

## Seeing Multilingual Learners through Media and AI: Pre-Service Teachers' Perceptions in an ESOL Course

Clarisse Halpern \* , Bruno Halpern , Hasan Aydin 

Florida Gulf Coast University, UNITED STATES

\*Corresponding Author: [halpern.clarisse@gmail.com](mailto:halpern.clarisse@gmail.com)

**Citation:** Halpern, C., Halpern, B., & Aydin, H. (2025). Seeing multilingual learners through media and AI: Pre-service teachers' perceptions in an ESOL course. *Journal of Interdisciplinary Research in Artificial Intelligence and Society*, 1 (1), 4. <https://doi.org/10.20897/jirais/xxxxx>

**Published:** December 26, 2025

### ABSTRACT

As K–12 classrooms enroll growing numbers of multilingual learners, teacher preparation programs must both meet ESOL endorsement expectations and support candidates in developing culturally and linguistically responsive practice. Pre-service teachers also benefit from structured opportunities to reflect on how their personal backgrounds and everyday information environments shape perceptions of multilingual learners, particularly as contemporary media systems increasingly rely on algorithmic curation and generative AI. In this exploratory instrumental case study, we examined how pre-service teachers in an upper-level ESOL Foundations course at a university in Southwest Florida made sense of media and AI influences on their views of teaching multilingual learners, and how they articulated possible classroom-facing instructional strategies informed by critical media and AI literacies. A total of 38 undergraduates volunteered to participate. We analyzed two coursework artifacts produced during a teacher-attitudes module (a reading reflection paper and written responses to a structured class discussion/activity) using qualitative content analysis informed by critical media literacy (CML). Findings highlighted three intertwined challenges: difficulty recognizing subtle media bias, uncertainty about evaluating AI-generated or AI-amplified misinformation, and limited confidence in articulating feasible instructional strategies that apply a critical lens in multilingual-learner instruction. At the same time, participants proposed lesson ideas and classroom norms intended to help students question media representations and identify deficit-oriented narratives about immigrant and multilingual communities. We argue that CML, including foundational AI literacy, should be treated as a cross-cutting professional competence in teacher education and meaningfully connected to coursework that prepares candidates to teach multilingual learners.

**Keywords:** critical media literacy, AI literacy, teacher education, pre-service teachers, multilingual learners, misinformation, equity pedagogy

Pre-service teachers do not enter teacher education as tabula rasa. They bring prior beliefs and taken-for-granted assumptions that can shape how they interpret students' language practices and academic potential, particularly for multilingual learners (Almatrafi et al., 2024; Osei-Tutu & Osei-Tutu, 2023; Sanchez-Acedo et al., 2024). These beliefs are also formed within a contemporary information environment in which news, social media, and platform algorithms circulate narratives about immigration, language, and national belonging-narratives that teacher candidates routinely encounter as they move through preparation programs (Gasparyan & Sirotkina, 2025; Sanders-Smith et al., 2019).

This context is especially relevant in Florida, a state with a large English learner population and substantial linguistic diversity. Florida serves over 300,000 English language learners who speak more than 243 languages (Florida Department of Education [FDOE], n.d.). In the 2023–2024 school year, 321,243 English language learners in grades K–12 took the ACCESS for ELLs assessment (Florida Department of Education, 2024). In the School District of Lee County, the district’s 2024–2025 impact report lists a student enrollment of 102,680 and notes that 54,378 students live in homes where English is not the primary language; students collectively represent 135 languages and 166 countries (School District of Lee County, 2025).

The challenge facing teacher preparation is compounded by the contemporary media ecosystem. Many platforms rank and recommend content using engagement signals, and evidence from experimental and modeling work suggests that engagement-based ranking can increase the visibility of emotionally charged and polarizing content (Corsi et al., 2024; Metzler & Garcia, 2024; Milli et al., 2024; Wright et al., 2023). At the same time, generative AI tools make it easier to produce and circulate synthetic text, images, and audio that appear credible, including content about schools, educators, and immigrant and multilingual communities, which raises the stakes for verification and source evaluation (MacDowell et al., 2024; Parsons & Curry, 2024; Sanchez-Acedo et al., 2024; Tiernan et al., 2023). For many pre-service teachers, media exposure is one of several inputs that can shape early images of “typical” students and classroom life alongside coursework and field experiences. In linguistically diverse Florida classrooms, these evolving impressions may influence how future teachers interpret language difference and make instructional judgments about multilingual and monolingual students (Osei-Tutu & Osei-Tutu, 2023; Wright et al., 2023).

Research has long documented deficit-oriented and crisis framing in U.S. immigration discourse, and scholarship in teacher education has examined pre-service teachers’ beliefs about immigrants and marginalized groups, including through media-focused and critical reflection activities (McDermott et al., 2012; Murray-Everett & Harrison, 2021). At the same time, fewer studies have centered how teacher candidates connect recurring media frames to their expectations of multilingual learners and families, particularly in a context where algorithmic ranking and AI-generated content can shape what candidates encounter and how credible it appears (MacDowell et al., 2024; Robertson & Hughes, 2011). Building on this gap, prior work has only begun to clarify: (a) the interpretive links candidates draw between recurring media frames and their expectations of multilingual learners, (b) how perceived credibility and “realness” influences candidates’ judgments when content may be AI-generated or algorithmically amplified, and (c) the specific, practice-based routines candidates can articulate to mitigate these influences in their future classrooms.

Thus, this case study examines how pre-service teachers at a Florida university (1) perceive the role of media and AI in shaping their views of multilingual learners and (2) translate emerging critical media and AI literacy insights into concrete teaching routines in their coursework and anticipated practice.

### **Media Representations of Immigrants and Multilingual Communities**

To understand the media environment pre-service teachers navigate, it is necessary to explore how immigrants and multilingual communities are represented across news and social media platforms. A substantial body of research in media studies and communication has documented persistent patterns in how mainstream news outlets and social media platforms frame immigration and immigrant communities. Content analyses of news coverage across multiple countries reveal that immigration stories disproportionately emphasize narratives of crisis, illegality, and cultural threat (Ajana et al., 2024; Schneider-Strawczynski & Valette, 2025; Unan, 2025). Schneider-Strawczynski and Valette (2025) analyzed media coverage across several European nations and found that exposure to immigration-related news content correlated with more polarized attitudes toward immigrant populations, with framing effects particularly pronounced when coverage clustered around terms such as “surge,” “burden,” and “crisis.”

Similarly, Ajana et al.’s (2024) comparative analysis of Ukrainian, Afghan, and Syrian refugee coverage demonstrated that media frames vary not only in volume but also in the evaluative language applied—for instance, some refugee groups are positioned as deserving victims while others as potential security threats. Unan’s (2025) work on media coverage to highly skilled immigrants suggests that even ostensibly neutral coverage can reinforce hierarchical distinctions, with “desirable” immigrants framed in contrast to an implicit undesirable other. These patterns appear consistent across both traditional broadcast media and algorithmically curated social media feeds (Osei-Tutu & Osei-Tutu, 2023).

The mechanisms through which these frames operate have been theorized as processes of normalization and boundary-setting. Repeated exposure to specific lexical choices (e.g., immigrants as “flooding,” “invading,” or “overwhelming” social systems) can shift what audiences perceive as factual description rather than evaluative framing (Marino & Filipe, 2025; Schneider-Strawczynski & Valette, 2025). For instance, Osei-Tutu and Osei-Tutu (2023) argued that mainstream media narratives about Africa and African immigrants rely on deficit-

oriented storytelling that marginalizes structural or policy-based explanations in favor of individualized cultural explanations for social phenomena.

Not enough studies within this field have examined how media framing operates on specific professional groups during periods of training or socialization—such as pre-service teachers during their preparation—or how exposure to these frames might shape workplace attitudes and practices in educational contexts. This leaves open the question of whether the framing effects documented in general populations transfer to, intensify, or are mediated differently within teacher education settings, particularly in contexts like Florida, where immigration discourse is highly visible and politically charged.

### **The Digital Information Ecosystem and Algorithmic Mediation**

Research on digital platforms has increasingly examined how algorithmic curation shapes information exposure and user behavior. Studies have documented that engagement-driven business models prioritize content generating measurable user activity (e.g., shares, comments, prolonged viewing time) over accuracy or informational value, with emotionally charged material receiving disproportionate visibility (Corsi et al., 2024; Metzler & Garcia, 2024; Wright et al., 2023). Metzler and Garcia (2024) suggested that this as a structural feature of the attention economy, where platforms competing for user time systematically favor affectively potent material, while Wright et al. (2023) demonstrated how content creators adapt their production practices in response to algorithmic feedback, generating increasingly polarized content.

The recent proliferation of generative AI tools adds complexity to verification because AI-generated images, text, and audio can appear authentic enough to pass everyday credibility checks (Parsons & Curry, 2024; Sanchez-Acedo et al., 2024; Tiernan et al., 2023). Tiernan et al. (2023) frame this development as an “epistemic crisis,” arguing that sensory cues alone are less reliable anchors for evaluating truth claims when synthetic media is easily produced and circulated. In experimental work, Spearing et al. (2025) found that pre-emptive, source-focused warnings reduced the influence of AI-generated misinformation on reasoning, while debunking after exposure reduced misinformation effects but was less likely to eliminate them once misinformation had already shaped judgments; the strongest reductions occurred when pre-emptive inoculation and debunking were combined.

Despite these insights, much of the algorithmic-mediation and AI-misinformation literature has prioritized general adult samples and high-salience public contexts, including elections and political communication (Kharvi, 2024; Momeni, 2025; Zhou et al., 2023). Educational settings are beginning to receive attention, but research has less frequently centered how educators-in-training interpret algorithmically curated and AI-generated representations of their prospective students and communities as a professional judgment problem (Bae et al., 2024; Buchner et al., 2024; Chen, 2025).

### **Pre-Service Teachers’ Digital Competencies and Critical Literacies**

Existing scholarship on pre-service teachers’ digital competencies has shown a more complex picture than the “digital native” narrative suggests. While many pre-service teachers demonstrate functional proficiency with digital tools, research indicates that operational skill does not necessarily translate into critical evaluative capacity (Sperling et al., 2024). Sperling et al.’s (2024) systematic review indicated that most preparation programs emphasize technical skill development while devoting far less attention to analyzing the ideological dimensions of digital media or interrogating algorithmic systems. Similarly, Ayanwale et al.’s (2024) study across multiple institutions suggested that pre-service teachers self-reported high confidence in using AI tools but demonstrated significantly lower competence when asked to evaluate AI outputs for bias or explain how training data shapes model behavior.

Research on pre-service teachers’ readiness for AI integration presents mixed findings: Karataş et al.’s (2024) study indicated participants expressed both enthusiasm about AI’s potential and anxiety about their preparedness to evaluate AI-generated content critically, while L’Enfant’s (2024) interviews with teacher educators suggested significant disagreement about whether AI literacy should focus on instrumental competencies (using AI tools) or critical competencies (questioning AI as a cultural force). Laru et al.’s (2025) investigation identified that prior experience with digital tools, epistemic beliefs, and attitudes toward technology all predicted AI literacy levels, though the operational definition of “AI literacy” varies considerably across studies, making synthesis challenging.

### **Critical Media Literacy and AI Literacy in Teacher Education**

Critical media literacy stems from critical pedagogy, viewing media texts as ideological constructions rather than transparent reality (Hall, 2005; Kellner & Share, 2019). In teacher education, CML interventions aim to help pre-service teachers analyze media for embedded power relations, economic interests, and representational

politics (Kellner & Share, 2019; Trope et al., 2021). Studies have shown that CML instruction can shift pre-service teachers' awareness. For example, Marlatt (2020) indicated pre-service teachers developed more critical stances toward news and awareness of framing, though this relied on self-reflection rather than observation. Osei-Tutu and Osei-Tutu (2023) offered a theoretical argument for "decolonizing" media literacy, positioning CML as a tool for racial justice. The recent emergence of Critical Artificial Intelligence Literacy (CAIL) (Almatrafi et al., 2024; Chiu et al., 2024) has extended CML's propositions to include algorithmic bias, synthetic media, and AI's political economy. However, scholars debate whether AI literacy is a subset of media literacy, a parallel competency, or a distinct skillset (Tiernan et al., 2023).

Empirical research on CML and AI literacy interventions in teacher education has shown mixed results and methodological challenges. Studies with positive outcomes often rely on surveys (Neira et al., 2024; Saklaki & Gardikiotis, 2024) or reflective writing (Schmitz et al., 2024). These methods can show changes in awareness but may not capture translation into pedagogical practice. While new digital literacy frameworks for generative AI have been proposed, they remain primarily conceptual (Ciampa et al., 2023). Similarly, reviews have identified AI's potential for inclusive learning but noted a scarcity of rigorous outcome studies on long-term transfer to practice (Zhang & Zhang, 2024). Furthermore, most research that has examined CML as a standalone module, not as an integrated component of methods courses for specific populations. Few studies connect media literacy to teachers' work with multilingual learners (Kfoury & Rowe, 2024; Nash, 2024), and neither track whether awareness of bias leads to the implementation of updated pedagogical routines in practice.

### **Teacher Education, Attitudes, and Multilingual Learners**

Previous research has documented a range of pre-service teachers' attitudes toward multilingual learners, from asset-based views to deficit-oriented perspectives (Freeman et al., 2021; Kfoury & Rowe, 2024). Many pre-service teachers enter programs with limited experience in linguistic diversity and may hold implicit biases about multilingual learners (Gasparyan & Sirotkina, 2025; Sanders-Smith et al., 2019). Studies have shown that pre-service teachers often express pedagogical uncertainty, sometimes attributing student struggles to language deficits rather than instructional barriers (Authors, 2024; Gretter & Yadav, 2018). Factors shaping these attitudes include prior cross-cultural experience, quality field placements, faculty modeling, and explicit coursework (Freeman et al., 2021; Kfoury & Rowe, 2024).

Interventions to shift pre-service teachers toward equitable perspectives (e.g., such as diversity courses, embedded modules, and field experiences) show mixed results (Authors, 2013; Authors, 2020; Kfoury & Rowe, 2024). Some studies note meaningful shifts (Authors, 2024; Gasparyan & Sirotkina, 2025), while others find persistent deficit thinking perspectives (Sanders-Smith et al., 2019). Kfoury and Rowe (2024) indicated that structured self-analysis increased pre-service teachers' reflexivity, though its persistence into practice was not tracked. Findings from Authors's (2025) study with pre-service teachers in an ESOL course suggested that pre-service teachers tend to be better equipped with linguistic tools that confer them some linguistic competence to teach multilingual learners, while leaving an important gap in developing their cultural competence for effective teaching of students from different cultural and linguistic backgrounds.

Crucially, other research has not explored media consumption's role in shaping pre-service teachers' beliefs about multilingual learners. While scholars have acknowledged cultural narratives' influence (Osei-Tutu & Osei-Tutu, 2023) and other research has confirmed media's deficit framing, no studies directly link pre-service teachers' exposure to news, social media, or AI-generated content to their attitude formation toward teaching multilingual learners. This leaves a significant gap, ignoring a source of influence that may conflict with formal coursework on asset-based pedagogy.

Finally, the existing literature has provided a clear picture of a media ecosystem saturated with deficit narratives about immigrants (Osei-Tutu & Osei-Tutu, 2023) and an emerging AI landscape that complicates information verification (Tiernan et al., 2023). Simultaneously, research on teacher education has highlighted the persistent challenge of shifting pre-service teachers' attitudes toward multilingual learners to ensure equitable teaching in U.S. K-12 classrooms (Kfoury & Rowe, 2024). However, the existing body of scholarship remains largely disconnected. We know that media bias exists and that teacher attitudes are complex; however, we lack empirical understanding of how the former actively shapes the latter in the age of algorithmic curation and generative AI.

Furthermore, although CML and AI literacy are increasingly discussed as equity-relevant competencies (Nash, 2024), fewer studies have examined how pre-service teachers operationalize these concepts in the context of teaching multilingual learners. In this study, we address this need by analyzing two linked dimensions of candidates' coursework: (1) how they describe and interpret the role of platform media and generative AI in shaping perceptions of multilingual learners and immigrant communities, and (2) the instructional moves they are willing and able to propose—within the constraints of an undergraduate methods course—for supporting multilingual learners through media- and AI-aware classroom practices (e.g., source evaluation routines, guided

discussion protocols, language-sensitive questioning, and lesson structures that surface and challenge deficit narratives).

## THEORETICAL FRAMEWORK

This study is grounded in CML because it moves beyond a purely functional definition of literacy (i.e., accessing and evaluating content) by emphasizing how media texts are produced within power relations and political-economic systems, and how they can reproduce particular ideologies and hierarchies (Kellner & Share, 2019). Where traditional media literacy may ask, “Is this claim accurate?,” CML also asks, “Why was this message produced?,” “Whose interests does it serve?,” and “How does this message attempt to position audiences?” (Mihailidis, 2018). This lens is useful for examining how pre-service teachers’ views of teaching multilingual learners are shaped through media exposure and broader information environments as they move through teacher preparation and toward their first classrooms. In this study, we drew on three central tenets of CML, selected because they aligned directly with the phenomena described in our research problem.

### Media as Ideological Constructions (Representation)

Hall (2005) and Kellner and Share (2019) emphasize that media messages are constructed rather than transparent reflections of reality. These constructions carry social, political, and economic values, shaping which interpretations are foregrounded and which are obscured (Kellner & Share, 2019). For example, repeated coverage of immigration and multilingual learners through charged labels such as “surges,” “burdens,” or “threats” functions as an ideological move that frames certain groups as problems to be managed rather than as community members with rights, histories, and assets (Marino & Filipe, 2025; Unan, 2025).

Building on this tradition, critical media literacy offers analytic tools for identifying how such frames become normalized in public discourse, including how they can legitimate xenophobic or deficit-oriented explanations and narrow the range of interpretations that audiences treat as plausible (Ajana et al., 2024; Guo et al., 2025). This tenet directly informs our first research question by providing language for examining how pre-service teachers perceive the role of media constructions in shaping their views of teaching multilingual learners.

### The Political Economy of Media (Platform Logic)

CML scholarship foregrounds the commercial and political interests that shape media production, circulation, and visibility (Kellner & Share, 2019; Wright et al., 2023). In this study, our research problem emphasizes that contemporary platform systems operate through a profit-oriented “platform logic,” in which attention is monetized and content distribution is optimized for engagement. This orientation aligns with broader critiques of the attention economy and engagement-based ranking, which suggest that emotionally arousing content can be advantaged by platform design and recommender systems (Milli et al., 2024; Wright et al., 2023). In practice, algorithms that prioritize engagement can increase the circulation of content likely to provoke moral outrage, fear, or novelty responses (Corsi et al., 2024). Rather than functioning as neutral arbiters of information quality, these systems can privilege simplified and polarizing interpretations over more contextualized, evidence-based discourse (Metzler & Garcia, 2024).

This tenet allows us to analyze the media environment itself as an informal curriculum, one that, functions as an informal teacher educator (Wright et al., 2023) by flooding pre-service teachers’ feeds with vivid but partial narratives of the multilingual students they will teach. The recent infusion of generative AI (Sanchez-Acedo et al., 2024) further complicates this, creating a frictionless system for producing and disseminating ideologically-potent constructions at scale, detached from verifiable sources (Spearing et al., 2025).

### Critical AI Literacy (Algorithmic Influence and Synthetic Media)

Today, a CML framework is incomplete without a specific focus on CAIL, which addresses how algorithms and generative AI shape the information ecosystem (Ajana et al., 2024; Gao et al., 2024). Building on CAIL scholarship, we treat platforms as an informal learning environment for teacher candidates, one that can shape their expectations about schools, youth, and communities outside of coursework. Put simply, the feed becomes a kind of curriculum: the platform repeatedly highlights certain stories and interpretations, and those repetitions can shape what candidates come to see as typical or believable (Boudreau, 2020; Metzler & Garcia, 2024). Research on algorithmic mechanisms also underscores that personalization is not simply individual preference-matching; it is produced through a feedback loop in which users’ prior interactions influence what is recommended next, potentially stabilizing and reinforcing initial interpretations over time (Metzler & Garcia, 2024). Related work on AI-driven personalization similarly describes feedback dynamics that can increase engagement while narrowing exposure, creating conditions under which early impressions may become more entrenched (Rapanta et al., 2025; Wang & Li, 2025).

Second, the rapid advances in generative AI introduce an epistemic crisis (Harris, 2024; Tiernan et al., 2023), after all, artificial content can shape beliefs (Ching et al., 2025; Li et al., 2024). CAIL offers a lens for examining how pre-service teachers navigate a world where provenance and intent are often opaque (Rapanta et al., 2025; Veldhuis, 2024). This development complicates traditional media-literacy guidance. In environments where generative AI can produce convincingly realistic text, images, and audio, “check the source” is still necessary but may be insufficient when provenance is unclear or when fabricated materials are designed to mimic credible outlets (Kharvi, 2024). For this study, this lens helps interpret how pre-service teachers describe and evaluate the credibility of information they encounter about multilingual learners and immigrant communities, including when that information may be AI-generated or AI-manipulated (Laru et al., 2025).

### **CML as Pedagogical Praxis (Action and Intervention)**

Finally, CML is a pedagogical project rooted in Freire’s (2000) call for praxis, that is, the cycle of reflection and action. Its aim is to cultivate critical consciousness that enables learners to contest dominant narratives and take informed action (Schmitz et al., 2024; Wright et al., 2023). This aligns with our second research question: beyond perception, we examine how pre-service teachers translate insights into practice through core, practice-based teaching routines (McDonald et al., 2013).

Therefore, this study uses CML to examine both the “problem” (an information environment saturated by ideology) and the “solution” (teacher education’s capacity to cultivate CML and AI-literacy as discursive and pedagogical tools). In sum, a CML framework connects macro-level forces—platformization (Nieborg & Poell, 2018) and media framing (Entman, 1993)—to the micro-level sense-making of pre-service teachers (Osei-Tutu & Osei-Tutu, 2023; Wright et al., 2023).

## **METHOD AND RESEARCH DESIGN**

In this study, we used an instrumental case study approach (Stake, 2005) to examine how pre-service teachers in a bounded course context made sense of media and AI influences on their views of teaching multilingual learners, and how they articulated prospective instructional responses using critical media and AI literacy concepts. The case was instrumental because it offered a situated opportunity to study this phenomenon in a setting where participants were explicitly engaging multilingual-learner instruction and teacher-attitudes content as part of their preparation.

We defined the case boundaries as one offering of an upper-level undergraduate ESOL Foundations course, which counts toward ESOL endorsement, taught in a College of Education at a university in Southwest Florida during a single semester (Spring 2024). The course was selected by convenience: one member of the research team was the course instructor and the first author served as the teaching assistant. The course was also substantively relevant because it includes a module on teacher attitudes and sociocultural factors that shape instructional decisions and classroom practices, including how teachers interpret and respond to information environments such as media (Freeman et al., 2021). Within the course, the focal instructional sequence for this study was the culminating module on teacher attitudes. The primary module of analysis was participants’ written course artifacts produced during that module.

### **Case Context**

The case comprised one offering of an upper-level undergraduate ESOL Foundations course in a College of Education at a university in Southwest Florida during Spring 2024. The course counted toward ESOL endorsement requirements for pre-service teachers and was designed to build foundational knowledge relevant to teaching multilingual learners. Across the semester, course content addressed second language acquisition theories, benefits of bilingualism and bilingual education models, ESOL history and policies, cross-cultural communication, and sociocultural perspectives on language and schooling.

During Spring 2024, the course met in person, and the focal instructional context for this study was the culminating module on teacher attitudes. Consistent with the module’s emphasis on sociocultural influences on teachers’ beliefs and instructional decision-making (Freeman et al., 2021), instruction attended to how pre-service teachers encounter information about immigration, language, and multilingual learners in everyday media environments, including the growing visibility of AI-enabled content. The module was not framed as a methods or techniques sequence; instead, activities were designed to support awareness-building and critical reflection that pre-service teachers could later connect to culturally and linguistically responsive practice as they progressed through their program and gained more classroom experience.

The module included a connected sequence intended to move pre-service teachers from analysis toward articulating classroom-facing responses. First, assigned readings foregrounded media representations, platform dynamics, and generative AI as contemporary factors shaping public narratives and educator perceptions related

to multilingual learners. Second, a structured class discussion and activity (CDA) asked pre-service teachers to analyze a shared set of media examples and respond to a common set of guiding questions. The CDA took place during a single in-class session in which Author 1 joined as a guest speaker and facilitated the activity focused on media, credibility, and AI-enabled content. Outside of that visit, instruction proceeded through the regular in-person course format led by the course instructor (Author 2), with Canvas used for routine course communication and for collecting written work.

The CDA was implemented as a question-guided activity so that all participants engaged comparable analytic moves, rather than an open-ended discussion that could vary substantially by group. Pre-service teachers worked with instructor-curated texts (e.g., headlines, short excerpts, and social-media-style posts) selected to foreground framing choices, language cues, and omissions. Guided prompts asked participants to (a) identify how multilingual learners and immigrant communities were positioned, (b) consider credibility and provenance in a platform-mediated environment, and (c) discuss how such narratives could shape teacher expectations and classroom decision-making.

### Researcher Positionality and Roles

We attended to researcher positionality throughout the study, recognizing that our professional backgrounds and commitments informed both the design of the focal module and our interpretation of participants' coursework artifacts. The three authors brought complementary expertise in media studies and journalism, multilingual and multicultural teacher preparation, and multilingual/cultural and international education. These orientations shaped how we framed the problem of media- and AI-mediated perceptions and what we treated as salient in participants' responses.

Author 1 is a doctoral student in education (with training in educational leadership and scholarly interests in multicultural/multilingual education) and brought prior academic and professional experience in journalism and communication. This background informed the selection and structuring of media examples and the design of prompts intended to elicit candidates' analysis of framing, credibility, and implications for teaching multilingual learners. Author 1 served as the course teaching assistant during the semester of data collection and supported instruction during the module; course evaluation and grading decisions were conducted by the course instructor (Author 2).

Author 2 was the course instructor and designed the overall ESOL Foundations course. Her scholarship and professional expertise center on multilingual education and multicultural teacher preparation for working with multilingual learners. Although the course includes a module on teacher attitudes and sociocultural influences on instructional decision-making, the specific emphasis on media environments and AI-enabled content in the focal module reflected the research team's shared professional dispositions toward culturally responsive teaching and toward examining the sociocultural factors that shape pre-service teachers' beliefs about multilingual learners beyond language-learning processes alone.

Author 3 was a full professor with research expertise in multicultural education and scholarship spanning multilingual/cultural and international education, and had taught this ESOL Foundations course multiple times in prior semesters. Author 3 participated in the study to broaden interpretive perspectives during analysis and to support analytic rigor by critically interrogating interpretations and alternative readings of the data.

Because our study did not aim to evaluate participants' instructional competence, we treated coursework artifacts as evidence of candidates' sense-making and of the instructional moves they could articulate within the constraints of an undergraduate foundations course. We also recognized that our equity-oriented commitments could shape interpretation. To address this risk, we maintained reflexive analytic memos throughout coding and theme development, explicitly noting where our expectations might be influencing interpretation and actively attending to complexity, ambiguity, and disconfirming evidence in participants' responses (Grbich, 2013). In practice, our positionality functioned both as a potential source of interpretive bias and as a form of analytic sensitivity, helping us notice patterns in how candidates grappled with credibility, framing, and the challenges of translating awareness into classroom-facing practices.

### Participants

This study received approval from the authors' university Institutional Review Board (IRB) prior to data analysis (#2020-10). Participants were 38 pre-service teachers enrolled in an upper-level ESOL Foundations course during Spring 2024. Because the data originated in required coursework, students were invited to participate only after the semester concluded and final grades had been submitted, in order to reduce any perception of coercion. Participation was voluntary, declining had no academic consequences, and students were informed that their decision would not affect their course standing or relationship with the instructional team.

Students who agreed to participate provided informed consent for the research team to use de-identified versions of their course artifacts. All data were de-identified prior to analysis, and any potentially identifying details (e.g., names of people or schools referenced in internship contexts) were removed or masked to protect confidentiality.

The cohort included 37 women and 1 man. In terms of language background, 28 participants self-identified as monolingual English speakers and 10 as bilingual. Participants' majors were Elementary Education ( $n = 20$ ), Child and Youth Studies ( $n = 16$ ), and Special Education ( $n = 2$ ). These demographic characteristics are reported for descriptive context only; the study was not designed to test or infer demographic or programmatic differences in themes, and subgroup comparisons are therefore not treated as analytic claims.

### Data Collection and Analysis

Data were collected from two required coursework artifacts completed during the course's culminating module on teacher attitudes. These artifacts aligned with the study's two research questions: (RQ1) how pre-service teachers perceived the role of media and AI in shaping their views of teaching multilingual learners, and (RQ2) how they articulated classroom-facing responses informed by critical media and AI literacy. The first artifact was a Reading Reflection Paper (RRP) in which pre-service teachers engaged assigned readings related to media representations, platform dynamics, AI-generated content, and multilingual-learner education. The second artifact was a Class Discussion and Activity (CDA), completed in writing, in which pre-service teachers analyzed a shared set of media examples and responded to common prompts focused on teacher attitudes, credibility evaluation, and implications for teaching multilingual learners. Although the course also included other assignments across the semester, the analytic corpus for this study was limited to the RRP and CDA artifacts produced within the teacher-attitudes module.

Because both data sources were coursework-based, we treated them as complementary windows into candidates' sense-making rather than as assessments of teaching competence. We assembled a small corpus with two distinct artifact types that served different purposes within the module. The RRP captured reading-based interpretation and conceptual connections, while the CDA captured participants' responses to shared stimuli and a common set of analytic questions. Using two artifact types allowed us to compare whether interpretive patterns were consistent across contexts and task demands, supporting a limited form of triangulation across documents (Denzin, 1989). In the Findings, excerpts are labeled by artifact type (RRP or CDA) to clarify the evidentiary basis for each theme.

The CDA was implemented as a structured, question-guided activity rather than an open-ended discussion. Pre-service teachers examined instructor-curated media texts related to immigration, schooling, and public discourse, including an AI-generated image used specifically to prompt verification and provenance reasoning. They responded to prompts that asked them to identify framing choices and omissions, evaluate credibility (including cues and limits of "checking the source" in AI-mediated contexts), and describe potential implications for teacher expectations of multilingual learners and families, including classroom-facing responses they might use in the future. CDA responses were completed on an in-class worksheet and collected for the study only after consent; artifacts were then exported and de-identified prior to analysis.

Analysis followed an iterative qualitative coding process focused on how pre-service teachers framed media, AI, and multilingual learners across both artifacts (Grbich, 2013). The research team first conducted repeated readings of all RRP and CDA responses, writing analytic memos to document recurring patterns, tensions, and noteworthy exceptions. We then generated inductive codes closely anchored in participants' wording and consolidated them into a shared codebook that included definitions, inclusion and exclusion criteria, and exemplar excerpts. As coding progressed, we used constant comparison across cases and across artifact types to refine code definitions and cluster related codes into higher-order categories (e.g., perceived framing mechanisms, credibility and verification reasoning, perceived risks of AI-enabled misinformation, and articulated classroom-facing responses). Themes were developed through memoing and team discussion, and we tested candidate themes against disconfirming excerpts before finalizing theme boundaries (Grbich, 2013).

### Trustworthiness and Analytic Consistency

To enhance credibility and trustworthiness, initially, the three authors independently coded the data and, later, compared coding decisions (Denzin, 1989). These checks were used primarily to confirm shared understandings of the codes and to fine-tune definitions, rather than to address frequent or substantial disagreement. Where interpretations diverged or an excerpt did not fit existing definitions, we treated those moments as prompts to clarify the codebook and, when appropriate, adjust category boundaries. Updated definitions were then applied to previously coded segments to support internal consistency.



We documented codebook revisions, memo-writing, and theme-development decisions in an audit trail. We also searched actively for divergent or counter-pattern excerpts so that themes did not overstate agreement across participants. One example shows how excerpts moved through our analytic process. The statement, “Someone without strong media literacy skills will be swayed by mainstream media, which affects how we teach these students” (Student-7, CDA), was first coded with several descriptive labels (e.g., media influence on teacher thinking, instructional implications). During later rounds of synthesis, we compared this excerpt with similar CDA responses and grouped the codes into a broader category capturing perceived pathways through which media shapes expectations about multilingual learners. That category then contributed to Theme 1. In other words, we sought to preserve analytic transparency by tracing how specific excerpts informed codes, how codes were consolidated into categories, and how categories were used to develop themes.

## FINDINGS

Analysis of the RRP and CDA artifacts yielded five themes. The themes describe how pre-service teachers interpreted media and AI as part of the broader context shaping teacher attitudes toward multilingual learners, and what kinds of classroom-facing responses they could articulate within the constraints of an undergraduate foundations course. The themes are presented below with illustrative excerpts from participants’ written work.

### Theme 1: Media as a “Curriculum” for Bias

Theme 1 captures how participants described media as an unofficial “curriculum” that shapes perceptions of multilingual learners and immigrant communities. Participants repeatedly emphasized that they encounter these narratives long before they have full responsibility for their own classrooms, and they expressed concern that repeated exposure can influence expectations if it is not examined critically.

Several participants described a pathway in which uncritical media consumption becomes a source of assumptions that can later appear in professional judgment. Student-1, for example, wrote: “Teachers who lack media literacy skills can indirectly harm their students, especially if teachers believe the fake representation of immigrant students and families” (Student-1, RRP). This excerpt does not establish causality, but it clearly indicates that the participant perceived media representations as consequential for how teachers interpret multilingual learners and their families.

Student-7 named the specific content of these representations and connected it explicitly to pedagogy, “News stories flood the media with coverage of illegal immigration and the association of immigrants with drugs and terrorism. Someone without strong media literacy skills will be swayed by mainstream media, which affects how we teach these students” (Student-7, CDA).

Rather than treating bias as only an abstract concern, Student-7 tied framing to instruction. The phrase “how we teach these students” signals that media-driven narratives were understood as capable of shaping classroom decisions, including expectations for students’ ability, belonging, and behavior, as well as the instructional stance a teacher adopts.

Other participants described the same influence pathway in a more self-reflective register, emphasizing how easily impressions can form even when teachers intend to be fair. Student-15 wrote: “I could automatically make immediate judgments... because of what I see in the media... I would never treat a student any differently... but I could still be guilty of making biased inferences” (Student-15, CDA). This excerpt suggests that participants saw media influence as subtle and internal, operating through quick interpretation rather than overt prejudice. Across responses, participants pointed to mechanisms such as charged language (e.g., “illegal”), selective visibility (highlighting extreme cases while obscuring ordinary multilingual student experiences), and emotional amplification (fear- and outrage-oriented narratives).

Participants described CML as useful in two related ways for their future teaching. First, they framed it as a protective lens that helps teachers notice when representations are incomplete or stereotypical before those representations harden into expectations about multilingual learners and their families. Second, they treated it as a generative resource for instruction, shaping choices about what texts enter the classroom and how those texts are discussed. Student-19, for example, wrote that “Teachers with media literacy skills can select what media is shared... fostering diversity and accuracy. This creates a more equitable learning environment” (Student-19, RRP). Viewed this way, CML was not only a way to critique media “out there,” but also a practical orientation that guides everyday instructional decisions and classroom norms.

### Theme 2: Is This the Real Life or AI?

Theme 2 captures participants’ uncertainty about credibility judgments in an environment where AI-generated visuals, deepfakes, and algorithmically circulated content make authenticity harder to determine. Whereas Theme 1 focused on how narratives are framed, this theme centers on the status of the media objects

themselves and on participants' perception that familiar "common sense" verification strategies no longer feel dependable. One participant referenced the class verification prompt and emphasized how visual realism can override skepticism: "Media literacy would have been helpful when looking at images on social media, like the picture of Donald Trump getting arrested that [the guest teacher] showed in class. It looked so real that anyone could believe it" (Student-4, CDA).

Student-4 framed the issue as a practical skills gap rather than an individual failure. The phrase "looked so real" suggests that quick visual appraisal, a strategy many people rely on in everyday scrolling, was experienced as inadequate when AI-generated images can mimic photographic cues.

Other participants described a broader sense of verification instability, especially when content spreads quickly and becomes entangled with high-salience public narratives. Student-8, for example, wrote: "Media literacy would have been helpful during COVID. It was ha...was true or fake, especially when things became very political" (Student-8, RRP).

Although Student-8 did not explicitly name generative AI, the excerpt reinforces the same underlying concern that participants raised in relation to AI: once credibility becomes difficult to assess in fast-moving, emotionally charged information contexts, individuals may feel less confident about distinguishing fact from fabrication. Participants frequently linked this uncertainty to the realities of social media circulation, where content is encountered out of context and reposted without reliable provenance cues.

A related concern appeared in participants' descriptions of how misinformation can shape educator thinking before it is challenged. Student-20 noted: "One consequence of teachers lacking media lite...approach to teaching these students could be negatively impacted" (Student-20, RRP).

Across these accounts, participants converged on three perceived vulnerabilities: (a) the realism of AI-enabled visuals and the resulting difficulty of "seeing" manipulation, (b) the challenge of tracing content back to a credible origin once it circulates through platforms, and (c) the speed at which emotionally charged content spreads before careful verification occurs. Participants treated these dynamics as consequential for teacher expectations because distorted or fabricated content about immigrant and multilingual communities can be encountered repeatedly and then folded into educators' implicit assumptions.

In short, participants described generative AI as intensifying an already difficult credibility environment. Their concern was not that verification no longer matters, but that verification feels more uncertain when realism and circulation can outpace the strategies they currently rely on.

### **Theme 3: "Computer Classes Aren't Critical Thinking"**

Theme 3 reflects participants' perception that their prior schooling emphasized basic technology use while giving limited attention to media-literacy reasoning. Participants repeatedly distinguished between knowing how to operate devices or software and knowing how to evaluate the information those technologies deliver, particularly in high-volume, high-stakes information environments.

One participant described this gap directly: "I had never heard the term media literacy until our last class. We had computer classes but never learned to critically evaluate information or how it shapes perceptions" (Student-17, RRP). The contrast between "computer classes" and "critically evaluate information" suggests that participants experienced earlier instruction as primarily operational. The second part of the excerpt, "how it shapes perceptions," indicates that participants were not only concerned with accuracy, but also with how media influences interpretation and judgment.

Another participant situated this perceived gap in a recent public crisis: "Media literacy would have been helpful during COVID. It was hard to tell what was true or fake, especially when things became very political" (Student-8, RRP). Student-8's reflection reinforces the idea that technical proficiency alone does not prepare learners for credibility evaluation when information is contested, politicized, and rapidly circulated.

A third participant connected this gap to the risks it poses for teachers' judgments and instructional approaches when misinformation circulates about immigrant communities:

"One consequence of teachers lacking media literacy skills when teaching immigrant students is that they may believe and spread fake news... If a teacher is easily influenced by biased or misleading media about immigrants, their approach to teaching these students could be negatively impacted" (Student-20, RRP).

Across participants' writing, these experiences were linked to a sense of vulnerability in politically charged contexts and to an expressed desire for more explicit preparation in classroom-relevant instructional practices (e.g., how to guide students through credibility checks, how to facilitate discussion about bias and framing, and how to create classroom norms for evaluating information). Participants framed this as a preparation gap rather than as a personal deficit, describing it as something their earlier schooling did not emphasize.

This theme helps explain why several participants described media and AI environments as difficult to navigate. They associated their uncertainty with an educational history that taught technology use without sustained attention to critical evaluation and interpretive work. In their view, responding to this gap requires

more than “tech integration”; it requires deliberate instructional practices that develop critical media and AI literacy as part of preparing teachers to support multilingual learners equitably.

#### Theme 4: From Diagnosis to Design

Theme 4 describes how participants moved from naming concerns about media bias and credibility to proposing classroom practices they could imagine using with K–12 students. After emphasizing the influence of media narratives (Theme 1) and the uncertainty created by AI-enabled realism (Theme 2), participants used the RRP and CDA tasks to outline practical ways teachers might help students evaluate information, talk about bias, and establish shared expectations for credibility work in class.

Participants’ proposals often emphasized simple, repeatable classroom practices rather than elaborate, one-time lessons. One participant suggested making credibility evaluation more engaging by framing it as an activity with a game-like structure:

*We should teach media literacy in a lesson. We could make a game out of it where students have to read news articles and pick which one is true. We can let them know that it’s quite important to find out what is true. (Student-26, CDA)*

*Rather than presenting verification as a purely technical task, Student-26 framed it as a classroom norm that could be practiced collaboratively. The proposal also signals that “finding out what is true” was understood as a teachable process, not merely an individual skill students either have or do not have.*

Other participants moved beyond a true/false emphasis and described instructional practices focused on comparing perspectives and identifying bias. Student-3 proposed an activity structured around multiple accounts of the same event:

*One activity can consist of students being given three articles about the same event from different perspectives. Students would read these articles and then reflect in small groups about the information presented (how it overlapped or did not connect) and critically examine where the biases may be in each piece. (Student-3, CDA)*

*This excerpt foregrounds comparison, discussion, and interpretation. It also shows participants translating CML language into concrete classroom moves: selecting contrasting texts, structuring small-group talk, and prompting students to name how perspective and omission shape meaning.*

A third set of responses broadened the focus from individual classroom practice to professional responsibility. Student-38 wrote, “Integrating media literacy into educator standards would spread the responsibility of teaching students to be critically informed among all educators.” (Student-38, RRP).

Here, the emphasis shifts from a single teacher’s choices to the institutional positioning of media literacy as part of the profession’s shared expectations. Participants who made arguments like this framed critical media and AI literacy as a dimension of ethical practice rather than as an optional enrichment topic.

Across Theme 4, participants’ proposals clustered around three recurring instructional priorities: making credibility evaluation visible and discussable, creating structured opportunities to compare perspectives, and treating media/AI literacy as part of what teachers do to support equitable learning conditions for multilingual learners and their peers.

#### Theme 5: Media, AI, and Equity-Oriented Teaching Commitments

Theme 5 captures how participants connected media and AI concerns to equity in multilingual-learner education. Across artifacts, participants suggested that media narratives and misinformation can shape teachers’ expectations, and that these expectations may influence instructional decisions in ways that matter for multilingual learners and immigrant-background students.

Several participants described a sequence in which media exposure contributes to assumptions that then enter classroom interpretation. Student-20 wrote:

*One consequence of teachers lacking media literacy skills when teaching immigrant students is that they may believe and spread fake news, which can directly affect the student’s success. If a teacher is easily influenced by biased or misleading media about immigrants, their approach to teaching these students could be negatively impacted. (Student-20, RRP)*

Student-20 framed media literacy as relevant to teachers’ professional judgment and to how teachers “approach” multilingual learners. The emphasis is not on a single media text causing a specific action, but on the possibility that repeated exposure to misinformation can shape instructional stance if it is not examined.

Student-15 offered a more internal account of how this process might operate even when a teacher intends to be fair:

*Media literacy is important because if I had a student from a certain country or who practices a certain religion, I could automatically make immediate judgments about them because of what I see in the media. ... I would never treat a student any differently because of these things, but I could still be guilty of making biased inferences about them. (Student-15, CDA)*

This excerpt distinguishes between deliberate discriminatory action and quick interpretation. Student-15 described “immediate judgments” and “biased inferences” as a risk that can emerge from routine media exposure, even when the teacher’s stated intention is equitable treatment.

In contrast, participants described critical media literacy as a set of teacher practices that could support more equitable learning conditions. Student-19 wrote:

*Media literacy helps teachers understand and appreciate diverse perspectives, backgrounds, and cultures... Teachers with media literacy skills can select what media is shared in the classroom, fostering diversity and accuracy. This creates a more equitable learning environment. (Student-19, RRP)*

Student-19 emphasized teachers’ role in shaping classroom inputs and discussion norms, particularly through decisions about what texts and examples are introduced and how they are discussed. Across Theme 5, participants framed critical media and AI literacy less as an abstract topic and more as part of the professional judgment teachers use when interpreting students, selecting materials, and guiding classroom talk in linguistically diverse settings.

## DISCUSSION

This study examined how pre-service teachers (a) described the role of media and AI in shaping their views of teaching multilingual learners, and (b) articulated instructional strategies—within coursework artifacts—that reflect emerging critical media and AI literacy. Across the two course-based artifact types (RRP and CDA), the five themes reflect a movement from recognizing media- and AI-related influences on perception toward proposing classroom-facing strategies intended to support multilingual learners in more equitable learning environments.

Across artifacts, participants positioned media and AI as shaping how teachers come to interpret multilingual learners and immigrant-background communities, especially through framing, repeated exposure, and quick inference. Themes 1 and 5 show that participants often described this influence as subtle and cumulative: repeated deficit-oriented narratives can shape expectations and predispose teachers to interpret students and families through assumptions, including when teachers see themselves as well-intentioned. Theme 2 adds that AI-enabled realism and rapid platform circulation intensified these concerns by making credibility harder to judge in everyday media use. Theme 3 further contextualizes these perceptions by highlighting a preparation gap that participants located primarily in prior schooling: “computer classes” and technology instruction were described as emphasizing operational proficiency while offering limited guidance on credibility evaluation, bias identification, and reflection on how media shapes interpretation. Finally, Theme 4 suggests that when participants were given structured prompts and models for critical media and AI literacy in coursework, they could begin to propose feasible classroom strategies—such as comparing multiple accounts of the same event, attending to provenance and source cues, and using guided discussion structures to name perspective and omission. These proposals should be read as early, course-elicited articulations of practice rather than as evidence of fully developed instructional competence.

Interpreted through CML and CAIL, the findings indicate that participants viewed information environments as consequential for equitable teaching with multilingual learners, while also demonstrating that teacher preparation can create entry points for responding to those environments in pedagogically grounded ways. Participants’ emphasis on engagement-driven feeds, emotionally charged content, and rapid circulation aligns with scholarship on platform governance and the attention economy, in which visibility is shaped by socio-technical systems optimized for engagement rather than for contextualized understanding (Gillespie, 2018; Noble, 2018; Tufekci, 2015). When participants described sensationalized narratives and emotionally amplified frames, their concerns also resonated with longer-standing critiques of the *spectacle* and of moral panic dynamics in public discourse (Cohen, 1972; Debord, 1967; Hall et al., 1978). In this sense, participants were not only commenting on misinformation as isolated “bad information,” but on how contemporary media systems can make particular interpretations feel more available, more plausible, and more difficult to dislodge.

In this light, CML can be understood as more than a discrete set of evaluation skills. It aligns with Freirean critical pedagogy as a praxis-oriented approach that links reflection to action in classroom life and supports learners in reading the word and the world (Freire, 2000). The strategies participants proposed in Theme 4—games that make verification discussable, text sets that support comparison, and structured prompts for naming bias—can be read as initial efforts to translate critical awareness into classroom practice in ways that are developmentally and instructionally plausible for pre-service teachers at this stage of preparation.

## Significance of the Study

This study contributes to scholarship calling for stronger integration of critical media literacy (CML) and CAIL in teacher preparation. CML has been widely framed as an important dimension of education for

democratic participation and equity-oriented teaching (Kellner & Share, 2007). More recent work argues that generative AI intensifies the importance of these competencies because it accelerates the production and circulation of plausible misinformation and complicates everyday credibility judgments in digital environments (Chiu et al., 2024; Lucas et al., 2024; Sperling et al., 2024). Within this broader conversation, our contribution is empirical and context-specific: we examine how pre-service teachers, in an ESOL Foundations context, articulated the perceived relevance of media- and AI-mediated information environments to teaching multilingual learners, and how they described possible instructional responses that could be developed later through additional coursework and field experience.

At the postsecondary level, media and news literacy efforts have often been institutionalized through journalism, mass communication, and media studies settings (Meehan et al., 2015; Stony Brook University, 2009). At the same time, prior scholarship notes that teacher education has been slower to incorporate media literacy in systematic ways, particularly in undergraduate preparation programs (Meehan et al., 2015). This matters because teacher candidates are simultaneously developing professional identities and forming expectations about students and families, and they do so within media ecosystems shaped by platform dynamics and rapidly evolving AI tools. In multilingual school contexts, where public narratives about language, immigration, and belonging circulate widely, candidates' media interpretations can become part of the background knowledge they carry into classroom decision-making (Osei-Tutu & Osei-Tutu, 2023; Trope et al., 2021). Our findings therefore add to the rationale for treating CML and CAIL as professionally relevant competencies in teacher education, not as content reserved for journalism or communication pathways.

From a program and policy standpoint, this work aligns with emerging calls to strengthen teachers' digital competence in ways that go beyond operational "tech integration" to include critical evaluation of information, attention to platform dynamics, and informed engagement with AI-mediated content (Chiu et al., 2024; Ciampa et al., 2023; Lucas et al., 2024). Rather than positioning CML and CAIL as stand-alone additions, programs and accrediting bodies might consider how these capacities can be embedded across teacher-preparation coursework, especially in courses that explicitly examine teacher attitudes, sociocultural dimensions of schooling, and equity-oriented practice with multilingual learners. In this framing, the significance of the study is not that it demonstrates guaranteed downstream instructional impact, but that it clarifies why these literacies are increasingly implicated in equitable and culturally responsive teaching, and it documents how pre-service teachers themselves described the need for more explicit preparation in this area.

### Recommendations for Future Research

This exploratory instrumental case study investigated how pre-service teachers in an upper-level ESOL Foundations course described the role of media and AI in shaping their views of teaching multilingual learners and how, within coursework artifacts, they articulated possible classroom-facing instructional strategies aligned with literacy in media and AI. The findings point to several directions for future research rather than to prescriptive program reforms.

First, research should examine whether similar patterns appear across other teacher-preparation contexts. Studies that replicate this design across multiple Colleges of Education and across different geographic and policy environments could clarify which themes are context-specific and which appear more broadly across pre-service teacher populations (Stake, 2005). Second, future studies should incorporate additional data sources—such as interviews, focus groups, and follow-up prompts—so researchers can probe ambiguities, ask why participants interpreted media examples in particular ways, and better understand how candidates reason through credibility judgments and equity-related implications. Third, longitudinal designs that follow participants from coursework into clinical placements and early-career teaching would help determine whether and under what conditions candidates' stated intentions and proposed strategies are sustained, adapted, or set aside once they face classroom constraints, curricular mandates, and time pressures. Finally, research should extend beyond ESOL-specific coursework. Because media- and AI-mediated narratives can shape perceptions of students across domains, studies situated in other preparation courses (e.g., foundations, social studies methods, literacy methods, classroom management) could examine how CAIL and CML intersects with broader teacher learning and culturally responsive teaching commitments.

### Limitations

Several limitations should be considered when interpreting these findings. First, the study examined a single course section at one university in Southwest Florida. The purpose of an instrumental case study is not statistical generalization but analytic insight; therefore, the findings should be interpreted as contextually grounded patterns that may be transferable to comparable settings rather than as representative of all pre-service teachers or all ESOL coursework (Stake, 2005).

Second, the dataset was limited to two coursework artifact types (RRP and CDA). We did not conduct interviews, focus groups, or member-checking conversations that would have allowed follow-up questions and deeper exploration of participants' reasoning, including points that were brief, ambiguous, or potentially contradictory in written responses. Relatedly, because the artifacts were produced for a course, participants' writing may reflect assignment expectations and class discourse, which can constrain what is expressed and how it is expressed.

Third, participants were early in their preparation and had limited classroom experience. The ESOL Foundations Foundations course is introductory and is designed primarily to build foundational knowledge about multilingual learners, language acquisition, and sociocultural dimensions of schooling. As a result, participants' responses should not be interpreted as evidence of proficiency in both critical media and AI literacies, or as demonstrated ability to enact these strategies in K–12 classrooms. The study documents how participants described these issues and what kinds of strategies they could articulate at this stage of learning, not what they can reliably implement in practice.

Fourth, the course was not designed primarily as a media- or AI-focused course. The instructional emphasis on teacher attitudes and sociocultural factors was expanded to include media and AI considerations because of the research team's professional interests and dispositions toward culturally responsive teacher preparation. This focus supported the phenomenon examined in the study, but it also means that the findings reflect what participants produced in response to a particular set of prompts, examples, and course framings.

Finally, because members of the research team served as the course instructor and teaching assistant, there is a possibility of social desirability effects. Even though recruitment occurred after final grades were submitted and participation was voluntary, some participants may have written in ways they believed aligned with course values or instructor expectations. This limitation is particularly relevant when analyzing equity-salient topics and statements of intent. For these reasons, the findings should be read as participants' coursework-based sense-making and proposed instructional strategies, not as definitive indicators of future teaching behavior.

## CONCLUSION

This exploratory instrumental case study investigated how pre-service teachers in one upper-level ESOL Foundations course described the role of media and AI in shaping their views of teaching multilingual learners, and how they articulated possible classroom-facing instructional strategies aligned with CML and CAIL. Across the RRP and CDA artifacts, participants repeatedly framed media narratives as influential in how teachers come to interpret multilingual learners and immigrant-background communities, particularly through framing, selective visibility, and quick inference (Osei-Tutu & Osei-Tutu, 2023; Wright et al., 2023). Participants also emphasized that generative AI complicates credibility judgments because realistic synthetic media can circulate rapidly through platforms and appear convincing in everyday use (Kharvi, 2024; Tiernan et al., 2023). These conclusions should be read as evidence of participants' coursework-based sense-making and proposed strategies within this course context, not as evidence of demonstrated instructional competence or downstream effects on student outcomes.

The findings also help clarify what critical media literacy contributes to teacher preparation in an AI-mediated media environment. CML provides an analytic stance that moves beyond checking accuracy to examining why messages are produced, whose interests are served, and how audiences are positioned (Kellner & Share, 2019; Mihailidis, 2018). Participants' responses aligned with this framing when they described how repeated narratives can shape expectations and influence how teachers interpret students and families. At the same time, participants' concern about "what looks real" in AI-mediated contexts underscores the need to connect CML to emerging work on AI literacy and verification, including attention to provenance, circulation, and the limits of visual "common sense" cues (Chiu et al., 2024; Kharvi, 2024; Tiernan et al., 2023). In this respect, participants' uncertainty did not read as apathy; it reflected a perceived mismatch between the information conditions they navigate and the preparation they felt they had received.

Importantly, the study does not suggest that an ESOL Foundations course should function as a methods course for media literacy. Instead, it documents how a teacher-attitudes module can provide structured opportunities for awareness-building and guided reflection about sociocultural influences on instructional decision-making, including media environments (Freeman et al., 2021). When prompted to apply course concepts, participants were able to propose plausible instructional strategies—such as comparing multiple accounts of the same event, attending to source cues and provenance, and using guided discussion prompts to identify bias and omission—that could be developed further through later methods coursework and field-based teaching experience (McDonald et al., 2013). The broader implication is that teacher education can create clearer entry points for connecting equity-oriented multilingual-learner instruction to the information environments in which teacher expectations are formed and reinforced (Kellner & Share, 2019; Osei-Tutu & Osei-Tutu, 2023).

In this sense, the “dispositions” most visible in participants’ work were not fully formed competencies, but emergent orientations toward practice: a greater willingness to question familiar narratives, to treat credibility as a classroom-relevant issue, and to view media and AI as factors that can shape professional judgment rather than as neutral background conditions (Mihailidis, 2018; Wright et al., 2023). Future research should test how these orientations develop across the teacher-preparation sequence and whether they persist when candidates enter clinical placements and early-career teaching, ideally using interviews and longitudinal designs to examine how teachers adapt critical media and AI literacy strategies within real instructional constraints (Grbich, 2013; Stake, 2005).

## Acknowledgement

The authors would like to express their gratitude to the pre-service teachers who participated in this study and shared their valuable insights. Their contributions were essential to the completion of this research.

## Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

## Ethical Statement

The participants provided their informed consent to participate in this study. All data were anonymized to protect the privacy of the pre-service teachers involved, and the study followed the ethical guidelines for research involving human subjects.

## Competing Interests

The authors declare that there are no competing interests regarding the publication of this paper.

## Author Contributions

All authors have the same contributions in conceptualization, methodology, data collection, formal analysis, writing original draft preparation, review, and editing the final draft.

## REFERENCES

- Ajana, B., Connell, L., & Liddle, J. (2024). “It could have been us”: Media frames and the coverage of Ukrainian, Afghan, and Syrian refugee crises. *SN Social Sciences*, 4, Article 135. <https://doi.org/10.1007/s43545-024-00943-4>
- Almatrafi, O., Johri, A., & Hyuna, L. (2024) A systematic review of AI literacy conceptualization, constructs, and implementation and assessment efforts (2019–2023). *Computers and Education Open*, 6, Article 100173. <https://doi.org/10.1016/j.caeo.2024.100173>
- Ayanwale, M. A., Adelana, O. O., Molefi, A. O., Adeeko, A. A., & Ishola, S. (2024). Examining artificial intelligence literacy among pre-service teachers for future classrooms. *Computers & Education Open*, 6, Article 100179. <https://doi.org/10.1016/j.caeo.2024.100179>
- Boudreau, E. (2020, January 21). *Learning in the age of algorithms*. Harvard Graduate School of Education: Usable Knowledge. <https://www.gse.harvard.edu/ideas/usable-knowledge/20/01/learning-age-algorithms>
- Chiu, T. K. F., Ahmad, Z., Ismailov, M., & Sanusi, I. T. (2024). Artificial intelligence literacy for K-12 students: Conceptual development and educational implications. *Computers & Education: Artificial Intelligence*, 5, Article 100147. <https://doi.org/10.1016/j.caeai.2023.100147>
- Ciampa, K., Wolfe, Z. M., & Bronstein, B. (2023). ChatGPT in education: Transforming digital literacy practices. *Journal of Adolescent & Adult Literacy*, 67(3), 186–195. <https://doi.org/10.1002/jaal.1310>
- Corsi, G., de Rosa, A. S., Zollo, F., & Del Vicario, M. (2024). Evaluating Twitter’s algorithmic amplification: Evidence from political and news content. *EPJ Data Science*, 13(1), Article 18. <https://doi.org/10.1140/epjds/s13688-024-00456-3>
- Denzin, N. K. (1989). *The research act: A theoretical introduction to sociological methods* (3rd ed.). Prentice-Hall.
- Florida Department of Education. (n.d.). Student Achievement Through Language Acquisition (SALA). <https://www.fldoe.org/academics/eng-language-learners/>
- Florida Department of Education. (2024, August 30). Spring 2024 ACCESS for ELLs state results [Report]. [https://www.fldoe.org/core/fileparse.php/5663/urlt/Spring-2024-ACCESS-for-ELLs-State-Results\\_8.30.2428.pdf](https://www.fldoe.org/core/fileparse.php/5663/urlt/Spring-2024-ACCESS-for-ELLs-State-Results_8.30.2428.pdf)



- Freeman, D. E., Freeman, Y. S., & Soto, M. (2021). *Between worlds: Second language acquisition in changing times* (4th ed.). Heinemann.
- Freire, P. (2000). *Pedagogy of the oppressed* (30th anniversary ed.; M. B. Ramos, Trans.). Continuum. (Original work published 1970)
- Grbich, C. (2013). *Qualitative data analysis: An introduction* (2nd ed.). SAGE Publications.
- Guo, S., Swire-Thompson, B., & Hu, X. (2025). Specific media literacy tips improve AI-generated visual misinformation discernment. *Cognitive Research: Principles and Implications*, 10(1), Article 38. <https://doi.org/10.1186/s41235-025-00648-z>
- Karataş, F. I., Tuncer, M., & Taş, Y. (2024). AI and the future of teaching: Preservice teachers' perceptions and readiness. *The International Review of Research in Open and Distributed Learning*, 25(3), 304–325. <https://www.irrodl.org/index.php/irrodl/article/view/7785>
- Kellner, D., & Share, J. (2019). *The critical media literacy guide: Engaging media and transforming education*. Brill Sense.
- Kfoury, C., & Rowe, E. (2024). Curriculum inquiry to strengthen teacher preparation for supporting multilingual learners in rural settings. *The Rural Educator*, 45(4), 49–61. <https://doi.org/10.55533/2643-9662.1528>
- Kharvi, P. L. (2024). Understanding the impact of AI-generated deepfakes on public opinion, political discourse, and personal security in social media. *IEEE Security & Privacy*, 22(4), 115–122. <https://doi.org/10.1109/MSEC.2024.3405963>
- Laru, J., Celik, I., Jokela, I., & Mäkitalo, K. (2025). The antecedents of pre-service teachers' AI literacy: Perceptions about own AI driven applications, attitude towards AI and knowledge in machine learning. *European Journal of Teacher Education*, 48(5), 964–986. <https://doi.org/10.1080/02619768.2025.2535623>
- L'Enfant, A. (2024). Teacher educators' perspectives on integrating generative AI in pre-service teacher training. *Journal of Technology and Teacher Education*, 32(3), 341–364.
- Lucas, M., Zhang, Y., Bem-haja, P., & Vicente, P. N. (2024). The interplay between teachers' trust in artificial intelligence and digital competence. *Education and Information Technologies*, 29, 22991–23010. <https://doi.org/10.1007/s10639-024-12772-2>
- MacDowell, P., Moskalyk, K., Korchinski, K., & Morrison, D. (2024). Preparing educators to teach and create with generative artificial intelligence. *Canadian Journal of Learning and Technology*, 50(4), 1–23. <https://files.eric.ed.gov/fulltext/EJ1453019.pdf>
- Marlatt, R. (2020). Encounter and counter: Critical media literacy in teacher education. *Journal of Media Literacy Education*, 12(2), 93–99. <https://doi.org/10.23860/JMLE-2020-12-2-8>
- McDermott, M., Shelton, N. R., & Mogge, S. (2012). Preservice teachers' perceptions of immigrants and immigration: A workshop grounded in drama, children's literature, and first-person immigrant narratives. *International Journal of Multicultural Education*, 14(2). <https://files.eric.ed.gov/fulltext/EJ1105080.pdf>
- Metzler, H., & Garcia, D. (2024). Social drivers and algorithmic mechanisms on digital media. *Perspectives on Psychological Science*, 19(5), 735–748. <https://doi.org/10.1177/17456916231185057>
- Milli, S., Carroll, M., Wang, Y., Pandey, S., Zhao, S., & Dragan, A. D. (2024, January 3). Engagement, user satisfaction, and the amplification of divisive content on social media. Knight First Amendment Institute at Columbia University. <https://knightcolumbia.org/content/engagement-user-satisfaction-and-the-amplification-of-divisive-content-on-social-media>
- Murray-Everett, N. C., & Harrison, D. L. (2021). Pre-service teachers confronting and examining media bias. *International Journal of Multicultural Education*, 23(1), 1–21. <https://doi.org/10.18251/ijme.v23i1.2231>
- Nash, B. L. (2024). Critical inquiry in (and about) media environments: Examining an asset-based digital literacy curriculum. *Journal of Literacy Research*, 56(1), 133–156. <https://doi.org/10.1177/1086296X241244700>
- Neira, A., Fuentes-Riffo, K., Vine, A., García, F., & Naranjo, G. (2024). Development and validation of a self-perception instrument for critical media literacy in Chilean pre-service teachers. *Frontiers in Education*, 9, Article 1476500. <https://doi.org/10.3389/feduc.2024.1476500>
- Osei-Tutu, A. A. Z., & Osei-Tutu, K. O. A. (2023). International perspectives on media disinformation: Critical media literacy as antiracist pedagogy. *New Directions for Adult and Continuing Education*, 2023(178), 105–117. <https://doi.org/10.1002/ace.20490>
- Parsons, B., & Curry, J. H. (2024). Can ChatGPT pass graduate-level instructional design assignments? Potential implications of artificial intelligence in education and a call to action. *TechTrends*, 68(1), 67–78. <https://doi.org/10.1007/s11528-023-00912-3>
- Rapanta, C., Bhatt, I., Bozkurt, A., Chubb, L. A., Erb, C., Forsler, I., Gravett, K., Koole, M., Lintner, T., Örtengren, A., Petricini, T., Rodgers, B., Webster, J., Xu, X., Falgren Christensen, I.-M., Dohn, N. B., Weilgaard Christensen, L. L., Zeivots, S., & Jandrić, P. (2025). *Critical GenAI literacy: Postdigital configurations*. *Postdigital Science and Education*, 7, 1296–1333. <https://doi.org/10.1007/s42438-025-00573-w>
- Robertson, L., & Hughes, J. M. (2011). Investigating preservice teachers' understandings of critical media literacy. *Language and Literacy*, 13(2), 37–53. <https://doi.org/10.20360/G22S35>



- Saklaki, D., & Gardikiotis, A. (2024). Exploring Greek students' attitudes toward artificial intelligence: Relationships with AI ethics, media, and digital literacy. *Societies*, 14(1), 248. <https://doi.org/10.3390/soc14120248>
- Sanchez-Acedo, A., Carbonell-Alcocer, A., Gertrudix, M., & Rubio-Tamayo, J.-L. (2024). The challenges of media and information literacy in the artificial intelligence ecology: Deepfakes and misinformation. *Communication & Society*, 37(4), 223–239. <https://doi.org/10.15581/003.37.4.223-239>
- Schmitz, M.-L., Consoli, T., Antonietti, C., Cattaneo, A., Gonon, P., & Petko, D. (2024). Digital media literacy in Swiss primary schools: Status quo and influencing factors. *Computers in Human Behavior*, 144, Article 108004. <https://doi.org/10.1016/j.chb.2023.108004>
- Schneider-Strawczynski, S., & Valette, J. (2025). Media coverage of immigration and the polarization of attitudes. *American Economic Journal: Applied Economics*, 17(1), 337–368. <https://doi.org/10.1257/app.20230300>
- Spearing, E. R., Gile, C. I., Fogwill, A. L., Prike, T., Swire-Thompson, B., Lewandowsky, S., & Ecker, U. K. H. (2025). Countering AI-generated misinformation with pre-emptive source discreditation and debunking. *Royal Society Open Science*, 12(6), Article 242148. <https://doi.org/10.1098/rsos.242148>
- Sperling, K., Stenberg, C.-J., McGrath, C., Åkerfeldt, A., Heintz, F., & Stenliden, L. (2024). In search of artificial intelligence (AI) literacy in teacher education: A scoping review. *Computers and Education Open*, 6, Article 100169. <https://doi.org/10.1016/j.caeo.2024.100169>
- Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed., pp. 443–454). SAGE Publications.
- School District of Lee County. (2025). Impact report 2024–2025 [Report]. <https://www.leeschools.net/common/pages/GetFile.ashx?key=fbuODQxJ>
- Tiernan, P., Costello, E., Donlon, E., Parysz, A., & Scriney, M. (2023). Information and media literacy in the age of AI: Options for the future. *Education Sciences*, 13(9), 906. <https://doi.org/10.3390/educsci13090906>
- Trope, A., Johnson, D., & Demetriades, S. (2021). Media, making and movement: Bridging media literacy and racial justice through critical media project. *Journal of Media Literacy Education*, 13(2), 43–54. <https://doi.org/10.23860/JMLE-2021-13-2-4>
- Unan, A. (2025). Media exposure to highly skilled immigrants and attitudes toward immigration. *Political Behavior*, 47, 1133–1168. <https://doi.org/10.1007/s11109-024-09983-1>
- Wright, E. B., Hoffman, A. S., & DeMaio, S. (2023). Disinformation as a threat to democracy: A framework for social studies teachers. *Theory & Research in Social Education*, 51(3), 401–429. <https://doi.org/10.1080/00933104.2023.2228774>
- Zhang, J., & Zhang, Z. (2024). AI in teacher education: Unlocking new dimensions in teaching support, inclusive learning, and digital literacy. *Journal of Computer Assisted Learning*, 40(4), 1871–1885. <https://doi.org/10.1111/jcal.12988>