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EVALUATING TWO-WAY IMMERSION PROGRAMS: A Literature Review of Their Role in Advancing Equity for Emergent Bilingual Learners

Abstract

Background: Emergent Bilingual Learners (EBLs) in U.S. public schools often experience academic inequities rooted in systemic language and cultural marginalization. Two-Way Immersion (TWI) programs are frequently promoted as an equity-centered solution, yet their effectiveness varies based on implementation, access, and stakeholder support.

Purpose: Our literature review examines how U.S.-based TWI programs promote academic equity and biliteracy among K-12 EBLs in U.S. context, with particular attention to long-term outcomes and contextual challenges.

Methodology/Approach: Our review synthesizes findings from 64 peer-reviewed studies, dissertations, and book chapters published between 2018 and 2025 that examine TWI programs in U.S. K-12 educational settings. We thematically organized the literature into three domains: instructional practices, community engagement, and post-secondary outcomes. The analysis is grounded in Culturally Sustaining Pedagogy and equity-driven bilingual education theory.

Findings/Conclusions: We found that U.S.-based TWI programs show promise in enhancing biliteracy, academic achievement, and identity development for EBLs when supported by balanced language practices, community involvement, and inclusive leadership. However, disparities in implementation, resource access, and stakeholder alignment limit consistent success across contexts.

Implications: Our findings suggest that TWI programs in the United States must be designed with an explicit commitment to linguistic equity, digital inclusion, and culturally responsive pedagogy. Sustaining long-term impacts requires alignment between classroom practices, family engagement, and structural supports across the U.S. K-12 policy and accountability landscape, as well as, continually influencing P-20 educational continuum.

Keywords

Educational Equity, Dual Language Immersion, Emergent Bilingual Learners, Culturally Sustaining Pedagogy

Educational inequality remains a deeply entrenched issue in the United States, particularly for students from linguistically and culturally diverse backgrounds. Among the most affected are Emergent Bilingual Learners (EBLs), students who bring rich multilingual resources yet often encounter systemic barriers in schools predominantly designed for monolingual, English-speaking populations. Rather than framing these disparities solely as “achievement gaps,” Ladson-Billings (2007) conceptualized them as part of a broader “education debt” which is a historical accumulation of social, economic, and political neglect that continues to disadvantage marginalized student communities.

This educational debt is particularly visible in the outcomes of EBLs, who frequently face compounded challenges related to language learning, cultural

misrecognition, and access to inclusive pedagogy (Hung et al., 2020; Kieffer et al., 2009). For instance, federal data and prior scholarship report a persistent 20-percentage point gap in high school graduation rates between EBLs and their English-proficient peers (Office of English Language Acquisition, 2023). These disparities are not simply linguistic; they reflect systemic misalignments between educational structures and the diverse identities of EBLs in the United States.

In response, Two-Way Immersion (TWI) programs have emerged as a promising educational model that promotes dual-language proficiency while fostering cross-cultural learning and academic achievement. Although TWI programs operate internationally, this review focuses exclusively on U.S.-based TWI programs because they are uniquely shaped and influenced by U.S. federal and

state language policies, accountability systems, immigration dynamics, and histories of racialized language preferences. These contextual and historical factors attribute to how TWI programs are designed, implemented, and evaluated, making findings from other national context may not directly transferrable in some extents.

These programs integrate students from different language backgrounds in the same classroom to cultivate bilingualism, biliteracy, and intercultural competence (Ruiz-Funes, 2020). Unlike transitional bilingual education models that prioritize English acquisition, TWI approaches value linguistic diversity as a resource for all learners.

Our literature review critically examines recent research on the perceived benefits and implementation experiences of TWI programs in promoting academic equity. It also explores how specific instructional practices and programmatic designs contribute to more inclusive learning environments. Guided by the following research questions, the review synthesizes key themes and insights across empirical and theoretical studies published within the past decade:

1. How have recent studies (2018–2025) examined the role of Two-Way Immersion (TWI) programs in advancing equity for emergent bilingual learners?
2. What program features and pedagogical orientations are identified in recent research as advancing equity and sustaining bilingualism in TWI programs?

LITERATURE REVIEW: PRE-2018

TWI and related bilingual education models have been studied extensively in the United States, as they originated from Canada in 1965 (Genesee, 1985), with early syntheses demonstrating both promise and persistent inequities. Genesee's (1985) landmark review of immersion programs concluded that students in U.S. immersion contexts achieved high levels of second language proficiency without long-term detriment to their English or academic development, though he cautioned that outcomes were shaped by different program quality and contextual variation. Building on this foundation, Thomas et al. (1993) and Thomas and Collier's longitudinal analyses (1997, 2000, 2002) showed that dual language programs consistently outperformed English-only or transitional bilingual

education models in supporting emergent bilingual learners' long-term academic achievement, though achievement gaps persisted for students from low-income and marginalized backgrounds.

Another subsequent historical overview (Y. K. Kim et al., 2015) traced the evolution of bilingual policy in the U.S., documenting how TWI gained traction amid restrictive "English-only" legislation while still facing challenges of uneven implementation and contested goals. Their synthesis confirmed that TWI programs generally foster stronger L1 and L2 outcomes than alternative models, but also emphasized limitations in program reach and sustainability.

By the early 2010s, empirical studies reinforced these patterns. Umansky and Reardon (2014) found that Latino students in dual immersion were reclassified to English proficiency more slowly in the elementary grades but surpassed peers in long-term English proficiency and academic benchmarks. Reardon (2016) further highlighted these structural barriers, showing that racial and socioeconomic segregation remained key drivers of academic inequality, constraining the potential benefits of bilingual programs. Y. K. Kim et al.'s (2015) historical review also emphasized that while TWI holds promise, its equity impact must be understood in light of broader policy environments and demographic shifts.

At the classroom level, scholars have demonstrated that teacher language practices and translanguaging approaches shaped student participation and equity in TWI classrooms (J. Li et al., 2016; Kleyn & García, 2019). Within the specific race groups, L.M. López and Tápanes (2011) reported that Latino children in TWI settings benefited academically and socially but continued to encounter structural inequities. There are also tools and different technological approaches to facilitate the TWI classrooms, Andrei (2017) showed that technology integration could expand access for English learners, while Polat and Cepik (2016) assessed the Sheltered Instruction Observation Protocol as a tool for more equitable pedagogy, and this mode of using visual, audio techniques within the classroom to facilitate emergent bilingual instruction are also further discusses and analyzed in the literature after 2018, and it often time referred as "multimodality".

Over time, critical perspectives increasingly





questioned whether TWI was meeting its stated equity goals. Cervantes-Soon et al. (2017) argued that programs often reproduced racial and class hierarchies, urging the addition of “critical consciousness” as another important goal of the TWI program, other than bilingualism and literacy. This critique resonated with Paris’s (2012) call for culturally sustaining pedagogy, which re-framed bilingual education as a practice of maintaining and expanding students’ cultural and linguistic repertoires rather than assimilating them. Complementary work by Dearing et al. (2016) showed that community and school-based supports could mitigate opportunity gaps for immigrant children, underscoring the role of broader ecological factors in shaping outcomes.

Taken together, the pre-2018 literature established three key insights: (a) TWI programs generally promote biliteracy and academic achievement more effectively than English-only models, (b) structural inequities in poverty, segregation, and accountability systems constrain these benefits, and (c) a critical lens on equity, pedagogy, and sociopolitical context is necessary to assess program effectiveness.

While these pre-2018 studies advanced the field by documenting both the potential and limitations of TWI, important gaps remained. Much of the earlier literature relied on small-scale case studies, focused primarily on Spanish–English programs, or emphasized program outcomes without sustained attention to questions of equity, critical pedagogy, or multiliteracies. Moreover, the sociopolitical landscape has shifted in the past decade with the rise of the Seal of Biliteracy, demographic diversification of emergent bilingual populations, and the spread of translanguaging scholarship. For these reasons, we believed that a systematic literature review of research published between 2018 and 2025 is warranted. Our updated synthesis builds on the pre-2018 foundation but centers more recent insights into equity, culturally sustaining pedagogy, and program design, thereby offering a novel contribution to understanding how TWI programs can narrow opportunity gaps for emergent bilingual learners today.

THEORETICAL FRAMEWORK: CULTURALLY SUSTAINING PEDAGOGY (CSP)

Our literature review adopts a theoretical framework grounded in Culturally Sustaining Pedagogy (CSP)

as articulated by Paris (2012), whose theory is based on Ladson-Billings’s (1995) Culturally Relevant Pedagogy. CSP moves beyond the concepts of merely being culturally relevant or responsive, which seeks to perpetuate and foster linguistic and cultural diversity as part of the democratic project of schooling. In the context of TWI programs, the CSP framework can support students not only in learning a second language but in maintaining and valuing their home languages and cultures. This framework challenges the often monocultural and monolingual aims of traditional education policies and practices, advocating for a pedagogy that is explicitly committed to cultural pluralism and equity.

Our literature review will employ CSP to assess how TWI programs represent and foster equity in bilingual or multilingual development in instruction by analyzing whether these programs provide balanced opportunities for students to develop literacy skills in both their native and second languages, thereby avoiding exacerbating systemic inequalities. According to Paris (2012), CSP supports linguistic and cultural flexibility to gain global awareness and competence to be successful in a globally interconnected world. To realize the CSP-driven goals, the instruction in the TWI programs should not only aim at academic proficiency but should also prepare students to navigate and contribute to a multilingual and multicultural society. For example, in Curiel and Ponzio’s (2021) study, the CSP helps improve EBLs’ writing skills via scaffolding and integration of multimodal and translanguaging approaches within TWI programs.

The framework also involves a critical stance against deficit-based approaches to education, which have historically viewed the cultural practices and languages of non-dominant students as deficiencies to be corrected. Instead, CSP advocates viewing these diverse practices as assets. This review will thus evaluate how TWI programs incorporate and value the cultural assets that students bring to their learning, actively resisting deficit narratives. There is some research emphasizing the significant role of CSP in empowering EBLs to critically engage with and question prevailing cultural norms and languages, meanwhile, enabling educators to leverage the knowledge, experiences, and perspectives of EBLs to enhance the relevance and effectiveness of their learning experiences (Chang, 2022; Darling-Aduana & Heinrich, 2018; Lu & Troyan, 2022). CSP is described as forward-looking, aimed

at sustaining cultural and linguistic practices and preparing students for future societal roles. This aligns with the goals of TWI programs, which should aim not only to preserve heritage languages but also to innovate in ways that prepare students for future challenges and opportunities.

Finally, our review will explore how TWI programs integrate community and heritage practices into the curriculum. This includes looking at how these programs engage with the communities they serve, potentially transforming educational spaces into sites where cultural and linguistic practices are not only preserved but also celebrated and extended.

RESEARCHER POSITIONALITY

As the first author and the major reviewer of this review, I approached the study of TWI programs as a bilingual international scholar whose research centers on equity in education. My training in educational leadership and policy and my lived experience as an Asian woman and international student shape my attention to issues of access, marginalization, and opportunity structures in U.S. schools. I draw on equity-oriented frameworks such as culturally sustaining pedagogy (Paris, 2012) to foreground how systemic forces such as race, language, class, and immigration status intersect with program design. This perspective informs and guides my reading and interpretation of the literature: I view TWI not only as a pedagogical model but as a policy and social justice project that can either disrupt or reproduce inequities. While I recognize my standpoint may sensitize me to questions of equity, I have sought to maintain transparency in coding and synthesis, and introduce the second author for reviewing, guiding, and double-checking, so that findings reflect the weight of the evidence rather than solely my interpretive stance.

The second author is a bilingual education researcher and an assistant professor of educational leadership and policy whose career spans more than two decades across K-12 and higher education settings. Her professional trajectory from classroom teaching to administrative leadership roles and ultimately to academia, has afforded her deep insight into the organizational, instructional, and policy dimensions that shape students' educational experiences. Her scholarship interrogates issues of equity, leadership preparation, and systemic change, reflecting a longstanding commitment to

improving educational opportunities for diverse learners. In this review, the second author served as a methodological consultant. She supported the refinement of research questions, verified a subset of screening and coding decisions, and provided critical feedback on the conceptual framing and overall coherence of the manuscript. Her extensive experience leading equity-driven work in K-12 systems and preparing future educational leaders helped ensure that the review's analyses remained grounded, coherent, and attentive to practical implications.

Together, our positionalities and shared commitments to culturally and linguistically sustaining educational environments shaped our analytic decisions and the themes highlighted in this review. We acknowledge that our identities and professional backgrounds inevitably influence how we interpret the literature. At the same time, we intentionally adopted transparent decision-making and verification processes to ensure that the synthesis is rooted in the evidence base and reflective of current research on TWI and equity.

METHODOLOGY

Rationale for the Time Frame

We limited the review to studies published from 2018 to 2025 due to several factors. First, this period marks a new wave of scholarship influenced by translanguaging and culturally sustaining pedagogy, which extends beyond traditional bilingual education paradigms (Paris, 2012). Second, U.S. policy developments such as the rapid adoption of the Seal of Biliteracy (2017 onward) created a distinct sociopolitical context for bilingual program implementation. Finally, narrowing to this period allows our review to build on prior syntheses (e.g., Genesee, 1985; Y. K. Kim et al., 2015) and provide a timely update that highlights contemporary challenges and opportunities.

We employ a systematic literature review to examine the effectiveness of TWI programs in reducing educational disparities experienced by EBLs in U.S. K-12 public schools. We aim to synthesize recent empirical and theoretical findings that address how TWI programs contribute to academic equity and bilingual development.

Search Strategy

The first author conducted a comprehensive search in 2023 across multiple scholarly databases,





including ERIC, JSTOR, Springer, ProQuest, Google Scholar, and School Library databases. Keywords and Boolean combinations used in the search included: “Two-Way Immersion,” “TWI programs,” “Dual Language Immersion,” “Emergent Bilingual Learners,” “EBLs,” and “Opportunity Gap.” The first author focused on literature published in English between 2018 and 2025 to capture the most recent and relevant research.

The first author then identified grey literature through several complementary strategies: (a) reference checking of all included studies and prior reviews; (b) searches of ProQuest Dissertations & Theses Global to capture doctoral and master’s theses from my school library searching engine to ensure as many full accesses as possible under the school’s licensure. Note that the first author did not search APA PsycINFO because the focus of this review was on education and bilingual program outcomes rather than on psychological or clinical studies.

Inclusion and Exclusion Criteria (PICO Framework)

- Population (P): Emergent Bilingual Learners (EBLs) (K-12, U.S. context) and their English-dominant peers.
- Intervention (I): Two-Way Immersion (TWI) or dual language immersion programs implemented in U.S. K-12 educational settings
- Comparison (C): Studies with either explicit comparison groups (e.g., English immersion, transitional bilingual education) or no direct comparison but reporting equity-related outcomes.
- Outcomes (O): Academic achievement, biliteracy development, language proficiency, sociocultural integration, or equity-focused indicators (e.g., narrowing of achievement/opportunity gaps).

Eligible Study Designs:

Consistent with the purpose of this review, we included quantitative, qualitative, and mixed-methods studies, including longitudinal analyses, program evaluations, classroom-based ethnographies, case studies, and policy analyses, provided they contributed empirical evidence related to equity, bilingual development, or program implementation. Experimental and quasi-experimental designs were included when available, but they were not required for inclusion. Because

the review aimed to synthesize equity-oriented evidence across diverse educational contexts, we did not restrict inclusion to experimental or quasi-experimental designs.

Exclusion criteria included:

Studies were excluded from this review if they met any of the following criteria:

1. Context: Studies conducted outside the United States, as the review focuses on U.S. educational, policy, and sociopolitical contexts.
2. Population: Studies examining participants younger than kindergarten age (e.g., early childhood-only samples) or postsecondary/adult populations, as the review is limited to K-12 students.
3. Program Focus: Studies that did not examine equity, opportunity gaps, or outcomes that meaningfully inform equity in TWI contexts, such as academic achievement, biliteracy development, language proficiency, or sociocultural integration.
4. Analytic Focus: Studies that did not address equity, opportunity gaps, bilingual development, or related outcomes for emergent bilingual learners.

Delimitations of the Review

Our literature review is intentionally bounded to maintain coherence and feasibility. We included peer-reviewed journal articles, dissertations, and book chapters published in English between 2018 and 2025 and limited the scope to U.S.-based studies to ensure contextual comparability. We focused on scholarship examining instructional practices, biliteracy development, stakeholder engagement, program structures, leadership practices, or equity outcomes within TWI or closely related dual language models, while excluding opinion essays, policy briefs without empirical data, international TWI models, and studies unrelated to emergent bilingual learners. Although the review was led by the first author, we strengthened the process through deliberate checks and balances: both authors engaged collaboratively at multiple points, including secondary verification of screening decisions, joint discussions to resolve discrepancies, and iterative rounds of cross-checking during analysis to ensure alignment with inclusion criteria. This structured peer-validation approach served as an internal audit mechanism, enhancing the

reliability, credibility, and overall trustworthiness of the review.

Study Designs

Quantitative, qualitative, and mixed-methods studies were all eligible for inclusion. We also included program evaluations, longitudinal analyses, classroom-based ethnographies, and policy analyses if they contributed empirical evidence. We excluded purely theoretical works, descriptive commentaries, or editorial pieces without data.

Screening and Selection Process

I initially identified approximately 4,120 articles using the search strategy. I conducted the first-round screening by reviewing titles, abstracts, and conclusions to assess alignment with the study’s inclusion criteria. I excluded articles for reasons such as thematic irrelevance, lack of empirical grounding, or being situated outside the U.S. educational context. Following the first round, 99 sources remained. A second-level screening refined the pool further based on publication quality, research design, and relevance. Priority was given to peer-reviewed journal articles; however, high-quality doctoral dissertations, book chapters, and policy reports were included when offering unique insights or underrepresented perspectives. However, after the major revision, I went back to filter again and introduced the second author on board to help with double-checking and verification, by including some new releases in 2025 (n = 3), and some historical reviews (n = 3) as the paradigms to refer, and 2 pieces of literature before 2018 (n =2) along with the other selected ones to prepare for a short literature review as the contextual background for this particular synthesis. Across the final rounds of filtering and verification, I retained a total of 64 sources for full review, consisting primarily of peer-reviewed journal articles (including a small number of review articles used for contextual framing), along with doctoral dissertations (n = 6), book chapters (n = 3) , and policy reports (n = 3) included for their distinct contributions to the evidence base.

Descriptive Overview of the Final Sample

The final sample comprised 64 empirical studies, as documented in the PRISMA flow diagram (Figure 1), examining TWI and dual language immersion programs in U.S. K-12 contexts. In terms of publication type, the sample included peer-reviewed journal articles (n = 55), doctoral

dissertations (n = 6), and book chapters (n = 3).The studies reflected meaningful diversity in program language configurations. While a substantial subset focused on English-Spanish programs (n = 21), additional attention was given to English-Chinese/Mandarin (n = 6) and English-Portuguese (n = 4) programs, with smaller representation of English-Vietnamese (n = 1) and English-Korean (n = 1) programs. The remaining studies (n = 31) examined multiple language pairings and/or did not specify a single focal language configuration, which is consistent with multi-site investigations, district/state program evaluations, and policy-oriented research that aggregates evidence across varied dual language models. Methodologically, the corpus spanned a range of empirical approaches. Among studies clearly classified using conventional design labels, quantitative designs accounted for n = 6, qualitative designs for n = 10, and mixed-methods designs for n = 4. The remaining studies (n = 44) consisted of program evaluations, case studies, and policy/document analyses that were empirical but did not map cleanly onto a single methodological category as coded in this review (e.g., descriptive program evaluations without an explicit qualitative/quantitative analytic frame, multi-method reports combining administrative and documentary evidence, or policy analyses drawing on administrative and document-based data).Participants across studies included emergent bilingual learners, English-dominant peers, teachers, school leaders, families, and district stakeholders, with most research situated in elementary settings and fewer studies examining secondary or longitudinal trajectories. Analytic foci spanned academic achievement, biliteracy development, instructional practices, leadership and policy contexts, family engagement, and sociocultural dimensions of equity, collectively providing a comprehensive evidence base aligned with the review’s equity-oriented purpose.

Review Workflow and Procedures

Phase 1: Initial Search and Single-Reviewer Screening

The first author conducted the initial search across ERIC, PsycINFO, JSTOR, Scopus, and Google Scholar using combinations of keywords related to Two-Way Immersion (TWI), dual language education, emergent bilingual learners, biliteracy, and educational equity. After exporting all search



results into a single database workplace (NVivo 14), the first author manually removed duplicates and screened titles and abstracts for relevance. I then conducted full-text screening of all studies that met the inclusion criteria. This phase was carried out solely by the first author to ensure consistency in the application of the initial screening criteria.

Phase 2: Secondary Review and Verification

To enhance rigor and reduce potential bias, the first author independently reviewed a subset of studies selected during Phase 1 to verify inclusion and exclusion decisions, and introduced the second author on board for verification, proofreading, and double-checking.

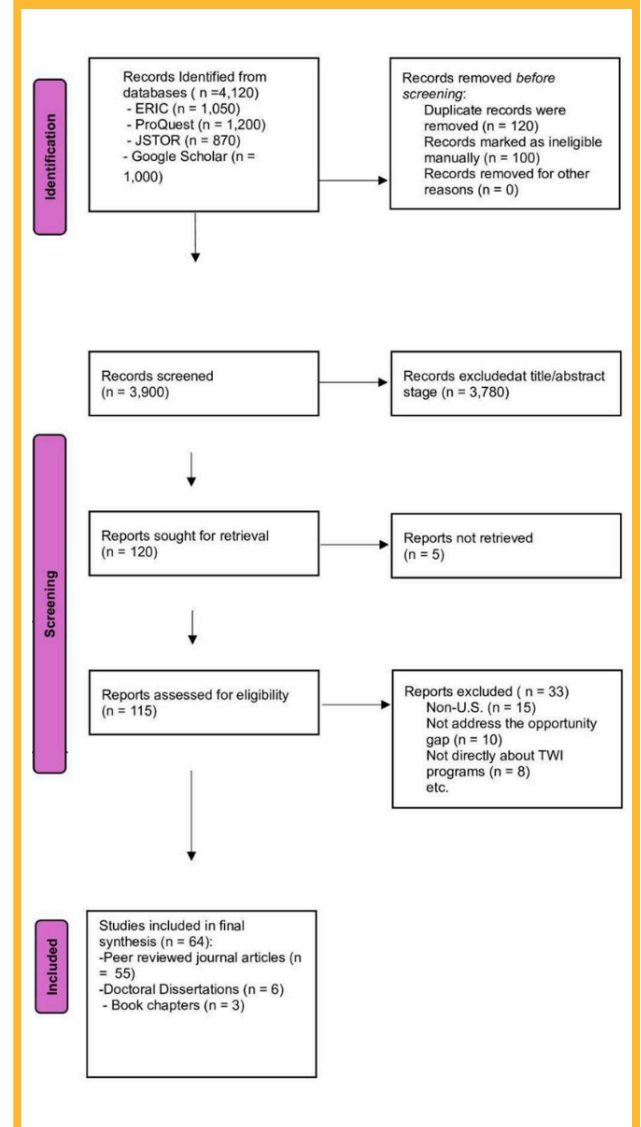
In Phase 2, the second author independently reviewed a subset of the included studies (approximately 31% of the final sample; $n = 20$) to verify the application of inclusion and exclusion criteria. In addition, the second author also helped to check and assess the quality of each peer-reviewed empirical study, and some selected doctoral dissertations. Specifically, the second author examined each study's population, program focus, study design, and reported outcomes to confirm alignment with the review's eligibility criteria. During this stage, we discussed ambiguous or borderline cases and resolved them through consensus. The second author also provided methodological guidance related to coding consistency and the organization of extracted data. This verification process strengthened the reliability of the review without conducting full dual independent screening.

Phase 3: Collaborative Coding and Synthesis

Following study selection, the first author conducted the initial thematic coding using an inductive approach grounded in the principles of CSP. The first author organized studies into preliminary categories, identified patterns across instructional, community, and systemic dimensions, and drafted the initial axial coding and thematic summaries. The second author reviewed the emergent coding framework, offered feedback on theme refinement, assessed alignment between individual studies and the overarching analytic categories, and helped with the revision process. Together, we synthesized the final themes and interpretations, ensuring that the analysis reflected both the empirical evidence and a shared equity-oriented perspective.

A manually-created PRISMA flowchart (Figure 1) can indicate the filtering process.

FIGURE 1 - PRISMA Flowchart



Notes: Screening was conducted by a single reviewer. Although this may introduce bias, decisions were guided by explicit inclusion/exclusion criteria and ambiguous cases were re-checked against the coding rubric to enhance reliability.

From: Page M. J., McKenzie J. E., Bossuyt P. M., Boutron I, Hoffmann T. C., Mulrow C. D., et al. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, Article n71. doi: 10.1136/bmj.n71

Screening and Reliability

The first author screened all records for eligibility using the predefined inclusion/exclusion criteria. To enhance reliability, the first author also re-checked ambiguous cases against the criteria and discussed with a second reviewer before a final decision was made. Although this was not a dual-screener process, we provided explicit coding rubrics and transparency in reporting, and the second author was brought on board in the review stage, to mitigate potential bias.

Quality Assessment

We evaluated the study quality during the coding process rather than used as a pre-screening exclusion criterion. Each included study was assessed for methodological transparency and rigor using three guiding dimensions:

1. *Clarity of research design and methods:* whether the study clearly described its design (quantitative, qualitative, or mixed-methods), data sources, sampling, and analytic approach.
2. *Adequacy of evidence:* whether findings were supported by sufficient data, such as sample size, duration of study, or triangulation across sources.
3. *Analytic depth and relevance:* whether the study moved beyond description to provide analysis connected to equity, biliteracy, or sociocultural outcomes in TWI programs.

We held the same criteria for dissertations, book chapters, and policy reports ; those with insufficient methodological detail were included for comprehensiveness but contextualized cautiously in synthesis. This approach ensured that the review reflected the full scope of recent TWI scholarship while also allowing readers to understand the relative strength of the evidence base. It should also be noted that our study quality assessments were descriptive rather than based on a formal scoring rubric, consistent with qualitative traditions in education and allowing for nuanced consideration of methodological strengths and limitations without reducing them to numeric ratings.

THEMATIC ANALYSIS

To analyze the 64 included studies, I used a hybrid coding process that combined deductive coding (guided by the research questions and CSP framework) with inductive coding (to capture new patterns emerging across studies). Deductive

codes were initially drawn from the two research questions: (1) equity outcomes in TWI programs, and (2) program features and pedagogical orientations that advance equity. Inductive codes emerged during iterative reading of studies, allowing the analysis to account for unanticipated findings such as digital equity, student language brokering, and gentrification dynamics.

Our codes captured (a) the program focus (instructional practice, community engagement, policy/leadership, or postsecondary outcomes), (b) the type of equity addressed (academic, linguistic, sociocultural, or structural), and (c) specific pedagogical or contextual strategies. Codes were then grouped into broader categories through constant comparison, leading to the development of four interrelated themes. As Table 1 displays the challenges of implementing TWI, Table 2 summarizes the coding framework, sample codes, anchor studies, and links to CSP for each theme.

To synthesize the existing literature on TWI programs, our reviewed studies were organized into three overarching thematic categories that reflect the educational journey of emergent bilingual learners across key stages of development: *Instructional Equity and Academic Advancement*, *Community Engagement and Stakeholder Collaboration*, and *University Access and Beyond*.

The first theme, *Instructional Equity and Academic Advancement*, includes research on school-level strategies to enhance educational equity, biliteracy development, and implementation challenges within TWI classrooms. The second theme, *Community Engagement and Stakeholder Collaboration*, encompasses studies that examine the roles of parents, teachers, school leaders, and broader community dynamics, including the influence of gentrification, language ideologies, and digital access. This section also explores how collaborative leadership and responsive teaching practices affect program sustainability and student experiences. The final theme, *University Access and Beyond*, highlights the long-term academic and social benefits of TWI participation, including increased rates of biliteracy credentialing, improved college readiness, and broader implications for postsecondary access and adult success. This organizational framework allows for a holistic analysis of how TWI programs influence student outcomes across the P-20 educational continuum,



capturing the program's layered and evolving impact from early schooling through to higher education and life beyond.

Instructional Equity and Academic Advancement in TWI Classrooms

Robust school-level support plays a foundational role in promoting educational equity and academic success for EBLs enrolled in TWI Programs. Despite their promise, U.S.-based Dual Language Bilingual Education (DLBE) models often prioritize English language development at the expense of sustaining EBLs' home languages—an imbalance that raises critical equity concerns (Arteagoitia & Yen, 2020; Becker et al., 2022; Cervantes-Soon et al., 2017). For instance, Arteagoitia and Yen (2020) analyzed biliteracy development in Spanish English TWI classrooms and found measurable gains for both EBLs and English-dominant students. However, they also noted a recurring trend in which Spanish outcomes were under-emphasized in research and assessment, reflecting a broader tendency to center English in instructional practices.

Similarly, Lu and Troyan (2022) examined Chinese English immersion programs in K-12 settings and reported significant academic improvements for multilingual learners, not only in language acquisition but also in content areas such as mathematics and science. Their findings suggest that effective TWI models can reduce cross-ethnic achievement gaps, especially among Latinx and African American student populations.

To address these disparities, scholars advocate for pedagogical frameworks that center linguistic equity, particularly Culturally Sustaining Pedagogy (CSP) and *Culturally Relevant Pedagogy*. These frameworks promote instructional strategies that recognize students' home languages and cultural assets as essential components of the learning process (Ladson-Billings, 1995; Paris, 2012). Within TWI classrooms, such pedagogies are most effective when paired with multimodal learning environments. Curiel and Ponzio (2021), Escamilla et al. (2022), and Hyun et al. (2022) emphasized that integrating multimodal and translanguaging approaches, such as visual, gestural, and auditory learning, enhances student engagement and deepens comprehension. These approaches not only support academic achievement but also foster identity affirmation and linguistic confidence.

Hyun et al. (2022) and Pacheco et al. (2021)

contributed to this conversation by exploring multilingual multiliteracies projects in TWI settings. Their research shows that collaborative, multimodal activities help students draw from their full linguistic repertoires, thereby reinforcing both biliteracy and cross-cultural understanding. Pacheco et al. (2021) further analyzed scaffolding strategies that support writing development in multilingual learners, while Hyun et al. (2022) highlighted the importance of student collaboration and peer modeling. Together, these studies underscored that multimodal instruction is not merely supplementary; it is foundational to effective, equity-centered bilingual teaching.

An additional layer of instructional equity relates to digital access and inclusion. The COVID-19 pandemic magnified disparities in technological access, a factor that has disproportionately impacted students from low-income, linguistically minoritized backgrounds. Child and Song (2023) and King et al. (2022) documented how these inequities constrained meaningful participation in remote TWI instruction. Both the research called for the integration of *digital justice* principles into program design, ensuring that all students, regardless of socioeconomic status, can engage with high-quality, bilingual digital resources. Richerson's (2022) doctoral study further illustrates how hybrid instructional models can shape emergent bilingual learners' language learning opportunities during and after the COVID-19 disruption. Although the study is not situated exclusively in TWI settings, its findings are relevant to dual language program implementation because it highlights how instructional continuity in hybrid formats depends on intentional scaffolding, educator coordination, and students' access to reliable technology. Richerson (2022) reports that hybrid delivery can support language development when teachers design consistent routines and align language objectives with content learning, but it can also reproduce inequities when access, teacher capacity, and instructional coherence vary across classrooms. Similarly, Smith et al. (2021) explored how digital multimodal composition can empower EBLs to express themselves more fully and develop stronger literacy skills. These digital practices, when equitably distributed, can reinforce bilingual students' progress in both English and their home languages (Curiel & Ponzio, 2021; Smith et al., 2021). Beyond pedagogical practices, research consistently

highlights the long-term academic benefits of sustained TWI participation. Polanco and Luft de Baker (2018) contributed to the evidence base on academic outcomes by synthesizing and comparing results across bilingual program models, including TWI. Their analysis suggested that, across the studies they reviewed, English reading outcomes for emergent bilingual students were often comparable across TWI and transitional bilingual education designs, with differences frequently small or inconsistent. Importantly, they cautioned that interpreting “program effects” requires attention to how bilingual programs are defined and implemented, because variation in instructional quality, language allocation, and student composition can obscure or inflate apparent differences between models. Further, La Serna (2022) illustrated how integrated Spanish English literacy instruction, combined with cross-language standards alignment, supported a more coherent biliteracy trajectory for students. Likewise, Padilla et al. (2022) provided longitudinal evidence showing that students who engage in TWI programming over time demonstrate significant academic growth across subjects, increased biliteracy, and stronger college readiness outcomes. Supporting these findings, Neukirch (2020) emphasized the enduring advantages of TWI for minoritized language students, particularly when programs are thoughtfully designed and adequately resourced.

One of the most recent meta-syntheses also emphasized the importance of integrating content and language instruction to advance equity for multilingual learners. Domke and Cerrato (2024), in a systematic review across diverse contexts, found that when language development is embedded within meaningful content instruction, emergent bilinguals not only gain stronger biliteracy skills but also show improved outcomes in general academic achievement. This aligns with findings from Lu and Troyan (2022) and Padilla et al. (2022), suggesting that TWI programs are most effective when content and language are co-constructed rather than treated as separate goals. Moreover, Domke and Cerrato’s (2024) review underscored the role of intentional interactions (e.g., dialogue instruction) and multiple pedagogical approaches in supporting equitable access to rigorous academic content, reinforcing the centrality of instructional design in sustaining bilingualism and equity.

As outlined in Table 2, the codes associated with this

theme, such as balanced language allocation, multimodal scaffolding, and translanguaging as pedagogy.

Linguistic Development and Biliteracy Expansion in TWI Programs

Effective language development is a central pillar of TWI programs, aiming to cultivate bilingualism, biliteracy, and cultural competence for all students. Within TWI classrooms, the integration of translanguaging, explicit vocabulary instruction, and multiliteracy practices has shown promising outcomes in enhancing students’ linguistic proficiency in both their home and partner languages. However, achieving balanced language development remains a complex task that requires intentional pedagogy, equitable design, and culturally responsive instruction.

Translanguaging, the practice of drawing upon one’s full linguistic repertoire to make meaning, has emerged as a transformative approach in bilingual education. Scholars advocated for translanguaging not only as a pedagogical tool but also as a framework for honoring students’ cultural identities and linguistic strengths (Ascenzi-Moreno, 2018; Curiel & Ponzio, 2021; Davis, 2023; Kleyn & García, 2019). In classrooms where translanguaging is encouraged, students demonstrate improved biliteracy, enhanced oral expression, and deeper engagement with academic content (Kleyn & García, 2019). For instance, Harvey and Wong (2024) illustrated how covert translanguaging in a Mandarin-English preschool setting enriches children’s extended discourse and supports emergent literacy.

Complementing these classroom-based translanguaging studies, Zoeller and Briceño (2022) demonstrated how teacher learning can be structured through a transliteracy cycle (observe–analyze–teach) that prompts educators to examine students’ oral language and writing across languages, identify cross-linguistic strengths, and design targeted mini-lessons to leverage those assets. Their findings illustrate how strength-based, language-focused pedagogy can help reframe students’ positioning from “English learners” to bilinguals, aligning translanguaging with identity-affirming instruction in TWI contexts.

At the same time, researchers also cautioned against the uncritical or inconsistent application of translanguaging practices. Becker et al. (2022), Chang (2022), and Sah and Uysal (2022)





highlighted instances where translanguaging is unevenly applied—often privileging English—and warned that without adequate teacher preparation, such practices can unintentionally reproduce linguistic hierarchies. In Becker et al. (2022) study of a Portuguese-English TWI program, English-dominant instruction was far more developed than its Portuguese counterpart, resulting in limited language exposure for emergent bilinguals. Similarly, Chang (2022) found that Mandarin was often de-emphasized in favor of English to accommodate English-dominant students' preferences, reflecting implicit language ideologies that position English as more legitimate or useful.

On the other hand, Sah and Uysal (2022) documented a case where EBLs expressed greater comfort using their home languages, but minimal English development raised concerns among teachers who feared students might remain isolated in linguistic “bubbles.” These contrasting cases underscore the importance of balanced and purposeful translanguaging that values both languages equally and provides all students with structured opportunities to engage in rich, bilingual discourse.

Vocabulary development is another critical element in language acquisition for emergent bilinguals. Crosson et al. (2019) emphasized the need for direct, robust vocabulary instruction that includes multiple exposures to academic language, opportunities for contextualized use, and active engagement. Similarly, Graham et al. (2023) conducted a meta-analysis revealing that well-designed reading interventions significantly boost vocabulary outcomes for bilingual learners across grade levels. These interventions, particularly when aligned with students' linguistic needs, contribute to meaningful academic language acquisition in both English and the partner language.

Curiel and Ponzio (2021) further demonstrated how integrating cultural content, such as Día de Los Muertos-themed projects, into vocabulary instruction enhances students' connection to language through meaningful, multimodal engagement. Their findings showed that students not only retain more vocabulary but also develop greater pride in their cultural and linguistic identities. Complementing this, Y.-S. G. Kim et al. (2024) explored how ecological and instructional factors influence bilingual students' vocabulary and

listening comprehension. Their findings affirmed that TWI settings, when implemented equitably, can support students' linguistic development without compromising English proficiency.

Finally, the development of *multiliteracies*, the ability to interpret and produce meaning across diverse modalities and languages, is a key asset fostered in TWI classrooms. Multiliteracies encompass more than traditional literacy; they involve navigating digital, visual, oral, and cultural forms of communication. When supported by translanguaging strategies and multimodal resources, multiliteracy practices deepen students' understanding of both language and content (Curiel & Ponzio, 2021; Smith et al., 2021).

In sum, while TWI programs offer strong potential for promoting biliteracy, their success depends on the thoughtful implementation of instructional strategies that prioritize linguistic equity. Translanguaging, vocabulary scaffolding, and multiliteracy development, when approached critically and consistently, can empower students to thrive across languages, cultures, and academic domains. Table 2 highlights biliteracy-focused codes, including explicit vocabulary instruction, assessment equity, and biliteracy trajectory development, which guide the synthesis presented in this theme on how TWI programs cultivate balanced, asset-based linguistic growth.

Implementing TWI Programs: Challenges, Complexities, and Adaptive Practices

The implementation of TWI programs is an inherently complex endeavor shaped by sociopolitical contexts, institutional structures, and the diverse needs of multilingual learners. While TWI holds great promises for promoting academic achievement and linguistic equity, realizing its full potential requires navigating a host of practical and ideological challenges. These range from resource limitations and uneven instructional quality to leadership dilemmas and community tensions over language policy. As summarized in Table 1, these challenges range from resource limitations and uneven instructional quality to leadership dilemmas, linguistic hierarchies, and community tensions over language policy.

Instructional resource disparities remain one of the most persistent challenges reported in the literature. Teachers often face difficulties accessing high-quality materials in non-English partner languages,

particularly for content-area instruction. As Ayscue and Uzzell (2022) noted, this imbalance tends to favor English instruction and places added strain on educators attempting to implement equitable dual-language models. Similarly, Arteagoitia and Yen (2020) cautioned that literacy development in partner languages like Spanish is often underrepresented in both instructional design and assessment practices, reinforcing an implicit English-dominant orientation even within bilingual settings.

School leaders, particularly principals, also play a pivotal role in shaping TWI implementation. S.M. Arredondo (2023) and S.M. Arredondo et al. (2024) highlighted how administrators must navigate conflicting demands, from aligning curriculum with state standards to staffing classrooms with qualified bilingual teachers. Principals are frequently called upon to make high-stakes decisions regarding program structure, resource allocation, and instructional priorities, all while responding to accountability pressures. These structural tensions can dilute the integrity of TWI programs and lead to implementation drift, particularly in districts with limited institutional capacity or shifting political support.

Student-level challenges further complicated implementation. EBLs in TWI settings must often allocate cognitive and emotional energy toward learning in two languages simultaneously. While many ultimately benefit from bilingual development, some experience frustration or anxiety, particularly when instruction leans heavily toward the dominant language or when peer dynamics privilege English (Chang, 2022; Lu & Troyan, 2022). S.M. Arredondo (2023) and S.M. Arredondo et al. (2024) reported that closing the academic gap between EBLs and English-dominant students may take five to seven years, underscoring the need for long-term commitment and sustained instructional support.

Equity concerns are also compounded when access to TWI programs is limited by social or geographic factors. L. Li (2024) warned that elite bilingualism, a model that primarily serves middle- or upper-income students, can inadvertently exclude emergent bilinguals with disabilities or those from underserved communities. Darriet and Santibañez (2024) provided evidence that while TWI programs in Los Angeles have recently expanded into more Latinx-majority neighborhoods, this shift is partially driven by charter school competition and enrollment pressures. Without safeguards, such trends risk reproducing rather than remedying

existing inequalities, particularly if access is not equitably structured.

Community dynamics, especially in rapidly gentrifying or politically polarized areas, also shape program success. Chaparro (2021) argued that neoliberal education reforms, such as school choice policies and parent-driven program demands, have led to uneven implementation across districts. In some cases, white, English-dominant families have leveraged their influence to secure TWI placements, steering the program toward enrichment rather than equity. These patterns reinforce the need for program designs that explicitly prioritize inclusion, transparency, and anti-racist practices.

Nevertheless, the literature also points to adaptive strategies that enhance program resilience and effectiveness. Collaborative leadership involving teachers, families, and administrators is essential. Ee (2023) emphasized the role of parental involvement in maintaining program integrity and fostering culturally responsive learning environments. Becker and Oliveira (2024) underscored the often-overlooked contributions of immigrant children who act as language brokers, performing essential but invisible labor that supports both peers and educators. Zoeller and Briceño (2022) similarly underscored that transnational teachers often recruited to fill bilingual staffing needs. This approach would benefit from preparation that builds explicit knowledge of language and provides concrete routines for cross-linguistic observation, reflection, and instruction, which in turn supports more equitable, asset-oriented teaching for bi/multilingual writers.

Teacher development is another critical factor. Studies by Heineke et al. (2020, 2022) showed that preservice and in-service training focused on linguistic justice, multilingual pedagogy, and sociopolitical awareness can significantly strengthen instructional quality. Scholars further advocated for differentiated professional development, particularly for international or novice teachers entering U.S. TWI contexts (Baldwin, 2021; He et al., 2022; Hill, 2023; Wong & Hill, 2023). Programs that provide mentoring, peer collaboration, and opportunities for critical reflection are better equipped to support educators as they navigate linguistic and cultural complexities in the classroom (He et al., 2022; Hill, 2023).



Taken together, as the adaptive strategies shown in Table 1, these studies reinforce that successful TWI implementation requires more than programmatic fidelity. The TWI programs demand structural support, visionary leadership, and an explicit commitment to equity at all levels. Addressing these challenges proactively can help ensure that TWI programs remain not only linguistically rich but also socially just and inclusive.

TABLE 1 - Challenges & Solutions for TWI Programs

Implementation Challenges	Adaptive Strategies & Solutions
Lack of high-quality instructional materials in partner languages	Invest in dual-language content materials and culturally relevant resources
English-dominant instruction is overshadowing home language development	Implement balanced translanguaging practices and biliteracy targets.
Leadership tension between policy mandates and local program needs	Promote distributed leadership models with collaborative decision-making
Cognitive and emotional strain on EBLs in dual-language settings	Provide SEL supports and differentiated instruction for language learners
Inequitable access to TWI for minoritized or disabled students	Design inclusive placement policies with disability and equity considerations
Gentrification and school choice pressures are altering enrollment dynamics	Gentrification and school choice pressures are altering enrollment dynamics
Insufficient recognition of student language brokering roles	Acknowledge and validate student brokering through classroom practices
Limited teacher preparation in multilingual, culturally responsive pedagogy	Offer differentiated, justice-oriented PD for bilingual educators.

Community Engagement and Stakeholder Collaboration in TWI Programs

As mentioned in the previous section, the success of Two-Way Immersion (TWI) programs is not solely dependent on instructional quality or school leadership; rather, it is significantly shaped by the perspectives and engagement of community stakeholders. Families, educators, school leaders, and students all play integral roles in the development, implementation, and sustainability of equitable bilingual education. Research emphasizes that meaningful stakeholder collaboration enhances not only academic outcomes but also cultural belonging and program legitimacy.

Parental engagement emerges as a vital element in the health and responsiveness of TWI programs. Ee (2023) found that parents generally support integrated classrooms, valuing both the cultural and linguistic benefits. However, concerns about limited transparency and inconsistent communication from schools persist. Huang et al. (2025) similarly reported that families' willingness to enroll in Mandarin-English immersion programs was strongly influenced by the perceived alignment between school practices and home literacy values. Bilingual families emphasized cultural preservation, while English-dominant families tended to view bilingualism as a means for future academic and career advantages.

Alvarado (2025) and García et al. (2021) expanded on this by highlighting the agency of families, particularly Latina mothers, in advocating for their children's educational needs. Alvarado (2025) described how Latina mothers redefined dominant notions of "competence" by asserting their children's right to wellness, bilingual expression, and access to interdisciplinary learning. These mothers actively participated in shaping TWI spaces as affirming environments, challenging institutional biases that often devalue non-dominant languages. García et al. (2021) also noted that multilingual families contribute to biliteracy development through rich home-based literacy practices, which schools should recognize as assets.

The *COVID-19 pandemic* added layers of complexity to stakeholder relationships. Franco-Jenkins et al. (2023) documented both parent and teacher experiences in remote TWI instruction, revealing disparities in perceived language development. While many families appreciated the adaptability of remote formats, concerns emerged about reduced oral practice, particularly in the partner language.

Notably, in Flavin et al. (2024) study, Portuguese-speaking parents expressed confidence in their children's continued development, whereas some English-dominant families questioned the efficacy of bilingual instruction online, a reflection of differing language ideologies. Educators also express ambivalence when navigating bilingual expectations. Becker et al. (2022) noted that teachers in a Portuguese English TWI program faced pressure to prioritize English due to parental expectations, despite recognizing the importance of dual-language equity. Oliveira et al. (2020) found parallel tensions: while both English- and Portuguese-speaking parents shared enthusiasm for bilingualism, divergent expectations regarding language dominance and instructional clarity revealed underlying cultural mismatches between home and school.

School leaders and administrators contribute further nuance to these dynamics. Hancock and Davin (2020) analyzed perceptions of the Seal of Biliteracy (SoBL) and found that both students and administrators recognized its value for affirming bilingual competencies and expanding access to postsecondary opportunities. Leaders acknowledged that such recognition could help advance racial equity and motivate students to persist in bilingual learning pathways.

Teacher preparation and identity also play a key role in fostering inclusive stakeholder engagement. F. López and Santibanez (2018) underscore that teacher preparation for emergent bilingual students is not simply a technical matter of coursework or professional development; it is deeply shaped by state language-in-education policy contexts that define minimum expectations for EB instruction. Their policy-focused synthesis highlights substantial cross-state variability in what teachers are expected (and required) to know: Ranging from superficial exposure to EB needs to more robust preparation that attends to bilingual learners' linguistic resources, language development trajectories, assessment, and culturally responsive instruction. This uneven policy landscape matters for TWI and dual language implementation because program models that aim to cultivate bilingualism and biliteracy require teachers who can integrate language and content goals, leverage students' home-language resources as assets, and enact instruction aligned to both linguistic and academic standards (F. López & Santibanez, 2018). Moreover, studies showed that educators trained through linguistically responsive





and equity-centered professional development demonstrate stronger efficacy and adaptability in working with diverse student populations (Heineke & Giatso, 2020; Heineke et al., 2020; Heineke & Vera, 2022; Heineke et al., 2022). These experiences build confidence in engaging with families and tailoring instruction to reflect students' cultural contexts. Becker et al. (2022) and Oliveira et al. (2020) reinforced this point, emphasizing that culturally responsive instruction requires deep trust between families and educators to build trust through clear communication, mutual respect, and shared values.

Student perspectives offer the most immediate insight into whether these collaborative efforts are succeeding. García-Mateus (2023) studied bilingual students' reflections in a gentrifying TWI program and found that students held nuanced understandings of language expertise and social positioning. They noted shifts in classroom dynamics that privileged English over Spanish, signaling to researchers the need for more consistent multilingual affirmation. Vera et al. (2021) added that students' social-emotional well-being is inseparable from their experiences of cultural inclusion, peer relationships, and access to counseling services tailored to their identities.

Finally, Chaparro's (2024) work and Bauer and Sánchez's (2024) work illustrated how hybrid language practices and embodied translanguaging foster cross-cultural understanding, particularly for African American multilingual students often excluded from bilingual education spaces. These studies argue that community-level support must include not only representation and voice but also curricular and pedagogical practices that affirm all linguistic and racial identities.

University Access and Beyond: Long-Term Outcomes of TWI Participation

While much of the research on Two-Way Immersion (TWI) programs focuses on K-12 academic outcomes, growing evidence points to their lasting effects on students' postsecondary trajectories, linguistic identities, and professional readiness. TWI participation has been linked to increased eligibility for university admission, higher rates of biliteracy certification, and expanded college and career opportunities, especially for students from linguistically diverse backgrounds. However, these benefits are not uniformly distributed, and access to postsecondary advancement remains influenced by a constellation of social, institutional, and linguistic factors.

A compelling line of research documents the positive relationship between sustained TWI enrollment and academic preparedness for higher education. Padilla et al. (2022) found that 42% of students who completed K-5 Spanish English immersion programs earned the California SoBL upon graduating high school, a rate nearly four times higher than the state average of 11% in 2019. These students not only demonstrated advanced proficiency in two languages but also outperformed their peers in cumulative GPAs and completed college entrance requirements at higher rates. The SoBL thus serves not only as a credential for bilingualism but also as a gateway to college eligibility and scholarship opportunities.

Hancock and Davin (2020) further illuminated the symbolic and material value of the SoBL from the perspectives of both students and administrators. Students view it as a formal recognition of their bilingual identities and a competitive advantage in college admissions. Administrators, meanwhile, acknowledge their role in promoting multilingualism, closing equity gaps, and increasing student motivation. These findings underscore the importance of institutional support for biliteracy as part of long-term educational planning.

However, access to higher education is shaped by more than just linguistic development. Jiang's (2021) longitudinal analysis of national datasets spanning three decades reveals that while TWI can improve college readiness, EBLs still encounter structural barriers that influence their postsecondary outcomes. Socioeconomic status, familial support, and school-level guidance all play significant roles in shaping students' trajectories. Thus, while TWI can mitigate some inequities, it must be part of a broader ecosystem of support that addresses systemic disadvantages.

The transition from secondary schooling to university also requires targeted professional development for educators who work with adult and college-bound EBLs. Housel (2020, 2021) and Housel and Oranjian (2021) emphasized the importance of preparing instructors to support emergent multilinguals in postsecondary and adult learning contexts. These studies call for sustained training in culturally responsive pedagogy, critical language awareness, and the integration of digital tools like New Seal Pro to scaffold academic reading and writing for bilingual learners.

Technological fluency, especially digital literacy in both languages, is increasingly crucial for college access and persistence. Guise et al. (2020) highlighted the role of ongoing supervision and feedback in strengthening educator preparation to meet the evolving needs of bilingual learners across educational transitions.

Ultimately, the benefits of TWI programs extend beyond linguistic competence, they contribute to more inclusive and equitable pathways to higher education. Yet to realize this potential fully, program designers and policymakers must ensure that dual language models are not isolated interventions but embedded within a continuum of culturally and linguistically sustaining support from preschool to college and beyond. As shown in Table 2, codes related to family agency, student identity development, and biliteracy recognition inform this theme’s emphasis on how community engagement and P–20 trajectories sustain equity across students’ long-term educational pathways.

TABLE 2 - Coding Framework and Sample Codes

Theme	Research Question	Sample Codes	Example Studies	Connection to CPS
Instructional Equity and Academic Advancement	RQ1: Equity in TWI outcomes	Balanced language allocation; multimodal scaffolding; translanguaging as pedagogy	Arteagoitia & Yen, 2020; Cervantes-Soon et al., 2017; Becker et al., 2022	Sustains students’ linguistic repertoires and validates bilingual practices in classroom instruction.
Linguistic Development and Biliteracy Expansion	RQ1: Equity in TWI outcomes	Explicit vocabulary instruction; biliteracy trajectory; assessment equity	Ascenzi-Moreno (2018), Curiel and Ponzio (2021), Davis (2023)	Positions biliteracy as an equity outcome by affirming linguistic diversity as an asset.
Program Implementation and Structural Conditions	RQ2: Features/ orientations sustaining equity	Leadership advocacy; resource inequities; policy alignment	Chang, 2022; Lu & Troyan, 2022	Highlights systemic supports and challenges, reflecting CSP’s institutional orientation.
Community Engagement and Long-Term Pathways	RQ2: Features/ orientations sustaining equity	Family agency; Seal of Biliteracy; student identity development	Alvarado (2025); Huang et al. (2025)	Extends CSP by centering family and student voices, sustaining equity across P–20 trajectories.



Limitations

Although we conducted this literature review through multiple rounds of rigorous screening and filtering of the most recent literature related to EBLs and TWI programs, several limitations should be acknowledged.

First, we limited our search to studies published between 2018 and 2025. As a result, significant foundational empirical research and doctoral dissertations conducted before 2018 were not incorporated. Although the theoretical frameworks informing this study (e.g., Ladson-Billings, 1995; Paris, 2012;) are grounded in earlier scholarship, excluding empirical findings before 2018 may limit the historical depth of the review.

Second, because the review spans the COVID-19 pandemic era, many of the included studies may reflect outcomes influenced by pandemic-related disruptions. Although most studies suggested that students generally adapted to technology and remote learning, the pandemic revealed profound digital inequities, disproportionately affecting minority students from lower socioeconomic backgrounds (Casey et al., 2022; King et al., 2022). Variations in teachers' digital literacy and adaptability to remote instruction likely introduced additional variability into the reported outcomes. Furthermore, the persistence of the hybrid teaching model post-pandemic raises concerns about the long-term impacts on students with limited access to technology or digital skills.

Third, we did not dis-aggregate findings by specific student age groups. Given that experiences and outcomes in TWI programs may vary significantly across developmental stages (e.g., early childhood, elementary, secondary), the absence of age-specific analyses is a limitation.

Fourth, our search was confined to major academic databases such as ERIC, JSTOR, Springer, ProQuest, and Google Scholar. We did not search study register (e.g., PROSPERO), possibly omitting ongoing or recently completed but unpublished studies.

Fifth, for this particular review, we only include the studies that publish in English, which may overlook some high quality studies that published in other languages that would potentially draw implications to support the findings of this review.

Finally, although our review followed a structured, multi-phase workflow, the first author conducted

the majority of searching, screening, data extraction, and multiple rounds of coding and reviewing, without automation tools, which introduces the possibility of human error or subjective bias in study selection. Even though the second reviewer were included during the preparation of the major revision, the second reviewer may only contribute to the proofreading, grammar fixing, and sentence polishing rather than conducting a full independent review of inclusion and exclusion criteria. As a result, the study selection process may not fully meet the standards of inter-rater reliability, and the findings should be interpreted with this limitation in mind.

DISCUSSION

In this review, we demonstrate that Two-Way Immersion (TWI) programs hold significant potential to advance equity for emergent bilingual learners (EBLs), though outcomes vary depending on program features, pedagogical orientations, and broader sociopolitical contexts. Across studies published between 2018 and 2025, we identified two intertwined dimensions of equity: (a) the extent to which TWI addresses academic disparities between EBLs and English-dominant peers, and (b) the features and orientations that enable programs to sustain bilingualism and equity over time.

Academic Outcomes and Equity Gains.

Our synthesis shows that TWI programs support biliteracy and yield strong long-term academic outcomes. Research has shown that students in TWI settings often meet or exceed their monolingual peers on standardized measures while developing bilingual proficiency (Lu & Troyan, 2022; Padilla et al., 2022). These findings corroborate earlier longitudinal analyses (Thomas & Collier, 2002; Umansky & Reardon, 2014) that linked dual immersion to higher graduation rates and stronger English attainment. Beyond test scores, TWI classrooms cultivate critical thinking, problem-solving, and cross-cultural competencies, positioning bilingualism as both a cognitive and social asset. Yet, equity gains are uneven. Some programs continue to privilege English-dominant students or reproduce racialized hierarchies (Bauer & Sánchez, 2024; Chaparro, 2024), particularly when deficit ideologies devalue Black Englishes or immigrant language practices. Pandemic disruptions further magnified disparities, as digital inequities disproportionately constrained the learning of minoritized families (Flavin et al., 2024).

These examples caution that equity benefits are contingent, not automatic.

Program Features and Pedagogical Orientations.

Across the reviewed studies, we identified several program features and pedagogical orientations as central to sustaining bilingualism and advancing equity. Importantly, these features do not operate independently; rather, they function as interrelated mechanisms shaped by broader sociopolitical and institutional contexts.

First, teacher preparation and professional development emerged as a foundational mechanism for equity. The literature consistently suggests that dual-language instructional skill alone is insufficient; teachers must also develop critical sociocultural awareness to navigate immigration politics, racialized language ideologies, and deficit framing of emergent bilingual learners (Becker et al., 2022; Becker & Oliveira, 2023, 2024; Heineke & Giatsou, 2020; Heineke et al., 2020, 2022; Heineke & Vera, 2022). This pattern likely reflects the reality that TWI classrooms are embedded within English-dominant systems where accountability pressures, curricular mandates, and societal ideologies implicitly privilege English. Without intentional preparation, teachers may default to English-centric practices: not because of resistance to equity, but because institutional norms and assessment structures reward such orientations (Arteagoitia & Yen, 2020). These findings extend prior scholarship by showing that teacher preparation functions not only as a technical input, but as a mediating mechanism between program design and equity outcomes.

Second, technology and multimodal resources can serve as equity levers when thoughtfully integrated, expanding access to differentiated learning opportunities (Darling-Aduana & Heinrich, 2018). However, the uneven benefits observed across studies suggest that technology amplifies existing structural conditions rather than neutralizing them. Pandemic-era research highlights how disparities in device access, connectivity, and digital literacy constrained participation for many emergent bilingual learners (Flavin et al., 2024). This pattern aligns with broader digital equity literature, underscoring that technology alone does not produce equity; rather, equity depends on the alignment of resources, instructional design, and institutional support.

Third, community and parental engagement

emerge as a defining equity feature, particularly in shaping access, sustainability, and student identity development. Families are not passive stakeholders but active co-educators: For example, Latina mothers in Alvarado's (2025) study reclaimed competence for themselves and their children through advocacy, challenging deficit narratives embedded in school interactions. Similarly, Huang et al. (2025) show that parents' positive orientations toward bilingualism strongly shape access to Mandarin-English immersion. These findings resonate with, and extend, earlier family engagement literature by showing how parental agency operates differently across racialized and linguistic communities, often mediated by power dynamics within school systems.

Finally, assessment and feedback systems must move beyond deficit framing. Responsive, translanguaging-informed assessments (Ascenzi-Moreno, 2018) can illuminate student strengths, whereas neoliberal accountability discourses risk erasing EBLs with disabilities from policy recognition (L. Li, 2024). This pattern helps explain why some TWI programs demonstrate strong instructional practices yet fail to produce equitable policy recognition or resource allocation. Compared with earlier literature that focused primarily on instructional outcomes, the current findings foreground assessment as a site where equity is either enacted or undermined.

Toward a Synthesized View of Equity in TWI.

Taken together, our findings suggest that the equity impact of TWI cannot be understood solely in terms of student outcomes or isolated strategies. Rather, we argue that outcomes and features are mutually reinforcing: programs that achieve strong academic results for EBLs are often those that also invest in teacher preparation, resist assimilationist ideologies, engage families as partners, and design assessments that validate multilingual repertoires. Conversely, when TWI programs are co-opted by neoliberal logics (e.g., market-driven expansion in gentrifying neighborhoods; Darriet & Santibañez, 2024), equity goals risk being diluted, and disparities may persist or even widen.

IMPLICATIONS AND FUTURE DIRECTIONS

Our review highlights that Two-Way Immersion (TWI) programs have the potential to advance equity for emergent bilingual learners (EBLs), but outcomes depend on how programs are designed,





implemented, and sustained. Our findings point to several key implications for current policy and teaching practice:

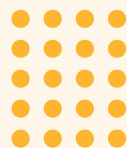
Policy and Practice

Teacher preparation remains foundational. States and districts should invest in professional learning that equips teachers not only with dual-language pedagogy but also with tools to navigate racialized and political contexts. Assessment practices must move beyond English-centric measures to include biliteracy development, translanguaging-informed approaches, and culturally sustaining evaluations. Equitable access to digital resources is essential, especially as the pandemic revealed how technology gaps widen opportunity gaps. Finally, family and community engagement must be treated as central to program design rather than supplemental, with immigrant and racially minoritized families positioned as co-educators and decision-makers.

Future Research

Our literature review also points to areas where further inquiry is needed. First, more longitudinal studies could clarify how TWI participation influences equity outcomes across the P-20 continuum, perhaps emphasizing more college readiness and civic participation. Second, research should examine how TWI programs serve subgroups often overlooked in current scholarship, such as students with disabilities, African American emergent bilinguals, and Indigenous language speakers. Third, more comparative work is needed to understand how different policy contexts, such as state legislation, accountability systems, and charter school expansion, shape the equity promise of TWI in these various settings. Finally, studies should investigate how culturally sustaining pedagogy can be operationalized in daily classroom practice, offering concrete models for teachers and leaders.

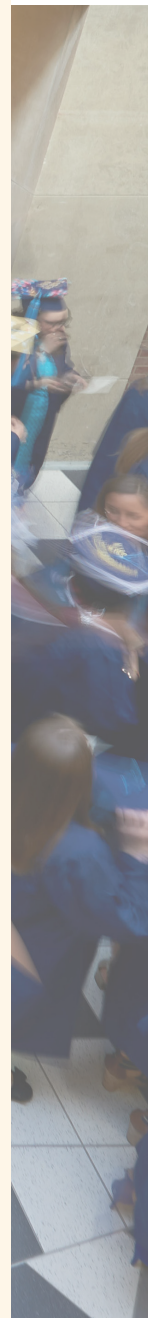
By aligning teaching practices, policy design, and future research with equity-driven orientations, stakeholders can ensure that TWI programs not only reduce disparities but also transform schooling into more democratic, culturally sustaining, and linguistically just spaces.



CONCLUSION

Our literature review critically examined 64 studies to address how TWI programs impact the academic achievement gap between EBLs and native English-speaking students in the U.S. K-12 education and identified strategies for enhancing these programs. The findings confirm that TWI programs effectively bridge the academic achievement gap by leveraging culturally responsive pedagogies and bilingual education benefits. Students in TWI programs often outperform their monolingual peers, indicating the potential of bilingual education for academic equity. Key strategies for enhancing TWI effectiveness include integrating technology with adequate educator support, fostering strong leadership, providing comprehensive teacher training, and involving the community to ensure culturally inclusive curricula.

Our review indicates that while TWI programs hold significant potential for closing educational gaps, continuous efforts are necessary to refine and adapt these programs to changing educational landscapes and demographic shifts. Future research should focus on longitudinal studies to track the long-term impacts of TWI education on various demographic groups, examining both academic and socio-emotional outcomes. Furthermore, as digital tools continue to permeate educational settings, additional studies are needed to explore the most effective strategies for their integration into bilingual education settings, ensuring that all students have equitable access to technological resources.



REFERENCES

Note. References marked with an asterisk (*) indicate studies included in the 64-study synthesis; unmarked references were used for background, framing, or historical context.

- * Alvarado, J. (2025). Latina mothers reclaiming “competence” in a two-way dual language bilingual program. *Equity & Excellence in Education*, 58(1), 23–41. <https://doi.org/10.1080/10665684.2024.2427947>
- Andrei, E. (2017). Technology in teaching English language L7learners: The case of three middle school teachers. *TESOL Journal*, 8(2), 409–431. <https://doi.org/10.1002/tesj.280>
- * Arredondo, S. M. (2023). Implementation of dual language programs for emergent bilinguals: Understanding instructional decisions of elementary principals [Doctoral dissertation, The University of Texas Rio Grande Valley]. ScholarWorks @ UTRGV. <https://scholarworks.utrgv.edu/etd/1314>
- * Arredondo, S. M., Abrego, M. H., & Menchaca, V. D. (2024). Instructional decisions of elementary principals for implementing dual language programs for emergent bilinguals. *School Leadership Review* 19(1), Article 8. . <https://scholarworks.sfasu.edu/slr/vol19/iss1/8/>
- * Arteagoitia, I., & Yen, S. J. (2020). Equity in representing literacy growth in dual language bilingual education for emerging bilingual students. *TESOL Quarterly*, 54(3), 719–742. <https://doi.org/10.1002/tesq.588>
- * Ascenzi-Moreno, L. (2018). Translanguaging and responsive assessment adaptations: Emergent bilingual readers through the lens of possibility. *Language Arts*, 95(6), 355–369. <https://www.jstor.org/stable/26779020>
- * Ayscue, J. B., & Uzzell, E. M. (2022). How teachers and leaders facilitate integration in a two-way dual language immersion program. *Teachers College Record: The Voice of Scholarship in Education*, 124(1). <https://doi.org/10.1177/01614681221086109>
- * Baldwin, L. (2021). Effective leadership practices in language immersion programs. *Foreign Language Annals*, 54(4), 1124–1144. <https://doi.org/10.1111/flan.12540>
- * Bauer, E., & Sánchez, L. (2024). “I have magic in my mouf!”: Embodied languaging enactments of African American multilingual students in a Spanish-English immersion program. *Linguistics and Education*, 83, 101339. <https://doi.org/10.1016/j.linged.2024.101339>
- * Becker, M.L., Chang-Bacon, C. K., & Oliveira, G. (2022). Unilateral translanguaging: Teachers’ language use, perceptions, and experience in a Portuguese-English two-way immersion program. *International Journal of Bilingual Education and Bilingualism*, 25(8), 3068–3083. <https://doi.org/10.1080/13670050.2021.2004085>
- * Becker, M. L., & Oliveira, G. (2023). “This is a very sensitive point”: Bilingual teachers’ interactions with neo-nationalism in a two-way immersion program in the United States. *TESOL Quarterly*, 57(3), 890–915. <https://doi.org/10.1002/tesq.3244>
- * Becker, M. L., & Oliveira, G. (2024). Brokering and (re)membering: immigrant children’s in/visible work of implementing a two-way dual language bilingual education program and educators’ perceptions. *Teachers College Record: The Voice of Scholarship in Education*, 126(11–12), 3–31. <https://doi.org/10.1177/01614681241311634>
- * Casey, J. E., Kuklies, K., & Warner, C. (2022). Preparing preservice teachers to work with emergent bilingual students: Highlights from an exploratory service-learning trip to Central Mexico. *Texas Journal of Literacy Education*, 9(3). <http://www.talejournal.com/index.php/TJLE>
- * Cervantes-Soon, C. G., Dorner, L., Palmer, D., Heiman, D., Schwerdtfeger, R., & Choi, J. (2017). Combating inequalities in two-way language immersion programs: toward critical consciousness in bilingual education spaces. *Review of Research in Education*, 41(1), 403–427. <https://doi.org/10.3102/0091732X17690120>
- * Chang, S. (2022). Chinese bilingual preservice teachers’ reflections on translanguaging pedagogy: The need for critical language curricularization. *Foreign Language Annals*, 55(4), 1086–1108. <https://doi.org/10.1111/flan.12654>
- * Chaparro, S. E. (2021). Creating fertile grounds for two-way immersion: Gentrification, immigration, & neoliberal school reforms. *Language Policy*, 20(3), 435–461. <https://doi.org/10.1007/s10993-020-09576-8>
- * Chaparro, S. E. (2024). Hybrid languaging and literacy practices as cross-cultural competence in a Spanish-English Two-Way Immersion Program. *Learning, Culture and Social Interaction*, 47, 100823. <https://doi.org/10.1016/j.lcsi.2024.100823>
- * Child, G. S., & Song, K. (2023). Digital inequities: Promoting digital justice during the COVID-19 pandemic. *Sustainability*, 15(17), 12862. <https://doi.org/10.3390/su151712862>
- * Crosson, A. C., McKeown, M. G., Robbins, K. P., & Brown, K. J. (2019). Key elements of robust vocabulary instruction for emergent bilingual adolescents. *Language, Speech, and Hearing Services in Schools*, 50(4), 493–505. https://doi.org/10.1044/2019_LSHSS-VOIA-18-0127
- * Curiel, L. C., & Ponzio, C. M. (2021). Imagining multimodal and translanguaging possibilities for authentic cultural writing experiences. *Journal of Multilingual Education Research*, 11, 79–102. <https://doi.org/10.5422/jmer.2021.v11.79-102>
- * Darling-Aduana, J., & Heinrich, C. J. (2018). The role of teacher capacity and Instructional Practice in the integration of Educational Technology for emergent bilingual students. *Computers & Education*, 126, 417–432. <https://doi.org/10.1016/j.compedu.2018.08.002>
- * Darriet, C., & Santibañez, L. (2024). Examining two-way dual language program dispersion in the context of neighborhood change, charter school expansion, and enrollment decline. *American Journal of Education*, 131(1), 55–91. <https://doi.org/10.26300/yh39-hr76>
- * Davis, L. (2023). Ideological foundations, curricular models, and the path of bilingual education. *Curriculum and Teaching Dialogue*, 25(1), 203–216. <https://www.emerald.com/books/edited-volume/19965/chapter-abstract/105008670/Ideological-Foundations-Curricular-Models-and-the>

- Dearing, E., Walsh, M. E., Sibley, E., Lee-St. John, T., Foley, C., & Raczek, A. E. (2016). Can community and school-based supports improve the achievement of first-generation immigrant children attending high-poverty schools? *Child Development*, 87(3), 883–897. <http://doi.org/10.1111/cdev.12507>
- * Domke, L. M., & Cerrato, M. A. (2024). Integrating content and language instruction for multilingual learners: A systematic review across program types. *Review of Educational Research*, 96(1), 299–338. <https://doi.org/10.3102/00346543241298667>
- * Ee, J. (2023). Are parents satisfied with integrated classrooms?: Exploring integration in dual language programs. *International Journal of Bilingual Education and Bilingualism*, 26(7), 800–816. <https://doi.org/10.1080/13670050.2020.1862751>
- * Escamilla, K., Shannon, S., & García, J. (2022). Four decades after Castañeda: A critical analysis of bilingual/dual language education in Colorado. *Language Policy*, 21(3), 357–379. <https://doi.org/10.1007/s10993-022-09628-1>
- * Flavin, E., Becker, M.L., Hubacz, H., Barbieri, O., & Oliveira, G. (2024). “(Not) the same as it was”: Parents’ and teachers’ perception of the impact of COVID-19 on a bilingual elementary program. *Language and Education*, 38(6), 1008–1026. <https://doi.org/10.1080/09500782.2024.2343479>
- * Franco-Jenkins, X., LaForett, D. R., Winsler, A., & Ordoñez Rojas, D. (2023). Two-way immersion classrooms during the COVID-19 pandemic: Parent and teacher perceptions of student learning. *Education Sciences*, 13(9), 946. <https://doi.org/10.3390/educsci13090946>
- * García, A. M., Zhang, R., King, A., & Morita-Mullaney, T. (2021). Español, el idioma que nosotros hablamos: A collective case study of home language use and literacy practices of Mexican American families. *School Community Journal*, 31(2), 213–238. <https://psycnet.apa.org/record/2023-11620-009>
- * García-Mateus, S. (2023). Bilingual student perspectives about language expertise in a gentrifying two-way immersion program. *International Journal of Bilingual Education and Bilingualism*, 26(1), 34–49. <https://doi.org/10.1080/13670050.2020.1797627>
- Genesee, F. (1985). Second language learning through immersion: A review of U.S. programs. *Review of Educational Research*, 55(4), 541–561. <https://doi.org/10.3102/00346543055004541>
- * Graham, S., Silva, M., & Restrepo, M. A. (2023). Reading intervention research with emergent bilingual students: A meta-analysis. *Reading and Writing*, 36(9), 2433–2464. <https://doi.org/10.1007/s11145-022-10399-8>
- * Guise, M., Hegg, S., Ronan, B., Flushman, T., & Grant, B.-J. (2020). Supporting emergent bilingual professional development through supervisor feedback. *Journal of Educational Supervision*, 3(1), 55–75. <https://doi.org/10.31045/jes.3.1.5>
- * Hancock, C. R., & Davin, K. J. (2020). A comparative case study: Administrators’ and students’ perceptions of the Seal of Biliteracy. *Foreign Language Annals*, 53(3), 458–477. <https://doi.org/10.1111/flan.12479>
- * Harvey, R. E., & Wong, K. M. (2024). Promoting emergent literacy in preschool through extended discourse: Covert translanguaging in a Mandarin immersion environment. *Journal of Early Childhood Literacy*, 24(3), 663–691. <https://doi.org/10.1177/14687984241276292>
- * He, Y., Ouyang, Q., & Zhang, H. (2022). Chinese dual language immersion teacher professional learning community. *Educational Research and Development Journal*, 25(2), 53–70. <https://eric.ed.gov/?id=EJ1375422>
- * Heineke, A. J., & Giatsou, E. (2020). Learning from students, teachers, and schools: Field-based teacher education for emergent bilingual learners. *Journal of Teacher Education*, 71(1), 148–161. <https://doi.org/10.1177/0022487119877373>
- * Heineke, A. J., Roudebush, A., Papola-Ellis, A., Davin, K. J., Cohen, S., & Wright-Costello, B. (2020). Apprenticing educators of emergent bilingual learners: Partnerships to promote linguistically responsive practice in classrooms, schools, and communities. *The Professional Educator*, 43(1), 70–80. <https://eric.ed.gov/?id=EJ1276090>
- * Heineke, A. J., & Vera, E. M. (2022). Beyond language and academics: Investigating teachers’ preparation to promote the social-emotional well-being of emergent bilingual learners. *Journal of Teacher Education*, 73(2), 145–158. <https://eric.ed.gov/?id=EJ1325640>
- * Heineke, A. J., Vera, E. M., Hill, M., Israel, M. S., Goldberger, N., Anderson, B., Giatsou, E., & Hook, K. (2022). From preparation to practice: Enhancing in-service teachers’ work with emergent bilingual learners through graduate teacher education. *Teacher Education Quarterly* 49(2), 8–21. <https://eric.ed.gov/?id=EJ1361411>
- * Hill, S. R. (2023). A survey of American paired teachers in dual language Chinese immersion programs. *Foreign Language Annals*, 56(2), 299–333. <https://doi.org/10.1111/flan.12682>
- * Housel, D. A. (2020). Supporting the engagement and participation of multicultural, multilingual immigrant families in public education in the United States: Some practical strategies. *School Community Journal*, 30(2). <https://files.eric.ed.gov/fulltext/EJ1276851.pdf>
- * Housel, D. A. (2021). Reflections on preservice preparation and professional development among instructors of adult emergent bi/multilingual learners [Doctoral dissertation, City University of New York]. *CUNY Academic Works*. https://academicworks.cuny.edu/hc_sas_etds/782
- * Housel, D. A., & Oranjian, N. (2021). A case study of the use of Newsela PRO among adult, emergent bi/multilingual learners in a pre-college program. *Adult Learning*, 32(2), 59–69. <https://doi.org/10.1177/1045159520959474>
- * Huang, B. H., Tian, Z., Wang, T., & Liaw, M. J. J. (2025). An investigation of parents’ decisions to enroll in Mandarin-English dual language immersion programs. *International Journal of Bilingual Education and Bilingualism*, 28(3), 375–390. <https://doi.org/10.1080/13670050.2024.2433140>
- * Hung, M., Smith, W. A., Voss, M. W., Franklin, J. D., Gu, Y., & Bounsanga, J. (2020). Exploring student achievement gaps in school districts across the United States. *Education and Urban Society* 52(2). <https://doi.org/10.1177/0013124519833442>

- * Hyun, J., Bettney Heidt, E., & Prasad, G. (2022). Designing critical multilingual multiliteracies projects in two-way immersion classrooms: Affordances and impacts on students. *Canadian Journal of Applied Linguistics*, 25(3), 1–32. <https://doi.org/10.37213/cjal.2022.32599>
- * Jiang, L. (2021). English learner students and college access in the U.S.: Analyzing thirty years of evidence from the National Secondary School Longitudinal Studies. (Publication No. 28548531) [Doctoral dissertation, University of Georgia]. ProQuest Dissertation and Theses Global. <https://www.proquest.com/openview/d2a8de705479ad3b260dafda34f8cfa8/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Kieffer, M. J., Lesaux, N. K., Rivera, M., & Francis, D. J. (2009). Accommodations for English language learners taking large-scale assessments: A meta-analysis on effectiveness and validity. *Review of Educational Research*. <https://doi.org/10.3102/0034654309332490>
- Kim, Y. K., Hutchison, L. A., & Winsler, A. (2015). Bilingual education in the United States: an historical overview and examination of two-way immersion. *Educational Review*, 67(2), 236–252. <https://doi.org/10.1080/00131911.2013.865593>
- * Kim, Y.-S. G., Gutierrez, N., & Petscher, Y. (2024). Decomposing variation in vocabulary and listening comprehension task performance in Spanish and English into person, ecological, and assessment differences for Spanish-English bilingual children in the United States. *Journal of Speech, Language, and Hearing Research*, 67(10), 3733–3747. https://doi.org/10.1044/2024_JSLHR-23-00702
- * King, M., Ward, H., Soto, G., & Barrett, T. S. (2022). Supporting emergent bilinguals who use augmentative and alternative communication and their families: Lessons in telepractice from the COVID-19 pandemic. *American Journal of Speech-Language Pathology*, 31(5), 2004–2021. https://doi.org/10.1044/2022_AJSLP-22-00003
- * Kleyn, T., & García, O. (2019). Translanguaging as an act of transformation: Restructuring teaching and learning for emergent bilingual students. In L. C. Oliveira (Ed.), *The handbook of TESOL in K-12* (1st ed., pp. 69–82). Wiley. <https://doi.org/10.1002/9781119421702.ch6>
- * La Serna, J. (2022). Supporting literacy development in two-way immersion classrooms (Grades 3–5). *Foreign Language Annals*, 55(3), 725–741. <https://doi.org/10.1111/flan.12628>
- Ladson-Billings, G. (2007). Presidential address: From the achievement gap to the education debt: Understanding achievement in U.S. schools. *Educational Researcher*, 35(7), 3–12. <https://doi.org/10.3102/0013189X035007003>
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32, 465–491. <https://doi.org/10.3102/00028312032003465>
- * Li, L. (2024). Erasing race and disability from educational policies of a Chinese-English dual language charter school. *Teachers College Record: The Voice of Scholarship in Education*, 126(4–5), 3–30. <https://doi.org/10.1177/01614681241258833>
- Li, J., Steele, J., Slater, R., Bacon, M., & Miller, T. (2016). Teaching practices and language use in two-way dual language immersion programs in a large public school district. *International Multilingual Research Journal*, 10(1), 31–43. <https://doi.org/10.1080/19313152.2016.1118669>
- * López, F., & Santibanez, L. (2018). Teacher preparation for emergent bilingual students: Implications of evidence for policy. *Education Policy Analysis Archives*, 26, 36. <https://doi.org/10.14507/epaa.26.2866>
- López, L. M., & Tápanes, V. (2011). Latino children attending a two-way immersion program in the United States: A comparative case analysis. *Bilingual Research Journal*, 34(2), 142–160. <https://doi.org/10.1080/15235882.2011.598087>
- * Lu, X., & Troyan, F. J. (2022). Diversity and inclusion of culturally and linguistically diverse students in K-12 Chinese language education. *Foreign Language Annals*, 55(3), 684–703. <https://doi.org/10.1111/flan.12639>
- * Neukirch, J. W. (2020). Monitoring program effectiveness & educational outcomes for minority-language students in two-way Spanish immersion programs [Doctoral dissertation, Hamline University]. *School of Education and Leadership Student Capstone Theses and Dissertations*. 4507. Digital Commons. https://digitalcommons.hamline.edu/hse_all/4507/
- Office of English Language Acquisition. (2023). *Graduation rate percentages for English learners and all students by state: School year 2019-20* *ten States with highest graduation rates ten states with lowest graduation rates*. U.S. Department of Education. <https://files.eric.ed.gov/fulltext/ED628866.pdf>
- * Oliveira, G., Chang-Bacon, C. K., Cho, E., & Baez-Cruz, M. (2020). Parent and teacher perceptions of a Brazilian Portuguese two-way immersion program. *Bilingual Research Journal*, 43(2), 212–231. <https://doi.org/10.1080/15235882.2020.1773961>
- * Pacheco, M. B., Smith, B. E., Deig, A., & Amgott, N. A. (2021). Scaffolding multimodal composition with emergent bilingual students. *Journal of Literacy Research*, 53(2), 149–173. <https://doi.org/10.1177/1086296X211010888>
- * Padilla, A. M., Chen, X., Swanson, E., Peterson, M., & Peruzzaro, A. (2022). Longitudinal study of Spanish dual language immersion graduates: Secondary school academic and language achievement. *Foreign Language Annals*, 55(2), 408–434. <https://doi.org/10.1111/flan.12615>
- Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher*, 41(3), 93–97. <https://www.jstor.org/stable/41477769>
- * Polanco, P., & Luft de Baker, D. (2018). Transitional bilingual education and two-way immersion programs: comparison of reading outcomes for English learners in the United States. *Athens Journal of Education*, 5(4), 423–444. <https://doi.org/10.30958/aje.5-4-5>
- Polat, N., & Cepik, S. (2016). An exploratory factor analysis of the sheltered instruction observation protocol as an evaluation tool to measure teaching effectiveness. *TESOL Quarterly*, 50(4), 817–843. <http://www.jstor.org/stable/44984719>

- Reardon, S. F. (2016). School segregation and racial academic achievement gaps. *The Russell Sage Foundation Journal of the Social Sciences*, 2(5), 34–57. <https://doi.org/10.7758/RSF.2016.2.5.03>
- * Richerson, E. (2022). Hybrid instructional model for English language learners and impact on academic growth, language acquisition, and grit [Doctoral dissertation, Baker University]. *Baker University* https://www.bakeru.edu/images/pdf/SOE/EdD_Theses/Richerson_Erin.pdf
- * Ruiz-Funes, M. T. (2020). The development of oral ability in L2 Spanish by English home language learners in a TWI program. *Foreign Language Annals*, 53(1), 96–127. <https://doi.org/10.1111/flan.12442>
- * Sah, P. K., & Uysal, H. (2022). Unbiased but ideologically unclear: Teacher beliefs about language practices of emergent bilingual students in the U.S. *Linguistics and Education*, 72(2): 101126. https://www.academia.edu/90682282/Unbiased_but_ideologically_unclear_Teacher_beliefs_about_language_practices_of_emergent_bilingual_students_in_the_U_S
- * Smith, B. E., Pacheco, M. B., & Khorosheva, M. (2021). Emergent bilingual students and digital multimodal composition: A systematic review of research in secondary classrooms. *Reading Research Quarterly*, 56(1), 33–52. <https://doi.org/10.1002/rrq.298>
- Thomas, W. P., & Collier, V. (1997). *School Effectiveness for Language Minority Students*. National Clearinghouse for Bilingual Education (NCBE) Resource collection series, No.9. <http://www.ncela.gwu.edu/pubs/resource/effectiveness/>.
- Thomas, W. P., & Collier, V. (2000). Accelerated schooling for all students: Research findings on education in multilingual communities. In S. Shaw (Ed.), *Intercultural education in European classrooms: Intercultural education partnership* (pp. 15–35). Trentham. <https://doi.org/10.4135/9781412963985.n66>
- Thomas, W. P., & Collier, V. P. (2002). A national study of school effectiveness for language minority students' long-term academic achievement. Center for Research on Education, Diversity and Excellence. <https://escholarship.org/uc/item/65j213pt>
- Thomas, W. P., Collier, V. P., & Abbott, M. (1993). Academic achievement through Japanese, Spanish, or French: The first two years of partial immersion. *The Modern Language Journal*, 77, 170–179. <https://doi.org/10.2307/328941>
- Umansky, I. M., & Reardon, S. F. (2014). Reclassification patterns among Latino English learner students in bilingual, dual immersion, and English immersion classrooms. *American Educational Research Journal*, 51(5), 879–912. <https://doi.org/10.3102/0002831214545110>
- * Vera, E., Heineke, A., Daskalova, P., Schultes, A. K., Pantoja-Patiño, J., Duncan, B., Yanuaria, C., & Furtado, C. (2021). Emergent bilingual high school students' social and emotional experiences. *Psychology in the Schools*, 58(10), 1932–1961. <https://doi.org/10.1002/pits.22559>
- * Wong, K. M., & Hill, H. C. (2023). Walking a fine line: Tensions in bilingual education for Asian languages in the United States. *Teacher Education*, 32(2). <https://files.eric.ed.gov/fulltext/EJ1408555.pdf>
- * Zoeller, E., & Briceño, A. (2022). Transnational teachers developing strength-based, language-focused pedagogy. *Teacher Education Quarterly*, 49(2). <https://eric.ed.gov/?id=EJ1361488>