking skills—such as analysis, evaluation, and reflection (Facione, 1990; Ennis, 1993)—by engaging them with diverse media texts and encouraging them to identify bias, assess multiple perspectives, and question underlying assumptions. In this way, critical pedagogy shaped the instructional approach, while critical thinking served as a central cognitive focus of the learning process.

As an answer to the gap mentioned in these studies, this study aims to model the integration of critical pedagogy into PSTE curricula for the first time in the context of Mass Media Communication course in Türkiye with five Arabic language pre-service teachers.

Defining critical pedagogy

Critical pedagogy, rooted in critical theory, focuses on teaching and learning to develop students' critical understanding of themselves and society, empowering them to challenge oppressive forces (Freire, 2018). Freire critiqued traditional education's "banking paradigm," where teachers hold power, limiting students' autonomy and critical thinking. His approach emphasizes dialogic engagement and problem-solving, while Giroux's resistance theory and Kellner's critical media literacy further expand this framework to challenge dominant ideologies and analyze media critically (Giroux, 1983; Kellner and Share, 2007). Giroux's resistance theory conceptualizes education as a political and cultural site where students can develop the agency to question and resist hegemonic discourses (Giroux, 1983; Giroux and McLaren, 1986). He positions teachers as transformative intellectuals who guide learners not only in understanding social injustice but also in enacting change. This conceptualization reframes schooling as a space of possibility rather than reproduction, encouraging students to read the world as text and to contest structures of domination through critical reflection and civic engagement. For example, Arce (2004) documents how novice Latino bilingual teachers embodied acts of resistance within hegemonic schooling systems—an idea closely aligned with Giroux's (1988) theorization of schools as contested spaces of cultural reproduction and resistance.

Building on this, Kellner and Share (2007, 2019) introduce critical media literacy as a transformative pedagogy that equips learners to decode and challenge media representations, dominant narratives, and the socio-political contexts from which they emerge. Rather than limiting media literacy to technical skills or passive consumption, their framework emphasizes deconstruction, participatory media production, and the creation of counter-hegemonic discourse. Critical media literacy, as defined in studies such as Share and Mamikonyan (2020) and Robertson and Scheidler-Benns (2016), emphasizes both critique and creation, empowering learners to deconstruct dominant narratives and produce counter-hegemonic media. These principles were applied in classroom activities where participants analyzed media texts and produced their own critical responses, reflecting the dual role of analysis and production described in Kellner's framework. Consequently, Freire, Giroux, and Kellner provide a multidimensional foundation for critical pedagogy that incorporates cultural critique, resistance, and media awareness—preparing students to become socially conscious agents of change in a digitally saturated and ideologically complex world.

Finally, critical pedagogy is considered essential in creating democratic classroom environments, encouraging pre-service teachers to engage in social justice, educating critical thinking teachers, and supporting a student-focused education in the literature. Nkealah (2023) highlighted how rigid policies and assessment-focused teaching in South Africa hinder the effective implementation of critical pedagogy, despite pre-service teachers' training. Similarly, Gutiérrez (2022) found that integrating critical, intercultural perspectives in Colombian teacher education programs affirmed pre-service teachers' identities but introduced challenges for both teachers and educators. The findings showed that achieving social justice and critical language development can take various forms, encouraging PSTs to question their worldviews and stereotypes and arguing that a critical approach also allows students and educators to explore their subjectivities in the classroom. Given the impact of critical pedagogy on educating PSTs, we believe it is crucial for PSTs to serve as a role model in cultivating CT skills and values among future generations/students.

Critical pedagogy practices in pre-service teacher education

Higher education has long been integral to fostering a more equitable society by equipping individuals with the skills and critical thinking necessary to tackle global challenges. Traditionally, this responsibility has been associated with social sciences, limiting its reach to a smaller subset of students. To create a broader impact, education aimed at preparing students as global citizens must encompass a diverse range of disciplines, reflecting the inclusivity and diversity of society as a whole (Jeyaraj and Harland, 2019). In second language teacher education, critical pedagogy has received a lot of attention from various perspectives, such as social cohesion, culturally responsive pedagogy, motivation, and social inequalities in education. For example, Nelson and Chen (2023) explored the educational and social cohesion benefits of using a critical pedagogy approach with young Arabic EFL learners. Their findings suggest that this approach is both pedagogically viable and positively received by the students. Finn (2023) investigated how two PSTs applied culturally responsive critical pedagogy during their professional practice placement. The study showed that PSTs practice culturally responsive critical pedagogy in reflecting on self and identity, centering learners, uplifting culture, developing critical consciousness, and improving academic outcomes for nondominant culture learners, and it varies among teachers.

As for social issues focused in a course content, Nor and Sihes (2022) investigated introducing a critical approach to EFL teacher education in the United Arab Emirates to empower teachers and students as agents of change. The study revealed a knowledge gap among teachers regarding critical pedagogy, particularly in cultural representation, the role of English globally, and local and global issues. Granger and Gerlach's (2023) study in a German secondary school also indicates that most students positively react to discussing feminist topics in the English Language Teaching (ELT) classroom.

Regarding motivation and proficiency in language teaching and teacher education, Abdollahzadeh and Narafshan (2016) found that critical pedagogy positively impacted Iranian EFL learners' motivation, with teachers across age groups and teaching levels supporting its principles. Mitsikopoulou (2020) emphasized incorporating critical pedagogy in teacher education to prepare foreign language teachers, highlighting challenges in students' critical literacy development. Ordem (2022) demonstrated that critical pedagogy enhances language teachers' proficiency by fostering critical analysis of social and political issues, addressing gaps in traditional teacher education. Bilki (2023) showed that authentic reading texts and critical tasks deepen understanding of societal challenges like social justice and gender inequality, proposing a reading course model to develop critical thinking and consciousness in pre-service teachers.

To summarize, critical pedagogy researchers have implemented critical pedagogy for understanding PSTs' developments of critical thinking in various aspects mostly in teaching practicum. However, there has been a considerable lack of investigation into the critical pedagogy implementation in other potential PSTE courses across the curricula, and particularly, how PSTs' beliefs, practices, and identities were shaped. Importantly, the common need these studies have pointed out is the in-depth exploration of PSTs' critical pedagogy experiences in their courses and the complex and dynamic relationship of critical pedagogy aspects such as power dynamics in the classroom, the role of language in social change, and addressing systemic inequalities (Ortactepe-Hart and Aydınlı, 2023). Therefore, this study aims to understand how integrating Freire's critical pedagogy approach into the Arabic Mass Media Communication course shaped Arabic PSTs' views and critical thinking of social issues in Türkiye and the world. Parallel to this aim, the study is guided by the following research questions:

1. What were the initial perspectives of Arabic language pre-service teachers on world news prior to participating in the Mass Media Communication course?
2. What changes, if any, occurred in their perspectives on world news after completing the course?
3. How did the course content shape their reflections on language teaching and their professional identity as future educators?

Method

Research context and participants. This empirical study employed a case study design. Creswell (2014, p.241) defined case studies as entailing an in-depth analysis of a program, event, activity, process, or one or more people by the researcher. This qualitative and empirical case study focused on designing and implementing a Mass Media Communication lesson with a class of third year Arabic language pre-service teachers. For this study, this course -for the first time- was offered within the framework of critical pedagogy in the program and explored the perspectives of AL PSTs who share similar linguistic or cultural backgrounds and the nature and content of the discussion on their views. This

study aims to make analytical rather than statistical generalizations (Yin, 2018) and to offer insights into the nuanced development of critical thinking in a particular context. In this context, only five participants were included in the study, and the focus was on achieving a deep understanding rather than breadth. These five individuals were selected based on the richness of their engagement in class discussions, their willingness to reflect critically, and their varied levels of teaching motivation and media literacy. While all were Turkish native speakers, this was a natural consequence of the course's location and linguistic context in Türkiye. This approach aligns with established practices in qualitative research, where the emphasis is placed on the depth and richness of data rather than the number of participants. For instance, Christodoulou and Papanikolaou (2023) conducted a qualitative case-based study exploring critical thinking within education for sustainable development using a sample of only nine pre-service teachers in Greece. Their detailed content analysis successfully yielded robust insights into the variation and quality of student responses within a pedagogical framework, suggesting that small samples can still generate meaningful, transferable findings when thoroughly analyzed. Second, the study by Yuan et al. (2021) examined how four Hong Kong pre-service language teachers developed critical thinking skills and pedagogies during an overseas field school experience. Despite having access to a larger participant pool, the authors intentionally focused on four cases to closely investigate the influence of immersive pedagogical settings on participants' dispositions and practices. Third, Stewart (2021) also employed a small sample in a longitudinal qualitative study to examine pre-service teachers' development of critical thinking through dialogic reflection and problem-posing seminars. Therefore, in alignment with these precedents, it was felt that data saturation was achieved and originality was captured with the five participants involved in the study.

The participants consisted of five Turkish Arabic Language Teaching pre-service teachers among 19 PSTs who were taking the "Mass Media Communication" course in an ALT Programme and agreed to participate in the study voluntarily in the first semester of the 2023–24 academic year. Two of the pre-service teachers were male, and three were female. They had Turkish as their mother tongue, English as their second foreign language, and Arabic as their third foreign language. They were exposed to English throughout their K-12 education in Türkiye. They had no prior experience with critical pedagogy in their pre-service education (Table 1). They were selected using purposive sampling, aiming to explore specific experiences in depth (Creswell, 2014). Selection criteria included voluntary participation and regular attendance in the Mass Media Communication course.

Among the courses in the ALT curriculum, "Mass Media Communication" course enables the pre-service teachers to recognize both written and electronic international mass media and their types, such as newspapers and magazines; to be aware of the particular language elements in Arabic in international mass media and to develop their skills in using them; compare the validity and reliability of news and articles in mass media with different opinions and societies; write short news, headlines, advertisements using the style, vocabulary and grammar structures used in mass media; and analyze how the target language uses its language while reflecting its own culture. This course is crucial in teacher education as it sets the stage for pre-service teachers to develop critical thinking skills, equipping future educators with the skills needed to navigate complex classroom environments, make informed decisions, and effectively address real-world problems (Lithoxoidou and Georgiadou, 2023).

Table 1 Participants' specifications.

Participant	Gender	Language Background
PST 1	Female	Turkish (L1), English (L2), Arabic (L3)
PST 2	Male	Turkish (L1), English (L2), Arabic (L3)
PST 3	Female	Turkish (L1), English (L2), Arabic (L3)
PST 4	Male	Turkish (L1), English (L2), Arabic (L3)
PST 5	Female	Turkish (L1), English (L2), Arabic (L3)

The implementation of critical pedagogy in the course. For the first seven weeks of the 15-week instructional period, I observed the pre-service teachers in the Arabic Language Education department. In the first week, I introduced critical pedagogy to pre-service teachers. Starting from the second week, I took extensive notes to record my observations and thoughts about the pre-service teachers' participation in class. Meanwhile, I created a discussion environment by listening to the pre-service teachers' comments on the texts they studied in class and observing whether the content changed the pre-service teachers' critical thinking, reading, and awareness. Although the Gaza/Israeli conflict was prominently featured due to its contemporaneity and visibility in Arabic-language media during the instructional period, pedagogical care was taken to frame the topic through a critical, analytical lens rather than an emotional or political one. Classroom discussions centered on media representation, discourse analysis, and lexical framing rather than ideological alignment. To encourage critical distance, pre-service teachers compared multiple media outlets' coverage—including regional, international, and state-affiliated sources—allowing them to identify bias, omission, and framing strategies. Additionally, this topic was balanced with broader themes (e.g., migration, technology, economic inequality), ensuring that the classroom did not become emotionally saturated or unbalanced. The instructor also maintained a facilitative—not directive—role, prioritizing open, multi-voiced dialog emphasizing critical reasoning, source evaluation, and reflective inquiry over emotional conformity. These measures aligned with the principles of Freirean pedagogy, which promotes emotional awareness but channels it toward critical consciousness and constructive dialog.

During the 7-week observation period, I selected weekly course materials aligned with the syllabus. During the 7-week observation period, I selected weekly course materials aligned with the syllabus. Each week, PSTs analyzed news texts from at least three sources (e.g., Al Jazeera, BBC Arabic, and a local outlet) covering the same Middle Eastern events. The activity began with pre-reading, where texts were shared a day prior to familiarize PSTs with key vocabulary and context. In class, PSTs were divided into small groups (3–4 students) and tasked with identifying differences in language (e.g., word choice, tone), framing (e.g., emphasis on humanitarian vs. political aspects), and source bias. For example, in Week 3, PSTs compared Al Jazeera's focus on humanitarian corridors with BBC Arabic's emphasis on Israeli perspectives, discussing how these choices shaped public perception. Groups summarized findings in a 5-min presentation, followed by a class-wide discussion facilitated by the instructor to encourage reflection on media influence and bias recognition.

Classroom discussions were structured around open-ended questions derived from the macro structure analysis framework (e.g., "What is the main topic of the text?" and "Are the views of all parties represented?"). These questions prompted PSTs to evaluate media narratives critically, identify underlying assumptions, and consider alternative perspectives. For instance, in Week 4, PSTs discussed how terms like "hostages" versus "detainees"

Table 2 Semi-structured interview questions and the purpose of these questions.

The purpose of asking these questions is to encourage deep reflection and critical analysis among students regarding complex and sensitive global issues:

What are the effects of discussing the recent developments in the Middle East in the classroom environment on developing your critical thinking skills?

This question assesses how discussions on current events, susceptible and controversial topics like the Gaza-Israel conflict, influence pre-service teachers' critical thinking ability. It encourages them to evaluate different perspectives and the implications of these developments.

What are the social benefits of discussing the texts (related to war and political policies of countries) covered in the lesson (you can evaluate both in terms of language development and sociocultural development)?

This question focuses on discussing politically charged texts' social and linguistic impact. It prompts students to consider how these discussions enhance their understanding of language, culture, and societal issues.

Do you think the recent events in the Middle East constitute a global problem in terms of "war crimes and human" rights"? If so, can you explain why?

This question is designed to make students think about the broader implications of the Middle East conflict as a global issue, particularly regarding human rights and international law. It encourages them to articulate their understanding of war crimes and the global responsibility towards such matters.

How have the discussions and exchanges in this lesson changed your perspective (Please indicate the changes you have observed in yourself between the first and the last lesson)?

This question aims to have students reflect on how their views have evolved throughout the lessons. It encourages self-assessment regarding the influence of discussions and exchanges on their personal and intellectual growth.

Table 3 Triangulation.

Triangulation type	What was used	Purpose
Data Triangulation	Interviews, observations, lesson plans	To cross-verify emerging themes
Investigator Triangulation	Two external coders reviewed themes	To increase reliability and reduce bias
Member Checking	Participant review of transcripts	To validate interpretation and representation
Methodological Triangulation	Thematic analysis supported by reflection-based lesson artifacts	To enrich the interpretation process

reflected ideological stances, fostering analytical skills. Discussions were moderated to ensure respectful dialog, with ground rules established in Week 1 to create a safe environment for sharing diverse views.

To deepen critical thinking, PSTs discussed, "How has analyzing media texts changed your perspective on global events?" or "What biases did you identify in today's texts, and how did they influence your understanding?" These exercises encouraged PSTs to synthesize their analyzes and articulate personal shifts in thinking, aligning with Brookfield's (2012) emphasis on reflective dialog. The instructor reviewed the dialogs and provided feedback to guide further reflection. To bridge linguistic and critical thinking development, political and diplomatic terms (e.g., "ceasefire," "humanitarian aid") were highlighted in media texts. PSTs discussed their contextual usage in small groups, exploring how language reflected power dynamics or cultural nuances. For example, in Week 5, PSTs analyzed the term "war crimes" in a news article, debating its implications for global accountability. This activity enhanced both vocabulary acquisition and socio-political awareness.

To engage PSTs with global implications of conflicts, ice-breaker questions (e.g., "How might a Middle Eastern war affect global economies?") were used to initiate discussions. In Week 6, PSTs were assigned focus areas (e.g., social, economic, or political consequences) and analyzed a news article in small groups, presenting findings to the class. Assessment criteria emphasized depth of analysis, evidence-based arguments, and clarity, reinforcing critical thinking skills.

The participants, all Turkish PSTs, were expected to engage with the material objectively and critically. I conducted semi-structured interviews following the instructional period to gather their views on critical pedagogy. The interview form, developed with expert input and piloted beforehand, included questions about the texts, perceived changes from week one to week seven, and the global significance of the issues discussed. The complete list of questions is provided in Table 2.

Although as a researcher, I was also the course instructor, multiple strategies were employed to mitigate potential observer bias and enhance objectivity, and to ensure the qualitative findings' trustworthiness and establish credibility, dependability, and confirmability (Creswell, 2014). First, data triangulation was achieved through the use of three distinct data sources: (1) semi-structured interviews, (2) classroom observations recorded via detailed field notes, and (3) critical pedagogy-informed lesson plans that served as documentation of instructional intentions and discourse topics. This triangulation allowed the convergence of evidence from different perspectives and strengthened the internal validity of the findings. Second, investigator triangulation was employed through collaborative coding and peer debriefing. Two qualitative research experts (not involved in the course or data collection) independently reviewed a subset of the interview transcripts and examined the preliminary coding scheme. Discrepancies were discussed and resolved through consensus, enhancing the dependability of the thematic structure. Third, member checking was conducted to ensure participants' interpretations were accurately represented. All interview transcripts were returned to the respective participants, who confirmed their statements' accuracy and clarified nuanced meanings in some cases. Lastly, an audit trail was maintained by documenting the stages of coding, theme generation, and interpretive decisions. This trail supported transparency and the confirmability of the results. Collectively, these strategies enhanced the study's rigor and helped mitigate concerns of potential bias stemming from the researcher's dual role as instructor and investigator (Table 3).

I maintained an encouraging and unbiased demeanor throughout the interviews, taking special care to prevent any influence

from the data collection and analysis processes. Individual interviews were transcribed verbatim and then shared with participants for member checking. The interviews took place in a private setting conducive to pre-service teachers' comfort at a mutually convenient time. Interview questions were presented in prose format to prevent potential misunderstandings, and participants' feedback was actively taken. I conducted this interview to determine whether PSTs' perspectives of the lesson plan designed in the context of critical pedagogy changed according to the first week. Each interview lasted approximately fifteen minutes, was audio-recorded, and held in the lecturer's office. The participants were informed about the study and consented at the beginning. They were given pseudonyms. The individual interviews were transcribed verbatim and then member checking was completed.

Data collection tools. This study employed semi-structured interviews as a primary data collection tool to gain in-depth insights into pre-service teachers' perceptions. The questions were derived from the course objectives and were reviewed by content experts. A pilot interview was conducted to refine clarity. Participants were asked about their views on global issues, their reflections on classroom discussions, and any changes in perspective from the beginning to the end of the course. These interviews allowed triangulation with observational data (Kallio et al., 2016).

Data for the study came from lecturer observations, Mass Media Communication lesson plans, and semi-structured interviews with the participating PSTs. The researcher of the study was also the lecturer of the course. The course was designed following the next steps in line with the principles of critical pedagogy: education is inherently political; knowledge should relate to and develop from the lived experiences of participants; and knowledge should be co-created among all participants in the learning process (Smith and Seal, 2021).

While this study did not employ standardized pre-and post-tests to measure critical thinking development quantitatively, it adopted a qualitative interpretive approach to document nuanced and context-sensitive changes in pre-service teachers' thinking. This decision was informed by the understanding that critical thinking, especially when fostered through critical pedagogy, often emerges gradually, dialogically, and reflectively-dimensions that are best captured through narrative, open-ended responses, and in-context observation (Brookfield, 2012; Creswell, 2014). Through semi-structured interviews, lesson-based reflections, and thematic classroom observations, the study traced the evolution of critical awareness, analytical depth, and socio-political positioning of PSTs across the course timeline. This layered data identified developmental patterns in how participants engaged with media, questioned sources, and articulated global perspectives. Although the absence of standardized instruments limits objective measurement, the chosen method allows the research to prioritize authenticity and depth over quantification, which aligns with the epistemological stance of case study research in education.

Semi-structured interviews. Semi-structured interviews were used to gain in-depth insights into pre-service teachers' experiences with critical pedagogy. The interview protocol was developed based on relevant literature (Brookfield, 2012; Freire, 2018) and the course objectives. Questions were designed to explore participants' evolving views on world events, their development of critical thinking, and their perception of classroom discourse. To ensure content validity, the questions were reviewed by two experts in language education and piloted with two pre-service teachers not involved in the study. Sample interview questions included:

1. What are the effects of discussing the recent developments in the Middle East in the classroom environment on developing your critical thinking skills?
2. What are the social benefits of discussing the texts (related to war and political policies of countries) covered in the lesson (you can evaluate both in terms of language development and sociocultural development)?
3. Do you think the recent events in the Middle East constitute a global problem in terms of "war crimes and human" rights"? If so, can you explain why?
4. How have the discussions and exchanges in this lesson changed your perspective? (Please indicate the changes you have observed in yourself between the first and the last lesson)

Lecturer observations. Five pre-service teachers from a class of 19 students participated in the process of the lesson observation. According to Frankel and Wallen's (2000) classification, the researcher acted as a non-participant observer (also referred to as an ineffective spectator), meaning that the participants were not explicitly informed about the specific focus of the observations during the 7-week period. Each week, for two class hours, the researcher observed the pre-service teachers in their natural classroom environment, concentrating on a limited set of behaviors and interactions relevant to the study. During these observations, particular attention was paid to how pre-service teachers expressed their opinions during classroom discussions, and these expressions were systematically recorded as part of the field notes.

Lesson plans. In the preparation phase of the course content, current world news that would enable the pre-service teachers to closely follow the agenda was identified. The reason for the choice of topics related to the events in the Middle East in this course is that the Israeli-Palestinian war broke out at the beginning of the fall semester and was chosen because it was a topic at the center of the world agenda. It is thought that this course will offer pre-service teachers' ways to address important issues such as social justice, equality, and human rights. Additionally, it is thought that critical pedagogy will help pre-service teachers develop their sense of social thinking and responsibility rather than providing purely academic knowledge. In this context, the texts were shared with the pre-service teachers the day before the lesson to provide them with preliminary information about the content of the texts to be analyzed in the lesson. A sample lesson plan for one week is given in Table 4, and Appendix 1.

Data analysis. The study aimed to document pre-service teachers' critical thinking development through individual semi-structured interviews (Table 5). The interviews were audio-recorded with the permission of the pre-service teachers, and the recorded interviews were first transcribed and then shared with the participants for verification. The researcher's analysis of the pre-service teachers' responses to the semi-structured interview questions is presented in Table 2. After transcription and interpretation, the researcher analyzed the pre-service teachers' responses through thematic analysis and coding. To analyze the qualitative data collected through interviews, classroom observations, and lesson plans, the study followed the six-phase thematic analysis process outlined by Creswell (2014). This method was selected due to its flexibility and appropriateness for identifying and interpreting meaning across qualitative data in an educational setting.

Phase 1. Familiarization with data. The analysis began with the transcription of all interview recordings. Each transcript was then read multiple times to gain familiarity with the content. Observational field notes and reflections from lesson plans were also

Table 4 Sample lesson plan.

Group	**B1–B2**		
Age	20+		
Date	14.11.2023		
Lesson	4		
Topic	Gaza events and global impact		
Learning Objectives	• Pre-service teachers understand and discuss a short authentic text (in Arabic) about the Gaza situation. • Pre-service teachers express their opinions on global challenges using appropriate vocabulary and sentence structures. • Pre-service teachers expand their vocabulary related to politics, conflict, and global issues. • Pre-service teachers develop their critical thinking skills by analyzing and evaluating different perspectives on global issues.		
Target Materials	• Short Arabic news text about Gaza (adapted) • Discussion questions (on worksheet/board) • Paper or notebooks for notes		
Lesson Procedures			
Introduction	This lesson introduces pre-service teachers to the topic of current global issues by focusing on recent events in Gaza. The aim is to raise awareness of international conflicts and their impact on global challenges, while also developing pre-service teachers' language and critical thinking skills. At the beginning of the lesson, the teacher presents a short authentic Arabic text reporting on the situation in Gaza. Pre-service teachers are encouraged to predict key vocabulary they might encounter in the text and to discuss what they already know about the topic. This activates prior knowledge and sets the context for deeper engagement. Through guided discussion, learners are invited to share their perspectives on the importance of the issue, how it relates to wider global challenges, and whether such topics have been addressed in their learning experiences before. This stage not only motivates pre-service teachers by connecting the lesson to real-world events but also fosters active participation, encourages the use of new vocabulary, and lays the foundation for analyzing different perspectives.		
Stage	**Activities**	**Timing**	**Interaction**
Pre-Activities (Warm-up and Preparation)	• Lead-in: Teacher shows a recent news headline/photo and asks: 'What is happening in the world right now?' • Prediction: In pairs, pre-service teachers guess what words might appear in the text. • Pre-teach vocabulary: Teacher writes 5–6 key words on the board (Arabic + English if necessary).	10 min	Lecturer - Pre-service teacher, Pre-service teacher - Lecturer
While-Activities (Main Tasks)	• Reading task: Pre-service teachers read the short Arabic text silently. • Comprehension check: Pre-service teachers underline 3 key words in the text. • Guided discussion (small groups): 1. Do you think the topic of Gaza is important? Why? 2. How does it relate to global challenges? 3. Have you ever covered this topic in ALT before? If not, why might that be?	25 min	Individual, Group
Post-Activities (Production and Reflection)	• Role-play / opinion sharing: In pairs, pre-service teachers discuss: 'If you were a leader, what would you do in this situation?' • Individual reflection: Pre-service teachers write down 3 words that express their view of Biden's position (in Arabic). • Class feedback: Teacher summarizes key ideas and highlights effective use of expressions.	10–15 min	Pair work, Individual, Lecturer - Pre-servie teacher

reviewed thoroughly. This phase allowed the researcher to develop an initial sense of recurring patterns and noteworthy responses related to the participants' critical thinking development.

Phase 2. Generating initial codes. In the second phase, the researcher and a peer from the same academic department independently generated preliminary codes. Coding was inductive (emerging from the data) and deductive (informed by the study's conceptual framework and research questions). For instance, "I now question which media source I read" was coded as "Media Source Evaluation." At the same time, "I found myself looking for different perspectives" was coded as "Perspective-Taking." Codes were assigned manually using a line-by-line technique to ensure attention to detail.

Phase 3. Searching for themes. After initial coding, related codes were grouped into categories and examined for broader themes. Examples of themes include "Critical Awareness," "Sociocultural Sensitivity," "Language Proficiency Gains," and "Global Citizenship Orientation." These themes aligned with critical pedagogy's aims, including media literacy, social consciousness, and reflective thinking.

Phase 4. Reviewing themes. Themes were refined through multiple iterations by cross-checking them against the original data set. This step ensured that each theme accurately represented the data and that there was internal consistency within each theme and clear distinctions between themes. At this point, some codes were re-assigned or merged based on emerging clarity. For example, "Bias Recognition" and "Critical Reading of Texts" were merged under the theme "Media Literacy and Critical Thinking."

Phase 5. Defining and naming themes. Each theme was clearly defined, with accompanying descriptions and illustrative participant quotes. For example:

Critical Awareness: Instances where PSTs reflected on their biases or questioned societal narratives.

Table 5 Semi-structured interview data.

1. What are the effects of discussing the recent developments in the Middle East in the classroom environment on developing your critical thinking skills?

In the first question, I asked the pre-service teachers whether they thought the recent Middle East events were crucial and should be addressed in the ALT class. Analysis of the data obtained from the first question asked in the semi-structured interview revealed that it is important for pre-service teachers to discuss the latest events in the Middle East in the classroom environment. For instance, pre-service teachers P2, P3, and P4 immediately assigned significant importance to the subject. They mentioned that there is a need to discuss current issues regarding the Middle East in the classroom and that although discussions about an event in class do not cause radical changes in their own thoughts, they at least enable them to look at events from different perspectives. P2 stated, "*That's the way it should be... Even if the discussions we have in class about an event do not cause radical changes in my thoughts, at least it helps me to think about things from different perspectives*". P3 stated that she could criticize the media this way: "*...I also witness how different media organizations cover the events...*". Unlike the views of the others, P5 said, "*...Seeing what my classmates' opinions are is, of course, thought-provoking. However, I consider the news texts analyzed in class as materials that I can use to improve my Arabic. I'm not interested in the content of the texts*". Pre-service teachers' responses highlight the role that classroom discussions of current affairs in the classroom context play in developing critical thinking skills while highlighting differences in how pre-service teachers perceive the relevance of these discussions to their own cognitive development and professional preparation.

PSTs also mentioned that it is important to gain social and critical thinking, to make inferences about different perspectives from comments on events, to raise thinking about the psychological dimensions of the tragedy people experience, and to realize how media organizations reflect news to society. P3 stated, *"In particular, we can see the reflections of the events in Gaza in the world press. I believe that analyzing these news reports during the class encourages me to think critically. I can see the change between my thoughts before and after the practices we do in class. I can even compare my thoughts with the perspectives of my classmates."*. P4 said, *"...We also see the way different media organizations reflect the news. Some of them report news that is far from the truth."* Contrary to his peers, P5 stated that focusing on a technique for improving language skills and discussing such events in the classroom was not attractive: "... *Since my focus is more on improving my Arabic, I am not very interested in whether these topics are discussed or not."* Whereas these statements emphasize the role of pre-service teachers in developing critical and social awareness of the integration of current events in language education, they also focus more on the development of language skills and underline the different emphasis on content in language education.

2. What do you think are the social benefits of discussing the texts (related to war and political policies of countries) covered in the lesson (you can evaluate both in terms of language development and sociocultural development)?

I asked PSTs what the benefits of discussing the subject of the texts covered in the classroom would be in terms of both critical awareness and social justice. The data analysis for the second question showed that the course material contributed to developing PSTs' translation skills and learning political and diplomatic terms. Regarding this question, P1 said, *"...I think we learn new vocabulary and improve our translation skills while analyzing such texts. We can see world countries' social and political perspectives towards the Middle East."* Additionally, P5 stated, "*When I look at it in terms of language development, I see improvement in myself. It contributes to the fact that the news texts about the events in the geographies where the language we have learned is spoken contribute to a better command of the terminology of the press...*". For example, P2 said, *"...I think trying to understand the attitudes of the parties contributes to broadening my horizons; when the same news is translated from different news agencies, it allows us to evaluate the politics of each country..."* and P3 *said, "...it helps us understand what political and diplomatic terms are in the language of the press and how they are used. We can see the steps of our own country and foreign countries in international relations and their attitudes towards wars"*. These responses indicate that analyzing such texts in the classroom not only enhances language and translation skills but also deepens pre-service teachers' understanding of political and diplomatic terminology. Moreover, it provides insights into different countries' diverse social and political perspectives, thereby fostering a broader worldview and critical awareness among the participants.

3. Do you think the recent events in the Middle East constitute a global problem in terms of "war crimes and human rights"? If so, can you explain why?

In the third question, they were asked whether the recent events in the Middle East constituted a global problem. PSTs agreed that what was happening in the region constituted a global problem. They stated that this situation caused a social, economic, and political collapse in the geography of the war and could negatively affect other countries over time. P1, for instance, said, *"I think it is a global responsibility not to remain indifferent to the suffering of people in war..."*. P2, similar to P1, stated, "*What is happening is a global problem because the problems of one society can be politically problematic for other countries; at some point, war-victim societies need to change their own destiny...*". In addition, *P3* emphasized that global impact should be examined in two ways: positive and negative: *"It has a global impact, of course. But I think we need to separate the global impact into positive and negative. What happens in the Middle East has different repercussions for every country in the world. In my opinion, the Middle East is an arena of power struggle. Rather than looking at wars only in terms of humanitarian losses or the destruction of a country, it is important to recognize that behind this tragedy, there are winning sides"*. These perspectives highlight a shared recognition among pre-service teachers that the Middle East has far-reaching global implications, affecting the immediate region and creating social, economic, and political ripple effects worldwide.

P4 and P5 also noted that behind this tragedy, the parties were gaining economic and political power and that the tragedy meant victory for others, and while one side lost, the other gained. P4 criticized, "*A victory at the cost of lives cannot be called a victory. So, in my opinion, this victory is a global problem*". Similarly, P5 drew attention to the victimized side of the war: *"In my opinion, these events are definitely a global problem. This global problem reveals the collapse and economic and social destruction of the societies in the geography of the war. For the victimized side, wars cause loss of territory, loss of hopes and dreams for the future, and loss of identity and prestige. What is lost in the region is actually gained for other countries"*. The pre-service teachers emphasize that the pain and losses experienced by one side often turn into gains for others, thus highlighting the complex dynamics of global conflicts.

4. How have the discussions and exchanges in this lesson changed your perspective (Please indicate the changes you have observed in yourself between the first and the last lesson)?

The last question of the semi-structured interview is a question that serves the purpose of the study. This study investigated how pre-service teachers discuss the news at the beginning and end of a teaching unit, to what extent their discussions differ at the end, and whether their critical thinking is raised. In this regard, PSTs were asked whether this course's discussions and exchange of views had changed their perspective on events. When the answers given were analyzed, it was revealed that discussing the events about the Middle East in the classroom environment of the PSTs increased their critical thinking. P5 said, *"As a pre-service, I think critical thinking should be practiced in every program..."* P2 noted that they could analyze how media organizations convey or reflect news to the world. P2 said, *"...I also saw that the media reflects the events in the world according to their own ideology. While reading the news, I started to pay more attention to the news source and the language used..."*. The findings of this question suggest that the course discussions significantly enhanced the pre-service teachers' critical thinking abilities, particularly in their approach to analyzing media narratives and understanding the ideological influences on news representation.

PSTs realized that there might be different views and opinions, were aware that they should think more comprehensively instead of examining the events

Table 5 (continued)

from a narrow or single perspective, and emphasized that different views (no matter what they are) should be approached with tolerance and open-mindedness. P3 added, *"...I think the language used in news texts has social, cultural, and political dynamics. We can see the point of view of all sides..."*. P4 also stated, *"...Of course, my classmates' opinions on this subject were very stimulating for me. I try to stretch my fixed thoughts with a critical perspective..."*. P5 underlined being tolerant towards different opinions and said,*"...(umm...) if we do not gain a critical perspective, we cannot exist in society with our ossified thoughts. (umm..) I think being critical enables an individual to be tolerant and respectful of other opinions. In the discussions we had in class, some of my friends' opinions were not for me. But I learned that everyone's point of view is different and that I should accept this..."*. These reflections indicate that engaging in classroom discussions fostered a deeper appreciation for diverse perspectives among pre-service teachers, promoting a more inclusive, open-minded, and critically reflective approach to understanding complex social and political issues.

PSTs noted that the discussions in this course improved their critical perspectives and that this course contributed to their ability to read the news with a critical eye. P4 stated that she tried to be more flexible in her thoughts with the following words: *"...While reading the news, I started to pay more attention to the news source and the language used. I began to approach it from a critical point of view."* P5 responded, *"...I learned to think about who is right and wrong from a more flexible and broad perspective rather than a sharp and rigid point of view."* These responses suggest that the course not only enhanced the pre-service teachers' critical analysis skills but also encouraged a more nuanced and open-minded approach to interpreting news and media content.

P3 and P5 said that it is not the responsibility of the course instructor to teach skills such as critical thinking, and reading that gaining a critical perspective is not enough on its own, and that they are hesitant about whether looking at the world with a critical eye will change the world. P3 said that it is not the responsibility of the course instructor to teach skills such as critical thinking, and reading: *"...But how much can we talk about the war and the people affected by the war so that we can have a realistic perspective? That's what I'm curious about. I think this course has given me an awareness of critical thinking. But will this awareness of mine change the world? I don't think so"*. Similarly, P5 is hesitant about whether looking at the world with a critical eye will change the world: *"The course scope should be wholly oriented towards teaching Arabic media language. I think it's neither our nor the lecturer's responsibility to discuss the topics mentioned in the lesson... We are not sociologists, political scientists, or journalists anyway... But still, gaining a critical perspective or awareness is outside the scope of this course..."* These perspectives highlight a tension between the perceived role of the course in fostering critical thinking and the broader impact of such skills, suggesting a degree of skepticism about the practical influence of critical awareness on real-world issues and questioning the boundaries of the course's instructional responsibilities.

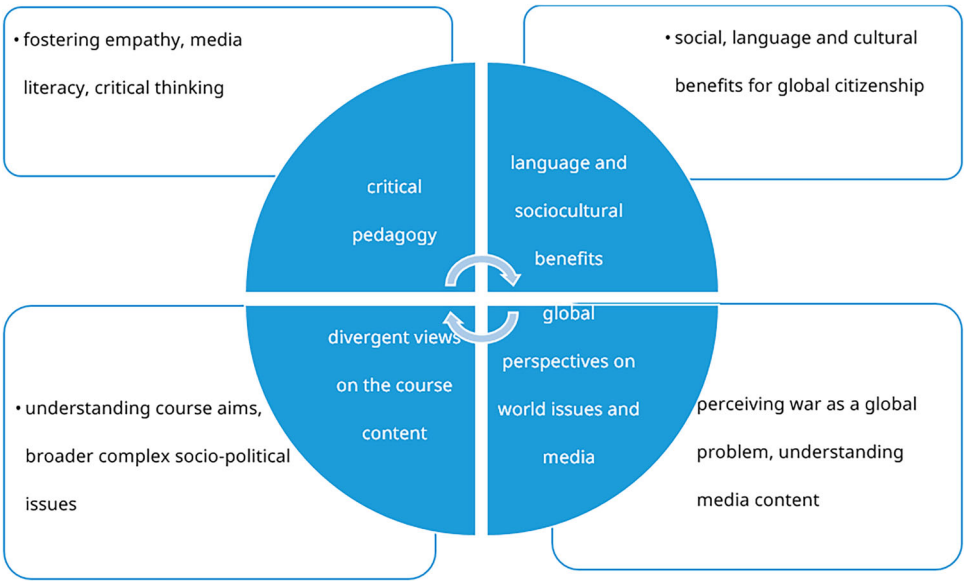


Fig. 1 Emerging key themes from the data analysis.

Language and Sociocultural Benefits: Reflections on how conflict-related texts supported vocabulary development and understanding of cultural context.

Perspective Shifts: Statements indicating a transformation in how participants viewed global events, media, or classroom discourse.

Phase 6. Producing the report. The themes were systematically written up in the findings section in the final phase. Direct participant quotations supported each theme to ensure transparency and allow readers to trace interpretations back to the raw data. To visualize the interaction between themes, a conceptual model (Fig. 1) was created to represent the dynamic and non-linear development of critical thinking.

To ensure trustworthiness, multiple strategies were employed (Creswell and Poth, 2018):

Triangulation: Combining interviews, observations, and lesson plans.

Peer Debriefing: A secondary researcher reviewed and validated the coding scheme.

Member Checking: Participants reviewed their transcripts for accuracy and confirmed or clarified meanings.

Audit Trail: A comprehensive record of coding decisions, thematic grouping, and analytic memos was maintained for transparency.

The researcher and two expert from the same program collaboratively conducted the coding procedure. The coders thoroughly examined and analyzed the transcripts to extract significant components and identify themes associated with the elements influencing the development of critical thinking. For instance, the statement "I started to pay more attention to the

news source and the language used" was coded as "Media Literacy Awareness" under the theme 'Impacts on the Perspectives". Similarly, "Even if the discussions do not cause radical changes in my thoughts, they help me to think from different perspectives" was coded as "Facilitation of Critical Thinking" under "Critical Pedagogy". These codes were grouped into broader themes such as "Critical Awareness", "Social Benefits", "Global Problems", and "Perspective Shifts", allowing a deeper understanding of how classroom discourse shaped the participants' critical thinking development.

Subsequently, these themes were evaluated and rearranged based on their distinctive attributes. Inter-rater reliability was found to be 90% (Miles and Huberman, 2014). This approach enabled the broad application of the elements that impact the growth of critical thinking skills in pre-service teachers. In the last step, I interpreted the findings, reflecting on the lessons from the analysis. In this context, the findings obtained in the study were evaluated according to the steps determined by Creswell (2014), and a comprehensive review of these steps revealed the themes, categories, and codes, as shown in Table 6.

Findings

Data collected from observations, lesson plans, and interviews revealed that integrating critical pedagogy into the course contributed to the pre-service teachers in several aspects: a) critical development, b) language and sociocultural benefits, and c) divergent views on global issues, media, and course content. The pre-service teachers' discussions showed significant development after the teaching unit. Many PSTs initially approached the Middle Eastern events with limited critical thinking. Their focus was primarily on the language acquisition and the translation of texts, with less emphasis on the socio-political implications of the content they were analysing without a global perspective. However, as the unit progressed, their discussions evolved to reflect a deeper engagement with the material regarding language skills and socio-cultural understanding of the global content I focused. These contributions were given in sub-sections below.

Development of critical thinking skills through classroom discussions. In order to develop the pre-service teachers' critical thinking skills, in my lesson plan I had them analyse how the same event was framed differently in media outlets. I chose a recent event in the Middle East and provided the pre-service teachers with texts from at least three different sources, including local, regional and international media, and showed them news videos related to these texts. I then divided the class into small groups and asked each group to discuss among themselves the language used in the headline and main text of the news story, the inclusion of important details about the news story, and the parties involved and their roles in the story. At the end of the group work, I had each group summarize their findings and present how media outlets portrayed the news story. I then encouraged pre-service teachers to reflect on how these differences affected public perception and their own understanding of the conflict.

At the end of the implementation, I observed that PSTs highlighted the value of discussing recent Middle Eastern conflicts in the classroom, noting that it fostered critical thinking by exposing them to diverse perspectives. Several participants described how these discussions enabled them to analyse news sources and challenge their own views.

For instance, PST 2 stated, "Even if the discussions we have in class about an event do not cause radical changes in my thoughts, at least it helps me to think about things from different perspectives." Similarly, PST 3 mentioned that classroom analysis of news coverage allowed them to see "the reflections of the events in the Middle East in the world press," which helped them "compare [their] own thoughts with the perspectives of [their] classmates." I also observed that PSTs were not only studying the content but also developing a comparative and analytical lens as to the discourse and content of the text.

Language and sociocultural benefits of engaging with conflict-related texts. In order to develop pre-service teachers' vocabulary and translation skills in political and diplomatic terms, in my lesson plan, I presented excerpts from Arabic news texts about a recent Middle East conflict and highlighted political and diplomatic terms in the text. I had them discuss the terms in class, focusing on their contextual use in political or diplomatic discourse. Finally, I discussed how these terms reflect socio-political dynamics and cultural nuances and allowed the pre-service teachers to express their opinions.

According to the observations I made during the implementation, I observed that many participants found that analysing texts related to Middle Eastern conflicts enhanced both their linguistic abilities and sociocultural understanding. For example, PST1 noted that "analysing such texts" allowed them to improve their vocabulary and translation skills, while also gaining "familiarity with the events taking place in the Middle East." PST 3 also explained that these texts "help to understand what political and diplomatic terms are in the language of the press and how they are used".

From a sociocultural perspective, pre-service teachers indicated that these texts provided insights into the global political landscape. PST4 pointed out that the lessons helped them view Arabic as "a daily living language" and facilitated their understanding of the cultural and political relationships between Türkiye and other countries. This dual focus on language and context appears to offer them a unique learning experience that merges language skills with cultural awareness.

Perceptions of war as a global issue. In my lesson plan, I first asked the pre-service teachers icebreaker questions about how a war in the Middle East might affect other parts of the world and the immediate and long-term effects on societies, economies, and international relations. I facilitated a discussion to allow the pre-service teachers to learn each other's ideas in answering these questions. I then presented the pre-service teachers with a news article about a recent Middle East conflict. I divided the class into small groups and gave each group a focus area, such as social consequences (e.g., displacement, migration), economic repercussions (e.g., trade disruptions, resource control), and political consequences (e.g., international alliances, global protests). I then asked each group to analyze the article according to their focus area and present their findings to the class. I set assessment criteria for the depth of analysis and understanding in group presentations and participation in discussion, including the ability to articulate and support arguments.

According to the perspectives shared by the pre-service teachers during the lesson, they emphasized a deep connection with the global consequences of war and its impact on humanity, societies, and international relations. I observed that the pre-service teachers had a nuanced understanding of global events and their consequences, especially conflicts in regions such as the Middle East. Several participants perceived recent events in the Middle East as a global concern, emphasizing the interconnected nature of war and human rights. For instance, PST 2 viewed the issue as a global problem, stating, "People's right to life is being publicly taken away… war-victim societies need to change their

Table 6 Thematic analysis map.

Theme	Category	Codes	Coding
Critical Pedagogy	Discussions	I think it is important to discuss these issues in the classroom. Because especially in Gaza, the war is still going on. In my opinion, women and children are the ones who suffer the most here, just like anywhere else in the world. I think nothing in the world is more important than human life.	Empathy, compassion, and prioritizing human life Facilitation of critical thinking
		That's the way it should be. It is important not only to learn a language but also to study the situation in the society that speaks that language. Even if the discussions we have in class about an event do not cause radical changes in my thoughts, at least it helps me to think about things from different perspectives.	Analysis of media perspectives Critical examination of media reports
		Studying current news in the classroom also helps us to keep up with the agenda. We also witness the way different media organizations cover events. In particular, we can see the reflections of the events in the Middle East in the world press. My critical thinking increases while analyzing this news. I can compare my own thoughts with the perspectives of my classmates.	Focus on language skills
		I think it is very important to gain social and critical thinking. I think the Middle East is a very painful geography where war never ends. We also see the way different media organizations reflect the news. Some of them report news that is far from the truth. It is important to discuss all this in the classroom.	
		Seeing what my classmates' opinions are is, of course, thought-provoking. However, I consider the news texts analyzed in class as materials that I can use to improve my Arabic. I'm not interested in the content of the texts.	
	Social Benefits	In the previous lessons, we learned a little about the concepts of war because there were no texts about the war, and we have become familiar with the events taking place in the Middle East. I think we learn new vocabulary and improve our translation skills while analyzing such texts. We can see the social and political perspectives of the world countries in the Middle East.	Insight into social and political perspectives Contribution to social awareness
		It has many benefits in terms of situational awareness and following the agenda; I think that trying to understand the positions of the parties contributes to broadening my horizons; when the same news is translated from different news agencies, it allows us to evaluate the politics of each country.	Encouragement of informed citizenship Promotion of global engagement
		From a linguistic point of view, it helps to understand what political and diplomatic terms are in the language of the press and how they are used. From a social point of view, we can see the social position of our own country and foreign countries, their international relations, and their attitudes toward wars.	Integration of language and culture Highlighting collective efforts for peace
		Discussing current issues greatly benefits perceiving Arabic as a daily living language and gaining language skills. While the cultures of the countries and the events experienced increase language skills, it also allows us to understand the cultures of those societies and, more importantly, to understand the bond of closeness or distance between Turkey and other countries.	
		When I look at it in terms of language development, I see improvement in myself. It contributes to the fact that the news texts about the events in the geographies where the language we have learned is spoken contribute to a better command of the terminology of the press. The reasons for what is happening in the Middle East have yet to be fully understood, and there is still apathy in many countries. So, we need to work together globally to stop wars in the world.	
	Global Problems	I think it is a global responsibility not to remain indifferent to the suffering of people in war. What is happening just indicates that people are left to their own fate.	Impact of diplomatic issues on innocent people
		What is happening is definitely a global problem. People's right to life is being publicly taken away. Because the problems of one society can be politically problematic for other countries, at some point, war-victim societies need to change their own destiny. Concrete steps must be taken for this.	Violation of the right to life is a global problem Examination of positive and negative perspectives
		It has a global impact, of course. But I think we need to separate the global impact into positive and negative. What happens in the Middle East has different repercussions for every country in the world. In my opinion, the Middle East is an arena of power struggle. Rather than looking at wars only in terms of humanitarian losses or the destruction of a country, it is necessary to know that behind this tragedy there are parties that gain economic and political power.	Global impact of wars Potential future globalization of wars
		Wars definitely have a global impact. First and foremost, it brings economic and migration problems. Protesting wars in many parts of the world feels like a worldwide embrace. Sadly, innocent people lose their lives for whatever reason. A victory at the cost of lives cannot be called a victory. So, in my opinion, this victory is a global problem.	
		In my opinion, these events are definitely a global problem. This global problem reveals the collapse and economic and social destruction of the societies in the geography of the war. For the victimized side, wars cause loss of territory, loss of hopes and dreams for the future, and loss of identity and prestige. What is lost in the region is actually gained for other countries.	

Table 6 (continued)

Theme	Category	Codes	Coding
	Impacts on The Perspectives	I saw how bad the conditions in the war zone were and how much people, especially women and children, were suffering. I had yet to learn about other countries' perspectives on what was happening in the region. But we actually read the news texts we read with a critical eye. With the news that media organizations report, they genuinely represent. I learned to react as a society to tragedies, especially in wars. I also saw that the media reflects the events in the world according to their own ideology. While reading the news, I started to pay more attention to the news source and the language used. I began to approach it from a critical point of view. Not only did I learn Arabic vocabulary and expressions while reading the news in class, but the themes we discussed in class also gave me a lot. In my opinion, the language used in news texts has social, cultural, and political dynamics. We can see the point of view of all sides. But as much as we talk about the war and the people affected by the war, do we have a realistic perspective? That's what I'm curious about. I think this course has given me an awareness of critical thinking and reading. But will this awareness of mine change the world? I don't think so. The course scope should be wholly oriented towards teaching Arabic media language. I think it's neither our nor the lecturer's responsibility to discuss the topics mentioned in the lesson. Because we all know that what is happening in the Middle East, especially in Gaza, is a crucial issue to talk about, I don't know how much discussing such issues in class can contribute to language teaching. We are not sociologists, political scientists, or journalists anyway. We are trying to interpret and criticize events that happen outside the borders of our country with our knowledge. Of course, my classmates' opinions on this subject were very stimulating for me. I try to stretch my fixed thoughts with a critical perspective. But still, gaining a critical perspective or awareness is outside the scope of this course. As a pre-service, I think critical thinking and reading should be practiced in every department. Because if we do not gain a critical perspective, we cannot exist in society with our ossified thoughts. I think being critical enables an individual to be tolerant and respectful of other opinions. In the discussions we had in class, some of my friends' opinions were not for me. But I learned that everyone's point of view is different and that I should accept this. I saw how the news texts we examined in class, especially media organizations from other countries, reflected the same news. The expressions and perhaps even the photographs used in the news told us a lot. I learned to think about who is right and wrong from a more flexible and broad perspective rather than a sharp and rigid point of view.	Impact on trust in media authenticity Change in behavior and increased media literacy Impact on language acquisition benefits Responsibility in classroom discussions Transition to a flexible perspective

own destiny." This reflects a view of global responsibility and the need for intervention.

PST 4 elaborated on the consequences of war, mentioning that it leads to "economic and migration problems," and noted a sense of "worldwide embrace" through protests against conflict. This highlights how participants are not only examining the immediate effects of war but are also considering the broader impact on humanity problems and social justice. PST5 stated war "as a global problem", underlining its far-reaching political, economic, and social repercussions. PST5 emphasizes the asymmetry of the consequences of war, noting that "one region's losses become gains for other regions". This dual perspective underlines the interconnectedness of global systems and the unequal distribution of the costs and benefits of war.

Shifts in perspective on media and critical analysis. In the first part of the course, pre-service teachers were asked, 'How do you decide whether to trust a news source? What factors do you consider?' I gave the pre-service teachers three short news texts on the same topic (e.g., a Middle East conflict) from different sources. I asked them to identify differences in language and style in the news texts they analyzed, discuss whether the news stories displayed bias or a particular agenda, reflect on how word choice and framing affect the reader's perception, and present their findings to the class.

Classroom discussions and critical thinking activities have significantly influenced the pre-service teachers' approach to media content, encouraging a more analytical and discerning perspective. I also observed that the pre-service teachers' interaction with news texts in the classroom made them better understand the importance of questioning biases and sources in the media. I observed that the discussions in the classroom not only developed their critical thinking but also influenced their attitudes toward understanding different points of view.

Through the classroom discussions and critical thinking activities, participants reported changes in how they approached media content, developing a more critical stance on news sources. PST 2 shared that they began to scrutinize "the news source and the language used," reflecting an increased awareness of media bias. This critical lens was also mentioned by PST 5, who learned to view the same news with "a more flexible and broad perspective rather than a sharp and rigid point of view." This shift suggests that pre-service teachers are not only passively consuming information but are learning to question and analyse it.

Divergent views on course scope and relevance. Based on the title "Language as a Tool for Critical Thinking", I prepared a lesson plan for pre-service teachers to see how they can develop their critical awareness while learning a foreign language. I first presented a news text about a socio-political issue in the Middle East in this plan. I then asked the pre-service teachers to identify critical linguistic features of this news text (e.g., vocabulary, tone, rhetorical devices), analyze how these features shape the reader's understanding of the issue, and reflect on how analyzing such texts can develop both language skills and critical thinking.

In my observations during the lesson, I observed that the pre-service teachers expressed different reactions to the integration of discussions about media texts and global events into the Arabic language course. The pre-service teachers' statements made me realize the interplay between language acquisition, critical thinking

and global awareness, as well as the importance of having such discussions in the classroom in order to perceive different views.

Notably, some participants questioned the appropriateness of discussing complex socio-political issues within a language-learning context. PST 4 argued that the course should focus solely on language acquisition, as they felt that "gaining a critical perspective or awareness is outside the scope of this course.". Others, however, saw value in integrating critical thinking with language studies. For instance, PST 5 emphasized the importance of a critical perspective across academic disciplines, stating that "if we do not gain a critical perspective, we cannot exist in society with our ossified thoughts." This theme reveals a nuanced view within the group on the boundaries between language education and broader social learning. Considering this course was the first exposure of Arabic Language Teaching (ALT) pre-service teachers to a curriculum grounded in critical pedagogy, I regarded their divergent perspectives as positive indicators of a shift in their perceptions regarding the course content and its delivery.

Overall, the thematic analysis revealed the significance of discussing Middle Eastern events within the classroom, highlighting that different media outlets may present the same news from varying perspectives and that such discussions foster critical thinking and broaden PST perspectives. They also stated that discussions in the classroom environment were beneficial in terms of language development and mastery of terminology. The news content enabled them to gain insights into the social and political dynamics of different countries. Finally, the researcher examined whether pre-service teachers gained critical thinking and perspective within the scope of critical pedagogy. Pre-service teachers stated that they noticed that media organizations reflected the same news differently and that they looked at the source before reading the news.

Particularly, Fig. 1 presents several key insights regarding critical pedagogy, language and sociocultural benefits, global perspectives, and the divergent views on the course content. It should be noted that there is no linearity in this model, but an interplay for the complex and emergent critical thinking development ways. Each theme not only stands alone but is also intricately linked to others. For instance, Critical Pedagogy enables students to engage with real-world issues, enhancing their Global Perspectives, which leads to a broader understanding of Global Problems and contributes to their Language and Socio-cultural Benefits. In turn, the discussions about global issues directly affect students' social and cultural awareness through media tools and news, promoting the development of divergent views on the course content.

Discussion and conclusion

This study presented the implementation of critical pedagogy in a pre-service course and investigated its impact on PSTs' development of critical thinking. Unlike current studies, this paper focused on the perspectives of pre-service Arabic teachers in Türkiye on discussing the situation in the Middle East, while others explored broader topics. The findings showed that incorporating critical pedagogy into the curriculum can significantly improve pre-service teachers' critical thinking skills, and socio-cultural awareness and increase their motivation towards their profession. However, the study also underscored the challenges associated with integrating critical pedagogy into traditionally language-centered courses, emphasizing the need for more comprehensive institutional support and a deeper understanding of its significance in the professional development of future educators.

The study's findings on the development of pre-service teachers' (PSTs) critical thinking skills rely primarily on qualitative self-reports, such as interviews and reflective journals, rather than standardized critical thinking tests like the California Critical Thinking Skills Test (CCTST) or Halpern Critical Thinking Assessment (HCTA). This methodological choice was driven by the study's aim to capture the nuanced, context-specific ways PSTs engaged with socio-political discussions in the Arabic Mass Media Communication course, which qualitative methods are well-suited to explore (Creswell and Poth, 2018). Self-reports allowed for a deeper understanding of PSTs' subjective experiences, perceptions, and ideological shifts, particularly in a culturally sensitive context like Türkiye's exam-oriented education system (Yıldırım Taştı and Yıldırım, 2022). However, this approach limits the ability to quantitatively measure critical thinking gains or compare results across studies using standardized metrics (Facione, 1990).

Prior to conducting this study, relevant literature on language teaching and teacher education was reviewed. Several studies have explored the implementation and benefits of critical pedagogy in foreign language education, particularly in relation to pre-service teachers and language learners (Bilki, 2023; Gutiérrez, 2022; Mitsikopoulou, 2020; Ordem, 2022). These studies emphasized that critical pedagogy fosters the development of critical thinking skills and encourages both students and teachers to engage with social and political issues through language instruction. Granger and Gerlach (2023) further highlighted the importance of incorporating discussions on sociopolitical topics within language classrooms to deepen learners' critical awareness. A recurring theme across these studies is the promotion of student agency and empowerment, enabling learners to question, analyze, and critique various aspects of language and society. In contrast to these broader investigations, the present study offers a context-specific perspective by focusing on Arabic language pre-service teachers in Türkiye. It examines how these future educators engage with discussions surrounding the Middle East, thereby contributing to the literature on how critical pedagogy can be applied within culturally and politically sensitive content areas in language education.

R.Q.1. What are the Arabic language pre-service teachers' views on the world news at the beginning of a teaching unit? At the beginning of the course, Arabic language pre-service teachers had varying levels of engagement and critical awareness regarding world news, especially events in the Middle East. Their initial focus leaned more toward language acquisition rather than critically analysing news content. This pattern aligns with findings by Nelson and Chen (2023) and Finn (2023), which note that pre-service teachers often prioritize linguistic skill development in language courses. Similarly, Abdollahzadeh and Narafshan (2016) observed that pre-service teachers are often hesitant to engage deeply with socio-political discussions in language-focused settings.

R.Q.2. What are the Arabic language pre-service teachers' views on the world news at the end of a teaching unit? By the end of the unit, a notable shift occurred in the pre-service teachers' perspectives. Their ability to critically analyse world events improved, leading to a deeper understanding of the socio-political context of news. An analysis of the critical thinking development of the five pre-service teachers revealed a general improvement in their critical thinking levels, despite minor individual variations. This pattern aligns with the findings reported by Lu and Xie (2024), who observed similar progress among pre-service teachers in their study. This improvement can be attributed to the pre-service teachers' active participation in class discussions and their articulation of personal opinions on the topics addressed. Moreover, PSTs reported increased awareness of media bias, source credibility, and the unbiased use of language in news reporting. A significant outcome of the classroom discussions was

the development of a critical stance towards the presentation of news in media. This awareness aligns with Kellner and Share's (2007) framework on critical media literacy, which advocates for the ability to analyse and evaluate media messages critically. By fostering skepticism and analytical skills, the classroom environment may become a place where students learn to navigate and interpret the complexities of media representations, thereby enhancing their overall media literacy (Mihailidis, 2014). One of the pre-service teachers in the interview group expressed that, in contrast to the other participants, was concentrating on improving the language skills rather than focusing on critical thinking. Hence, it should be underlined that classroom discussions have the potential for critical thinking development of PSTs in that they enable PSTs to express their opinions and exchange views during the course (Andreucci-Annunziata et al., 2023).

The findings also uncovered divergent perspectives regarding the appropriateness of discussing socio-political issues within a language-learning context. While some participants valued the integration of critical thinking with language studies, others questioned its relevance, advocating for a more focused approach on language acquisition. This tension reflects ongoing debates in educational pedagogy about the balance between content knowledge and skill development (Apple, 2011). PST 4's concerns highlight the need for clear curricular objectives and boundaries, suggesting that interdisciplinary approaches must be carefully designed to align with course goals without overextending the intended scope.

R.Q.3. How does the new course content contribute to their critical thinking and pedagogy as future teachers? The study's findings underscore the potential of integrating critical pedagogy into language instruction to enhance critical thinking skills. The course content, designed to encourage reflection on global events, allowed pre-service teachers to challenge dominant media narratives and examine their own biases. This finding aligns with the literature, including studies by Mitsikopoulou (2020) and Granger and Gerlach (2023), which emphasize the role of critical pedagogy in fostering student agency and critical engagement. The ability to compare personal thoughts with classmates' perspectives, as noted by PST 3, emphasized the role of collaborative learning environments in enhancing critical cognitive skills (Vygotsky, 1978). Participants stated that analysing diverse perspectives and media texts from various sources enabled them to develop a comparative and analytical mind set. It refers to Brookfield's (2012) argumentation that critical thinking is cultivated through reflective dialog and the examination of multiple viewpoints.

The integration of conflict-related texts into language learning curricula not only improved linguistic competencies but also enriched their sociocultural understanding. PSTs reported improvements in vocabulary, translation skills, and familiarity with political and diplomatic terminology, which aligns with findings by Kramsch (1993) on the interdependence of language and culture in language acquisition. Furthermore, the sociocultural insights gained through these discussions facilitate a deeper appreciation of global political dynamics and cultural relationships, as evidenced by PST 4's observations on the interplay between language and cultural context. This mutual enhancement supports the notion that language education can serve as a ground for broader sociocultural learning (Byram, 1997).

However, some PSTs expressed resistance to integrating sociopolitical discussions in a language-focused course, reflecting a tension between traditional language instruction and the goals of critical pedagogy. This resistance is common in educational settings where rigid curriculum structures and assessment practices prioritize linguistic accuracy over critical engagement (Nkealah, 2023). It also likely stems from Türkiye's exam-oriented education system, which prioritizes linguistic accuracy over critical engagement (Yıldırım Taştı and Yıldırım, 2022), and the emotional weight of Middle Eastern conflict discussions, given Türkiye's regional ties (Gutiérrez, 2022). Additionally, while this resistance could be interpreted as disengagement, it is—drawing on Giroux (1983)—that such tensions represent an early stage of ideological struggle, where pre-service teachers question the norms and boundaries of traditional language education. This tension has significant teaching implications for implementing critical pedagogy in pre-service teacher education. Instructors can adopt culturally responsive and scaffolded approaches to bridge the gap between traditional language instruction and critical pedagogy. For instance, as Mignolo (2009) suggests, acknowledging the geopolitical and historical contexts shaping language education can help PSTs see the relevance of socio-political discussions. This study's focus on Middle Eastern conflicts, a region with deep cultural and political significance for Türkiye, provided a contextually relevant entry point for such discussions.

Despite these challenges, the overall positive impact of the course suggests that with appropriate support and understanding, critical pedagogy can significantly enhance pre-service teachers' readiness to address complex social issues in their future classrooms. Additionally, the findings suggest that while critical thinking skills were enhanced, there remains skepticism among some PSTs about the broader impact of these skills on societal change. This points to the need for more comprehensive support and training for both educators and students in understanding the value of critical pedagogy beyond immediate academic outcomes.

In context of this study, it is believed that addressing cultural sensitivities when discussing events in the Middle East with Turkish pre-service teachers, especially within the framework of critical pedagogy, requires a nuanced and reflective approach. Therefore, I tried to prioritize creating a safe and inclusive classroom environment to address cultural sensitivities (Abacioglu et al., 2023). First, I set ground rules for respectful discourse, so pre-service teachers would feel comfortable sharing their thoughts. I tried to create a safe environment for discussion in the classroom by acknowledging the diversity of views and the fact that students come from different backgrounds, and most importantly, by trying to create a space where all voices can be heard and respected. In particular, I encouraged pre-service teachers to critically examine their own beliefs and the sources of these beliefs in order to challenge the dominant narratives, media representations, and historical contexts that shape their understanding of the Middle East, guiding them to critically evaluate the power structures that influence their own positions, biases, and perspectives in order to foster a more profound and empathetic understanding of these complexities.

Given the political and emotionally charged nature of the topic, I approached the discussions with sensitivity to their ethical implications. I remained mindful of the potential impact on students with personal or familial ties to the region. Aware of my dual role as both lecturer and observer, I reflected on how my position of authority could influence the classroom dynamic. To minimize this influence, I managed to facilitate the conversation rather than dominate it. Also, as the course instructor, I took a reflexive stance throughout the study, recognizing the potential for observer bias. To mitigate this, I sought to ensure an authentic representation of the participants' perspectives by using multiple coders and member checking during the data analysis process (Miles and Huberman, 2014). Most importantly, to ensure that the pre-service teachers understood the critical pedagogy approach, I encouraged them not only to grasp the surface-level details of the issue but also to think about their role in addressing

them. I thought this could be a prelude to how they, as future educators, could promote critical thinking and global awareness in their own classrooms.

Consequently, the study focused on pre-service teachers' learning Arabic as a foreign language, which may affect their language proficiency and comprehension of course materials. Differences in language skills among participants could have influenced their engagement and responses. Addressing these limitations in future research could enhance the validity and reliability of findings, providing a more comprehensive understanding of the effectiveness of critical pedagogy in pre-service teacher education.

This study contributes to the growing body of literature on integrating critical pedagogy in teacher education, particularly in the context of Arabic language pre-service teacher education. The findings demonstrate that incorporating critical pedagogy into the curriculum can significantly enhance pre-service teachers' critical thinking skills, and socio-cultural awareness. However, the study also highlights the challenges of integrating such approaches into traditional language-focused courses, suggesting a need for more comprehensive support and understanding of the value of critical pedagogy in shaping future educators.

One limitation of the present study is the absence of standardized pre- and post-assessments of critical thinking. It limits the objective comparability of participants' development over time. Instead, the study relied on qualitative self-reports and observations, which, while rich in contextual detail, may be perceived as subjective or lacking in measurability. Despite this limitation, the current study provides meaningful insights into how critical thinking manifests in classroom discourse, especially about sensitive socio-political content and culturally situated experiences. It underscores the value of narrative depth and process-based indicators in understanding how teachers-in-training internalize and apply critical thinking within pedagogical frameworks.

All participants in this study were Turkish native speakers learning Arabic, which limits the generalizability of the findings to other cultural or linguistic contexts. However, this homogeneity offers a focused lens on how critical pedagogy can be implemented within Türkiye's centralized education system. While the results are context-specific, the pedagogical insights may still inform similar educational settings. Future research should explore more diverse participant groups to enhance the transferability of findings.

Türkiye's geopolitical positioning and its historical, cultural, and political affiliations with the Middle East may have influenced how pre-service teachers engaged with the course content. As a country with close regional ties and an active role in Middle Eastern diplomacy, Türkiye's national discourse often emphasizes themes such as cultural solidarity, humanitarian responsibility, and skepticism toward dominant Western media narratives. These broader sociopolitical frames can shape how individuals interpret international events, potentially informing the pre-service teachers' classroom discussions and critical responses to conflict-related texts. This contextual influence may help explain the emotional intensity, selective focus, or varying degrees of critical distance observed in participants' reflections. Recognizing such geopolitical undercurrents is important for interpreting how critical pedagogy is received in specific national settings and for informing culturally responsive instructional design.

Implication for future research

The findings of this study have both pedagogical and research implications for integrating critical pedagogy into language teaching, particularly within the context of pre-service teacher education.

Pedagogical implications. The study emphasizes the importance of critical pedagogy in fostering pre-service teachers' critical thinking and socio-cultural awareness, recommending the integration of socio-political discussions into language curricula to create a holistic learning experience. Engaging with real-world issues broadens perspectives and highlights the link between language and power. An interdisciplinary approach combining language studies with social sciences can enhance critical literacy, while transparent evaluation criteria and educator training are essential for effective implementation. Professional development in media literacy and global education equips teachers to navigate complex discussions, fostering students' ability to analyze media and recognize biases critically. Reflective practices, such as journals and peer discussions, support pre-service teachers' personal and professional growth, cultivating a critical and introspective teaching approach. Also, given that all participants were Turkish native speakers learning Arabic as a foreign language, the findings reflect a culturally and contextually specific lens. While this limits direct generalizability, the study contributes to a deeper understanding of critical pedagogy implementation in centralized, monolingual teacher education systems. As non-native Arabic speakers, PSTs may have experienced varying degrees of difficulty engaging with complex media texts; however, instructional scaffolding—such as pre-teaching key vocabulary and structured discussions—was employed to support comprehension and promote both language development and critical reflection. This study was conducted with a small group of Turkish-speaking pre-service Arabic language teachers within a specific institutional and cultural context in Türkiye. As such, the findings may not be readily transferable to other linguistic, cultural, or disciplinary settings. The participants' experiences and responses were shaped by local educational norms, sociopolitical factors, and language ideologies specific to the Turkish context. While the study does not aim for generalizability in a statistical sense, it may offer conceptual insights for similar teacher education programs seeking to implement critical pedagogy. Nonetheless, the applicability of the findings to other educational systems or cultural environments should be approached with caution. Future research in diverse contexts would help examine these findings' relevance and adaptability across broader settings.

Another limitation of the study is the narrow thematic scope of the course content, which focused primarily on the Gaza/Israel conflict. While this topic was timely and relevant, a lack of engagement with a broader range of global issues—such as climate change, migration, or economic inequality—limits the ability to assess how pre-service teachers apply critical thinking across diverse sociopolitical domains. Including a wider array of global topics could have strengthened the study's applicability and provided a more comprehensive understanding of the transferability of critical pedagogy in language teacher education. Future research could expand the thematic focus to test the robustness of critical engagement about varied global challenges.

Additionally, future research could examine the effectiveness of explicitly incorporating decolonial frameworks—such as Mignolo's concept of epistemic disobedience—into language teacher education curricula. Comparative studies might evaluate how critical awareness develops differently among students exposed to Eurocentric versus pluriversal approaches to language, culture, and identity. Finally, studies could assess teacher educators' roles in mediating ideological tensions in the classroom and in supporting pre-service teachers through early stages of resistance and discomfort, as framed by Giroux's (1983) theory of ideological struggle.

Research implications. This study highlights the effectiveness of critical pedagogy in fostering critical thinking and socio-cultural

awareness, particularly in the context of Middle Eastern events. Future research could explore its application in other subjects, such as science or arts, and examine its broader impact on teacher education. Longitudinal studies could investigate its long-term effects on pre-service teachers' professional practices and how they implement these methods post-graduation. Comparative research might analyze responses to critical pedagogy across different cultural or educational contexts, offering insights into systemic and cultural influences. Additionally, exploring how teacher beliefs shape their engagement with and adoption of critical pedagogy could identify barriers and strategies for implementation. To better understand its holistic educational benefits, further studies could assess its impact on learner outcomes beyond critical thinking, including empathy, cultural competence, and civic engagement.

Future studies could adopt a mixed-methods design that combines reflective narratives with standardized critical thinking assessments (e.g., California Critical Thinking Skills Test (CCTST) or the Halpern Critical Thinking Assessment (HCTA)) to enhance the reliability and depth of findings. While instruments like the CCTST and HCTA (California Critical Thinking Skills Test and Halpern Critical Thinking Assessment) are reliable for measuring general cognitive skills—such as analysis, inference, evaluation, and explanation—they are most appropriate in larger-scale, more controlled contexts (Ennis, 1993; Facione, 1990; Halpern, 2012). Additionally, longitudinal research is needed to examine how pre-service teachers' engagement with critical pedagogy translates into their future teaching practice. Further exploration of how individual differences—such as cultural background or epistemological beliefs—influence receptivity to critical pedagogy would also be valuable. Expanding the methodological and contextual scope can help strengthen this line of research's generalizability and practical relevance.

Another limitation of the study is the absence of baseline data to measure changes in participants' critical thinking over time objectively. As a qualitative case study, the research focused on participants' reflective accounts and their perceived development throughout the course, rather than on quantifiable pre- and post-course comparisons. While this approach allowed for rich, contextualized insights into participants' experiences, it limits the ability to draw stronger conclusions about individual or collective growth. Future studies may benefit from incorporating baseline or pre-course measures—such as standardized critical thinking assessments or structured reflection instruments—to enable a more robust evaluation of developmental change.

A further limitation concerns the potential for observer bias arising from the dual role of the researcher as both course instructor and data collector. This positionality may have influenced participants' responses or shaped the interpretation of the data. Although steps were taken to mitigate this risk—including emphasizing voluntary participation, maintaining anonymity and confidentiality, and fostering a classroom environment that encouraged honest and critical reflection—complete neutrality cannot be assumed. Additionally, strategies such as peer debriefing and member checking were employed to enhance the trustworthiness of the findings (Creswell and Poth, 2018; Merriam and Tisdell, 2016). Nevertheless, the possibility of researcher influence remains a recognized limitation in practitioner research and should be considered when interpreting the results. To further strengthen objectivity, future research could incorporate a neutral co-observer or external evaluator during data collection and/or analysis phases, allowing for independent verification and reducing potential bias introduced by the instructor-researcher relationship.

An additional limitation is the lack of follow-up on how pre-service teachers (PSTs) who expressed skepticism toward critical pedagogy might engage with or apply its principles in their future teaching practice. While the study captured their immediate reflections during the course, it did not explore how these attitudes may evolve over time or influence their pedagogical decisions in real classroom settings. This limits our understanding of the long-term impact and practical implementation of critical pedagogy among more hesitant or resistant PSTs. Future longitudinal studies could examine how such participants navigate, adapt, or reject critical pedagogy once they enter the teaching profession.

Future research in language teacher education could further investigate how pre-service teachers' initial resistance to socio-political or critical content reflects deeper ideological tensions, and how such resistance can serve as a catalyst for critical reflection rather than a sign of disengagement. Longitudinal or ethnographic studies might explore how these early stages of ideological struggle evolve throughout teacher training and into professional practice. Additionally, research could examine the strategies teacher educators use to balance fostering critical consciousness with honoring students' diverse epistemological backgrounds and levels of readiness. Investigating how educators create spaces where discomfort becomes a productive part of pedagogical growth would be especially valuable. Such study could illuminate how resistance, when approached dialogically, becomes not an obstacle but a generative moment in preparing socially aware and reflective language teachers.

Data availability

Data is provided within the manuscript or supplementary information files.

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Author contributions

MMG confirms sole responsibility for the study conception and design, data collection, analysis, and interpretation of the results, and the writing and revision of the manuscript.

Competing interests

The author declares no competing interests.

Ethical approval

The Ethics Committee of author's institution approved this study on 7 November 2023 with an ethical approval letter (Approval number: 2023 - 1347; Session number: 19). The study fulfilled all ethical requirements regarding human participants. The research was conducted using the appropriate rules and regulations of the Declaration of Helsinki regarding human participants.

Informed consent

Written informed consent was obtained from all participants prior to data collection. Participants were informed in writing about the study's purpose, voluntary nature, their right to withdraw at any time, and the measures taken to ensure confidentiality and anonymity. Consent was obtained via a standardized form signed by participants between 9 March and 16 March 2024. No vulnerable individuals were included in the research. The consent covered participation in the survey, the use of data for academic research purposes, and the publication of aggregated findings. No vulnerable individuals (such as minors or legally protected groups) were involved in this study. All procedures were conducted in accordance with ethical research principles for non-interventional social science studies.

Additional information

Supplementary information The online version contains supplementary material available at https://doi.org/10.1057/s41599-025-06158-z.

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