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The Sheltered Instruction Observation Protocol and Critical Pedagogy: Foundations for Critical Practice with English Learners

Gabriel Brossy de Dios , '21

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Swarthmore College

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Drs. Elaine C. Allard and María-Luisa Guardiola

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Introduction

In the United States, K-12 students face a wide range of challenges emanating from persistent and systemic issues, particularly racial and class-based inequalities. For example, the COVID-19 pandemic has both demonstrated and deepened these racial and economic inequalities: in the disproportionate death rate of black and Latino people, as well as the rise in unemployment and economic insecurity. Individual students are affected by these global and national issues at the micro level of schools, work, and family, among other settings. Education alone will not solve issues such as economic inequality and racism — in fact the educational system as it stands contributes to the social reproduction of these inequalities (Anyon, 1980). However, teachers who take a critical stance on the lives of their students outside the school, on students' potential in the many domains of their lives, and on the purpose of their instruction may succeed in guiding students both to excel academically and to question and act to challenge the issues that directly impact their lives (Shor, 1996; Alegria, 2014). Given these possibilities of a critical orientation to teaching, this thesis seeks to elaborate on possible applications of critical pedagogy to an existing and popular instructional method for English learners.

Because of its focus on students' lives and their real problems, critical pedagogy may be particularly beneficial for English learners, who disproportionately face academic, economic, and racial disadvantages and discrimination. Looking at traditional academic measures of academic achievement such as the four-year high school graduation rate, outcomes for English learners are significantly behind those of their peers. English learners' graduation rate was 68.4 percent nationally in the 2017-2018 school year, with a wide range of graduation rates among states, with New York at the low extreme of 31 percent graduation, California at about the median with 68 percent, and West Virginia at the high extreme of 93 percent. And nationally,

graduation rates for English learners between 2010 and 2018 were consistently at least 10 percentage points below that of all students (Office of English Language Acquisition, 2020). In addition to academic achievement, when looking at one measure of economic status, English learners in the 2014-15 school year were overrepresented in Title I schools (U.S. Department of Education, n.d.). Before continuing, however, it is important to take a critical perspective on "gap" discourses such as those just presented. Such discourses often serve to develop political support for neoliberal school reforms that further marginalize English learners and other students (Au, 2016). In my orientation to this thesis, I recognize the impact these disparities have on students' lives, but I propose action that is fundamentally distinct from neoliberal reform. Rather than viewing inequalities as a problem to be solved by policy makers, this thesis views them as a reality to be understood and acted upon by students themselves, who live out the consequences of those inequalities. In addition to academic and economic considerations, English learners also often face discriminatory treatment in school that a critical perspective may help to counter. Such treatment, in addition to outright racism, includes deficit perspectives on students' language, culture, and knowledge that is based in a Eurocentric ideal of what constitutes language, culture, and knowledge in the United States (Valenzuela, 1999; Martínez, 2018). Additionally, the status of English teaching itself is fraught with assumptions about the value of English over the languages that students bring with them, positioning English as an imperial language (Phillipson, 1998; Canagarajah, 2005). Since English learners face these and other challenges, and particularly because deficit perspectives may cause teachers to construe English learners as lacking the knowledge to act autonomously for change in their own lives, critical pedagogy may be a useful educational framework that specifically negates this conception and provides English learners with opportunities to reflect on and change their own lives.

However, the literature on critical pedagogy is diverse and often theoretical. Because of this, as well as because of the need to focus on the methods of teaching itself that support students' academic success, this thesis applies critical pedagogy to the widely used and practically oriented Sheltered Instruction Observation Protocol, or SIOP, model. There are several reasons for this selection. First, this model is the most widely used framework in the U.S. for sheltered instruction, that is, content instruction modified to meet the needs of English learners, often in classes composed entirely of English learners (Echevarría, Vogt, & Short, 2013). Second, it provides a clear framework of components and features, which is helpful both for classroom implementation and for a clear analysis. And third, while maintaining a strong framework for making content accessible to English learners and supporting their language learning in content-based settings, it does not define the content, themes, approach, or structure to the curriculum and the classroom. Therefore, it shows potential to be adapted to different curricula and classroom settings — whether it can be adapted to a critical pedagogy approach is the focus of this thesis.

On a more personal note, I hope to connect some of the practical experiences I have from classroom observations and my own teaching with the theory and practice described by scholars of critical pedagogy. As an observer at two high schools in a major city, many of the practices I saw in English as a second language (ESL) and sheltered content classes were effective at supporting students' language and content learning, but did not include or were even opposed to critical pedagogy. And in my own student teaching at these schools (in ESL as well as Spanish teaching contexts), I felt pulled between enacting what I felt were traditional methods for language teaching and what I felt would be more transformational instruction, which was inspired by my theoretical readings but ill-defined in my practice. By writing this thesis, I hoped

to bridge some of the gap between critical pedagogy as theory and as praxis, giving myself and other educators more concrete steps to implement a critical approach in real language classrooms.

This thesis explores the compatibility of the SIOP model with a critical pedagogy approach as a way to suggest possible practical steps to implement a critical pedagogy with English learners. To do so, I have identified six key features of critical pedagogy from a small selection of educational studies encyclopedias, educational studies handbooks, and influential works on critical pedagogy as the guiding framework of this thesis, serving as the lens through which to analyze the SIOP model. After an overview of the SIOP model, I then present and discuss the results of a literature review, in which I identified the overlaps between SIOP and critical pedagogy features. Finally, I conclude the paper by arguing that SIOP and critical pedagogy can complement each other first by taking advantage of the natural overlaps that already exist between them, second by proactively addressing some of their areas of potential conflict, and lastly by including critical practices even if they are not easily intertwined with SIOP.

A note on generalization

Before continuing, it is worth making a note on the applicability of this research to contexts beyond ESL and sheltered content classes. In part because of my background teaching Spanish, I consider the possibility that the findings of this thesis may apply to world language and English as a foreign language (EFL) instruction. On the one hand, there are clear differences between ESL contexts and EFL or world language contexts, notably the exposure students have to the second language (L2) that they are learning as well as the relative social status of students'

first language (L1) and L2. In addition, the processes of second language acquisition (SLA) themselves may take on greater or lesser importance across social contexts (Siegel, 2003). On the other hand, though, many SLA researchers often generalize their findings across social contexts (e.g. Krashen & Terrell, 1983; Doughty & Long, 2003). Additionally, while there is little to no literature discussing SIOP in the context of world language classrooms for U.S. students, there are some empirical studies showing moderate success for its use in EFL contexts (Wu, 2015; Koura & Zahran, 2017). In addition, there are many examples of critical pedagogy being applied to EFL classes (e.g. Derince, 2011; Kim & Pollard, 2017), as well as some examples in U.S.-based world language classes (Crookes, 2010).

Because of similar SLA processes for learners, and because of the successes of both SIOP and critical pedagogy in EFL contexts, then, this paper's findings could possibly be generalized to EFL and world language contexts that follow a content-based, target language-medium structure as SIOP does. I caution that these generalizations are limited, particularly regarding findings related to students' L1 use and other findings in which students' social context is highly salient. For findings that are less dependent on social context, though, I encourage readers to note possible applications to EFL and world language teaching.

Defining the lens: critical pedagogy

As a scholarly tradition, critical pedagogy is diverse and multifaceted, but there are several key theorists who have shaped its trajectory. Many of its late 20th century proponents, such as Henry Giroux, were influenced by the Frankfurt School of critical theory, a group of German theorists whose work responded to the rise of fascism by analyzing such societal questions as ideology and control (McLaren, 1994; Gordon, 2012). A key foundation of critical

pedagogy as its own discipline, distinct from critical theory, came in the work of Brazilian educator Paulo Freire, who published the influential *Pedagogy of the Oppressed* in 1970. Through the 1970s, 80s, and 90s, theorists such as Giroux, Michael Apple, Peter McLaren, and Ira Shor wrote further about critical pedagogy in the U.S. context, and some of whom incorporated John Dewey's conceptions of the links between democracy and education, in addition to Freire and the critical theorists (Coulter, 2008; Gordon, 2012). While critical pedagogy during this time period, including the work of Freire, drew heavily on a Marxist analysis (Canagarajah, 2005), other works from the same period were simultaneously influenced by feminism and anticolonialism (see, for example, hooks 1994). And in the case of critical pedagogy in ESL and EFL research since about the 1990s, its diverse influences contributed to more focus on agency and culture than some earlier applications to other educational fields (Canagarajah, 2005).

With such a variety of strands in its relatively short history, then, critical pedagogy, whether in the ESL context or more broadly, can be difficult to define. And because of a relative dearth of research on practical applications, a definition that is oriented towards practice is even more difficult to delineate (Gordon, 2012). Referring to critical pedagogy in the ESL/EFL field particularly, Canagarajah (2005) even writes that an attempt at definition is "dangerous":

> While theories are enabling (in opening our eyes to the issues that matter in a specific activity), they can also be limiting… Personally, I prefer to adopt a tool box approach to theory. We must feel free to pick and choose among the available critical theories as relevant for the diverse students, classrooms, and communities we are working with. To define critical pedagogy, then, we should turn to the other end of the theory/praxis dichotomy and orientate to it as a form of practice. Critical pedagogy is not a set of ideas, but a way of "doing" learning and teaching. (p. 932)

Yet it is precisely the motivation of this thesis to lay out a definition of critical pedagogy for the purpose of "doing" learning and teaching. Defining critical pedagogy here has two purposes: the immediate research and the broader practical purpose. For the present research, defining critical pedagogy and assigning it six particular features allows for a systematic analysis of the SIOP model and the application of critical pedagogy to this instructional model. For the broader purpose, if critical pedagogy is to be more than simply a theory, and live up to its aspirations of praxis, and beyond that, of liberation, then it must be usable — defining it in practical components is a key part of this. However, critique of such a definition (particularly a definition that is used more broadly than in one academic paper or one classroom) is not only justified, but necessary to prevent the kind of limiting effect that Canagarajah (2005) warns of. Therefore, as other scholars attempt to define critical pedagogy and assign it discrete features, continued debate, revision, posing of multiple definitions, and a use of Canagarajah's (2005) "tool box approach" that orients theory towards practice in concrete situations will help keep critical pedagogy adaptive to the new problems that such definitions bring to the fore.

One definition of critical pedagogy describes it as "the theory and practice of teaching and learning that raises the learners' awareness or 'critical consciousness' about the constructed surface reality that people assume is normal, natural, and makes common sense" (Gordon, 2012). Another describes the ideas composing critical pedagogy as heterogeneous, and the defining feature being the common objectives of its proponents: empowerment of students and transformation of society (McLaren 1994). For the purposes of this thesis, six specific features and two broad components of critical pedagogy were identified in order to serve as analytical categories (with the terms "features" and "components" being derived from SIOP for consistency). These were identified from encyclopedia entries (Coulter, 2008; Gordon, 2012) and

works from major theorists of critical pedagogy (McLaren, 1994; Shor, 1996). These six features are 1) Questioning School Knowledge, 2) Questioning Power Relations, 3) Social Engagement and Action, 4) A Negotiated Curriculum, 5) Adapting to Students and Local Context, and 6) Valuing Diverse Perspectives. These features can further be grouped into two broad components of critical pedagogy, with the first three features falling under the component of Developing Critical Consciousness, and the last three features falling under the component of Democracy in the Classroom. Each feature is described below with a definition, an elaboration on this definition, and examples. For consistency and because of the rich detail in his book, examples are derived from Shor's *When Students Have Power* (1996), a mostly narrative account of his own critical pedagogy in teaching an English class at a predominantly working-class commuter college in New York City.

Developing Critical Consciousness

Feature 1: Questioning School Knowledge

This first feature refers to the well-known technique described by Freire (2000) as problem posing. Because of the significance of asking questions in critical pedagogy, and because of the emphasis that the works that informed these features placed on questioning both ideas and practices inside and outside of school, "problem-posing" features have been divided into the first and second features rather than being consolidated into one. So the first feature, Questioning School Knowledge, refers specifically to fostering students' understanding of knowledge as not politically neutral, as containing omissions and biases, and as capable of being questioned.

In a critical pedagogy approach, questioning of the knowledge they are presented with in class is a fundamental tool for students to view their education in the social context of their lives and identify what purposes this knowledge serves. Gordon (2012) provides an excellent summary of what this questioning involves:

> School curriculum is highly contested terrain because it distributes knowledge, beliefs, values, and meanings to students and serves as a gatekeeping mechanism. The struggle for the curriculum is over whose knowledge is represented and who gets access to certain levels of knowledge. Critical pedagogy interrogates forms of knowledge to ask how and why classroom knowledge is constructed, selected, and disseminated. Critical pedagogy would ask whose voices, histories, and perspectives are not represented in school knowledge. Critical pedagogy also asks what knowledge is more or less valued by society and why. Critical pedagogy disrupts standardized forms of knowledge by helping learners realize that curricula do more than present neutral, objective, unquestionable (unchallengeable) knowledge. (p. 480)

Thus, critical pedagogy presents knowledge as being socially constructed and affected by power relations, rather than being objective (McLaren, 1994).

In Shor's narrative, students question the knowledge, materials, and curriculum he presents in his own class, demonstrating that critical pedagogues themselves should not be immune from having the knowledge they present being questioned. In Shor's case, many such critiques came through the main innovation presented in the book, the After Class Group (ACG), which was a group of student volunteers who held brief discussions evaluating class after each session. To take one example in particular that focuses particularly on knowledge rather than classroom practices, students criticized Shor's selection of the book *Walden II* as one of the required texts for the course, which they found irrelevant to their lives and a chore to read. In contrast, students had far fewer complaints about the other novel they read, *Ecotopia*, suggesting that students were not simply attempting to do less work for class, but were posing criticisms of one particular form of knowledge they were being presented with (Shor, 1996). Most students

already form opinions such as these about the knowledge they are being presented with in their classes; what makes Shor's approach consistent with the feature of Questioning School Knowledge is that he elicits students' discussion of these opinions and extends that discussion through his own comments, which he backloads into the conversation after students have had a substantial opportunity to discuss their ideas first.

Feature 2: Questioning Power Relations

As stated above, this feature is closely related to the first feature in that it is also fundamentally based on problem posing. The main difference is that while the first feature focuses on questioning the knowledge they are presented with in school, the second feature focuses on questioning power relations that affect life beyond the classroom. This tends to involve questioning not only ideologies (such as meritocracy) but also practices (such as universities requiring standardized test scores for admission). Therefore, Questioning Power Relations refers to fostering students' critical consciousness of which individuals and groups hold power at various levels of society and in various situations, why these individuals or groups hold power, and what ideologies and practices result from these power relations. These can include power relations within and outside the school setting.

Gordon (2012) argues that school knowledge is intimately connected to power relations in the broader society. In addition, Coulter (2008), in an homage to Freire, describes critical literacy as promoting not only questioning texts, but also questioning the world, particularly through students' practice of writing as a form of giving voice to their own observations and opinions.

Perhaps one of Shor's clearest examples of a specific teaching practice supporting students to question power relations was his assignment of research projects on how to improve the college students attended and on how to improve New York City. He provided students with a five-part guide for their research based on Dewey and Freire to support their critical thinking: description, diagnosis, solution, implementation, and evaluation. However, he was disappointed in the critical consciousness that many groups showed in their reports, even at one point making what he referred to as the mistake of interrupting a group's oral report to tell students how they could think about their issue more systemically. The extent to which students questioned the power relations that were connected to their problems varied, with many sticking to individualist analyses common in the media, while others attempted creative solutions like distributing maps of shelters to homeless people that still fell into what Shor considered an uncritical analysis. Some however, did approach their issues as being based in larger systems, like a group that emphasized the need to advocate for new laws and regulations that would limit pollution (Shor, 1996). Guiding students towards a more critical and unfamiliar perspective on issues of power relations was challenging for Shor. But what aligns his practice with the feature of Questioning Power Relations is that he provided students with opportunities and, importantly, scaffolding to question the causes of social problems, and achieved some success in this goal.

Feature 3: Social Engagement and Action

Social Engagement and Action, the final feature of the component Developing Critical Consciousness, can be thought of as the application of the understanding students develop when the first two features are implemented. In other words, it represents praxis. For the purposes of this thesis, this feature is defined not only as taking action itself, but also the intermediate

knowledge between understanding a problem and solving the problem, that is, understanding possible solutions. Said another way, this feature refers to fostering understanding of alternatives to existing power relations, understanding of how such alternatives could be won, and students' own action to achieve the alternative they want.

For Coulter (2008), the application of critical literacy takes the form of using language to create change, and the critical teacher not only implies action but specifically supports students to take it. Similarly, Gordon (2012) characterizes critical theorists as supporting activities that have meaning for students' lives beyond school, and that make the link between understanding problems and creating change explicit. To the extent that Social Engagement and Action involves activities outside of school that are relevant to students, this feature also connects to Feature 5: Adapting to Students and Local Context, demonstrating the dynamic interplay between features and the importance of implementing all six.

To see where action comes into Shor's work, it is helpful to extend the example presented under the discussion of Feature 2. One of the results of the research projects, which included the action-oriented solution, implementation, and evaluation portions, was students' discussion of possible ways to organize to achieve the solutions they proposed in these group projects. Some of this discussion took place in the ACG. In another instance after several groups had made their reports, a student named Angela declared that they needed to "change the whole system, not small parts" (p. 177). Shor followed this up by asking students how they could organize to make these changes, but students still did not have a clear answer. In this example, Shor demonstrates an attempt to promote Social Engagement and Action, but because he fails to incorporate action as part of the class (that is, not only discussing action, but giving students the opportunity and guidance to take action as part of the class), this example does not fully model this feature. A

better example comes from action that resulted not from Shor's direct assignments, but from the confidence and sense of agency that his course helped develop in students more broadly. Shor describes being approached by a few students who wanted another professor to provide more decision-making authority to students. He warned them of the difficulty of convincing a professor of this, and gave them several pieces of advice to help give them the best chance of succeeding. However, the students' attempt to democratize their class was dismissed by the other professor. Although this example ended in failure to achieve the goals students set out to accomplish, it demonstrates parts of this feature not present in the previous example, namely that students developed a clear understanding of what they wanted and how they might accomplish it, followed by action to actually reach that goal.

Democracy in the Classroom

Feature 4: A Negotiated Curriculum

This fourth feature, A Negotiated Curriculum, is the first that falls under the component Democracy in the Classroom. As such, the use of this feature invites democracy in the classroom by giving students the authority to collectively decide what and how they will study. It refers to teachers' direct discussion with students at the beginning of the course to co-determine the curriculum, as well as ongoing discussion and revision of content topics, materials, activities, and assignments. Some of the difficulties involved in accomplishing this are discussed in the example below.

McLaren (1994) characterizes curriculum, both formal and hidden, as representing certain knowledge and ideologies rather than occupying a neutral position. Similarly, as quoted in the discussion of Feature 1, Gordon (2012) states that the choice of curriculum implies a

choice of whose knowledge is given value in the classroom. Moving from critique to application, Coulter (2008) describes curriculum as being derived from the students themselves rather than solely from the teacher or from an external source, and further specifies that curriculum in the critical literacy classroom tends to be negotiated.

Shor devotes approximately the first half of his narrative to discussing the process of negotiating grading contracts with his students in the first few days of class, and the resulting concessions that shaped the rest of the course. While he acknowledges that he missed an opportunity to also negotiate much of the content and materials of the class, including the books they would read, the detail given to the negotiation process is impressive, including Shor's thought process as a professor attempting to balance giving real authority to students and maintaining or not maintaining what he thought were fundamental components of the class, such as an attendance requirement. Following discussion of other parts of the grading contract, discussion took a turn when one student suggested that there be no attendance requirement at all, and that students need not come to class. Shor intuitively opposed abolishing the attendance requirement, and offered concessions in order to keep it rather than immediately dismissing students' position. These concessions included what he terms protest rights, or the right for students to protest what they are doing in class in the moment if they don't like it, as well as including the aforementioned ACG, which itself is a way of continually renegotiating the curriculum (Shor, 1996). Thus, Shor provided opportunities to negotiate the curriculum both at the beginning and throughout the course, and provided students with real opportunities to affect what and how they studied.

Feature 5: Adapting to Students and Local Context

In order to define this feature, it is helpful to describe what students, local context, and adapting mean here. For the purposes of this thesis, adapting to students means adapting to students' perspectives, desires, and interests. Adapting to context means adapting to the circumstances of the course and students' lives that they may not readily express but that the teacher is aware of or can become aware of. Deriving from Gordon (2012), adaptation itself consists of formulating lessons, discussions, and activities that respond to this context and are relevant to students. This feature is distinct from Feature 4: A Negotiated Curriculum in that Adapting to Students and Local Context focuses more on teacher decision-making based on their knowledge of their students, rather than on the collective decision-making of teachers and students together. However, this collective discussion is a precursor for teachers to have sufficient knowledge of their students to adhere to this feature.

In introducing a description of a sample of applications of critical pedagogy from around the world, Gordon (2012) emphasizes the locally tailored nature of these applications. And as mentioned in the discussion of Social Engagement and Action, she also highlights the need for activities that accomplish something real and relevant for students, rather than being isolated academic exercises. And for Coulter (2008), critical teachers adapt to what students find interesting and want to do. Thus, these authors share the conviction that teachers must design instruction so that students find the class to be localized, interesting, and relevant to them.

Shor's identification and use of Freirean generative themes serves as a key example of this feature. Such themes derive from the students themselves, and then form the content of the class. In the case of Shor's class from the semester previous to the one he writes about, students initiated talking about what they found to be a concerning buildup to the Gulf War, and Shor incorporated this discussion as part of the class. He then continued this generative theme as, in

his own words, a partially generative theme, in the following semester. He suggested the theme in a survey at the beginning of the course, and students widely gave it their approval, demonstrating their interest in the topic despite later indicating that they were mostly in favor of the war (Shor, 1996). In both semesters, but particularly in the first one, Shor demonstrates a willingness to respond to students' own desires to discuss the war and their context of the war being widely discussed in the news, and adapts the course to provide discussion and projects around this student-generated, or in the second semester, student-driven topic.

Feature 6: Valuing Diverse Perspectives

Similar in many ways to a funds of knowledge approach that values students' knowledge and incorporates it into learning (Moll & González, 2004), this feature brings an asset approach to students' knowledge and opinions. Valuing Diverse Perspectives thus refers to teachers valuing students' perspectives, promoting students' valuing each other's perspectives, and using these diverse perspectives as resources in the classroom. The teacher attempts to include all student perspectives, and particularly attempts to recognize and include those influenced by their social backgrounds such as race, class, or language.

Coulter (2008) describes students' ability to share their various thoughts without being shut out by the teacher as a key element of critical practice, and one that contributes to the classroom becoming a site of active discussion among students. In particular, she makes a point of valuing the knowledge and perspectives of English learners, who bring languages and cultures that some other students may not share and that may be unfairly devalued in other classes.

For Shor, a consistent technique he used to value the perspectives of his students before his own was to frontload student comments and backload his own. That is, he would encourage

students to respond to questions first and to discuss them amongst themselves before adding his own comments, along with related tactics such as turning questions that students directed towards him to the whole class (Shor, 1996). Through this technique, then, Shor put students' perspectives before his own, encouraged students to learn from each other and not only from him, and gave students' perspectives a concrete value in the class as the fundamental element of discussion.

Defining the object of analysis: The SIOP model

The Sheltered Instruction Observation Protocol (SIOP) is the most widely used instructional model for sheltered content instruction in the United States. Its creators also highlight that it is the only empirically validated model of sheltered instruction. Designed for K-12 sheltered content and content-based ESL classes, SIOP initially began as a classroom observation protocol (hence its name) based on a checklist of SIOP's 8 components and 30 features. However, it has since evolved into an instructional model that can then be scored using the protocol (Echevarría, Vogt, & Short, 2013). As previously noted, because of this widespread use and clear breakdown into features, while still being open-ended enough for adaptation, SIOP is an ideal instructional model to analyze through the lens of critical pedagogy.

SIOP is best defined through a discussion of its components and features. What follows is a brief explanation of each component and its constituent features, based on their descriptions in the SIOP sourcebook, *Making Content Comprehensible to English Learners: The SIOP® Model* (Echevarría, Vogt, & Short, 2013).

Component 1: Lesson Preparation

The first component of SIOP, Lesson Preparation, consists of six features (the most of any of the eight components):

1. Content Objectives Clearly Defined, Displayed, and Reviewed with Students
2. Language Objectives Clearly Defined, Displayed, and Reviewed with Students
3. Content Concepts Appropriate for Age and Educational Background Level of Students
4. Supplementary Materials Used to a High Degree, Making the Lesson Clear and Meaningful
5. Adaptation of Content to All Levels of Student Proficiency, and
6. Meaningful Activities that Integrate Lesson Concepts with Language Practice Opportunities for Reading, Writing, Listening, and/or Speaking

Content and language objectives as described in Features 1 and 2 are foundational to SIOP. These objectives guide teachers and students throughout a lesson and emphasize that it is necessary to focus on both content and language in sheltered content classes and content-based ESL classes. Feature 3 emphasizes high-quality, appropriate instruction for English learners, where the language level of materials may be adapted, but where teachers still provide opportunities for grade-level content learning. Supplementary materials, as described in Feature 4, include but are not limited to hands-on manipulatives, realia, pictures/visuals, multimedia, demonstrations, relevant literature, hi-lo readers, chapter summaries, and adapted text, all of which help to clarify content concepts for students. Feature 5 provides a way of making content accessible to English learners, and includes techniques such as previewing content, using supplementary information in the L1, and adapting text while retaining its content. Finally, Feature 6 lays out the expectation that activities promote both content and language learning, and do so meaningfully, that is, in a way that students find authentic and relevant.

Component 2: Building Background

The Building Background component consists of the following three features:

7. Concepts Explicitly Linked to Students' Background Experiences
8. Links Explicitly Made Between Past Learning and New Concepts
9. Key Vocabulary Emphasized

These three features each promote students' understanding of content concepts by building the background knowledge and perspective that make concepts more accessible to students: through connections to their own experiences, thus making learning more concrete (Feature 7); through connections to previous learning, thus making concepts more coherent (Feature 8); and through instruction on vocabulary, including content vocabulary, general academic vocabulary, and word parts, so that students can comprehend academic texts (Feature 9).

Component 3: Comprehensible Input

Rather than describe comprehensible input here as the means of second language acquisition, the creators of SIOP discuss this component primarily for the purpose of allowing students to have access to content. It consists of three features:

10. Speech Appropriate for Students' Proficiency Levels
11. Clear Explanation of Academic Tasks
12. A Variety of Techniques Used to Make Content Concepts Clear

In Feature 10, appropriate speech refers to how fast and how clearly the teacher speaks, as well as the complexity of language that the teacher uses. Beyond this clear speech, Feature 11

emphasizes providing clarity through step-by-step instructions that are given both in writing and orally, and clarified further by modeling. Feature 12 supports further clarification by using techniques such as gestures, visuals, modeling, previewing material, and repetition.

Component 4: Strategies

The Strategies component consists of three features:

13. Ample Opportunities Provided for Students to Use Learning Strategies
14. Scaffolding Techniques Consistently Used, Assisting and Supporting Student Understanding
15. A Variety of Questions or Tasks That Promote Higher-Order Thinking Skills

Feature 13 promotes the instruction and use of three types of strategies (cognitive, metacognitive, and language learning) so that students can facilitate their own learning. Feature 14 discusses more teacher-directed scaffolding that supports this learning, and categorizes possible scaffolds into verbal scaffolding (e.g. paraphrasing), procedural scaffolding (e.g. using procedures such as grouping), and instructional scaffolding (e.g. graphic organizers). Finally, Feature 15 lays out frameworks such as Bloom's taxonomy and the Depth of Knowledge model that distinguish between more concrete and more abstract levels of thinking, providing these as models for teachers as a check that they are using higher-order questions and tasks.

Component 5: Interaction

The fifth component, Interaction, consists of the following four features:

16. Frequent Opportunities for Interaction and Discussion Between Teacher/Student and Among Students, which Encourage Elaborated Responses About Lesson Concepts

17. Grouping Configurations Support Language and Content Objectives of the Lesson
18. Sufficient Wait Time for Student Responses Consistently Provided
19. Ample Opportunity for Students to Clarify Key Concepts in L1 as Needed with Aide, Peer, or L1 Text

Feature 16 proposes that teachers elicit elaborated responses from students rather than providing yes/no or one-word answers, and that they facilitate instructional conversations among students to discuss content rather than adhering to traditional initiation-response-evaluation (IRE) teacher-student interaction. Elaborating on the grouping configurations that facilitate interaction and learning, Feature 17 supports purposefully varying who students interact with, and changing group size and the homogeneity or heterogeneity of groups in order to best support students with the task at hand. Feature 18 delineates wait time as a key element for classroom interactions, since wait time varies by culture, and provides students with the much-needed time to meet the cognitive demands and language demands of responding to a question. Finally, Feature 19 supports use of students' L1, since its use acts as a support for students who need it, and facilitates transfer of academic knowledge learned in the L1.

Component 6: Practice and Application

This component consists of three features that give students opportunities to practice and apply their knowledge:

20. Hands-On Materials and/or Manipulatives Provided for Students to Practice Using New Content Knowledge in the Classroom
21. Activities Provided for Students to Apply Content and Language Knowledge
22. Activities Integrate All Language Skills

The use of manipulatives in Feature 20 helps students connect the abstract to the concrete, while also providing another entry point to content learning other than through English use. Feature 21 again connects the abstract to the concrete, this time by asking students to use their knowledge for an activity, which can vary from simply explaining their new knowledge to a peer to using their knowledge to solve problems beyond the classroom. In addition, Feature 22 suggests that teachers should incorporate opportunities for students' use of all four language skills of reading, writing, listening, and speaking into their lessons, even if the language objective of a lesson only focuses on one skill in particular.

Component 7: Lesson Delivery

The Lesson Delivery component consists of the following four features:

23. Content Objectives Clearly Supported by Lesson Delivery
24. Language Objectives Clearly Supported by Lesson Delivery
25. Students Engaged Approximately 90% to 100% of the Period
26. Pacing of the Lesson Appropriate to Students' Ability Levels

Features 23 and 24 aim to ensure that objectives are not merely aesthetic elements of a lesson plan without any concrete focus on them within the lesson itself. Therefore, these two features endorse focusing part of class time explicitly on instruction and discussion that targets the content and language objectives. Focusing more on how the students themselves react to the teacher's lesson delivery, Feature 25 refers to students being attentive and on-task. Finally, Feature 26 suggests that an appropriate pace for presenting information strikes a balance between being so fast that students don't comprehend the content and being so slow that students lose interest.

Component 8: Review and Assessment

The final component, Review and Assessment, consists of four features:

27. Comprehensive Review of Key Vocabulary
28. Comprehensive Review of Key Content Concepts
29. Regular Feedback Provided to Students on Their Output
30. Assessment of Student Comprehension and Learning of All Lesson Objectives throughout the Lesson

The first of the two review-oriented features, Feature 27 suggests that teachers explicitly highlight key vocabulary throughout the lesson and at its end, and that they promote acquisition of this vocabulary by providing repeated exposure to these key words in meaningful contexts. Similarly to reviewing vocabulary, Feature 28 suggests that teachers also review key content concepts by explicitly, but often informally, highlighting them during and after the lesson. Moving to the more assessment-oriented features, Feature 29 endorses providing students with supportive and specific feedback on output, primarily to clarify for communication purposes and to clear up misunderstandings the student may have about content. As described in Feature 30, assessment is encouraged not only at the end of lessons, in which teachers are expected to review the content and language objectives with students to check if the students met them, but more informally at the beginning and throughout the middle of it as well. This assessment at multiple points in the lesson provides useful data for identifying student growth.

Methods

As described earlier, the features of critical pedagogy described here were derived from key elements of critical pedagogy noted in encyclopedia entries (Coulter, 2008; Gordon, 2012) and works from major theorists of critical pedagogy (McLaren, 1994; Shor, 1996). These features of critical pedagogy were then used as a lens through which to analyze the SIOP model theoretically (through my own analysis) and practically (through a literature review of articles describing the use of SIOP or SIOP features in practice).

In order to lay down hypotheses for the literature review, as well as to identify any fundamental conflicts between SIOP and critical pedagogy, I conducted a theoretical analysis of SIOP. To do this, I compared each feature of SIOP to the definitions of each feature of critical pedagogy given previously, and which are represented in simplified form in the appendix. I then assigned each SIOP feature a rating of highly compatible (HC), somewhat compatible (SC), or not compatible (NC) as a shorthand for its possible connections to or conflicts with critical pedagogy. For the protocol that I used to assign these ratings, see the appendix.

To analyze SIOP in practice, I conducted a review of relevant literature. This literature review aimed to collect all relevant scholarly articles that included a description of classroom practices in a setting where the teacher takes a SIOP approach. To identify relevant articles, I searched for "Sheltered Instruction Observation Protocol" in a general library search and then in journal searches of *TESOL Quarterly*, *TESOL Journal*, the *Bilingual Research Journal*, the *American Educational Research Journal*, the *International Multilingual Research Journal*, *Linguistics and Education*, and *Anthropology and Education Quarterly*. Only the general search and the first three journals produced results with any mention of SIOP. Because this search produced only five articles that met these criteria (Schall-Leckrone, 2017; Daniel & Conlin, 2015; Britsch, 2020; Song, 2016; Nargund-Joshi & Bautista, 2016), I expanded the analysis to

include other articles found in the previous search that were descriptive and mentioned SIOP but did not attempt to fully implement it (Regalla, 2012; Settlage et al., 2005; McGraw & Rubinstein-Ávila, 2009; Rativa Murillo, 2013; Balconi & Spitzman, 2021; Daniel et al., 2016; Mackinney & Rios-Aguilar, 2012; I & Chang, 2014; Fisher & Frey, 2010). One additional article (Echevarría, 2005) supplemented the analysis of one of the analyzed articles (Settlage et al., 2005), but is not included in results because it did not provide any new description of classroom contexts.

I also searched for relevant articles on the use of critical pedagogy in sheltered instruction in order to analyze more critically oriented approaches. This search was carried out by first searching for "critical pedagogy" and SIOP, "Sheltered Instruction Observation Protocol," or "sheltered instruction" in a general library search, and then searching for "critical pedagogy" in the three journals that yielded results previously: *TESOL Quarterly*, *TESOL Journal*, and the *Bilingual Research Journal*. This search produced four articles where I was able to identify at least one instance of a practice that aligned with both a SIOP feature and a critical pedagogy feature (Alegria, 2014; Osorio, 2018; Rivera, 1999; Ramírez et al., 2016), as well as one article that was not included in the results, but which is discussed in the analysis of results (Paul & Vehabovic, 2020).

Partially as a result of this broadened search, in which not every classroom practice was necessarily carried out in accordance with SIOP (or at least intended to be carried out that way), the methods of analysis were constructed to take note of each time a practice fulfilled both a feature of SIOP and a feature of critical pedagogy. Analysis of this literature review is therefore primarily structured by the number of occurrences of each SIOP feature in association with a feature of critical pedagogy. In addition, it is important to note that in some instances,

particularly when analyzing the critically oriented articles, not all instances of the features of critical pedagogy that were found in the articles are reflected in the results, because not all of these instances were associated with a feature of SIOP.

The practice described in each source was compared to the definitions of each feature of critical pedagogy (see appendix). For each source, I identified instances where a practice fulfilled a feature of SIOP and a feature of critical pedagogy, as discussed in the previous paragraph. This served as a method of identifying how strongly or weakly each SIOP feature was connected to critical pedagogy. Then, for each source, I assigned each feature of critical pedagogy a rating of fully present (FP), somewhat present (SP), not present (NP), or opposed (O). This served as a way to understand trends in the frequency with which critical pedagogy features appeared in relation to SIOP across the literature. For the protocol that I used to assign these ratings, see the appendix.

There are several limitations to this analysis. First, the definitions of each feature of critical pedagogy, while derived from encyclopedia entries, are the result of my own synthesis. Therefore, certain elements of critical pedagogy may have been emphasized or deemphasized relative to their presence in the literature, and some of the simplified definitions that guided the analysis (see appendix) may have been overly ambiguous and flexible on the one hand, or overly rigid on the other. Second, the method of theoretical analysis is purely based on my own perception of a logical connection between each feature of SIOP and each feature of critical pedagogy. Third, the method of analysis in the literature review, while more bound to textual evidence than the theoretical analysis, relied on my interpretation of when a classroom practice fulfilled a particular feature of SIOP or a particular feature of critical pedagogy. While a few articles did explicitly point out which SIOP features were being used, this was infrequent, so the

identification of SIOP and critical pedagogy features was mainly the result of my perception. Finally, the scope and focus of the reviewed articles themselves may have led to a disproportionate focus on particular SIOP features that are more frequently discussed in the literature. For example, there was little mention of using learning strategies (SIOP Feature 13) in the reviewed articles, which perhaps contributed to it not being associated with any feature of critical pedagogy in the analysis of the literature review, despite the theoretical analysis linking it strongly with three of the six critical pedagogy features.

Results

The results of the theoretical analysis are summarized in Figure 1. Overall, SIOP features were overwhelmingly rated as somewhat compatible with the features of critical pedagogy. Even the most highly compatible critical pedagogy features according to this analysis, features 5 and 6 (Adapting to Students and Local Context, and Valuing Diverse Perspectives) were only highly compatible with, respectively, 8 and 6 SIOP features, out of the 30 possible. This overwhelming rating of somewhat compatible led to the conclusion that many SIOP features are neither strongly connected to nor opposed to SIOP, and can be implemented in a mixed approach as long as potential conflicts are addressed. This conclusion is described in more detail in the Conclusions section.

SIOP Feature	**1. Question-ing School Knowledg e**	**2. Question-ing Power Relations**	**3. Social Engage-ment and Action**	**4. A Negotiated Curricu-lum**	**5. Adapting to Students and Local Context**	**6. Valuing Diverse Perspect-ives**
Lesson Preparation						
1. Content objectives	SC	SC	SC	SC	SC	SC

2. Language objectives	SC	SC	SC	SC	SC	SC
3. Content concepts appropriate	SC	SC	SC	SC	**HC**	SC
4. Supplementary materials	SC	SC	SC	SC	**HC**	**HC**
5. Adaptation of content	SC	SC	SC	SC	SC	SC
6. Meaningful activities	SC	SC	SC	SC	**HC**	SC
Building Background						
7. Concepts explicitly linked to students' background experiences	**HC**	SC	SC	SC	**HC**	**HC**
8. Links explicitly made between past and new learning	SC	SC	SC	SC	SC	SC
9. Key vocabulary emphasized	SC	SC	SC	SC	SC	SC
Comprehensible Input						
10. Speech appropriate	SC	SC	SC	SC	SC	SC
11. Clear explanation of tasks	SC	SC	SC	SC	SC	SC
12. Variety of techniques to clarify	SC	SC	SC	SC	SC	SC
Strategies						
13. Ample opportunities to use learning strategies	**HC**	SC	SC	SC	**HC**	**HC**
14. Scaffolding techniques	SC	SC	SC	SC	SC	SC
15. Variety of questions/tasks for higher-order thinking	**HC**	SC	SC	SC	SC	SC
Interaction						
16. Frequent opportunities for interaction	SC	SC	SC	SC	**HC**	**HC**
17. Grouping configurations support objectives	SC	SC	SC	SC	SC	SC
18. Sufficient wait time	SC	SC	SC	SC	SC	**HC**
19. Ample opportunities to clarify key concepts in L1	SC	SC	SC	SC	SC	SC
Practice and Application						
20. Uses hands-on materials and/or manipulatives	SC	SC	SC	SC	**HC**	SC
21. Activities for applying content and language knowledge	SC	SC	**HC**	SC	**HC**	**HC**
22. Activities integrate all four language skills	SC	SC	SC	*NC*	*NC*	SC
Lesson Delivery						

23. Lesson delivery supports content objectives	SC	SC	SC	SC	SC	SC
24. Lesson delivery supports language objectives	SC	SC	SC	SC	SC	SC
25. Students engaged 90-100 percent of the period	SC	SC	SC	SC	SC	SC
26. Appropriate pacing	SC	SC	SC	SC	SC	SC
Review and Assessment						
27. Comprehensive review of key vocabulary	SC	SC	SC	SC	SC	SC
28. Comprehensive review of key content concepts	SC	SC	SC	SC	SC	SC
29. Regular feedback provided	SC	SC	SC	SC	SC	SC
30. Assessment of comprehension and learning throughout lesson	SC	SC	SC	SC	SC	SC

Figure 1. Theoretical analysis of the 30 SIOP features in relation to the 6 identified features of critical pedagogy. SIOP features rated as **HC** are highly compatible with the corresponding critical pedagogy feature, those rated as SC are somewhat compatible, and those rated as *NC* are not compatible.

The results of the literature review are summarized in Figure 2. There was not a consistent pattern across all features of critical pedagogy; some, notably the action and negotiation features (features 3 and 4), were mostly or completely not present in the articles, while others, notably the adaptation and valuing diverse perspectives features (features 5 and 6), were somewhat present or fully present in a majority of the articles. The absence of the negotiated curriculum feature in every source is discussed in the Analysis section, and leads to the conclusion that this feature of critical pedagogy likely needs to be implemented without consideration of its connection to SIOP.

Source	**1. Question-ing School Knowledg e**	**2. Question-ing Power Relations**	**3. Social Engage-ment and Action**	**4. A Negotiated Curricu-lum**	**5. Adapting to Students**	**6. Valuing Diverse Perspect-ives**

					and Local Context	
Explicit SIOP Approach						
1. Schall-Leckrone, 2017	**SP**	**SP**	NP	NP	NP	**SP**
2. Daniel & Conlin, 2015	NP	NP	NP	NP	NP	**SP**
3. Britsch, 2020	*O*	NP	NP	NP	NP	*O*
4. Song, 2016	NP	NP	NP	NP	**SP**	**SP**
5. Nargund-Joshi & Bautista, 2016	NP	NP	**SP**	NP	**SP**	*O*
Use Some SIOP Features						
6. Regalla, 2012	NP	NP	NP	NP	NP	NP
7. Settlage et al., 2005	NP	NP	NP	NP	***FP***	***FP***
8. Echevarría, 2005	N/A	N/A	N/A	N/A	N/A	N/A
9. McGraw & Rubinstein-Ávila, 2009	NP	NP	NP	NP	**SP**	**SP**
10. Rativa Murillo, 2013	NP	NP	NP	NP	**SP**	NP
11. Balconi & Spitzman, 2021	NP	NP	NP	NP	NP	NP
12. Daniel et al., 2016	NP	NP	NP	NP	**SP**	***FP***
13. Mackinney & Rios-Aguilar, 2012	**SP**	**SP**	NP	NP	**SP**	**SP**
14. I & Chang, 2014	NP	NP	NP	NP	NP	NP
15. Fisher & Frey, 2010	NP	NP	NP	NP	NP	NP
Critically Oriented, and Use Some SIOP Features						
16. Paul & Vehabovic, 2020	N/A	N/A	N/A	N/A	N/A	N/A
17. Alegria, 2014	***FP***	**SP**	NP	NP	***FP***	***FP***
18. Osorio, 2018	NP	**SP**	NP	NP	***FP***	**SP**
19. Rivera, 1999	**SP**	NP	NP	NP	***FP***	***FP***
20. Ramírez et al., 2016	NP	NP	NP	NP	***FP***	***FP***

Figure 2. Results of literature review. For each source analyzed in the literature review, the six features of critical pedagogy are rated as being either ***FP*** for the feature being fully present, **SP** for somewhat present, NP for not present, *O* for opposed, or N/A if the article was used to supplement the analysis only.

More detail on the results of the literature review are summarized in Figure 3. Here, each feature of SIOP is analyzed first for the features of critical pedagogy that it was associated with

in the literature review, regardless of whether they were associated in only one practice in one source, or across many practices in many sources. Second, the SIOP features are analyzed for the number of sources in which they were associated with any feature of critical pedagogy. For complete data on the SIOP features that were associated with a critical pedagogy feature at least once in the literature review, see the appendix. These associations or lack of associations with critical pedagogy features served as the basis for the division between highly compatible and less compatible SIOP features described in the following Analysis section, and contributed to the conclusions about how to implement highly compatible and less compatible SIOP features in a mixed approach.

SIOP feature	**Associated critical pedagogy features from literature review**	**No. of associated occurrences with 1+ critical pedagogy features out of 18 articles**
Lesson Preparation		
1. Content objectives	-	0
2. Language objectives	-	0
3. Concepts appropriate	-	0
4. Supplementary materials	1, 5, 6	4
5. Adaptation of content	-	0
6. Meaningful activities	2, 3, 5, 6	6
Building Background		
7. Concepts explicitly linked to students' background experiences	1, 5, 6	8
8. Links explicitly made between new and past learning	1, 2, 6	2
9. Key vocabulary emphasized	1, 2	1
Comprehensible Input		
10. Speech appropriate	-	0
11. Clear explanation of tasks	-	0
12. Variety of techniques to clarify	5	1
Strategies		
13. Learning strategies	-	0
14. Scaffolding techniques	5, 6	1
15. Variety of questions/tasks for higher-order thinking	1, 2, 5, 6	5
Interaction		

16. Frequent opportunities for interaction	1, 5, 6	4
17. Grouping configurations support objectives	5	2
18. Sufficient wait time	-	0
19. Ample opportunities to clarify key concepts in L1	5, 6	3
Practice and Application		
20. Uses hands-on materials and/or manipulatives	5, 6	1
21. Activities for applying content/language knowledge	2, 3, 5, 6	5
22. Activities integrate all four language skills	-	0
Lesson Delivery		
23. Lesson delivery supports content objectives	-	0
24. Lesson delivery supports language objectives	-	0
25. Students engaged 90-100 percent of the period	-	0
26. Appropriate pacing	-	0
Review and Assessment		
27. Comprehensive review of key vocabulary	-	0
28. Comprehensive review of key content concepts	-	0
29. Regular feedback provided	-	0
30. Assessment of comprehension and learning throughout lesson	-	0

Figure 3. SIOP features' association with critical pedagogy features in the literature review.

Analysis

The following analysis focuses on particular SIOP features that are particularly compatible or incompatible with critical pedagogy, as well as the compatibility or incompatibility of the eight broader components of SIOP. This is done in order to highlight which features of SIOP are already highly conducive to a critical pedagogy approach (and which could therefore be used as an important basis for incorporating critical pedagogy into SIOP classrooms) and which are less conducive (and some of which may therefore benefit from

guidance around how these features might best be implemented while also implementing a critical pedagogy approach). The analysis of these features provides an interpretation of results and discusses some examples of the practices that led to that feature being more or less compatible with critical pedagogy. Some of the implications just mentioned are discussed in the following Conclusions section.

Highly Compatible SIOP Features

Looking broadly first at SIOP's 8 components, before its 30 features, the Building Background, Strategies, Interaction, and Practice & Application components were highly compatible with critical pedagogy. These include many of the features discussed below, and as Figure 3 shows, almost all of the features that make up these components were associated with a critical pedagogy feature at least once in the literature review. The reasons for these components' compatibility is related to those given for features 7, 15, 16, and 21 below.

The use of supplementary materials (SIOP Feature 4) is not always critical or always anti-critical; the wide range of possible supplementary materials precludes such generalizations. However, the uses of this feature identified in the literature review point to some interesting possibilities for using supplementary materials to support Questioning School Knowledge, Adapting to Students and Local Context, and Valuing Diverse Perspectives (critical pedagogy features 1, 5, and 6). For example, in a study of two novice sheltered history teachers who used a SIOP approach, Schall-Leckrone (2020) notes that students in one focal classroom studied a variety of sources as a way for them to develop their own understandings, similar to how historians construct knowledge. Such a use of supplementary materials points not only to a one-off activity, but to a broader approach to history teaching that relies not only on a central

textbook presenting a monolithic perspective, but also on supplementary readings of historical sources that contextualize the textbook and perhaps lead to questioning of the views presented in it. Other practices included students bringing in their own materials, such as bringing home remedies to class in Alegria's (2014) case study of a critical Latina sheltered science teacher, which connected to critical pedagogy features 5 and 6. In Osorio's (2018) study of culture circles with emergent-bilingual second-graders and Ramírez et al's (2016) study of two critical, bilingual Latina teachers promoting their students' linguistic rights, they describe the use of Latinx children's literature and the book *Yo, Rigoberta Menchú*. While these examples actually tended towards being central texts rather than supplementary materials, they significantly differed from traditional textbooks and the success of their use suggests that using culturally relevant literature as a supplementary material can contribute to critical pedagogy features 5 and 6.

Perhaps because of their focus on students doing something, particularly something that is authentic and that puts their knowledge to use, SIOP features 6 and 21 (i.e. meaningful activities and activities for applying knowledge) were among those most frequently associated with features of critical pedagogy. In addition to being associated with Questioning Power Relations, Adapting to Students and Local Context, and Valuing Diverse Perspectives (critical pedagogy features 2, 5, and 6), these were notably the only two SIOP features to be associated with Social Engagement and Action (critical pedagogy Feature 3) in the literature review. This association came from a single source where students developed and proposed a school recycling program (Nargund-Joshi & Bautista, 2016). Poza (2019) describes a similar but somewhat simpler activity, writing a persuasive essay about changing school rules, with a relevant critique of the form that "action" often takes in school settings, saying that "such a prompt is not

uncommon in elementary schools nor is it authentic work insofar as the persuasive essays that followed were not taken into any serious consideration by school administrators." (p. 420). While the example of proposing the recycling program is somewhat more developed than the example of writing a persuasive essay, it is still not a use of critical pedagogy that takes the possibility of students' action very seriously. Regardless, it does demonstrate the potential of SIOP features 6 and 21 to serve as avenues for students to put their learning to use beyond the classroom. In addition, the use of these SIOP features may best contribute to Social Engagement and Action by combining these in-class activities with students' and teachers' action in groups outside the SIOP classroom, such as Ramírez et al's (2016) example of a teacher serving as an adviser to the Latino student group MEChA. To note just two examples of these SIOP features' compatibility with other critical pedagogy features, Alegria (2014) described students' online research projects on pharmaceutical companies and their manufacturing practices, which related to critical pedagogy feature 2. In addition, in their case study of how Arizona teachers navigated the state's English-only policy and a mandated half-day English language development block, Mackinney & Rios-Aguilar (2012) described one activity where students made photo stories and podcasts describing their childhood experiences, which connected to critical pedagogy features 5 and 6.

SIOP Feature 7 (Concepts Explicitly Linked to Students' Background Experiences) was notable for being linked to a critical pedagogy feature in the highest number of articles (8 out of the 18 reviewed), suggesting that it may easily form part of a critical approach. In particular, connecting academics and students' experiences was linked to Questioning School Knowledge, Adapting to Students and Local Context, and Valuing Diverse Perspectives (critical pedagogy features 1, 5, and 6). This feature was linked in one instance to Questioning School Knowledge,

when Alegria (2014) noted how the focal teacher aimed to have students see the validity of their families' traditional medicines in the same ethnobotany unit mentioned in the discussion of supplementary materials above. More commonly, linking concepts to students' background experiences was related to critical pedagogy features 5 and 6. For example, in Settlage et al's (2005) study of inquiry science in an elementary school classroom, students began their discussions of science through discussions of their shared experiences, promoting the valuing of each other's perspectives. In addition, in Osorio's (2018) study of culture circles, the focal teacher's simple incorporation of students' experiences into academic discussions demonstrates another way that teachers can adapt discussions to their students and value their perspectives.

SIOP Feature 15 (A Variety of Questions or Tasks That Promote Higher-Order Thinking Skills) was the SIOP feature most frequently linked with Questioning School Knowledge and Questioning Power Relations (critical pedagogy features 1 and 2) in the literature review, suggesting it has a key role to play in supporting these features when implementing a critical SIOP approach. In particular, this feature was associated with developing students' critical consciousness through practices where the teacher asked questions in the vein of those described by Gordon (2012), as cited earlier in this paper in the description of Questioning School Knowledge. For example, questions about why and for whom Langston Hughes wrote poetry (Mackinney & Rios-Aguilar, 2012) and why students' home remedies are not valued as much as pharmaceutical medications (Alegria, 2014) encourage students to develop a critical orientation towards knowledge and power relations. Additionally, higher-order questions and tasks supported Adapting to Students and Local Context and Valuing Diverse Perspectives (critical pedagogy features 5 and 6). For example, in Daniel et al's (2016) study of scaffolding in a peer tutoring program for English learners, giving 4th-grade "big buddies" the autonomy to think of

and ask their own questions to their kindergarten "little buddies" promoted higher-order thinking while adapting to their interests. And in McGraw & Rubinstein-Ávila's (2008) semi-experimental study with a middle-school sheltered math class, posing an unfamiliar math problem and asking students to solve it together led to students justifying their own answers amongst each other and to their active engagement with each other's ideas.

It is little surprise that SIOP Feature 16 (Frequent Opportunities for Interaction and Discussion) was linked to features of critical pedagogy in both the theoretical analysis and the literature review, since dialogue is such a central practice to critical pedagogy that the descriptor "dialogic" is often used interchangeably with "critical." However, simply having two people speaking to each other does not constitute critical pedagogy. For every instance in which interaction and discussion appear in association with critical pedagogy features in the literature review, each instance demonstrated a clear valuing of students' ideas and perspectives (critical pedagogy Feature 6), such as in the spontaneous dialogue among students and between students and the teacher in an inquiry-based science classroom (Settlage et al., 2005). In addition, this example from Settlage et al. (2005) demonstrates an adaptation towards students' interests and perspectives (critical pedagogy Feature 5), since the discussion was student-centered, with the teacher refraining from evaluating students' ideas and allowing them to lead their own discussion. Additionally, in Rivera's (1999) study of an adult ESL program that used a critical approach, the incorporation of dialogue became a way to question established knowledge (critical pedagogy Feature 1) because students based their discussions on their own experiences, valuing that experience over academic sources.

Although the final highly compatible SIOP feature discussed here, Feature 19 (Ample Opportunity for Students to Clarify Key Concepts in L1), connects strongly with critical

pedagogy and touches on a key element of teaching English learners beyond SIOP itself, it was somewhat difficult to analyze for two reasons. First, it brought up the question, if a teacher encourages students to use their L1 for academic purposes, does that inherently count as an adaptation to students' perspectives, desires, interests, and circumstances as critical pedagogy Feature 5 is defined here? This question was resolved here on a case-by-case basis, but its frequent relevance to this analysis suggests that perhaps students' use of their L1 should be an explicit part of critical pedagogy when working with English learners. Second, the pedagogically useful but narrow use of the L1 as defined in this SIOP feature (i.e. to clarify content concepts) sometimes contrasted with broader uses of the L1 found in the literature review. These broad uses included some of the many uses of the L1 highlighted by scholars of bilingualism: among others, to teach initial L1 literacy, to develop metalinguistic awareness, to reduce affective barriers to language learning, to support students' identity development, and to use the L1 as a scaffold for English use, such as when addressing issues of importance to their own lives that would be difficult to address without first expressing their ideas in their L1 (Auerbach, 1993; García & Baetens Beardsmore, 2009). Such language practices, which support not only learning but students' identity and action outside of school, are effectively unsanctioned by SIOP due to the narrowness of this feature's definition. In addition, while focused rather than indiscriminate use of the L1 may best support English learning, the regulation of students' language use by teachers clearly represents an issue of power relations that critical teachers should consider. For example, Ramírez et al. (2016) describe language as a right and a resource. While this SIOP feature clearly places students' L1 as a resource to be drawn on for academic purposes, it ignores students' right for their L1 use to be allowed and supported in the classroom. As critical teachers implement this SIOP feature, it is perhaps useful to consider how classroom language policies

can be arrived at in collaboration with students, so that English learning is supported while students' language rights and their perspectives on their own language use are respected.

Less Compatible SIOP Features

Importantly, the foundational SIOP features 1 and 2, which focus on content and language objectives respectively, were not found to be highly compatible with any critical pedagogy features in the theoretical analysis, nor were they associated with any critical pedagogy features in the literature review. Content objectives in particular were infrequently discussed in the reviewed articles, so it is difficult to analyze them in practice. However, the theoretical analysis considered them only somewhat compatible with each feature of critical pedagogy. This is because much of the compatibility depends on what teachers select for the objective and how they select it. If teachers imposed a content objective without students' analysis of why they must achieve that objective, then that could run counter to Questioning School Knowledge and miss opportunities to incorporate other features of critical pedagogy. However, it is possible for students to analyze content objectives critically, perhaps for these objectives to come from the students themselves, and for these objectives to link to critical understandings of society, social action, and students' contexts and perspectives.

Language objectives face many of the same obstacles and opportunities as those discussed above for content objectives. However, language objectives were much more frequently discussed in the literature. In fact, 3 out of 18 articles (Regalla, 2012; Balconi & Spitzman, 2021; Fisher & Frey, 2010) focused on language objectives, more than on any other particular SIOP feature. However, none of these articles included any SIOP features that were associated with a feature of critical pedagogy. This is perhaps because of the reasons mentioned

above regarding content objectives and objectives more generally. However, while there are some opportunities for content objectives, by themselves, to address critical pedagogy features, this appears less likely for language objectives, particularly given the wide range of examples of such objectives given in the above three articles, none of which were classified as being associated with critical pedagogy. This perhaps suggests that for language objectives to contribute to a critical approach, they must be contextualized. That is, language itself does not contribute to critical consciousness or democratic practices; it is what language is used for that contributes to these critical processes. To understand what such language objectives might look like, it may be helpful to consider the example of one teacher's language objective, which aimed for students to be able to use map-related vocabulary to write directions (Fisher & Frey, 2010). If this were a skill that students expressed a desire to learn, then such a language objective could potentially connect to Adapting to Students and Local Context, and even to A Negotiated Curriculum.

Other features, while classified as less compatible in my analyses, are actually fundamental to instruction for English learners. Without them, implementing critical pedagogy in a sheltered content or ESL setting would essentially be impossible. In order to analyze why so many features of SIOP were not associated with critical pedagogy at all in the theoretical analysis and the literature review, but are still foundational to teaching, then, it is helpful to begin with an analysis of SIOP Feature 5 (Adaptation of Content to All Levels of Student Proficiency). This feature was only somewhat compatible with the critical pedagogy features in the theoretical analysis, and it was not associated with any critical pedagogy features in the literature review. Yet, if this feature were to be ignored, then English learners would find it extremely difficult to comprehend the unadapted content presented to them. Such an undermining of basic learning

processes is clearly antithetical to a critical approach, since it severely hurts their ability to question, to plan and take action, and to participate in the construction of their curriculum, and blatantly dismisses their needs, desires, and perspectives. So, even though Adaptation of Content is not directly associated with features of critical pedagogy, its use is necessary when taking a critical approach to teaching English learners.

While not all features of SIOP are so fundamental to the success of a critical approach, most of them are somewhat compatible and could benefit students' learning. Of the SIOP components that are less compatible with critical pedagogy, the Comprehensible Input component is perhaps the most similar to the Adaptation of Content feature in that to ignore it would necessarily cause significant damage to students' learning. For example, in their study of critical biliteracy, Paul and Vehabovic (2020) note that in using higher-order questions (essentially SIOP Feature 15, which was highly compatible with four critical pedagogy features), students at lower English proficiency levels may struggle to understand and respond effectively. Their suggestion to ensure that input is comprehensible to students is directly relevant to the need to implement the Comprehensible Input component of SIOP in a critically oriented classroom. In addition, the Lesson Delivery and Review & Assessment components offer features that have no need to be excluded from a critically oriented classroom.

A final note about less compatible elements of SIOP is needed to discuss the complete absence of any association between critical pedagogy Feature 4, A Negotiated Curriculum, and any SIOP feature in the theoretical analysis or the literature review. This is perhaps because of two reasons. First, the more technical reason, is that as this feature is defined here, it requires an explicit discussion among the teacher and students to make collective decisions about the curriculum. Not only is this definition (necessarily) strict in its requirement of an explicit

discussion, but it also focuses on a practice that is essentially separate from other class activities, and therefore outside the scope of SIOP. Second, and perhaps the more troubling reason, is that the idea of negotiating the curriculum with students is a vanishingly rare occurrence. There was only 1 article of the 18 reviewed that fulfilled the requirements of this feature (Rivera, 1999), but it was not associated with any SIOP feature and thus was not included in the results. Among all the other articles, including among the 3 others that explicitly embraced a critical approach, there was no similar co-construction of the curriculum with students: the design of the course remained the sole domain of the teacher. However, besides Feature 22 (Activities Integrate All Language Skills), which puts a stipulation on what types of activities students can choose, the features of SIOP are not incompatible with A Negotiated Curriculum according to the theoretical analysis. Thus, A Negotiated Curriculum may simply have to be a feature of critical pedagogy that is implemented without reference to SIOP, but which can coexist with the use of SIOP features.

Conclusions

This analysis, which shows that some features of SIOP are highly compatible with critical pedagogy and most others are unopposed to it, suggests that although SIOP and critical pedagogy have only a few natural points of overlap, they can still be combined into a coherent pedagogy. Such a synthesis can be accomplished first by building off of these existing overlaps, using highly compatible SIOP features to implement an approach that draws on both SIOP and critical pedagogy. Second, less compatible SIOP features can be considered so as to avoid conflicts with critical pedagogy. Finally, the significant absence of connections between SIOP and the negotiation feature of critical pedagogy (Feature 4) can perhaps best be addressed by

simply implementing it through critical practices (e.g. Shor, 1996; Rivera, 1999) regardless of whether those practices connect to SIOP.

This section proposes some recommended questions for teachers to consider, first to bolster the connection between SIOP and critical pedagogy for both highly compatible and less compatible SIOP features, and then to guide the negotiation process of critical pedagogy. Many of the questions that I pose for highly compatible and less compatible SIOP features draw directly from the discussion of each feature in the Analysis section, while I created others to further consider possible points of connection or tension with critical pedagogy. For highly compatible SIOP features, I wrote questions that highlight connections between them and the critical pedagogy features that they were found to be compatible with. Thus, they build on these connections and distinguish between critical and uncritical uses of these SIOP features. For less compatible SIOP features, I posed questions for readers to consider how to implement these features in a manner consistent with critical pedagogy. For the negotiation feature of SIOP, I posed questions to support its implementation, drawing on Shor (1996) and Rivera (1999). I conclude the paper with possible implications of the findings for teaching.

Considerations for highly compatible SIOP features

Feature 4: Supplementary Materials

- Do supplementary materials present different perspectives and different forms of knowledge than those presented in the main text/materials? (Questioning School Knowledge)

- Is there an opportunity for students to formulate questions in response to supplementary materials (e.g. in partner discussions, in whole-class discussions, or in note-taking)? (Questioning School Knowledge)
- Do supplementary materials bring in elements of students' identities and interests that are absent from the main text/materials? (Adapting to Students and Local Context)
- Do students have an opportunity to bring in and share relevant supplementary materials with their classmates? (Valuing Diverse Perspectives)

Features 6 and 21: Meaningful Activities and Activities for Applying Knowledge

- Do activities give students opportunities to critically analyze their own circumstances and abstract representations (e.g. texts) that connect to their circumstances? (Questioning Power Relations and Adapting to Students and Local Context)
- Do activities include real-life activities that have an impact on students' lives outside the classroom? (Social Engagement and Action)
- When activities involve a component of individual or collective action, do the students and teacher genuinely believe that their actions can create change and prepare for the greatest chance of success? (Social Engagement and Action)
- Do activities give students opportunities to express their perspectives, particularly on topics that are drawn from their own experience? (Valuing Diverse Perspectives)

Feature 7: Content Explicitly Linked with Students' Background Experiences

- Are students' background experiences treated with the same respect afforded to traditional academic knowledge? (Questioning School Knowledge and Valuing Diverse Perspectives)
- Are students' background experiences used to challenge and complicate content in addition to more directly supporting content concepts? (Questioning School Knowledge and Valuing Diverse Perspectives)

Feature 15: Higher-Order Thinking

- Are the higher-order questions that are used encouraging students to challenge school knowledge and power relations? (Questioning School Knowledge and Questioning Power Relations)
- Are higher-order thinking tasks supporting students to develop their own perspectives? (Questioning School Knowledge, Questioning Power Relations, and Valuing Diverse Perspectives)
- Do higher-order questions and tasks encourage students to draw on their own experiences, and are they relevant to students' own perspectives and desires? (Adapting to Students and Local Context)

Feature 16: Interaction and Discussion

- Does discussion among peers provide opportunities for students to express disagreement with school knowledge and to develop their own perspectives? (Questioning School Knowledge and Valuing Diverse Perspectives)

- Are students given the opportunity to explore and freely discuss what they are most interested in in their discussions? (Adapting to Students and Local Context)

Feature 19: Opportunities to Clarify Key Concepts in L1

- Is language used as a resource in class? (Adapting to Students and Local Context)
- Is language use a right in class? (Adapting to Students and Local Context)
- Are classroom language policies decided on in collaboration with students? (A Negotiated Curriculum and Adapting to Students and Local Context)
- Are students permitted to express their ideas in their L1? (Valuing Diverse Perspectives)

Considerations for less compatible SIOP features

Feature 1: Content Objectives

- Do students have power to influence what content objectives are? (A Negotiated Curriculum and Adapting to Students and Local Context)
- Do these objectives to link to critical understandings of school and society, social action, and students' contexts and perspectives? (Questioning School Knowledge, Questioning Power Relations, Social Engagement and Action, Adapting to Students and Local Context, and Valuing Diverse Perspectives)

Feature 2: Language Objectives

- Do students have power to influence what language objectives are? (A Negotiated Curriculum and Adapting to Students and Local Context)

- Are language objectives contextualized in students' own lives and relate to skills and topics they expressed an interest in? (Adapting to Students and Local Context)
- Are the real-life activities these language objectives relate to connected with critical understandings of school and society, social action, and students' contexts and perspectives? (Questioning School Knowledge, Questioning Power Relations, Social Engagement and Action, Adapting to Students and Local Context, and Valuing Diverse Perspectives)

Feature 5: Adaptation of Content to All Levels of Student Proficiency

- Can English learners access the key concepts of the lesson to the same degree as native English speakers? (Adapting to Students and Local Context)
- Are adapted materials as intellectually stimulating as original materials? (Questioning School Knowledge, Questioning Power Relations, and Adapting to Students and Local Context)

Comprehensible Input component

- Are teachers' speech and academic content concepts clear to students? (Adapting to Students and Local Context)
- Are techniques that are used to make input comprehensible stimulating for students' thinking (e.g. visually rich images, models that they can relate their own experiences to)? (Questioning School Knowledge and Adapting to Students and Local Context)

Lesson Delivery component

- Does lesson delivery support democratic classroom practices? (A Negotiated Curriculum, Adapting to Students and Local Context, and Valuing Diverse Perspectives)

Review & Assessment component

- Are multiple perspectives still encouraged when reviewing content and vocabulary? (Questioning School Knowledge and Valuing Diverse Perspectives)
- Do assessments allow for multiple possible, justified answers? (Questioning School Knowledge and Valuing Diverse Perspectives)
- Are assessments used to improve and tailor future instruction rather than to reward or punish students? (Adapting to Students and Local Context)

Considerations for A Negotiated Curriculum

Because of the negotiation feature's unique lack of any connection with SIOP found in the literature, I present recommendations for implementing this feature here. Although other features of critical pedagogy may similarly be implemented without connection to SIOP, I suggest that teachers implement them in connection with it when possible, so as to preserve time and avoid incoherence in lessons. I suggest considering the following questions:

- Does the teacher negotiate the syllabus with students at the beginning of the course? See Shor (1996) for an example of a possible negotiation process.
- Do students have a system for influencing instruction as it happens or soon after it happens, such as in Shor's (1996) After Class Group?
- Do students have ample opportunities to determine the themes that they will study?

- Do students have autonomy in deciding the direction of their learning within units, e.g. in deciding not just the topic of a project, but how to carry it out?

The first and second questions derive from Shor (1996), who highlighted both the negotiation of the grading contract (and made a note about his negotiation of class materials in later courses) and the use of the After Class Group. The third question builds off of SIOP's openness towards the themes and content it is used to teach. This question is particularly applicable to content-based ESL courses because of the relative flexibility they afford in selecting themes, but also applies to sheltered content courses so that students have some power over how their learning is organized. As noted in the introduction of this paper, SIOP's openness in the selection of themes is one of the reasons why it was chosen to be analyzed. So despite negotiation being unrelated to particular features of SIOP, SIOP is still amenable to its implementation. The fourth question derives from Rivera (1999), who notes that the adult ESL program she studied structures itself around thematic units, which the program termed "popular research units" because students study their community through research they design and enact themselves, with teachers serving as facilitators.

Additionally, it is worth noting that implementing a negotiated curriculum may be challenging for a variety of reasons. Au (2016) and Mackinney & Rios-Aguilar (2012) note some challenges that many teachers face in general, even without trying to negotiate curriculum with their students: the pressure on teachers to prepare their students for high-stakes standardized tests, administrative environments that are not conducive to teachers' decision-making, and restrictive state or district policies determining curriculum. However, this is not to say that negotiating the curriculum is impossible when teachers face such constraints. While the community-based adult ESL program that Rivera (1999) studied was not itself government-run,

it still faced significant challenges from state-mandated requirements. Due to the welfare reform of the 1990s, students were required to attend the program's English classes for at least 20 hours a week in order to retain their access to social services. In order to meet this steep requirement, students and staff negotiated internal policies that would lessen the burden on students. Rivera (1999) cites the solidarity that came from students' and staff's sense of ownership as what kept students from leaving and the program from collapsing as a result of such a dramatic challenge. Thus, it seems apt to suggest that critical teachers' commitment to their students, and the community the teacher and students build together, may be a key element of successfully negotiating the curriculum under harsh teaching conditions.

Implications for practice

While SIOP and critical pedagogy are fundamentally distinct approaches to teaching, attention both to students' academic success and to the development of their agency inside and outside of school can combine to more fully recognize students as whole human beings with multiple needs and desires. This analysis has shown that while these two approaches do not neatly overlap, there is significant room for both approaches to be implemented in a coherent pedagogy. As the considerations presented above suggest, there is a strong base in SIOP to work off of for implementing a critical pedagogy, its areas of least compatibility can be implemented in a manner that supports a critical approach, and negotiation of the curriculum can be carried out without disrupting the use of SIOP. Teachers of sheltered content and content-based ESL classes interested in implementing a critical approach in their courses may consider implementing this mixed SIOP-critical pedagogy approach, using the above considerations to guide their implementation. To the degree that SIOP is relevant to content-based, target

language-medium language instruction more broadly, the recommendations of this paper may also have some applicability for teachers of world languages and English as a foreign language as well.

Appendix

Simplified definitions of critical pedagogy features for analysis purposes:

Questioning School Knowledge

- Teacher fosters students' understanding of knowledge as
    - not politically neutral
    - containing omissions and biases
    - capable of being questioned

2. Questioning Power Relations

- Teacher fosters students' critical consciousness of
    - what individuals and groups hold power at various levels of society and in various situations
    - why these individuals or groups hold power
    - what ideologies and practices result from these power relations (within and outside the school setting)

3. Social Engagement and Action

- Teacher fosters
    - understanding of alternatives to existing power relations
    - understanding of how such alternatives could be won
    - students' own action to achieve the alternative they want

4. A Negotiated Curriculum

- Teacher has a direct discussion with students at the beginning of the course to co-determine the curriculum
- Teacher and students have ongoing discussions and revise content topics, materials, activities, and assignments

5. Adapting to Students and Local Context

- Teacher formulates lessons, discussions, and activities so that they adapt to
    - students' perspectives, desires, and interests
    - adapting to the circumstances of the course and students' lives that they may not readily express but that the teacher is aware of or can become aware of

6. Valuing Diverse Perspectives

- Teachers
    - value students' perspectives
    - promote students' valuing each other's perspectives
    - use these diverse perspectives as resources in the classroom

Protocol for theoretical analysis

- To achieve a rating of highly compatible (HC), the SIOP feature must meet the criteria for being somewhat compatible, and must also advocate practices that align with one or more of the clauses in the definition of the feature of critical pedagogy that it is being evaluated on

- To achieve a rating of somewhat compatible (SC), the SIOP feature must not advocate practices that oppose or undermine the feature of critical pedagogy that it is being evaluated on
- To achieve a rating of not compatible (NC), the SIOP feature must advocate practices that oppose or undermine one or more of the clauses in the definition of the feature of critical pedagogy that it is being evaluated on

Protocol for analysis of critical pedagogy features in each source

- To achieve a rating of fully present (FP), the source must explicitly demonstrate that the practices it describes meet each clause of the definition for the feature of critical pedagogy that it is being evaluated on
- To achieve a rating of somewhat present (SP), the source must explicitly or implicitly demonstrate that the practices it describes meet at least one clause of the definition for the feature of critical pedagogy that it is being evaluated on
- To achieve a rating of not present (NP), the source must demonstrate that the practices it describes meet none of the clauses of the definition for the feature of critical pedagogy that it is being evaluated on. It must, however, not explicitly or implicitly negate the feature of critical pedagogy that it is being evaluated on.
- To achieve a rating of opposed (O), the source must demonstrate that the practices it describes meet none of the clauses of the definition for the feature of critical pedagogy that it is being evaluated on. It must also explicitly or implicitly foster classroom conditions that are opposite to the feature of critical pedagogy that it is being evaluated on.

Complete data on SIOP features associated with critical pedagogy features:

Each SIOP feature that was associated with at least one feature of critical pedagogy in the literature review is presented here with the sources these associations were found in, and each source is presented with the critical pedagogy (CP) features that were associated with the SIOP feature in that particular source.

- Feature 4:
    - Schall-Leckrone, 2017 (CP feature 1)
    - Alegria, 2014 (CP features 5 and 6)
    - Osorio, 2018 (CP feature 5)
    - Ramírez et al., 2016 (CP feature 6)
- Feature 6:
    - Schall-Leckrone, 2017 (CP feature 6)
    - Nargund-Joshi & Bautista, 2016 (CP features 3 and 5)
    - Settlage et al., 2005 (CP features 5 and 6)
    - Mackinney & Rios-Aguilar, 2012 (CP features 5 and 6)
    - Alegria, 2014 (CP feature 2)
    - Rivera, 1999 (CP feature 5)
- Feature 7:
    - Daniel & Conlin, 2015 (CP feature 6)
    - Settlage et al., 2005 (CP features 5 and 6)
    - Rativa Murillo, 2013 (CP feature 5)
    - Mackinney & Rios-Aguilar, 2012 (CP features 5 and 6)

    - Alegria, 2014 (CP features 1, 5, and 6)
    - Osorio, 2018 (CP features 5 and 6)
    - Rivera, 1999 (CP feature 5)
    - Ramírez et al., 2016 (CP feature 5)
- Feature 8:
    - Schall-Leckrone, 2017 (CP features 1 and 2)
    - Daniel & Conlin, 2015 (CP feature 6)
- Feature 9:
    - Schall-Leckrone, 2017 (CP features 1 and 2)
- Feature 12:
    - Alegria, 2014 (CP feature 5)
- Feature 14:
    - Daniel et al., 2016 (CP features 5 and 6)
- Feature 15:
    - McGraw & Rubinstein-Ávila, 2009 (CP feature 6)
    - Daniel et al., 2016 (CP feature 5)
    - Mackinney & Rios-Aguilar, 2012 (CP features 1 and 2)
    - Alegria, 2014 (CP features 1, 2, and 5)
    - Osorio, 2018 (CP feature 2)
- Feature 16:
    - Song, 2016 (CP feature 6)
    - Settlage et al., 2005 (CP features 5 and 6)
    - McGraw & Rubinstein-Ávila, 2009 (CP feature 6)

    - Rivera, 1999 (CP features 1 and 6)

- Feature 17:
    - Song, 2016 (CP feature 5)
    - Ramírez et al., 2016 (CP feature 5)
- Feature 19:
    - Song, 2016 (CP feature 5)
    - McGraw & Rubinstein-Ávila, 2009 (CP feature 5)
    - Ramírez et al., 2016 (CP features 5 and 6)
- Feature 20:
    - Rivera, 1999 (CP features 5 and 6)
- Feature 21:
    - Schall-Leckrone, 2017 (CP feature 6)
    - Nargund-Joshi & Bautista, 2016 (CP features 3 and 5)
    - McGraw & Rubinstein-Ávila, 2009 (CP feature 6)
    - Mackinney & Rios-Aguilar, 2012 (CP features 5 and 6)
    - Alegria, 2014 (CP features 2, 5 and 6)

References

Alegria, A. (2014). Supporting English Language Learners in the science classroom through critical pedagogy. *International Journal of Science and Mathematics Education*, *12*(1), 99–121. https://doi.org/10.1007/s10763-013-9399-7

Anyon, J. (1980). Social class and the hidden curriculum of work. *Journal of Education (Boston, Mass.)*, *162*(1), 67–92. https://doi.org/10.1177/002205748016200106

Au, W. (2016). Meritocracy 2.0: High-stakes, standardized testing as a racial project of neoliberal multiculturalism. *Educational Policy (Los Altos, Calif.)*, *30*(1), 39–62. https://doi.org/10.1177/0895904815614916

Auerbach, E. (1993). Reexamining English Only in the ESL classroom. *TESOL Quarterly*, *27*(1), 9–32. https://doi.org/10.2307/3586949

Balconi, A., & Spitzman, E. (2021). Content area teachers' challenges writing language objectives: A document analysis. *TESOL Journal*, *12*(1). https://doi.org/10.1002/tesj.530

Britsch, S. (2020). "Nosotras no empezamos a hacer eso": A social semiotic view of a sheltered science investigation. *TESOL Quarterly*, *54*(2), 310–347. https://doi.org/10.1002/tesq.546

Canagarajah, S. (2005). Critical pedagogy in L2 learning and teaching. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 931-949). Erlbaum.

Coulter, C. (2008). Critical literacy. In J. González (Ed.), *Encyclopedia of bilingual education* (pp. 192-194). SAGE Publications, Inc.

Crookes, G. (2010). The practicality and relevance of second language critical pedagogy. *Language Teaching, 43*(3), 333-348. http://dx.doi.org.proxy.swarthmore.edu/10.1017/S0261444809990292

Daniel, S.M., & Conlin, L. (2015). Shifting attention back to students within the Sheltered Instruction Observation Protocol. *TESOL Quarterly*, *49*(1), 169–187. https://doi.org/10.1002/tesq.213

Daniel, S.M., Martin-Beltrán, M., Peercy, M., & Silverman, R. (2016). Moving beyond yes or no: Shifting from over-scaffolding to contingent scaffolding in literacy instruction with emergent bilingual students. *TESOL Journal*, *7*(2), 393–420. https://doi.org/10.1002/tesj.213

Derince, Z.M. (2011). Language learning through critical pedagogy in a "Brave New World." *International Review of Education*, *57*(3/4), 377–395. https://doi.org/10.1007/s11159-011-9218-8

Doughty, C.J., & Long, M.H. (2003). The scope of inquiry and goals of SLA. In Doughty, C.J. & M.H. Long (Eds.), *The handbook of second language acquisition* (1st ed.) (pp. 3-16). John Wiley & Sons, Incorporated.

Echevarría, J. (2005). Using SIOP in science: Response to Settlage, Madsen, and Rustad. *Issues in Teacher Education*, *14*(1), 59-62.

Echevarría, J., Vogt, M., & Short, D.J. (2013). *Making content comprehensible for English learners: The SIOP® model* (4th ed). Pearson Education, Inc.

Fisher, D., & Frey, N. (2010). Unpacking the language purpose: Vocabulary, structure, and function. *TESOL Journal*, *1*(3), 315–337. https://doi.org/10.5054/tj.2010.227607

Freire, P. (2000). *Pedagogy of the oppressed* (30th anniversary ed.). Continuum.

García, O., & Baetens Beardsmore, H. (2009). *Bilingual education in the 21st century: A global perspective*. Wiley-Blackwell.

Gordon, B.M. (2012). In J.A. Banks (Ed.), *Encyclopedia of diversity in education* (pp. 479-481). SAGE Publications, Inc.

hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom*. Routledge.

I, J.Y., & Chang, H. (2014). Teaching mathematics for Korean language learners based on ELL education models. *ZDM: The International Journal on Mathematics Education*, *46*(6), 939–951. https://doi.org/10.1007/s11858-014-0631-x

Kim, M.K., & Pollard, V.A. (2017). A modest critical pedagogy for English as a Foreign Language education. *Education as Change*, *21*(1), 50–72. https://doi.org/10.17159/1947-9417/2017/492

Koura, A. A., & Zahran, F.A. (2017). The impact of sheltered instruction observation protocol model on student teachers' teaching skills and self-efficacy. *Journal of Language Teaching and Research, 8*(4), 704-714. http://dx.doi.org.proxy.swarthmore.edu/10.17507/jltr.0804.09

Krashen, S., & Terrell, T. (1983). *The natural approach: Language acquisition in the classroom* (1st ed.). Pergamon Press.

Martínez, R.A. (2018). Beyond the English Learner label: Recognizing the richness of bi/multilingual students' linguistic repertoires. *The Reading Teacher*, *71*(5), 515–522. https://doi.org/10.1002/trtr.1679

Mackinney, E., & Rios-Aguilar, C. (2012). Negotiating between restrictive language policies and complex teaching conditions: A case study of Arizona's teachers of English learners. *Bilingual Research Journal*, *35*(3), 350–367. https://doi.org/10.1080/15235882.2012.734545

McGraw, R., & Rubinstein-Ávila, E. (2009). Middle school immigrant students developing mathematical reasoning in Spanish and English. *Bilingual Research Journal*, *31*(1-2), 147–173. https://doi.org/10.1080/15235880802640656

McLaren, P. (1994). *Life in schools: An introduction to critical pedagogy in the foundations of education* (2nd ed.). Longman.

Moll, L.C., & González, N. (2004). Engaging life: A funds-of-knowledge approach to multicultural education. In Banks, J.A., & C.A. McGee Banks (Eds.), *Handbook of research on multicultural education* (pp. 699-715). Jossey-Bass.

Nargund-Joshi, V., & Bautista, N. (2016). Which comes first—language or content? Learning science content through SIOP and the 5E Learning Cycle. *The Science Teacher (National Science Teachers Association)*, *83*(4), 24-30. https://doi.org/10.2505/4/tst16_083_04_24

Office of English Language Acquisition. (2020, September). *High school graduation rates for English learners*. https://ncela.ed.gov/files/fast_facts/20200916-ELGraduationRatesFactSheet-508.pdf

Osorio, S. (2018). Toward a humanizing pedagogy: Using Latinx children's literature with early childhood students. *Bilingual Research Journal*, *41*(1), 5–22. https://doi.org/10.1080/15235882.2018.1425165

Paul, C.M, & Vehabovic, N. (2020). Exploring the critical in biliteracy instruction. *TESOL Journal*, *11*(1). https://doi.org/10.1002/tesj.456

Poza, L.E. (2019). "Where the true power resides": Student translanguaging and supportive teacher dispositions. *Bilingual Research Journal*, *42*(4), 408–431. https://doi.org/10.1080/15235882.2019.1682717

Phillipson, R. (1998). Globalizing English: Are linguistic human rights an alternative to linguistic imperialism? *Language Sciences (Oxford)*, *20*(1), 101–112. https://doi.org/10.1016/S0388-0001(97)00015-6

Ramírez, P., Vickery, A.E., Salinas, C.S., & Ross, L. (2016). Advocating for language rights: Critical Latina bilingual teachers creating bilingual space in Arizona. *Bilingual Research Journal*, *39*(3-4), 296–308. https://doi.org/10.1080/15235882.2016.1238856

Rativa Murillo, H.A. (2013). Adapting features from the SIOP component: Lesson Delivery to English lessons in a Colombian public school. *PROFILE Issues in Teachers' Professional Development*, *15*(1), 171–193.

Regalla, M. (2012). Language objectives: More than just vocabulary. *TESOL Journal*, *3*(2), 210–230. https://doi.org/10.1002/tesj.15

Rivera, K. (1999). Popular research and social transformation: A community-based approach to critical pedagogy. *TESOL Quarterly*, *33*(3), 485–500. https://doi.org/10.2307/3587675

Schall-Leckrone, L. (2017). Genre pedagogy: A framework to prepare history teachers to teach language. *TESOL Quarterly*, *51*(2), 358–382. https://doi.org/10.1002/tesq.322

Settlage, J., Madsen, A., & Rustad, K. (2005). Inquiry science, sheltered instruction, and English Language Learners: conflicting pedagogies in highly diverse classrooms. *Issues in Teacher Education*, *14*(1), 39-57.

Siegel, J. (2003). Social context. In Doughty, C. & M. Long (Eds.), *The handbook of second language acquisition* (1st ed.) (pp. 178-223). John Wiley & Sons, Incorporated.

Shor, I. (1996). *When students have power: Negotiating authority in a critical pedagogy*. University of Chicago Press.

Song, K.H. (2016). Systematic professional development training and its impact on teachers' attitudes toward ELLs: SIOP and guided coaching. *TESOL Journal*, *7*(4), 767–799. https://doi.org/10.1002/tesj.240

U.S. Department of Education. (n.d.). "Our nation's English learners." https://www2.ed.gov/datastory/el-characteristics/index.html

Valenzuela, A. (1999). *Subtractive schooling: U.S.-Mexican youth and the politics of caring*. State University of New York Press.

Wu, Y. (2015). A case study of incorporating sheltered instruction into ESP courses in China. *Overseas English*, *6*, 45-47.