

Sheltered Instruction and the Use of SIOP for Multilingual Learners: A Scoping Review

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Sheltered Instruction (SI), including the Sheltered Instruction Observation Protocol (SIOP), has been widely adopted as an approach to providing content-area instruction for multilingual learners (MLs) in K–12 settings over the past two decades. As the ML population continues to grow in the United States, questions remain about how educators conceptualize, implement, and examine SI across educational contexts. While SIOP is frequently positioned as a central framework for SI, the research literature reflects ongoing debates concerning instructional practices, teacher preparation and credentialing, professional development, policy alignment, and critiques of the model itself. This scoping review examines 31 empirical studies published between 2014 and 2023 and identified through searches of ERIC, Google Scholar, and JSTOR. Rather than evaluating instructional effectiveness, the review maps recurring themes related to reported benefits, challenges, and pedagogical implications of SI and the use of SIOP. Across the literature, a consistent emphasis emerges on the importance of sustained professional development and teacher preparation to support meaningful content and language instruction for multilingual learners.

Keywords: sheltered instruction (SI); Sheltered Instruction Observation Protocol (SIOP); multilingual learners (MLs); content-area instruction; scoping review

Multilingual learners (MLs) represent one of the fastest-growing student populations in U.S. K–12 schools, with the majority born in the United States and educated primarily in English-medium settings. As linguistic diversity continues to increase, schools face sustained pressure to provide meaningful access to grade-level content while simultaneously supporting students' language development. In response, a range of instructional approaches has emerged to address the dual demands of content learning and language support within mainstream classrooms.

One influential approach is sheltered instruction (SI), a broad pedagogical orientation aimed at making academic content comprehensible for multilingual learners through deliberate instructional scaffolding. Among the most widely adopted SI frameworks is the Sheltered Instruction Observation Protocol (SIOP), a model developed to operationalize SI through a set of instructional features. Originally developed as a multi-year initiative, SIOP has since been taken up by state and local education agencies as a guide for content-area instruction involving multilingual learners. While often treated as synonymous with SI in

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practice, SIOP represents one model within a wider landscape of SI-related frameworks and practices.

Over the past decade, research on SI and the use of SIOP has expanded across multiple domains, reflecting both its widespread adoption and the ongoing debate about its role in the education of multilingual youth. Prior studies have examined instructional practices associated with SI and SIOP, teacher preparation and professional development, policy contexts shaping implementation, and critiques of the model's design and underlying assumptions. Recent scholarship has continued these lines of inquiry, including investigations of sustained professional development for in-service teachers (Williams et al., 2025), teacher preparation and implementation in content-area classrooms (Tigert & Fotouhi, 2025), and comparative perspectives on SI and related instructional models (Chap, 2025). Collectively, this body of literature reveals a fragmented field in which SI is variably conceptualized, enacted, and discussed across contexts. These variations raise important questions about how SI and the use of SIOP are understood in research and practice, highlighting the need for deliberate mapping of key themes, areas of convergence, and points of tension within the literature.

The purpose of this scoping review is to map how SI and the use of the SIOP have been conceptualized, implemented, and critiqued in K–12 research involving MLs. In doing so, the review aims to clarify areas of convergence and divergence across studies, particularly with respect to instructional practices, teacher preparation, professional development, and policy contexts. By providing an analytic overview of the literature, this review will support future research and inform ongoing discussions about the role of SI in multilingual education.

Research Questions

This scoping review is guided by the following research questions:

RQ1. What benefits of SI and the use of SIOP for MLs are reported in the research?

RQ2. What challenges related to the implementation of SI and the use of SIOP are reported in the research?

RQ3. What pedagogical implications for teachers and teacher preparation are proposed in the research on SI and SIOP?

METHODOLOGY

This study employed a scoping review, a form of evidence synthesis that systematically maps the breadth and characteristics of research across bodies of literature to identify key concepts, patterns, and knowledge gaps. Search and screening procedures were informed by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009). Searches were conducted electronically using the Education Resources Information Center (ERIC), Google Scholar, and JSTOR, with all databases last consulted in August 2025.

Search Strategy and Inclusion Criteria

For the ERIC database, the keyword sheltered instruction was used, and the descriptor filter English Language Learners was applied to capture studies aligned with database indexing practices. Although the present review adopts the term multilingual

learners, legacy terminology was used in database searches to ensure comprehensive retrieval of relevant studies. The following inclusion criteria were applied across databases:

1. The study focused on SI and/or the use of SIOP with MLs.
2. The study was peer reviewed and empirical in nature.
3. Conceptual works, theses, and dissertations were excluded.
4. The study was conducted in K–12 educational settings.
5. The study was published between 2014 and 2023.

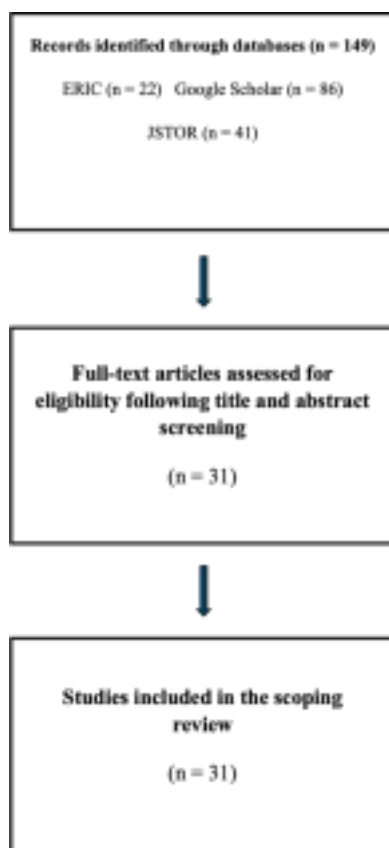
Study Selection and Screening

The initial ERIC search yielded 22 records. After screening abstracts and applying the inclusion criteria, 20 studies were retained. A second search was conducted in Google Scholar using combinations of the following terms: sheltered instruction, SIOP, English language learner, EL, ELL, LEP, and emergent bilingual. This search yielded 86 records, of which four met the inclusion criteria. A third search was conducted in JSTOR using the terms sheltered instruction, SIOP, and English learner, yielding 41 records, of which seven were included after screening. Excluded records were largely conceptual, conducted outside K–12 contexts, or did not focus explicitly on SI or SIOP. Across all databases, a total of 31 empirical studies were included in the scoping review. Study identification and selection procedures are summarized in Figure 1.

Data Analysis

Following screening, the included studies were reviewed and analyzed in relation to the research questions. Analysis was conducted manually without qualitative data analysis software. During the initial review of each study, I recorded detailed notes on findings and pedagogical implications relevant to the research questions. Subsequently, I organized this information into a study-level data extraction table that documented the author(s), 4 NYS TESOL JOURNAL Vol. 12, No. 1, September 2025 database source, major findings, and pedagogical implications of each included study. The extracted findings and implications were then compared across studies to identify recurring ideas, similarities, and differences. Rather than applying a predetermined coding framework, recurring findings were grouped according to conceptual similarity and refined through repeated comparison across the included studies. For example, I grouped findings concerning limited teacher preparation for working with MLs, insufficient training in SI practices, and recommendations for sustained professional development or instructional coaching within a broader theme of teacher preparation and professional development. Other recurring findings were grouped in the same manner, resulting in themes related to reported instructional benefits, implementation challenges, and pedagogical implications. These themes were then organized in relation to the research questions and synthesized to identify areas of convergence, divergence, and gaps in the existing literature.

Figure 1. PRISMA flow diagram for study identification and selection.



RESULTS

RQ1. Reported Benefits of SI and the Use of SIOP

Across the 31 studies included in this scoping review, the literature reports several benefits associated with SI and the use of SIOP in content-area classrooms serving MLs. Reported benefits cluster into two broad categories: benefits for students and benefits for teachers. Some studies discussed benefits alongside challenges within the same instructional contexts.

Instructional Support for Multilingual Learners

Multiple studies reported that SI and the use of SIOP supported MLs' access to academic content. Desjardins (2020) described how SIOP-aligned instruction was associated with increased opportunities for students to engage with grade-level content that might otherwise be linguistically inaccessible. Similarly, Burke (2015) reported that students in content-area classrooms implementing SIOP received more focused instructional support, which teachers perceived as facilitating students' participation in mainstream academic settings. Other studies noted that lessons incorporating SIOP strategies yielded greater student engagement and comprehension compared with lessons in which such strategies were absent (Furr & Garcia, 2018; Hurley et al., 2014).

Student Engagement

A smaller subset of studies explicitly reported increased student engagement in classrooms implementing SIOP-related practices. González-Howard and McNeill (2016) found that small-group instructional configurations associated with SIOP supported students' engagement in scientific argumentation through peer interaction. Hurley et al. (2014) similarly reported that small-group discussion structures increased students' opportunities to participate in science learning. These findings align with SIOP's emphasis on grouping practices that support both language and content objectives (Echevarría et al., 2010).

Instructional Planning and Adaptation for Teachers

Several studies reported that SIOP provided teachers with a framework that supported instructional planning and curricular adaptation for multilingual learners. Daniel and Conlin (2015), along with Daniel and Pray (2017), described how SIOP prompted teachers to make instructional goals, procedures, and feedback more explicit. Other studies noted that teachers used SIOP features to reconsider assumptions about students' linguistic resources and to adapt existing lesson plans accordingly (González, 2016; He et al., 2018; Johnson, 2019; Piazza et al., 2020; Riley & Bambino, 2021). Collectively, these studies indicate that SIOP functioned as a planning tool that shaped teachers' instructional decision-making, particularly when accompanied by professional development.

RQ2. Reported Challenges Related to the Implementation of SI and SIOP

Across the 31 studies included in this scoping review, challenges related to the implementation of SI and the use of SIOP were frequently reported. Eighteen studies reported challenges or limitations associated with instructional practices, teacher preparation, program structures, or the features of the SIOP model itself. Reported challenges clustered into three broad categories: (a) insufficient teacher preparation and professional development, (b) concerns related to SIOP-track curricular structures, and (c) critiques of the SIOP model's design.

Insufficient Teacher Preparation and Professional Development

Studies frequently highlighted teachers' limited preparedness as a challenge in implementing SI effectively (Desjardins, 2020; Furr & Garcia, 2018; González, 2016). One study noted that successful implementation of SIOP-aligned instruction depended on teachers' ability to set and address meaningful language objectives, which in turn required familiarity with second language acquisition (SLA) principles (Desjardins, 2020). Other studies reported limited use of SLA-informed strategies among pre-service and in-service teachers, including difficulties with formative assessment and the interpretation of language-related data (Furr & Garcia, 2018; González, 2016).

Stephens and Johnson (2015) authors also noted that content-area teachers implementing SIOP were often not required to hold credentials specific to teaching multilingual learners, such as a TESOL endorsement. Within these contexts, researchers argued that additional professional development or extensive preparation was necessary to support effective implementation (Leider et al., 2021; Schall-Leckrone, 2017, 2018; Song, 2016). Song (2016) reported that some teachers conceptualized themselves primarily as content instructors rather than language teachers, which influenced their instructional focus.

Hamada and Miller (2023) highlighted structural issues within teacher education programs, including limited cross-disciplinary collaboration between education and linguistics departments, which authors associated with underutilization of SLA strategies in

field placements. Collectively, these studies suggest that variability in teacher preparation and professional development represented a recurring implementation challenge in the literature.

Concerns Related to SIOP-Track Curricular Structures

One study raised concerns about how SI was implemented through separate curricular tracks for multilingual learners. In these settings, students were placed in sheltered content courses structurally distinct from mainstream classrooms. Dabach (2014) reported that students in such settings described SI classrooms as stigmatized spaces, prompting strategies of impression management and social negotiation. Teachers in these settings also reported challenges related to managing social dynamics associated with students' placement.

Other studies raised concerns about academic rigor in SIOP-track curricula. Kanno and Kangas (2014) argued that enrollment in sheltered courses often restricted course offerings, limiting students' access to advanced academic content. Similarly, Umansky (2018) reported that SI courses in California, on average, included less advanced content than comparable mainstream courses, linking this disparity to differences in academic outcomes. These findings reflect concerns regarding how SI is operationalized at the programmatic level, rather than critiques of the pedagogical approach itself.

Critiques of the SIOP Model's Design

Several studies also critiqued aspects of the SIOP model itself. Daniel and Conlin (2015) argued that the model's feature-based checklist emphasized teacher actions over students' thinking and sense-making. Similarly, Polat and Cepik (2016) called for revisions prioritizing learner-centered instructional processes. Johnson (2020) noted that the model provided limited guidance regarding the timing and degree of scaffolding during instruction.

Other critiques focused on specific instructional features associated with SIOP implementation. Haverly et al. (2021) reported that front-loading vocabulary instruction in science lessons sometimes constrained students' opportunities for sense-making. Johnson et al. (2018) extended this critique to broader concerns about content-area instruction for multilingual learners, particularly in settings where instruction occurred exclusively in English and teachers lacked training in SLA-informed pedagogy. Across these studies, scholars framed these critiques as calls for refinement rather than a rejection of SI itself.

RQ3. Pedagogical Implications Proposed in Research on SI and SIOP

Studies on SI and SIOP highlight pedagogical implications across classroom practice, teacher preparation, professional development, and policy contexts. Rather than presenting a single set of recommendations, the literature reflects multiple areas requiring refinement, adaptation, or structural support.

Revision and Adaptation of the SIOP Model

Several studies proposed revisions or adaptations to the SIOP model to better support student-centered instruction. Polat and Cepik (2016) advocated for prioritizing learner-centered practices within SIOP implementation, echoing Daniel and Conlin's (2015) recommendation that additional features could prompt teachers to attend more closely to students' contributions and sense-making processes. Zhao and Lapuk (2019) proposed instructional tools to foster welcoming, multicultural classroom environments, particularly in sheltered mathematics contexts. Desjardins (2020) emphasized the importance of understanding and integrating second language acquisition principles into lesson planning.

Professional Development and In-Service Teacher Support

Professional development emerged as a recurring pedagogical implication across studies focusing on in-service teachers. Piazza et al. (2020) reported that targeted professional development related to multilingual learners and SIOP supported teachers' attention to students' sociocultural and linguistic needs. Other studies suggested that SIOP functioned most effectively when accompanied by sustained instructional coaching and opportunities for reflection (Daniel & Pray, 2017; Johnson, 2019). Furr and Garcia (2018) and Song (2016) noted that teachers often relied on mainstream instructional strategies without explicit attention to language development, leading authors to argue for professional development that explicitly addresses teachers' roles as both content and language instructors.

Preparation of Pre-Service Teachers

Several studies highlighted implications for pre-service teacher education. Hamada and Miller (2023) called for increased cross-disciplinary collaboration between linguistics and teacher education programs to better prepare candidates for content-area classrooms serving multilingual learners. González (2016) emphasized formative assessment and data-informed instructional design to support language development. To build practical reflective skills, Riley and Bambino (2021) reported that video-based lesson analysis deepened preservice teachers' understanding of SI classrooms. Schall-Leckrone (2017, 2018) further suggested that novice teachers' success with SIOP implementation depended on access to experienced mentors and structured guidance.

Policy Contexts and Programmatic Considerations

Some studies extended pedagogical implications to policy and programmatic contexts. Stephens and Johnson (2015) reported misalignment between state policy and classroom practice, suggesting that effective implementation of SI required clearer guidance and support. Johnson et al. (2018) and Leider et al. (2021) argued that policy decisions related to teacher preparation, credentialing, and resource allocation shaped the conditions under which SI was enacted. These studies framed policy considerations as contextual factors that influence instructional quality rather than as instructional strategies.

Use of Students' Linguistic Resources

A small number of studies addressed pedagogical implications related to the use of students' home languages. Haverly et al. (2021) reported that delayed vocabulary instruction in science lessons expanded students' opportunities for sense-making by leveraging their linguistic resources. González-Howard and McNeill (2016) identified classroom community, instructional structure, and small-group configurations as factors influencing students' opportunities to engage in argumentation, including multilingual forms of participation.

DISCUSSION

This scoping review examined how SI and the use of the SI Observation Protocol (SIOP) have been conceptualized, implemented, and discussed in K–12 research involving multilingual learners. The review mapped recurring benefits, challenges, and pedagogical implications reported across studies published between 2014 and 2023. Several patterns emerge from this body of literature.

A central theme across studies concerns the role of content-area teachers in classrooms serving multilingual learners. Across multiple contexts, authors reported that content-area teachers implementing SI often conceptualized themselves primarily as subject-matter instructors rather than as dual content-and-language educators. This role perception frequently stems from limited preparation in second language acquisition and culturally responsive pedagogies, particularly when educators had not received sustained professional development. This framing of teacher identity may shape instructional priorities and influence how language objectives are integrated into content instruction.

The reviewed studies consistently emphasized professional development as a key mediating factor in SI implementation. Rather than positioning SIOP as a stand-alone solution, authors described its effectiveness as contingent upon ongoing instructional coaching, opportunities for reflection, and institutional support. Studies focusing on both in-service and pre-service teachers highlighted the importance of explicit attention to language development, formative assessment, and sociocultural context. Together, these findings suggest that SI is best understood not as a fixed model, but as a set of practices requiring sustained support to be enacted meaningfully.

A fundamental distinction exists between SI as a pedagogical model and its implementation within programmatic structures, such as separate curricular tracks. Several studies raised concerns that operationalizing SI through segregated course placements risks stigmatizing learners and restricting academic opportunities (Dabach, 2014; Kanno & Kangas, 2014; Umansky, 2018). These critiques target how institutional decisions shape students' access to rigorous content and social integration, rather than SI itself. This distinction underscores the need to consider policy and programmatic contexts when interpreting research on SI.

At the level of instructional design, multiple authors called for refinement of the SIOP model to better foreground student sense-making and interaction. Suggested adaptations included greater responsiveness to student contributions, more flexible approaches to scaffolding, and instructional environments that value students' linguistic and cultural resources. A small subset of studies further emphasized the pedagogical value of allowing students to draw on their home languages during content learning, particularly in support of conceptual understanding and argumentation.

Finally, several studies extended their discussion to policy contexts, noting misalignment between state-level expectations and classroom-level conditions. Authors argued that decisions related to teacher preparation requirements, credentialing structures, and resource allocation shape the conditions under which SI is enacted. Within this literature, policy considerations were framed as contextual factors influencing instructional quality rather than as prescriptive solutions.

Collectively, these findings suggest that effective implementation of SI depends on alignment among classroom practice, teacher preparation, and educational policy. For teachers, educators, and school leaders, the reviewed literature underscores the importance of sustained professional development, instructional coaching, and preparation that equips content-area teachers to address both language and content learning. At the policy level, the findings suggest that decisions regarding credentialing, resource allocation, and program design shape the conditions under which SI is enacted and experienced by multilingual learners. Future research should continue to examine SI beyond the SIOP framework by exploring alternative instructional models, diverse educational contexts, and multilingual learners' perspectives, while also investigating how teacher preparation and policy decisions influence implementation over time.

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