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Language Instruction Educational Programs (LIEPs): **A Review of the Foundational Literature**

Language Instruction Educational Programs (LIEPs): A Review of the Foundational Literature

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Executive Summary

In 2010, the U.S. Department of Education (the Department) contracted with Synergy Enterprises, Inc. and edCount, LLC, to complete a study titled Language Instruction Educational Programs (LIEPs): Lessons From the Research and Profiles of Promising Programs. This study includes a review of the foundational literature related to LIEPs, case studies of 20 school districts with well-designed and well-implemented LIEPs, and a Lessons from the Field guide that integrates findings from the literature review and the case studies and provides practical information for local educators on selecting, designing, implementing and evaluating LIEPs.[1]

Purpose

This literature review is intended to lay a foundation for the LIEP study. It provides literature-based summaries for a range of topics that may factor into LIEP designs and functions, and supports school districts in their decisions about how to choose appropriate LIEPs for their students' needs. The review summarizes critical ideas, findings, concepts, debates and practices that populate the literature on LIEP design, implementation and evaluation at present. The research questions driving this review are as follows:

1. **Theories of second-language acquisition.** How is second-language acquisition (SLA) theorized to occur, and how can or should this process inform or influence instruction or program design?

2. **The construct of academic English language.** What is academic English language, and why does it matter? How can instructors support and encourage English learners (ELs) to acquire and use academic language?

3. **Models and considerations for LIEP design.** What are the characteristics of different models, and how can or should these be actualized in implementation? What characteristics of a model may be variable, and which are critical to its success?

4. **Instructional practices and professional development.** What specific practices and protocols can teachers adopt during their class instruction to support ELs' acquisition of English or mastery of academic content? What are the content and components of promising professional development (PD) for teachers in LIEPs? How should PD be implemented and evaluated?

5. **School district, school and community culture**. What contextual and environmental factors in a school district, school or community may impact a LIEP's ability to meet the requirements of Title III? What cultural and demographic factors in a school district, school or community are important to consider in implementing a LIEP?

6. **Indicators and evaluation of success**. What indicators might reflect whether a LIEP has been implemented successfully? How might these indicators vary in the initiation, scaling and maintenance phases? What indicators would reflect effectiveness of the LIEP in terms of its own stated goals?

[1] This literature review focuses on language instruction educational programs (LIEPs) in general, not specifically on those supported by Title III funding, and includes research on programs that may not have been funded by Title III. It is intended for any audience that may benefit from information about LIEP implementation and evaluation.

Context

Indicators of academic success and progress suggest that English learners (ELs) are struggling in their education. On both state (Center on Education Policy 2010) and national (National Center for Education Statistics 2009a; National Center for Education Statistics 2009b) assessments, ELs consistently underperform peers who have never been ELs, and they disproportionately score in the "below *Proficient*" performance categories on assessments that measure academic content knowledge. For example, 94 percent of EL fourth-grade students scored below *Proficient* on the NAEP reading assessment in 2009 compared with 66 percent of all fourth grade students (NCES 2009b).

The *Elementary and Secondary Act (ESEA)* of 1965, currently reauthorized as the *No Child Left Behind Act (NCLB)* of 2001, provides that Title III's first purpose is to "ensure that children who are limited English proficient, including immigrant children and youth, attain English proficiency, develop high levels of academic attainment in English, and meet the same challenging state academic content and student academic achievement standards as all children are expected to meet" (*ESEA* Section 3102(1)). One of Title III's other stated purposes is "to develop high-quality language instruction educational programs designed to assist states, districts and schools in teaching limited English proficient children and serving immigrant children and youth" (*ESEA* Section 3102(3)).

ESEA mandates also require that school districts evaluate their LIEPs regularly to ensure they are meeting student needs and achieving intended outcomes. While the Department does not provide guidance or regulations on how such evaluation should be structured, *ESEA* provides guidance on minimum expectations for any LIEP.

Methodology

Four reviewers read more than 200 articles and reports identified through a vetted search protocol determined in collaboration with ED and members of the study's expert panel. The search criteria are listed in Appendix A of this document. All reviewers used a Microsoft Access database entry form that captured information about a variety of topics, including the literature review category(s) to which the article pertained, the program type(s) it referenced, the grade level(s) to which it applied and a summary of key findings, conclusions or observations. Reviewers were required to provide their rationale for including or excluding each article from the final list included in this review, according to the predetermined inclusion criteria. Ultimately, reviewers included 173 documents that met established criteria and represent a range of voices and orientations toward LIEPs, EL instruction and other related topics.

It is important to note that this review is not a meta-analytic one about program efficacy or outcomes, nor an effort to determine which LIEP(s) is (are) "best." It cannot promise that certain programs definitively work, or guarantee specific outcomes, and, due to the nature of the literature and the field, does not support definite conclusions about program quality or efficacy. There simply are not enough experimental and quasi-experimental studies to sustain a comprehensive, outcome-oriented discussion about all the review topics. **Thus, no definitive conclusions can be drawn about outcomes or effectiveness for any of these topics.**

Readers should also note that this review is not, in itself, meant to guide practitioners through the implementation process. Rather, the review may provide practitioners with information about the current general shape of the discussion and direct readers toward resources that may assist them in the implementation process. The forthcoming Lessons from the Field guide will provide more information about practices observed in the field and how-to's for the implementation and evaluation processes.

Clarification of Terms

This review uses the following operational definitions for key terms:

1. An **approach** is a broad, conceptual framework. Two approaches, "English as a second language (ESL)" and "bilingual," vary primarily in terms of their use (or non-use) of a student's native language (L1) during instruction that targets development of English as a second language (L2). Various models are subsumed under each approach.

    - As its name implies, the **ESL approach** focuses on instruction in English as the primary means to help ELs acquire the language and ultimately meet high academic standards. Students learn and are taught in English exclusively or primarily—certain instructional materials or instructional techniques may make use of basic L1 vocabulary, but only as a means to support the students' use of English. Models that follow the ESL approach may include both **language instruction,** wherein English language is the instructional content itself, or **content-based instruction**, in which academic content is the object of instruction, but it is delivered in such a way as to support ELs' acquisition of English as well.

    - The **bilingual approach** to educating ELs is built on the increasing body of research indicating that L1 skills contribute positively to students' acquisition of a second language (L2), and that L1 instruction does appear to promote gains in English achievement (Thomas and Collier 2002; August and Shanahan 2008; Genesee et al. 2006; Goldenberg 2008; Ramirez, Yuen, and Ramey 1991). The bilingual approach is based on a commitment to the understanding that instruction in students' L1 will help them to meet the goals of attaining English proficiency and meeting high academic achievement standards. Beyond this common trait, bilingual models vary in their details and orientation—some see L1 development as an important goal in itself, while others see it as a scaffold or stepping-stone to English fluency.

2. A **model** is a specific set of instructional services or a fully developed curriculum designed to help ELs acquire English proficiency and meet high academic standards. It comprises a set of characteristics, principles and practices that have been developed based on theory and research, and serves as a rough blueprint that classrooms, schools and districts may follow as an implementation guide.

    This review discusses several different types of models that are in use across the United States. See Exhibit 1 for brief descriptions of the elements that define these models; see Exhibit 2 for a comparison of instructional traits across the various language instruction educational program models.

Exhibit 1. Definitions of models for language instruction educational programs

Model	Alternate names	Description	Approach	Goals	Key design variables
English as a second language (ESL) instruction	English language development (ELD) English for speakers of other languages (ESOL)	ESL-certified teacher[a] provides explicit language instruction to students. Instruction focuses on development of proficiency in the English language, including grammar, vocabulary and communication skills.	ESL	Proficiency in English	Class format—Students may have a dedicated ESL class in their school day, or may receive pull-out ESL instruction wherein they work with a specialist for short periods during other classes.
Content-based ESL	None	ESL-certified teacher provides language instruction that uses content as a medium for building language skills. Although using content as a means, instruction is still focused primarily on learning English.	ESL	Preparation to meet academic achievement standards Proficiency in English	Class format—Students may have a dedicated ESL class in their school day, or may receive pull-out ESL instruction wherein they work with a specialist for short periods during other classes.

Model	Alternate names	Description	Approach	Goals	Key design variables
Sheltered instruction (SI)	Specially designed academic instruction in English (SDAIE) The Sheltered Instruction Observation Protocol (SIOP) is a specific version of the SI model with a considerable research base and specific strategies associated with it.	Teacher provides instruction that simultaneously introduces both language and content, using specialized techniques to accommodate ELs' linguistic needs. Instruction focuses on the teaching of academic content rather than the English language itself, even though the acquisition of English may be one of the instructional goals.	ESL	Preparation to meet academic achievement standards Proficiency in English	Class population—SI may be used for EL-only classrooms or for mixed classrooms with ELs and non-ELs. Instructor—Instruction is likely to be delivered by a general education teacher but may be delivered by an ESL-certified teacher.
Transitional bilingual education (TBE)	Early-exit bilingual	Students begin in grade K or 1 by receiving instruction all or mostly in their L1, and transition incrementally over to English. Typically, transition to all English is complete by mid- to late elementary school. L1 is used to leverage L2 acquisition, but L1 proficiency is not a program goal.	Bilingual	Preparation to meet academic achievement standards Proficiency in English	Balance of L1 and L2—Some TBE programs begin with L1 exclusively, others begin with a majority of L1 and use some L2. The division of the languages across instructional time and content areas may vary from program to program. Exit point—Typically, students complete their transition by around grade 3, but may exit as early as grade 2, or as late as grade 5.

Model	Alternate names	Description	Approach	Goals	Key design variables
Developmental bilingual education (DBE)	Late-exit bilingual Maintenance bilingual	Students begin in grade K or 1 by receiving instruction all or mostly in their L1, and transition incrementally over to English. Regardless of when or whether students attain proficiency in English, the program is designed to keep them enrolled through its completion (typically, the end of elementary school), using a 50-50 language balance through the end.	Bilingual	Preparation to meet academic achievement standards Proficiency in English Bilingualism and biliteracy	Balance of L1 and L2—Programs follow either a 50-50 model or a 90-10 model (which ultimately transitions to 50-50). Programs may balance languages by dividing instructional time according to content area, class period, instructor, week, unit or semester. Instructor(s)—Teachers may be bilingual, or teachers who teach in English may use sheltered instruction techniques to make their instruction accessible for ELs.
Two-way immersion (TWI)	Dual immersion	ELs and non-ELs receive instruction in English and a non-English language.	Bilingual	Preparation to meet academic achievement standards Proficiency in English Bilingualism and biliteracy Biculturalism	Balance of L1 and L2—Programs follow either 50-50 model or 90-10 model (which ultimately transitions to 50-50). Programs may balance languages by dividing instructional time according to content area, class period, instructor, week or unit. Instructor(s)—Teachers may be bilingual, or teachers who teach in English may use sheltered instruction techniques to make their instruction accessible for ELs.

Model	Alternate names	Description	Approach	Goals	Key design variables
Newcomer[b]	Newcomer center	ELs who are recent immigrants and typically have low literacy and are new to formal education settings receive specialized schooling designed to acclimate them to the American school setting and prepare them to participate in mainstream classes.	ESL or bilingual	Preparation to participate in regular LIEP offerings Build foundational skills in content areas (basic literacy, math concepts, etc.)	Program length—Newcomer programs may last anywhere from a semester to 4 years. Program design—Newcomer programs may range from a half-day, in-school program to a full-time, self-contained school. Target population—Newcomer programs target a specific subpopulation such as recent immigrant students with interrupted formal education. Instructional content—Typically, newcomer programs will offer both language instruction and content instruction. Also, they may include instruction designed to familiarize newcomers with American culture and educational settings.

Note: For more detailed information about the models, please refer to the "Models and Considerations for LIEP Design" section of this document. For a list of references to support this exhibit, please refer to "Exhibit 9. Key articles for models and considerations for LIEP design."
[a] Note: As used here, an ESL-certified teacher is a teacher with some sort of license, credential or certification to provide English language instruction to second-language learners. Different states and districts may use different naming conventions to refer to this kind of instructor.
[b] Newcomer models tend to prepare students for participation in a regular LIEP rather than serve as a LIEP according to the legislative definition of language instruction educational programs. While implementation of this model typically does not include instructional goals that meet the legislative definition of a LIEP, the model is often part of a crucial pathway for entering recently immigrated students into a district's or school's regular LIEP. As such, this model has been included in this study to ensure a holistic depiction of how districts serve ELs.

Exhibit 2. Summary comparison of instructional traits across different language instruction educational program models

	ESL approach			Bilingual approach			
Model trait	ESL	Content-based ESL	SI	TBE	DBE	TWI	Newcomer
ELs and non-ELs receive instruction together.	No	No	Yes	No	No	Yes	No
Certified ESL instructor is primary teacher.	Yes	Yes	No	Yes	Yes	Maybe	Yes
Language and content goals are integrated.	No	Yes	Yes	Maybe	Maybe	Maybe	No
Bilingualism and biliteracy are program goals.	No	No	No	No	Yes	Yes	No
Requires teachers who are fluent in students' L1.	No	No	No	Yes	Yes	Yes	No
Implemented for specific grade levels.	No	No	No	Yes	Yes	Yes	Yes
Compatible with (other) ESL models.	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: ESL = English as a second language; SI = sheltered instruction; TBE = transitional bilingual education; DBE = developmental bilingual education; TWI = two-way immersion.

3. The term **program** as used here is synonymous with LIEP, meaning a real-life instance or example of one or more models in an actual school or school district. Although this definition, technically, applies only to LIEPs that receive Title III funding, this literature review will use the *ESEA* definition for a LIEP, as follows (from Section 3301):

> (8) The term language instruction educational program' means an instruction course—
>
> (A) in which a limited English proficient child is placed for the purpose of developing and attaining English proficiency, while meeting challenging state academic content and student academic achievement standards, as required by Section 1111(b)(1); and
>
> (B) that may make instructional use of both English and a child's L1 to enable the child to develop and attain English proficiency, and may include the participation of English proficient children if such a course is designed to enable all participating children to become proficient in English and a second language.

In order to serve ELs in all grade levels, at all proficiency levels, and from all backgrounds, it is likely that many school districts implement more than one LIEP—e.g., the school or school district might offer a (TWI) program as well as ESL classes.

4. **Instructional practices** are specific classroom-level practices that teachers may apply to support students' learning and comprehension. They are both more detailed and narrower than models. For example, they may refer to specific techniques for structuring a lesson or developing a certain skill.

5. According to Section 9101(25) of *ESEA,* an **English learner (EL)**, also referred to as a limited English proficient (LEP) student, is an individual:

> (A) who is aged 3 through 21;
>
> (B) who is enrolled or preparing to enroll in an elementary or secondary school;
>
> (C) (i) who was not born in the United States or whose native language is a language other than English;
>
> (ii) (I) who is a Native American or Alaska Native, or a native resident of the outlying areas; and
>
> (II) who comes from an environment where a language other than English has had a significant impact on the individual's level of English language proficiency; or
>
> (iii) who is migratory, whose native language is a language other than English, and who comes from an environment where a language other than English is dominant; and
>
> (D) whose difficulties in speaking, reading, writing or understanding the English language may be sufficient to deny the individual—
>
> (i) the ability to meet the state's proficient level of achievement on state assessments described in 1111(b)(3);
>
> (ii) the ability to successfully achieve in classrooms where the language of instruction is English; or
>
> (iii) the opportunity to participate fully in society.

The abbreviated term EL is used throughout this paper.

Findings

What Research Says About LIEPs in General

A great deal of scholarship about LIEPs in the past 20 years has focused on language of instruction, and this scholarship provides a general overview of the field. While findings from recent meta-analyses and systematic syntheses indicate the **bilingual approach produces more positive outcomes for ELs than the ESL approach** (August and Shanahan 2006; Lindholm-Leary and Borsato 2006; Rolstad, Mahoney, and Glass 2005; Slavin and Cheung 2005; Greene 1997), individual descriptive studies and expert opinions based on research also provide examples from both approaches that produce strong outcomes for ELs on various academic measures (e.g., Williams, Hakuta, and Haertel 2007; Parrish et al. 2006; Howard, Christian, and Genesee 2004; August and Pease-Alvarez 1996). However, a recent large-scale longitudinal experimental study funded by the Department's Institute of Education Sciences (IES) (Slavin et al. 2011) and a quasi-experimental study (Irby et al. 2010) found that **instructional practices may matter more than language of instruction** (approach). Specifically, Slavin et al. (2011) found that

students enrolled in programs using the same instructional practices and curriculum in English (a structured English immersion [SEI] program) or Spanish (a transitional bilingual education [TBE] program) reached comparable levels of performance on English reading measures after 5 years, suggesting that the instructional practices and curriculum were likely to have produced the results, rather than the language used. Irby et al. (2010) found that students who participated in "enhanced" TBE or SEI programs ("enhanced" due to the use of specific professional development, class structure and instructional practices) performed better on reading measures than students who did not participate in these programs. Findings such as these suggest that well-implemented LIEPs go beyond simply choosing an approach, and they may be identifiable more by their instructional practices than by their model or approach.

An important finding for the purpose of this review is that **special instruction and tailored services provided to ELs, regardless of the type of LIEP, can offer academic benefits.** At least one meta-analytic research synthesis (Lindholm-Leary and Borsato 2006) and one large-scale longitudinal quasi-experimental study (Thomas and Collier 2002) have found that ELs fare worst on academic measures (compared to ELs in other instructional scenarios) when they receive no special instruction of any kind and are simply placed into mainstream classrooms. Saunders and Goldenberg (2010) also conclude, based on their analysis of approximately 100 research articles, that providing English Language Development (ELD) instruction is better than not providing it. Although many instructional techniques that are effective for native English-speaking students may also be effective with ELs (D'Angiulli, Siegel, and Maggi 2004; August and Hakuta 1998; August et al. 2008; Goldenberg 2008), such practices may be less effective for ELs than for native English speakers (O'Day 2009; August et al. 2008; August and Hakuta 1998; D'Angiulli, Siegel, and Maggi 2004; Gersten 1996). Goldenberg (2008) notes, in a discussion of two large research reviews on instruction (August and Shanahan 2008; Genesee et al. 2006), that both panels found that instruction that is modified or that accommodates the special needs of ELs is more likely to help these students progress than instruction that is not modified.

As for the specific instructional foci and practices that LIEPs should use, researchers largely agree about certain **factors that appear to be critical** in the design and implementation of any LIEP. These factors included **specialized instruction** that recognizes ELs' unique needs as second-language learners, whether the instruction is focused on content or on language acquisition (August et al. 2005; Vaughn et al. 2008; Fung, Wilkinson, and Moore 2003; Proctor et al. 2009; Walqui 2002; Saunders and Goldenberg 1999; Gersten 1996; Manyak and Bouchereau Bauer 2009; Linan-Thompson et al. 2003; Goldenberg 2008; Genesee et al. 2006; August and Shanahan 2008), with a specific focus on **literacy development** (Manyak and Bouchereau Bauer 2009; Genesee et al. 2006; Snow 2008; Snow, Lawrence, and White 2009; August and Shanahan 2008; Nelson, Vadasy, and Sanders 2011; August et al. 2005; Gersten et al. 2007; Graves, Gersten, and Haager 2004; Giambo and McKinney 2004; Vaughn et al. 2009; Shih 1992), and **oral language development** (Ramirez, Yuen, and Ramey 1991; Padrón et al. 2000; Giambo and McKinney 2004; Royer and Carlo 1991a; Royer and Carlo 1991b; Genesee and Riches 2006; Saunders and O'Brien 2006; Saunders and Goldenberg 2010; Lesaux and Geva 2008).

Teacher preparation and attitudes were also a common emphasis across all approaches and models. Many experts argued that any teachers who have ELs in their classrooms—including and especially mainstream content or general education teachers—should be prepared with specific instructional techniques to serve these students (Gersten 1996; Knight and Wiseman 2006; Manyak 2007; Saunders and Goldenberg 2010; Reeves 2004, 2006; Ray 2009; Aguirre-Munoz et al. 2001). Experts also suggested that teachers should be equipped with information and resources to help them understand ELs as a population, as individuals and as language learners (Zetlin, MacLeod, and Michener 1998; González and Darling-Hammond 1997; Minaya-Rowe 2004).

Beyond the classroom, a generally **open and respectful school culture** was also a common trait discussed about programs in the reviewed literature (Michael, Andrade, and Bartlett 2007; Miller and Endo 2004; Collier and Thomas 1997; August and Pease-Alvarez 1996), though the literature reviewed for this study did not yield any research that explicitly examined the relationship between school culture and student outcomes. While the form that these components take may vary depending on a program's approach (e.g., oral language development may occur differently in bilingual vs. ESL programs), their presence appeared to transcend connection to a specific approach or model.

In sum, the literature reviewed makes note that schools whose ELs perform strongly on academic measures often have positive, accepting cultural atmospheres (Berman et al. 2000; Lucas 1993; Necochea and Cline 2000; Ochoa and Cadiero-Kaplan 2004; Williams, Hakuta, and Haertel 2007; Collier and Thomas 1997; Thomas and Collier 2002). Parent and community involvement are also commonly cited features of high-quality programs (Genesee 1999; Boyson and Short 2003; August and Pease-Alvarez 1996).

General Findings

- The research reviewed for this study suggests that ELs who receive some kind of language support or specialized instruction show better outcomes on various academic measures than those who receive no specific language learning support (Thomas and Collier 2002; Menken and Kleyn 2010; Lindholm-Leary and Borsato 2001).
- While multiple meta-analyses and large-scale research studies and systematic syntheses of research have found that models following the bilingual approach can produce better outcomes than ESL models, as measured by general academic content assessments or measures of reading comprehension or skills (Thomas and Collier 2002; Genesee et al. 2006; Goldenberg 2008; Saunders and Goldenberg 2010; August and Shanahan 2008), other studies, including a recent large-scale quasi-experimental study and a recent large-scale experimental study, indicate that quality of instructional practices matters as well as language of instruction (Irby et al. 2010; Slavin et al. 2011). In other words, researchers have found examples of high-quality programs that come from both bilingual and ESL approaches, which suggests that no single approach (e.g., ESL or bilingual) is effective at all times and under all circumstances (Williams, Hakuta, and Haertel 2007; Parrish et al. 2006; Howard and Christian 2002; August and Pease-Alvarez 1996).
- Reviewers found less detail about instructional practice in literature pertaining to bilingual models, compared to literature pertaining to ESL models. Research on bilingual models tended to focus more on the models' structure (e.g., balance of languages, transition between languages, and the like) and content (e.g., literature instruction, phonological processing instruction, vocabulary instruction) than on the specific instructional practices used at the classroom level (Genesee 1999; Gersten and Woodward 1995; Irby et al. 2010; Ramirez, Yuen, and Ramey 1991; Slavin et al. 2011).
- In addition to ESL and bilingual models, the literature revealed a subgenre of scholarship on ELs who are most commonly referred to as "newcomers" (August et al. 2008; Boyson and Short 2003; Genesee 1999; Rivera et al. 2010; Spaulding, Carolino, and Amen 2004; Thomas and Collier 2002). Different sources may name or define this group differently, but broadly speaking, newcomers are typically conceived in the literature as students who are recent immigrants to the United States who have low literacy and who may lack or have interruptions in their formal schooling.
    - Because of differences in the language demands at different grade levels, newcomers are often discussed at the secondary level, where their schooling interruptions or language barriers may present a more imposing obstacle than those faced by younger newcomers (Ramirez, Yuen, and Ramey 1991).
    - Schools or school districts may offer special programs for newcomer students that address these students' unique academic, linguistic and cultural needs compared to other ELs. The literature suggested that the goal for many newcomer models is to introduce and prepare students for formal education in American schools, as well as entry into the district or school's regular LIEP, whether it is an ESL approach or a bilingual approach (Boyson and Short 2003).

What Research Says About the English as a Second Language Approach

The ESL approach focuses on developing English skills and teaching in English; it makes minimal use, if any, of students' L1. Models under this approach may focus on language instruction in itself, integrate language and content instruction together, or focus on providing content instruction using specialized methods to accommodate ELs. Multiple authors found or argued that **the strongest programs incorporate both dedicated language instruction and specialized content instruction** (Saunders and Goldenberg 2010; Genesee 1999; Williams, Hakuta, and Haertel 2007; Harper and de Jong 2004).

Most of the instructional practice literature that reviewers found—research studies, research reviews and expert opinions based on research—focused on instructional practices in English.

ESL Approach

- Some research suggests that models under the ESL and bilingual approaches may produce comparable results, if implemented well and thoroughly (Slavin et al. 2011), and there are examples across the country of ESL programs that are producing strong learning outcomes for their students (Williams, Hakuta, and Haertel 2007; Parrish et al. 2006; Smith, Coggins, and Cardoso 2008; Rivera et al. 2010; Echevarria and Short 2010).
- There is evidence that ESL models (language- or content-based) are likely to produce better outcomes on various academic performance measures than general instruction in English that does not follow an ESL model or acknowledge ELs' specific linguistic needs (Saunders and Goldenberg 2010; Goldenberg 2008; Genesee et al. 2006; August et al. 2008; Thomas and Collier 2002). So despite delivering instruction in English, the ESL approach is not synonymous with "no LIEP." In addition, effective strategies used in ESL programs under this approach could also be used in bilingual programs.
- Models under the ESL approach may focus on language instruction in itself, or they may integrate language and content instruction. Experts have argued that the strongest programs include both types—that is, dedicated language instruction (ESL, ELD or ESOL) in addition to specialized content instruction (SDAIE, SI or Cognitive Academic Language Learning Approach [CALLA] [Saunders and Goldenberg 2010]).[2]
- Models under the ESL approach can also be appropriate for use in the English portion of bilingual models. Therefore, teachers working with ELs should understand second-language oral and literacy development and know how to implement practices that enhance such development (Slavin et al. 2011; August and Shanahan 2008; Goldenberg 2008; Ramirez, Yuen, and Ramey 1991).
- ESL models may be a necessary or more practical choice for schools or school districts in states that restrict the use of native language for instruction of ELs or schools that lack linguistically qualified teachers. Reviewers also concluded, based on the available literature, that ESL models may also be more convenient for schools with linguistically heterogeneous EL populations, highly mobile EL populations or EL populations that are diverse in terms of students' age or grade level (Goldenberg 2008; Saunders and Goldenberg 2010; Williams, Hakuta and Haertel 2007).

[2] Although reviewers did not find this discussed in the literature they reviewed, this finding could be—and likely is—also true of instruction delivered in models following the bilingual approach.

What Research Says About the Bilingual Approach

Overall, findings from recent meta-analyses and systematic synetheses indicate that **the bilingual approach produces more positive outcomes for ELs than the ESL approach** (August and Shanahan 2006; Lindholm-Leary and Borsato 2006; Rolstad et al. 2005)**.** This, however, is not a claim that bilingual approaches are invariably better than any and all ESL approaches under any condition.

Moreover, this difference (bilingual versus ESL approaches) may be attributable to underlying linguistic interdependences between students' L1 and L2, and to transfer processes that occur between languages. Proficiency in students' L1, and particularly literacy in L1, appears to be a predictor and correlate of higher L2 outcomes (Genesee et al. 2006). There is also evidence that **students' amount of prior schooling in L1 is a strong predictor of their L2 outcomes** (Goldenberg 2008).

As far as instruction, research about specific practices for bilingual classrooms is relatively scarce. There is evidence that **some effective practices for literacy instruction in English also work in other languages** (Slavin et al. 2011), and that effective instructional practices for ESL classrooms are also useful for the non-L1 instruction in bilingual approaches (Proctor et al. 2009; Fung, Wilkinson, and Moore 2003; Vaughn et al. 2006; Linan-Thompson et al. 2003). For instruction delivered in English in bilingual programs, the findings about effective instructional practices for the ESL approach apply.

Bilingual programs that are discussed in the literature are generally intended for elementary school ELs; literature on all three models (TBE, DBE, and TWI) described them as designed to begin in kindergarten or first grade and provide bilingual education through, on average, third or fourth grade (TBE); fifth or sixth grade (DBE); or as high as eighth grade, even high school, for TWI programs.

Bilingual Approach

- Two meta-analytic research syntheses (August and Shanahan 2008; Genesee et al. 2006), one expert's analysis of these syntheses (Goldenberg 2008) and one large-scale descriptive study (Thomas and Collier 2002) found that students who receive L1 instruction go on to reach the same or higher levels of achievement in English as those who do not. These syntheses also found that L1 language skills play a positive role in the development and acquisition of L2 language skills (Genesee et al. 2006; August and Shanahan 2008). One descriptive study also found evidence for transfer of academic language skills from students' L1 to L2 (Laija-Rodriguez, Ochoa, and Parker 2006).
- Models under the bilingual approach differ primarily by the extent to which they incorporate students' L1 into instruction—some models use L1 to support and scaffold students' development of English, and then gradually phase it out; others pursue full bilingualism and biliteracy as program goals (Bahamonde and Friend 1999).
- At least two research syntheses (Lindholm-Leary and Borsato 2006; August and Shanahan 2008), one large-scale descriptive study (Thomas and Collier 2002) and one large-scale quasi-experimental study (Ramirez, Yuen, and Ramey 1991) have found that, with L1 instruction, more is better—bilingual programs with extended instruction in students' L1 over time appear to result in better outcomes.
- Models under the bilingual approach can and should still employ ESL best practices or techniques for the portion of their instructional program that is delivered in English. When implementing models under the bilingual approach, teachers essentially employ bilingual instruction for some aspects of their programs *in addition* to ESL instruction for the other portions; effective strategies used in bilingual programs could also be used in ESL programs (Proctor et al. 2009; Fung, Wilkinson, and Moore 2003; Vaughn et al. 2006; Linan-Thompson et al. 2003).
- Although models under the bilingual approach could potentially be appropriate for older ELs based on the models' potential to leverage students' L1 skills, this review found only two examples of a bilingual program that was designed for students to enter later than first grade (Howard and Christian 2002; Freeman 2000). All other examples in the reviewed literature were designed for students to begin in kindergarten or first grade and did not suggest in their language that it was possible for students to enter the program after first grade (Genesee 1999; Christian et al. 1997; Gersten and Woodward 1995; Ramirez, Yuen, and Ramey 1991; Bahamonde and Friend 1999; Saunders 1999; Slavin et al. 2011; Montone and Loeb 2000; Bearse and de Jong 2008; Lindholm-Leary and Borsato 2001; DeJesus 2008).

General Emergent Themes

From the literature examined, the following 12 themes about LIEP design, implementation and evaluation emerged:

1. High Standards and Challenging Content Are Good for ELs

Various authors (Henze and Lucas 1993; Collier and Thomas 1997; Minaya-Rowe 2004; August and Pease-Alvarez 1996; Ray 2009) found or argued based on research that ELs benefit from being held to high expectations and challenging content and achievement standards. Callahan (2005), for example, found that the classes into which an EL is placed are a greater predictor of the child's ultimate academic outcomes than linguistic proficiency, suggesting that reducing the rigor or substance of content instruction does not help, and may ultimately hurt, ELs' academic achievement. While it is important that ELs receive instruction that is tailored to their language-based needs, this finding suggests that it is equally important that ELs not be held to lower academic standards as they build their linguistic proficiency. This finding also suggests, in combination with theme 7 ("ELs need instruction that is specifically cognizant of their needs as second-language learners"), that teachers who provide ELs with content instruction should be equally prepared to deliver challenging content instruction and to address ELs' linguistic needs as they do so.

2. Having a LIEP Is Important

One descriptive study and three research reviews found that providing any kind of special program or instruction for ELs is better for these students than not providing any special services (Goldenberg 2008; Saunders and Goldenberg 2010; Thomas and Collier 2002; Lindholm-Leary and Borsato 2001). Simply placing ELs in the general program and treating them like English speakers is not likely to help these students overcome the barriers they face.

3. No One Approach or Model Is Appropriate for All ELs

Reviewers found examples in the literature of high-quality programs (usually defined by students' performance on academic content assessments) based on all the reviewed models, at all grade levels and all over the United States (Williams, Hakuta, and Haertel 2007; Parrish et al. 2006; Boyson and Short 2003; Spaulding, Carolino, and Amen 2004; Howard and Christian 2002; August and Pease-Alvarez 1996; Genesee 1999). Factors such as state law, population characteristics and availability of funding or resources may be the more immediate factors that drive a school district's choice of program, and it may be the case that certain models are more or less practical for different EL subgroups based on factors such as age, formal education background or L1 literacy.

4. Instructional Practices Are Important Variables in LIEP Design and Implementation

Irby et al. (2010) found via a large-scale quasi-experimental study that students who participated in "enhanced" TBE or SEI programs ("enhanced" due to the use of specific PD, class structure and instructional practices) performed better on reading measures than students who participated in typical programs following either model. And Slavin et al. (2011) found via large-scale experimental research that students enrolled in programs using the same instructional practices and reading curriculum in English (through an SEI program) or Spanish (through a TBE program) reached comparable levels of performance on English reading measures, suggesting that the instructional practices mattered more than the model. From an implementation standpoint, these findings suggest that, while their choice of model is still important, practitioners may be better served by focusing their energies on identifying and

implementing effective instructional practices within that model, as these may play a more important role in a LIEP's quality than the model itself.

5. Literacy and Oral Language Development in English Are Critical Instructional Components for Any LIEP

The reviewed literature repeatedly emphasized native language literacy and English oral language as important, noting that these factors transcended any particular approach or model. Two large-scale research syntheses (August and Shanahan 2008; Genesee et al. 2006) found that oral language proficiency in L1 appears to facilitate literacy in L2, and multiple research studies argued or studied the effects of instruction designed to develop proficiency in these areas (Dalton 1998; Echevarria, Vogt, and Short 2004; August and Pease-Alvarez 1996; Garcia 1991; Gersten et al. 2007; Knight and Wiseman 2006; Rubinstein-Avila 2003; Saunders et al. 1999; Saunders and Goldenberg 2010; Young 1996). Experts recommended, based on extensive research reviews, that incorporating oral language practice and development into the structure of any LIEP seems likely to help ELs develop L2 literacy (Saunders and O'Brien 2006; Saunders and Goldenberg 2010). Oral language was also found to play a potentially important role in the development of academic language specifically (Anstrom et al. 2010); see theme 11.

6. Academic Language Seems To Be Important in EL Instruction

Many experts have argued or found evidence for a conceptually distinct linguistic register[3] that is specific to the school setting (Cummins 1979a; Cummins 1980; Belcher 2006; Scarcella 2003a; Bailey 2007). This register, most commonly referred to as academic language, academic English or academic English language, is distinct enough from social language that ELs may need special instruction to ensure that they acquire it. Preliminary descriptive research suggests that, like their non-EL counterparts, English learners must be proficient in this kind of language in order to meet grade-level standards in content areas and on assessments (Bailey, Butler, and Sato 2007; Bailey, Butler, Stevens et al. 2007; Stevens, Butler and Castellon-Wellington 2000; Butler and Castellon-Wellington 2000).

7. ELs Need Instruction That Is Specifically Cognizant of Their Needs as Second-Language Learners

In addition to using high-quality general instructional practices, teachers may serve ELs better if they understand and adopt instructional practices that are cognizant of these students' specific needs (Goldenberg 2008). Preliminary research on such practices suggests benefits for ELs, as well as increased confidence and competency for teachers (Aguirre-Munoz et al. 2001; Echevarria, Powers, and Short 2006; Linan-Thompson et al. 2003; Vaughn et al. 2006; Young 1996). While some studies have found that general instructional practices show promise for improving outcomes for all students, ELs and non-ELs alike (D'Angiulli, Siegel, and Maggi 2004; Lee et al. 2008; Williams, Hakuta, and Haertel 2007), these practices, while promising, do not pledge to close the existing gaps between ELs and their English-speaking peers. At least one study also found that the effects of such "high-quality practices" may be smaller for ELs than for non-ELs (O'Day 2009).

8. Teachers Need To Be Prepared to Teach ELs

Multiple authors found or argued that EL-specific practices and preparation may be more promising for improving ELs' achievement than general best practices for all students (Short and Echevarria 1999; Graves, Gersten, and Haager 2004; Garcia 1991; Ray 2009). In today's academic world, any teacher in

[3] In sociolinguistics, a "register" refers to specific forms, patterns and linguistic devices whose use is dictated by the discourse setting, purpose or both.

any state at any grade level in any subject may have one or more ELs in his or her classroom. As such, all teachers should be prepared with a basic understanding of who ELs are, how SLA may work and what practices will help these students to succeed academically. This knowledge may make a nontrivial difference in these students' chances at success. Multiple experts argued that this preparation should begin in preservice training and carry through teachers' careers as an ongoing professional development process (Zetlin, MacLeod, and Michener 1998; González and Darling-Hammond 1997; Minaya-Rowe 2004).

9. Newcomer Models Are a Programmatic Option That School Districts May Use to Meet the Needs of Newly Identified ELs at the Secondary Level

ELs who enter the American school system at the secondary level with limited literacy in their native language and with interrupted formal education face unique challenges based on the fact that the language demands of secondary classrooms are likely to be significantly greater than those for lower grade levels (Anstrom et al. 2010). When executed as actual programs, newcomer models are designed to help orient and prepare newcomer ELs with limited literacy in their L1 and interrupted formal education by providing targeted or intensive instruction to build foundational skills to get these students ready to enter into a district's or school's regular LIEP. As of a 2003 study by Boyson and Short, the most common configuration for a newcomer program was for it to last one school year and operate at students' home schools as a full-day program. There are, however, many variations on this model, as well as variations in how newcomer students are defined and identified. It should be noted that implementation of this model typically does not include instructional goals that meet the legislative definition of a LIEP. Nonetheless, the model is often part of a crucial pathway for entering recently immigrated students into a district's or school's regular LIEP. As such, this model has been included in this study to ensure a holistic depiction of how districts serve ELs.

10. ELs' Scores on Academic Content Assessments Should Be Interpreted With Great Care

The reviewed literature suggests that ELs' scores on academic content assessments may not always be representative of these students' actual content skills and knowledge. Research on accommodations for ELs suggests that, at best, many commonly used accommodations may be minimally effective for ELs. At worst, research suggests that these accommodations are inappropriate for ELs and may even hinder their performance (Rivera and Stansfield 2001; Rivera and Collum 2004; Willner, Rivera, and Acosta 2008; Willner, Rivera, and Acosta 2009). Further, while English language proficiency assessments (ELPAs) are improving in terms of their capacity to measure the academic language used in content classrooms, early studies found that these assessments did not always measure the kind of language necessary to fully engage with the content assessments, let alone to provide adequate responses (Abedi 2004; Abedi 2001; Butler and Castellon-Wellington 2000; Stevens, Butler, and Castellon-Wellington 2000). In states where this is true, this could mean that even former ELs may continue to face barriers to showing their knowledge on academic content assessments in English. Based on these uncertainties, practitioners and policy makers should interpret ELs' content assessment scores with care, particularly when making placement or redesignation decisions (Ragan and Lesaux 2006; Linquanti 2001; Stevens, Butler, and Castellon-Wellington 2000). Practitioners should also ensure that the cut scores on their ELPAs are set appropriately, such that students who earn a proficient score truly have the necessary language skills to participate in and engage with academic content assessments in English.

11. Current Assessments May Not Be Sufficient Measures of the Linguistic Proficiency Necessary to Support Success in Mainstream Content Classrooms

Although efforts are currently under way to develop a new generation of ELPAs that focus more closely on academic language skills, research suggests that at least some ELPAs in current or recent use do not use or measure language that is sufficiently complex to be representative of grade-level demands (Butler and Castellon-Wellington 2000; Stevens, Butler, and Castellon-Wellington 2000; Bailey, Butler, and Sato 2007; Abedi 2001). Although a 2006 survey found that eight of the 10 states that enroll more than 80 percent of the nation's ELs[4] use additional measures to determine whether ELs who score "proficient" on the ELPA will also exit the LEP subgroup and stop receiving services (Ragan and Lesaux 2006), it is still important that ELPAs measure the kinds of language skills that students will need to succeed unsupported in classes where instruction is delivered in English. This concern is greater in states that use ELPA performance as the sole criterion for exit from the LEP subgroup under Title I. Students in such states may languish in mainstream classes without the language support they still need, and may never reach grade-level standards due to continuing language struggles that are no longer being addressed (Linquanti 2001; Bailey, Butler, Stevens et al. 2007; Bailey and Butler 2007; Gandara and Merino 1993; Parrish et al. 2006).

12. Culture and Community Matter

Although empirical research has not proven a relationship between culture and student outcomes (August and Shanahan 2006), literature reviewed about programs across the country has found repeatedly that they share the common characteristic of a strong and intentional community of respect and acceptance, both within and beyond the school (Berman et al. 2000; Lucas 1993; Necochea and Cline 2000; Ochoa and Cadiero-Kaplan 2004; Williams, Hakuta, and Haertel 2007). Descriptive evidence also suggests that cultural atmosphere can make a difference in student outcomes (Collier and Thomas 1997). Therefore, it appears that a school's attitudes and atmosphere about ELs, their languages and their cultures are important considerations in program design, implementation and evaluation. School districts that view other languages and cultures as valuable assets, rather than problematic obstacles, create positive environments in which ELs may thrive and achieve. Parent involvement was frequently named as an important feature of program design, particularly for ELs who are recent immigrants (Genesee 1999; Boyson and Short 2003; August and Pease-Alvarez 1996).

[4] As of 2006: Arizona, California, Colorado, Florida, Georgia, Illinois, New Jersey, New Mexico, New York and Texas (Ragan and Lesaux 2006).

Introduction

Project Purpose and Description

In 2010, the U.S. Department of Education contracted with Synergy Enterprises, Inc. and edCount, LLC to complete a study titled Language Instruction Educational Programs (LIEPs): Lessons from the Research and Profiles of Promising Programs. By the Department's design, this study includes a review of the foundational literature related to LIEPs, case studies of 20 school districts with well-designed and well-implemented LIEPs, and a Lessons from the Field guide that integrates findings from the literature review and the case studies and provides practical information for local educators on selecting, designing, implementing and evaluating LIEPs.

This literature review is intended to lay a foundation for the LIEP study. Its goal is to provide literature-based summaries for a range of topics that may factor into LIEPs' design and function, and to support school districts in their decisions about how to choose appropriate LIEPs for their students' needs. The review summarizes critical ideas, findings, concepts, debates and practices that populate the literature on LIEP design, implementation and evaluation at present.

This literature review focuses on LIEPs in general, not specifically those supported by Title III funding, and includes research on programs that may not have been funded by Title III. It is intended for any audience that may benefit from information about LIEP implementation and evaluation.

It is important to note that this review is not a meta-analytic one about program efficacy or outcomes, nor an effort to determine which LIEP(s) is (are) "best." It cannot promise that certain programs definitively work, or guarantee specific outcomes, and, due to the nature of the literature and the field, does not support definite conclusions about program quality or efficacy. There simply are not enough experimental and quasi-experimental studies to sustain a comprehensive, outcome-oriented discussion about all the review topics. **Thus, no definitive conclusions can be drawn about outcomes or effectiveness for any of these topics.**

Rather, both the LIEP study and this literature review focus on implementation. One goal is to provide a description of key elements and components of the different types of LIEPs, both in theory and, to the degree that it can be determined from the research, in practice. Equally, this review aims to provide practitioners with indicators to consider when evaluating how well their programs are functioning and meeting ELs needs.

Readers should also note that this review is not, in itself, meant to guide practitioners through the implementation process. Rather, it provides information about the current general shape of the discussion and directs readers toward resources that may assist them in the implementation process. The forthcoming Lessons from the Field guide will provide more information about practices observed in the field and how-to's for the implementation and evaluation processes.

Context

The *Elementary and Secondary Education Act* (*ESEA*) of 1965, currently reauthorized as the *No Child Left Behind Act* (*NCLB*) of 2001, provides that Title III's first purpose is to "ensure that children who are limited English proficient, including immigrant children and youth, attain English proficiency, develop high levels of academic attainment in English, and meet the same challenging state academic content and student academic achievement standards as all children are expected to meet" (*ESEA* Section 3102(1)).

One of Title III's specific additional purposes is "to develop high-quality language instruction educational programs designed to assist state educational agencies (SEAs), local educational agencies (LEAs), and schools in teaching limited English proficient children and serving immigrant children and youth" (*ESEA* Section 3102(3)).

Throughout this review, these students are referred to as ELs, as is the subgroup of students that the Department refers to as limited English proficient (LEP), defined as the following:

According to Section 9101(25) of the *Elementary and Secondary Education Act* (*ESEA*) of 1965, an LEP student is an individual:

(A) who is aged 3 through 21;

(B) who is enrolled or preparing to enroll in an elementary or secondary school;

(C) (i) who was not born in the United States or whose native language is a language other than English;

(ii) (I) who is a Native American or Alaska Native, or a native resident of the outlying areas; and

(II) who comes from an environment where a language other than English has had a significant impact on the individual's level of English language proficiency; or

(iii) who is migratory, whose native language is a language other than English, and who comes from an environment where a language other than English is dominant; and

(D) whose difficulties in speaking, reading, writing, or understanding the English language may be sufficient to deny the individual—

(i) the ability to meet the state's proficient level of achievement on state assessments described in 1111(b)(3);

(ii) the ability to successfully achieve in classrooms where the language of instruction is English; or

(iii) the opportunity to participate fully in society.

As of 2010, the 4.6 million ELs enrolled in the American school system represent approximately 10 percent of the entire K–12 population and range from 1 percent to 29 percent of individual states' student populations (National Center for Education Statistics 2011).Within the national EL population, diversity is a defining characteristic, as ELs are a remarkably heterogeneous group. An EL may be any age, come from any socioeconomic background, be native or foreign born to the United States, have a native language (L1) from among hundreds of represented languages in the United States, and enroll in school with any level of prior education. Although 68.5 percent of the nation's ELs are Latino or Latina, the population as a whole comprises a remarkable diversity of languages, ethnicities and countries of origin—ELs may come from literally anywhere, including the United States itself (Editorial Projects in Education 2009).

Indicators of academic success and progress suggest that ELs are struggling in their academic education. On the 2009 National Assessment of Education Progress (NAEP), for example, more than 70 percent of all fourth- and eighth-grade ELs scored below *Basic* in reading and math, with the exception of fourth-grade math, in which 43 percent of ELs scored below *Basic* (National Center for Education Statistics 2009a; National Center for Education Statistics 2009b). Almost across the board, 2009 figures represent

decreases in EL performance from the test's 2007 administration. Further, many ELs are still excluded from NAEP participation (by their state or school district), which could mean that the least proficient ELs likely are not contributing to these already low numbers.

The same trend in EL performance can also be seen on state assessments. For the 2008–09 school year, for example, in each of the five states with the highest EL student populations (as of 2011: California, Texas, Florida, New York and Illinois), between 29 percent and 49 percent fewer ELs scored at or above the proficient level on their state English language arts tests in grade 6 than their grade-level, English proficient peers (Center on Education Policy 2010). Despite different definitions for limited English proficiency and different tests across states, ELs consistently fare worse on tests of academic achievement than peers who have never been ELs.

To some degree, this evidence of struggles at the student level may be indicative of struggles at the school district level. The end of the 2010–11 school year will mark the ninth year in which *NCLB* has served as the nation's primary education policy, yet many questions remain unanswered about how best to serve ELs, even as school districts across the country attempt to do so every day. For many school districts, *NCLB* marked their first introduction to EL services and program design, and resources on how to serve ELs effectively may have been relatively scarce.

Clarification of Terms

Clarified below are a number of key terms used throughout this report.

What Is a LIEP?

An important first step in this effort is to clarify the meaning of "language instruction educational programs." In *Castañeda v. Pickard*, 468F.2d (1981), the Court held that in educating EL students, school districts should adhere to the following principles:[5]

1. "[The] school system is pursuing a program informed by an educational theory recognized as sound by some experts in the field or, at least, deemed a legitimate experimental strategy";

2. "The programs and practices actually used by [the] school system are reasonably calculated to implement effectively the educational theory adopted by the school"; and

3. "If a school's program, although premised on a legitimate educational theory and implemented through the use of adequate techniques, fails, after being employed for a period of time sufficient to give the plan a legitimate trial, to produce results indicating that the language barriers confronting students are actually being overcome, that program may, at that point, no longer constitute appropriate action as far as that school is concerned."

[5] The Department's Office for Civil Rights (OCR) policy with respect to national origin minority group students with limited English proficiency is broadly consistent with the principles articulated by the 5th Circuit in *Castaneda v. Pickard*, 648 F.2d 989 (1981), referred to in this document as the "Castaneda principles." However, this document is not intended to provide policy or guidance with respect to the legal requirements for compliance with Title VI of the *Civil Rights Act* of 1964 and the *Equal Educational Opportunities Act* of 1974. For information with respect to Title VI of the *Civil Rights Act* of 1964, please consult OCR (see www.ed.gov/ocr) or the U.S. Department of Justice's Educational Opportunities Section for information with respect to the *Equal Educational Opportunities Act* of 1974 (see www.justice.gov/crt/about/edu/).

The subset of states and school districts that receive funding through the Title III program within *ESEA* face additional program requirements. Recipients of Title III funds must "develop high-quality language instruction educational programs designed to assist state educational agencies (SEA), local educational agencies (LEA), and schools in teaching LEP children and serving immigrant children and youth" (Section 3102(3)). *ESEA* specifically defines a LIEP as follows (Section 3301):

> (8) The term 'language instruction educational program' means an instruction course—
>
> (A) in which a limited English proficient child is placed for the purpose of developing and attaining English proficiency, while meeting challenging state academic content and student academic achievement standards, as required by section 1111(b)(1); and
>
> (B) that may make instructional use of both English and a child's L1 to enable the child to develop and attain English proficiency, and may include the participation of English proficient children if such course is designed to enable all participating children to become proficient in English and a second language (L2).

Two important points emerge from the *ESEA* definition: first, as clause (A) makes clear, LIEPs must treat second-language acquisition and academic content achievement as concurrent, rather than sequential, goals. Although a LIEP need not *itself* provide content instruction, it will not satisfy the Title III definition if it provides language instruction in a way that postpones opportunities for content learning and achievement. Second, through clause (B) the law explicitly remains neutral on the debate surrounding L1 instruction, allowing states and school districts to make their own judgments about how best to design and deliver instruction and populate classrooms. Accountability structures in Title III also highlight the necessity of program evaluation; LIEPs that do not meet program goals within a specified amount of time risk losing funds if they do not implement changes or improvement plans.

ESEA guidelines suggest, and as many practitioners and researchers already know, the definition for a LIEP is broad and flexible; the matter of exactly *how* a given program meets the applicable requirements may vary from site to site based on a number of logistical factors. The Department annually collects information from states about their LIEPs via consolidated state performance reports (CSPRs), which list 10 models that were most commonly reported in the State Title III Biennial Report and an open-ended "other" option. The Department does not endorse any particular model by listing them. These models, as listed on the CSPR,[6] are

- Bilingual;
- Transition bilingual;
- Two-way immersion (TWI);
- Developmental bilingual;
- Heritage language;
- Specially designed academic instruction in English (SDAIE);
- Sheltered English instruction;
- Structured English immersion (SEI);
- Content-based English as a second language (ESL); and
- Pull-out ESL.

[6] From question 1.6.1 on Consolidated State Performance Reports (CSPRs), http://www2.ed.gov/admins/lead/account/consolidated/csprpart10910.doc.

In addition, states may respond with an "Other" option and describe their program. Common responses for the 2007–08 CSPRs (some of which represent teaching configurations or program structure, rather than fully formed LIEPs) included the following:

- Push-in ESL;
- Newcomer centers;
- Coteaching;
- Sheltered Instruction Observation Protocol (SIOP);
- ESL as a content course in the school day; and
- Extended instruction time (i.e., before school, after school, Saturday school, summer school).

Not all of the responses necessarily represent a fully formed LIEP; there may also be LIEP types or configurations that are not represented on this list. In addition, no definitions for these terms are provided on the CSPR, which means that different states may report using the same model despite significant differences in their implemented programs.

Additional Terms

This literature review uses the following operational definitions for key terms:

1. An **approach** is a broad, conceptual framework. Two approaches, "English as a second language (ESL)" and "bilingual," vary primarily in terms of their use (or non-use) of an L1. Various models are subsumed under each approach.

    - As its name implies, the **ESL approach** focuses on instruction in English as the primary means to help ELs acquire the language and ultimately meet high academic standards. Students learn and are taught in English exclusively or primarily—certain instructional materials or instructional techniques may make use of basic L1 vocabulary, but only as a means to support the students' use of English. Models that follow the ESL approach may include both **language instruction,** wherein English language is the instructional content itself, or **content-based instruction,** in which academic content is the object of instruction, but delivered in such a way as to also support ELs' acquisition of English.

    - The **bilingual approach** to educating ELs is built on the increasing body of research indicating that L1 skills contribute positively to students' acquisition of a second language (L2), and that L1 instruction does appear to promote gains in English achievement (Thomas and Collier 2002; August and Shanahan 2008; Genesee et al. 2006; Goldenberg 2008; Ramirez, Yuen, and Ramey 1991). The bilingual approach is based on the understanding that instruction in students' L1 will help them to meet the goals of attaining English proficiency and meeting high academic achievement standards. Beyond this common trait, bilingual models vary in their details and orientation—some see L1 development as an important goal in itself, while others see it as a scaffold or stepping-stone to English fluency.

2. A **model** is a specific set of instructional services or a fully developed curriculum designed to help ELs acquire English proficiency and meet high academic standards. It comprises a set of characteristics, principles and practices that have been developed based on theory and research, and serves as a rough blueprint that classrooms, schools and school districts may follow as an implementation guide. More detailed descriptions of the models listed below can be found in the "Models and Considerations for LIEP Design" section of this document. This review discusses

several different types of models that are in use across the United States. Exhibit 3 provides brief descriptions of the elements that define these models; Exhibit 4 provides a comparison of instructional traits across the models.

Exhibit 3. Definitions of models for language instruction educational programs

Model	Alternate names	Description	Approach	Goals	Key design variables
English as a second language (ESL) instruction	English language development (ELD) English for speakers of other languages (ESOL)	ESL-certified teacher[a] provides explicit language instruction to students. Instruction focuses on development of proficiency in the English language, including grammar, vocabulary and communication skills.	ESL	Proficiency in English	Class format—Students may have a dedicated ESL class in their school day, or may receive pull-out ESL instruction wherein they work with a specialist for short periods during other classes.
Content-based ESL	None	ESL-certified teacher provides language instruction that uses content as a medium for building language skills. Although using content as a means, instruction is still focused primarily on learning English.	ESL	Preparation to meet academic achievement standards Proficiency in English	Class format—Students may have a dedicated ESL class in their school day, or may receive pull-out ESL instruction wherein they work with a specialist for short periods during other classes.

Model	Alternate names	Description	Approach	Goals	Key design variables
Sheltered instruction (SI)	Specially designed academic instruction in English (SDAIE) The Sheltered Instruction Observation Protocol (SIOP) is a specific version of the SI model with a considerable research base and specific strategies associated with it.	Teacher provides instruction that simultaneously introduces both language and content, using specialized techniques to accommodate ELs' linguistic needs. Instruction focuses on the teaching of academic content rather than the English language itself, even though the acquisition of English may be one of the instructional goals.	ESL	Preparation to meet academic achievement standards Proficiency in English	Class population—SI may be used for EL-only classrooms or for mixed classrooms with ELs and non-ELs. Instructor—Instruction is likely to be delivered by a general education teacher but may be delivered by an ESL-certified teacher.
Transitional bilingual education (TBE)	Early-exit bilingual	Students begin in grade K or 1 by receiving instruction all or mostly in their L1, and transition incrementally over to English. Typically, transition to all English is complete by mid- to late elementary school. L1 is used to leverage L2 acquisition, but L1 proficiency is not a program goal.	Bilingual	Preparation to meet academic achievement standards Proficiency in English	Balance of L1 and L2—Some TBE programs begin with L1 exclusively; others begin with a majority of L1 and use some L2. The division of the languages across instructional time and content areas may vary from program to program. Exit point—Typically, students complete their transition by around grade 3, but may exit as early as grade 2 or as late as grade 5.

Model	Alternate names	Description	Approach	Goals	Key design variables
Developmental bilingual education (DBE)	Late-exit bilingual Maintenance bilingual	Students begin in grade K or 1 by receiving instruction all or mostly in their L1, and transition incrementally over to English. Regardless of when or whether students attain proficiency in English, the program is designed to keep them enrolled through its completion (typically, the end of elementary school), using a 50-50 language balance through the end.	Bilingual	Preparation to meet academic achievement standards Proficiency in English Bilingualism and biliteracy	Balance of L1 and L2—Programs follow either a 50-50 model or a 90-10 model (which ultimately transitions to 50-50). Programs may balance languages by dividing instructional time according to content area, class period, instructor, week, unit or semester. Instructor(s)—Teachers may be bilingual, or teachers who teach in English may use sheltered instruction techniques to make their instruction accessible for ELs.
Two-way immersion (TWI)	Dual immersion	ELs and non-ELs receive instruction in English and a non-English language.	Bilingual	Preparation to meet academic achievement standards Proficiency in English Bilingualism and biliteracy Biculturalism	Balance of L1 and L2—Programs follow either a 50-50 model or a 90-10 model (which ultimately transitions to 50-50). Programs may balance languages by dividing instructional time according to content area, class period, instructor, week or unit. Instructor(s)—Teachers may be bilingual, or teachers who teach in English may use sheltered instruction techniques to make their instruction accessible for ELs.

Model	Alternate names	Description	Approach	Goals	Key design variables
Newcomer[b]	Newcomer center	ELs who are recent immigrants and typically have low literacy and are new to formal education settings receive specialized schooling designed to acclimate them to the American school setting and prepare them to participate in mainstream classes.	ESL or bilingual	Preparation to participate in regular LIEP offerings Build foundational skills in content areas (basic literacy, math concepts, etc.)	Program length—Newcomer programs may last anywhere from a semester to 4 years. Program design—Newcomer programs may range from a half-day, in-school program to a full-time, self-contained school. Target population—Newcomer programs target a specific subpopulation such as recent immigrant students with interrupted formal education. Instructional content—Typically, newcomer programs will offer both language instruction and content instruction. Also, they may include instruction designed to familiarize newcomers with American culture and educational settings.

Note: For more detailed information about the models, please refer to the "Models and Considerations for LIEP Design" section of this document. For a list of references to support this exhibit, please refer to "Exhibit 9. Key articles for models and considerations for LIEP design."
[a] Note: As used here, "ESL-certified teacher" means a teacher with some sort of license, credential or certification to provide English language instruction to second-language learners. Different states and districts may use different naming conventions to refer to this kind of instructor.
[b] Newcomer models tend to prepare students for participation in a regular LIEP rather than serve as a LIEP according to the legislative definition of language instruction educational programs. While implementation of this model typically does not include instructional goals that meet the legislative definition of a LIEP, the model is often part of a crucial pathway for entering recently immigrated students into a district's or school's regular LIEP. As such, this model has been included in this study to ensure a holistic depiction of how districts serve ELs.

Exhibit 4. Summary comparison of instructional traits across different language instruction educational program models

	ESL Approach			Bilingual Approach			
Model Trait	**ESL**	**Content-Based ESL**	**SI**	**TBE**	**DBE**	**TWI**	**Newcomer**
ELs and non-ELs receive instruction together.	No	No	Yes	No	No	Yes	No
Certified ESL instructor is primary teacher.	Yes	Yes	No	Yes	Yes	Maybe	Yes
Language and content goals are integrated.	No	Yes	Yes	Maybe	Maybe	Maybe	No
Bilingualism and biliteracy are program goals.	No	No	No	No	Yes	Yes	No
Requires teachers who are fluent in students' L1.	No	No	No	Yes	Yes	Yes	No
Implemented for specific grade levels.	No	No	No	Yes	Yes	Yes	Yes
Compatible with (other) ESL models.	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: ESL = English as a second language; SI = sheltered instruction; TBE = transitional bilingual education; DBE = developmental bilingual education; TWI = two-way immersion.

3. **Instructional practices** are specific classroom-level practices that teachers may apply to support students' learning and comprehension. They are more detailed than models, but also narrower; they may refer, for example, to specific techniques for structuring a lesson or developing a certain skill.

Methodology

Research Questions

Six substantive areas were identified as critical to fully understanding the foundations of LIEPs. Reviewers treated these topics as transcendent across approaches, and sought to develop general knowledge for each, as well as any approach-specific considerations that emerged in the literature.

These areas, and the research questions associated with each, are as follows:

1. Theories of Second-Language Acquisition (SLA)

How is second-language acquisition (SLA) theorized to occur, and how can or should this process inform or influence instruction or program design?

2. The Construct of Academic English Language

What *is* academic English language, and why does it matter? How can instructors support and encourage ELs to acquire and use academic language?

3. Models and Considerations for LIEP Design

What are the characteristics of different models, and how can or should these be actualized in implementation? What characteristics of a model may be variable, and which are critical to its success?

4. Instructional Practices and Professional Development (PD)

What specific practices and protocols can teachers adopt during their class instruction to support ELs' acquisition of English or mastery of academic content? What are the content and components of promising PD for teachers in LIEPs? How should PD be implemented and evaluated?

5. School District, School and Community Culture

What contextual and environmental factors in a school district, school or community may impact a LIEP's ability to meet the requirements of Title III? What cultural and demographic factors in a school district, school or community are important to consider in implementing a LIEP?

6. Indicators and Evaluation of Success

What indicators might reflect whether a LIEP has been implemented successfully? How might these indicators vary in the initiation, scaling and maintenance phases? What indicators would reflect effectiveness of the LIEP in terms of its own stated goals?

Limits of this review. This literature review is not limited to experimental and quasi-experimental research studies only. The reasons for this decision were manifold. First, as stated previously, the goal for the LIEP study is not to rank or compare different models according to outcomes or efficacy; rather, the goal is to provide a summary of the available literature as it pertains to program theory, design and implementation. While data about model efficacy can play a role within this framework, it is not ultimately the sole factor to consider, and to focus on it exclusively would not provide an accurate

portrayal of the field. Indeed, many models lack any experimental research evidence in support or refutation of their design.

Initial inclusion protocol. To gather texts (e.g., articles, books, reports and syntheses) for each of the review categories, reviewers conducted a variety of keyword searches on major academic databases such as JSTOR, PsycINFO, EBSCO and ProQuest. Search terms included stand-alone phrases such as "English language development" and "language instruction educational programs," as well as Boolean composite search phrases such as "professional development and English learner" and "bilingual and program and English learner." Readers may find a full list of search terms in Appendix A, as well as a matrix showing which articles were returned by each term.

Because this literature review was intended to be descriptive in nature and was not a meta-analysis, reviewers used broad inclusion criteria in an effort to provide readers with a full representation of the available literature. For initial inclusion, selection criteria focused on authorship, publication date and publication vehicle; articles needed to have been published in the past 20 years[7] (1990 or later), either in peer-reviewed journals, as publications of major research organizations (e.g., the American Institutes for Research), as outputs of federally funded research centers (e.g., Center for Research on Education, Diversity and Excellence; Center for Research on Evaluation, Standards, and Student Testing; Center for Research on the Education of Students Placed at Risk; Center for Research on the Educational Achievement and Teaching of English Language Learners), or as publications of the Institute of Education Sciences and its associated Regional Educational Laboratories.

Department personnel, project contractors and some expert panelists submitted additional texts for the initial review list. These additions tended to fall into one or more of three categories: (1) seminal articles or research studies that are critically important to their field (often, these fell outside of the 20-year cut-off); (2) additional texts for review categories that had not yielded a large pool of search hits (the 20-year cut-off was initially waived for these suggestions as well); and (3) very recent works that may not have garnered significant attention as yet, but that experts in the field consider important or promising.

By following these protocols, reviewers generated an initial list of more than 200 candidate texts for inclusion in the literature review. Four reviewers then read through these to determine which would be included in the final discussion. As they read, all reviewers used a Microsoft Access database entry form that captured information about a variety of topics, including the research question(s) to which the article pertained, the program type(s) it referenced, the grade level(s) to which it applied and a summary of key findings, conclusions or observations. Reviewers were required to provide a rationale for including or excluding each article from the final list, according to the predetermined inclusion criteria. The articles included here represent a range of voices and orientations toward LIEPs, EL instruction and other related topics.

Final inclusion protocol. Ultimately, the vast majority of the articles returned by the search protocols and recommendations (173 out of 210) are included in this review. A Microsoft Access data base was created to document each article that was extracted in the search protocol. Information was gathered on the article, authorship and connection with the literature review topics. Articles were excluded only if they did not speak directly to one of the literature review topics, if they had strong tones of advocacy or bias, or if they made claims about efficacy or effectiveness without providing research to support such

[7] Although there have been significant changes in the political and philosophical landscapes regarding EL education since the implementation of *NCLB* in 2002, reviewers determined that limiting this review to only *NCLB*-era articles would ultimately provide an incomplete representation of the available research.

claims. Reviewers used slightly different criteria to assess these conditions, depending on the nature of the article; these conditions are detailed in Exhibit 5.

Because of the descriptive nature of this literature review, the goal was to include any and all literature that might be relevant to the topics at hand. Nonetheless, readers should note that while reviewers sought to include as wide a sample of the literature as possible, this review is not exhaustive.

Exhibit 5. Criteria for including different kinds of literature in the LIEP literature review

Description	Benefits of inclusion	Inclusion or exclusion criteria
Literature reviews and research syntheses		
Articles that summarize or analyze available literature or research on a given topic.	Literature reviews provide a synthesis and summary of what has been said or studied and what (if anything) may be concluded safely about a given topic. These reviews may be **descriptive,** providing a summary of the available research and literature on a topic, or **meta-analytic,** providing calculations of efficacy or other quantifiable conclusions based on quantitative syntheses of findings across different studies.	**For initial inclusion:** 1. **Topic:** Any literature reviews that focused specifically on practices or programs for ELs were included, provided the literature review (not the studies it reviewed) met the date-range criteria for inclusion. **For final inclusion:** 1. **Methodology:** Reviewers included all meta-analytic literature reviews that used clearly explained rationales and processes. 2. **Neutrality:** Literature reviews that were not meta-analytic were included only if their treatment of the topic was purely descriptive and made no attempt to claim efficacy or superiority of one practice or program over another. 3. **Recency:** Where reviewers found many reviews on the same topic (e.g., language of instruction), they opted to include the most recent one(s), since these included most of the same older articles, with more recent research included as a result of their more recent publication.

Description	Benefits of inclusion	Inclusion or exclusion criteria
Expert opinion based on research		
An expert (usually a researcher or a practitioner) provides a discussion of a topic, or advances a theory, based on demonstrated knowledge of the available research and underlying theory.	Expert opinion can be particularly helpful for topics on which experimental research is relatively scarce. Experts may be in the best position to (a) identify research needs; (b) identify technical challenges to studying or implementing programs related to a topic; and (c) propose or advance a theory to be tested, based on their knowledge of the issues.	**For initial inclusion:** 1. **Author:** Pieces were included if the author was a prominent figure in the field on which the piece comments, or 2. **Topic:** Expert opinion pieces were included if they spoke to a topic on which reviewers found relatively little literature. **For final inclusion:** 1. **Tone and neutrality:** Expert opinion pieces were included if their arguments or recommendations were clearly research based (as evidenced by, for example, specific, explicit study citations to support statements). Articles with strong tones of advocacy or that focused on efficacy and effectiveness without data were excluded. 2. **Rationale and support:** Articles that advanced theories were included if the theory was quoted or corroborated in other literature within the review, or if the theory was seminal or important enough to warrant inclusion based upon expert judgments (e.g., judgments rendered by the members of the study's advisory panel). 3. **Availability of other literature on the topic:** Expert opinion pieces were more likely to be included if they addressed topics on which other literature was relatively scarce.

Description	Benefits of inclusion	Inclusion or exclusion criteria
Descriptive studies		
These studies or reports describe in detail a real-life instance of a program, approach or strategy and its implementation. These studies may be descriptive only (e.g., an ethnographic study that describes a program in a particular school), or they may present and discuss descriptive data findings following implementation.	Although descriptive studies cannot be read normatively, and are usually too specific to be generalizable, the anecdotal details they provide—particularly about resolving problems or circumnavigating obstacles—can be helpful both for practitioners (if they are implementing or planning to implement a similar program) and for researchers (if they wish to improve a model based on recurrent stumbling points experienced by school districts during implementation). Because this type of design lacks critical elements to ensure valid and sound findings, these results were not considered to be definitive evidence for or against an intervention's efficacy or quality (rather, at best, as potential promise for continued, more rigorous research).	**For initial inclusion:** 1. **Topic:** Any descriptive studies that focused specifically on practices or programs for ELs were included, provided they met the date-range criteria for inclusion. **For final inclusion:** 1. **Neutrality:** Studies that focused on implementation from a descriptive or ethnographic standpoint were included if they provided what appeared to be a neutral treatment of their subjects, rather than advocating for a model's or program's quality or superiority relative to others. 2. **Detail:** Preference was given to studies that provided in-depth descriptions and information about program implementation. Those that did not provide detail (e.g., "snapshot"-style program descriptions in some pieces) were not considered adequate as stand-alone descriptive studies. 3. **Breadth and range of input:** Articles that provided a comprehensive description of a program were preferred over pieces that included the opinions of only a few individuals. 4. **Subpar quasi-experimental studies:** Some studies that aimed to be quasi-experimental but did not meet design criteria were included if they provided useful information about implementation or instructional practices; they were, however, considered descriptive studies, and their results were not counted as evidence for outcome efficacy.

Description	Benefits of inclusion	Inclusion or exclusion criteria
Quasi-experimental studies		
In these studies, treatment (intervention) and comparison groups are nonrandomly assigned, but are matched and controlled (often mathematically, as with regressions) to mitigate the potential for alternative explanations for any findings.	Although quasi-experimental studies cannot, by design, completely rule out alternate explanations for findings, they may provide preliminary evidence to guide further research.	**For initial inclusion:** 1. **Design:** All studies about interventions, programs or practices for ELs that appeared to meet quasi-experimental design criteria were included. **For final inclusion:** 1. **Design:** Reviewers scrutinized all literature that made the first cut to ensure that the study's design did satisfy quasi-experimental design principles. When reviewers had reservations about design, quasi-experimental studies were included instead as descriptive studies.
Experimental studies		
These are randomized, controlled studies in which students, classrooms, schools, school districts or other comparable units (e.g., reading groups) are randomly assigned to an intervention or control group.	Because of their design, which should serve to mitigate potential confounding variables or selection biases, experimental studies are considered the only true means of judging a program's efficacy or effectiveness in terms of student or teacher outcomes. While this study does not aim to compare or rank different models or approaches, experimental studies are the best means by which to support claims that a certain approach, model or practice is "effective" for ELs in terms of facilitating certain outcomes.	**For initial inclusion:** 1. **Design:** Because there are so few experimental studies on the topics covered in this review, all candidates that met the date-range criterion were included. **For final inclusion:** 1. **Topic or focus:** Experimental studies were included if they were designed so as to support drawing conclusions specifically about EL outcomes, or about EL-specific practices or interventions.

Challenges within the literature. As stated previously, there were not enough experimental or quasi-experimental studies to sustain a comprehensive discussion about all of the review topics that the reviewers and experts deemed important. Such a situation, while not unique to the study of LIEPs, is particularly acute in this area. Other authors who have attempted to compile literature reviews and research syntheses (August and Hakuta 1998; Genesee et al. 2006; Anstrom et al. 2010; August and Shanahan 2008; Saunders and Goldenberg 2010) also observed that well-designed and well-implemented research studies that are specific to ELs, or even that report on EL-specific outcomes as part of their overall findings, are far less common than studies on the general population. In a research synthesis that looked specifically at language of instruction, Slavin and Cheung (2005) provided a succinct discussion of the most common methodological flaws that undermine studies' credibility, including the following:

- Lack of a control group;
- Lack of pretest data as a baseline for showing growth, and as a means to eliminate the possibility that differences in student performance are attributable to preexisting differences that were unmeasured before the intervention began;
- Insufficient study length to determine outcomes—often, the effect size of an intervention may depend on when a measurement is taken, and multiple studies have found that the performance of ESL versus bilingual cohorts may change relative to one another as students progress through and beyond a program
- Studies that begin after students have already been receiving an intervention; and
- Failure to track and account for attrition over time.

Acknowledging Slavin and Cheung's reservations, it is important to state that this review does include some studies that those authors deemed insufficient for inclusion in their meta-analysis (e.g., Thomas and Collier's 2002, large-scale, longitudinal, national study of different models). The reviewers decided it was appropriate to include these studies, given the previously stated goal for this review, which was to describe models and practices, not to rank them according to efficacy.

Previous review and synthesis efforts. Although this document does not include any analyses regarding outcomes or effect sizes of different models or practices, three major works that did attempt to draw these kinds of conclusions factor heavily into the discussion that follows. The primary point on which all three syntheses agree is that the current scope and scale of the research base on instructing ELs is small and insufficient to support strong conclusions. These reports, each a large-scale research synthesis of more than 100 studies, are as follows:

- *Educating English Language Learners: A Synthesis of Research Evidence* (Genesee et al. 2006), a report from the Institute of Education Sciences-funded Center for Research on Education, Diversity and Excellence. This report focused on oral language proficiency, literacy and academic achievement (independently and as interrelated constructs) and was based on a pool of approximately 200 peer-reviewed articles. Reviewers included peer-reviewed articles only, ruling out books and book chapters, and focused only on domestic research.
- *Developing Reading and Writing in Second-Language Learners* (August and Shanahan 2008), a report from the National Literacy Panel on Language-Minority Children and Youth. This report was self-described as a "more accessible" version of the Panel's original 2006 report and was,

according to the authors, intended for researchers, teachers, practitioners and teacher educators. Both of the Panel's reports summarized findings from a large-scale review of research on literacy instruction for language-minority children and youth. The review took place over 4 years and included approximately 300 texts. The Panel's reviewers used the same criteria as Genesee et al. (2006) for certain instructional questions, but also included descriptive studies, international studies and studies where students' L2 was something other than English, when such articles were deemed appropriate and beneficial to the discussion.

- *Research to Guide English Language Development Instruction* (Saunders and Goldenberg 2010), the lead chapter in a research-based guide released by the California Department of Education. The chapter was based on approximately 100 articles, some of which were themselves syntheses, and cast the widest net within the literature, including research and syntheses on older and international populations where applicable, but classified their findings into three tiers according to the strength of their research base.

Thus, while this literature review cannot support any statements that a practice or model is effective by any measure, some (not all) of the findings from these studies do represent syntheses—in some cases meta-analytic ones—of multiple studies on the same topic (e.g., literacy instruction). For findings that are supported by these works, the reviewers have sought to make clear that the evidentiary support for such findings is relatively stronger because of the rigor of these works.

Findings

Exhibit 6 shows descriptive statistics summarizing the nature and makeup of the final pool of literature included in this review. The total number of articles that met established criteria was 173. The majority of the articles included were either research-based opinion pieces (n = 76, 45 percent) or descriptive studies (n = 46, 27 percent). Twenty-two articles (13 percent) are classified as literature reviews and syntheses, while 18 (10 percent) are quasi-experimental. As expected, the number of experimental studies was very small (n = 11, 6 percent), and reviewers did not find any studies of this type for inclusion in the discussions on district, school and community culture; indicators and evaluation of success; and the newcomer model. This research gap suggests that, for now, no definitive conclusions can be drawn about outcomes or effectiveness for any of these topics.

When the search criteria and process were applied, researchers included approximately 20 to 30 articles for most topics. Instructional practices and professional development yielded the most articles that met established criteria. Fewer pieces were found on the newcomer model (6 articles) and on indicators and evaluation of success (11 articles), due to the limited number of articles identified through search efforts.

Exhibit 6. Summary of literature reviewed, by type and topic

	Total articles	Number of literature reviews (percentage)	Number of expert opinions (percentage)	Number of descriptive studies (percentage)	Number of quasi-experimental studies (percentage)	Number of experimental studies (percentage)
Theories of second-language acquisition						
	34	8 (24%)	12 (35%)	8 (24%)	4 (11%)	2 (6%)
Construct of academic English language						
	34	2 (6%)	21 (62%)	7 (21%)	3 (8%)	1 (3%)
Models and considerations for program design						
ESL	34	6 (18%)	12 (35%)	10 (29%)	5 (15%)	1 (3%)
Bilingual	32	9 (28%)	7 (22%)	10 (31%)	4 (13%)	2 (6%)
Newcomer	6	2 (33%)	1 (17%)	3 (50%)	0 (0%)	0 (0%)
Instructional practices and professional development						
	80	12 (15%)	34 (43%)	15 (18%)	11 (14%)	8 (10%)
School district, school and community culture						
	19	1 (5%)	12 (63%)	6 (32%)	0 (0%)	0 (0%)
Indicators and evaluation of success						
	11	0 (0%)	8 (73%)	2 (18%)	1 (9%)	0 (0%)

NOTE: Some articles may have been appropriate for inclusion in the discussion on more than one topic. Thus, the figures in each row add up to the "Total articles" figure in the first cell, but those in columns will ultimately add up to more than 173.

The following sections of this document discuss the key findings and articles for each literature review topic.

Theories of Second-Language Acquisition

Facilitating the acquisition of a second language (English) is a central goal for all LIEPs. These programs succeed or fail based on whether and how well they achieve this end for the students they enroll. As such, the second-language acquisition (SLA) process is an important starting point in a discussion about LIEP design, implementation or evaluation—certain design decisions or outcomes may reflect beliefs about how this process occurs, and program outcomes may in part depend on the degree to which the underlying model can specifically leverage and fortify this process. Given that models should bear some relation to theorized student learning processes, Title III requires that school districts base their LIEPs on "scientifically based research" (*ESEA*). In other words, a LIEP should be based on some theory of action that specifies why the program's implementers should believe that its design will support students' learning of English.

Within this context, it is important to summarize the most commonly held and cited theories of SLA; these theories are important for understanding questions and findings about why models are designed in certain ways or why experts believe that certain models or practices are likely to work. For this topic, reviewers sought any articles that could help to answer the following question:

How is second-language acquisition theorized to occur, and how can or should this process inform or influence instruction or program design?[8]

A few key variables within this broader discussion pertain to language learners' age and existing linguistic skills. Is the process of learning a second language different from that of learning a first language? Does it vary based on the learner's age? Does the learner's proficiency in his or her L1 affect the acquisition process for L2? Below is a summary of key findings on this topic, followed by a detailed discussion; see Exhibit 7 at the end of this section for a list of articles on which these findings are based.

- By law, all LIEPs must be based on scientifically based research (*ESEA).*
- There is no one correct theory of second-language acquisition. There are three commonly cited approaches to this construct, which differ primarily in the degree to which they conceive the acquisition process as active versus passive.
- Different theories may support different instructional approaches or practices.
- Because of the gaps between theory and practice, and because theories are subject to change as research yields new evidence, no theory can guarantee a program's quality or effectiveness. Program administrators should be diligent about evaluating their LIEPs to ensure they are implemented and functioning as intended.

Seminal theories of second-language acquisition. Much of the literature reviewed in this document tested theories that were first published in the 1980s. These theories were often revisions to existing theories from the 1960s and 1970s. Krashen (1982) and Cummins (1979b) provided two of the most

[8] For a matrix representing how this literature review topic and questions relate to the review's larger research questions, please refer to Appendix A.

commonly cited models for second-language acquisition in second-language learners. Cummins (1979b; 1979a; 1980) contributed three critical concept hypotheses to the field, which are as follows:

- **Transfer**, a process by which learners' skills or knowledge in one language can map onto and inform skills or knowledge they are learning in another language;

- **Linguistic interdependence,** which posits that the languages spoken by multilingual individuals do not operate as isolated sets of knowledge, but rather borrow from one another; and

- **The threshold hypothesis**, which posits that bilingual students may at first struggle to learn, but once they attain a critical mass of knowledge and skills, they will acquire the L2 very quickly and benefit from their L1 skills, based on the occurrence of transfer and linguistic interdependence.

Cummins also introduced the distinction between social language and academic language (see below), a particularly important contribution, as will be discussed.

Cummins' hypotheses are pivotal in the debate about language of instruction for ELs (see below). Essentially, if transfer and interdependence are correct ("real"), then a case may be made for bilingual models being more likely to help students attain proficiency in English and in a shorter period of time. From a practice perspective, it appears that many experts and practitioners accept transfer and interdependence as real. For them, these two concepts seem to provide a satisfying explanation for data about relationships between L1 and L2 development and skills. From a research standpoint, transfer remains questionable, despite its general acceptance. As Snow (2008) observes, "transfer has an honored, but contested, place in thinking about language learning." Further, in summarizing the findings of August and Shanahan's (2008) large-scale research synthesis, Snow (2008) observes, "few of the research findings unequivocally support the conclusion that transfer exists." Snow attributes the lack of solid evidence primarily to researchers' failure thus far to be systematic about ruling out alternative hypotheses; as with all theories, lack of evidence does not automatically make the case for nonsupport. Instead, it could mean that exploration to date has been nonrigorous. For now, it appears that transfer remains a theory only, albeit an important and widely accepted one.

Krashen (1982) offered a different vision of second-language acquisition, marked by a stronger stance on the learner's limited role in his or her own learning. Krashen proposed five interrelated hypotheses that constitute the "monitor model" of SLA:

- The **acquisition or learning hypothesis,** which posits that language develops by two distinct but complementary processes: acquisition, which is passive and subconscious, and learning, which is active and comprises a conscious process. He also refers to acquisition as relating to "real communication," which requires meaningful interaction in the target language, whereas learning amounts to knowing about language—for example, having knowledge of linguistic rules;

- The **natural order hypothesis,** which argues that language is acquired by natural progression—specifically, regarding grammar and grammatical structures—and that learners acquire the rules of language in a predictable order;

- The **input hypothesis,** which argues that acquiring language involves being exposed to comprehensible input one step beyond learners' current competence;

- The **monitor hypothesis,** which explains the relationship between learning and acquisition and the influence of the former on the latter; it states that the only role for conscious learning in the development process is as a monitor or editor, and that the learner will apply the rules of a language to self-correct or self-repair; and

- The **affective filter hypothesis,** which posits that a variety of affective variables such as motivation and personality play a role in SLA, and that a low-anxiety learning environment is most conducive to language learning as a result. Anxiety may raise the affective filter, leading to mental blocks.

In essence, Krashen's theory leaves the learner in a somewhat passive position—he or she cannot control language development or change its arc or speed. As such, it follows from Krashen's theories that the best way to help students acquire English is to put them in safe, nonthreatening academic environments, expose them to as much English as possible in a communication-rich environment, and teach them how to monitor their own language use and comprehension as they learn. Over the years, some of Krashen's theories have been challenged, but others—most notably, the monitor and natural order hypotheses—remain valuable and viable to the field.

As an alternative to Krashen's view of self-monitoring as important but immutable in the acquisition process, others have argued that a student's explicit attention to his or her own language learning and use can help that student acquire an L2. Form-focused instruction (Lyster 2004a; Lyster 2004b; Saunders and Goldenberg 2010), which draws student attention to linguistic form within a communicative context, is one example. Thus, instead of (or in addition to) learning about linguistic forms in decontextualized direct instruction (e.g., a lesson on verb conjugation), learners receive and benefit from prompts that lead them to attend to such forms while communicating (e.g., a teacher prompt that leads a student to correct an incorrectly conjugated verb while speaking). Prior to Chamot's seminal work, Lyster (2004a), Long (1991) and Long and Robinson (1998) articulated a definition of focus on form. Specifically, they described "focus on form" as involving prerequisite engagement in meaning. They believe that this engagement in meaning is necessary before attention to linguistic features can be expected to be effective. As such, during instruction, students will experience occasional shifts of attention to linguistic code features in response to perceived problems with comprehension or production experienced by the student. This shift in attention is initiated by the teacher and/or other students. In the same vein, Chamot and O'Malley's (1986) Cognitive Academic Language Learning Approach (CALLA) is based on cognitive learning theory, "in which learners are viewed as mentally active participants in the teaching-learning interaction" (Chamot and O'Malley 1996). The CALLA framework emphasizes the role of students' prior knowledge, the importance of collaborative learning, and the development of metacognitive awareness and self-reflection as key aspects of language learning. Students learn to assess their own progress and challenges as they engage with language or content, and use taught learning strategies to problem-solve or ask questions.

Essentially, these three theories represent three distinct points on a spectrum of linguistic acquisition theory: Krashen argues that L2 acquisition occurs via passive exposure; Cummins suggests that language must be taught, but that processes like transfer and interdependence, which may operate subconsciously, enhance learning, particularly after students reach the proposed threshold of acquisition; and researchers such as Long, Lyster, Chamot and O'Malley posit that second-language acquisition, like all learning, occurs best when students actively engage in and monitor their own progress and comprehension.

Theories of SLA play a critical role in the debate about the best programmatic and instructional services for ELs; presumably, the best instructional practices and models will complement the acquisition process, however it is theorized to occur. Both Krashen's and Cummins' theories support the use of students' L1 in their education, but their divergent views on the degree to which the L2 acquisition

process can be actively enhanced or manipulated lead to different explanations as to why this instruction would be valuable. Per Krashen's theories, exposure to English would be important as a means to bolster the L1 acquisition process but, because Krashen theorizes that the acquisition process is relatively predetermined, the use of L1 is important as an interim solution until students are sufficiently fluent in L2. Cummins, meanwhile, proposes a more malleable acquisition process, whereby L1 instruction would be seen to help students acquire L2 faster.

Second-language acquisition and language of instruction. Based on different views of the SLA process, language of instruction has been a hotly debated topic over the years; the central question has been, specifically, whether ELs benefit more from maximizing exposure to English, or from the use or development of their L1 skills as a means to promote English proficiency. Faltis and Arias (1993) note that discretionary grants awarded under the *Bilingual Education Act* (*BEA*) of 1968 (Title VII of *ESEA* until 2001) tended to favor bilingual models, particularly at the elementary level, even though the program, despite its name, did not limit grant awards to bilingual models. During *BEA*'s 30-year duration, practitioners and researchers may have faced various financial, cultural, political and pedagogical incentives to determine whether bilingual models were more or less effective than ESL models. Particularly in the 1980s and 1990s, dozens of studies were staged to explore this issue, ranging from small-scale studies of a few classrooms to large-scale, multistate or longitudinal efforts (Thomas and Collier 2002; Rossell and Baker 1996; Collier and Thomas 1997; Ramirez, Yuen, and Ramey 1991; Lindholm-Leary and Borsato 2006; Slavin et al. 2011).

Several research syntheses and meta-analyses have explored the language of instruction debate and found that the available evidence indicates that the bilingual approach can produce better outcomes when compared to ESL (August and Shanahan 2008; Genesee et al. 2006; Lindholm-Leary and Borsato 2006; Slavin and Cheung 2005; Rolstad 2005; Greene 1997). This, however, is not a claim that bilingual approaches are always better than ESL approaches. Instead, the statement about outcomes is based upon the quality of the current research evidence, including several syntheses and meta-analyses, that compare the two approaches. Systematic syntheses and meta-analyses aggregate the results of all existing studies. Therefore, the results of meta-analyses are more reflective of all existing evidence on a topic than are individual studies. The results from meta-analyses are especially strong because they weight individual studies according to methodological criteria so that the outcomes of the analysis favor stronger studies, making the results of meta-analyses more robust and generalizable than the results of individual studies because methodologically stronger studies play a predominant role in the analyses. In the National Literacy Panel synthesis, August and Shanahan (2006) identified 11 studies between 1973 and 1994 that used a randomized controlled design appropriate for inclusion in a meta-analysis. They found that "it seems reasonably safe to conclude that bilingual education has a positive effect on English reading outcomes that is small to moderate in size" (p. 139). For the Center for Research on Education, Diversity and Excellence synthesis, Lindholm-Leary and Borsato (2006) found that, across 15 evaluation studies, students in bilingual programs almost universally did better in school when compared to students receiving no special service, and that large-scale studies (Ramirez, Yuen, and Ramey 1991; Thomas and Collier 2002; Gersten and Woodward 1995) comparing bilingual programs to ESL programs all found the best results for students who received the most L1 instruction relative to other cohorts. Applying the "best evidence synthesis" approach, Slavin and Cheung (2005) also identified 17 eligible studies that were either randomized multiyear studies (experimental), matched multiyear studies (quasi-experimental) or matched 1-year studies (quasi-experimental), 13 of which focused on elementary literacy instruction. They, too, found that the evidence favored bilingual approaches. Goldenberg (2008) notes that the syntheses for the National Literacy Panel and the Center for Research on Education, Diversity and Excellence were "the latest of five meta-analyses that reached the same conclusion," and argues that this marks an unusually strong finding in the education field: "no other area in educational

research with which I am familiar can claim five independent meta-analyses based on experimental studies—much less five that converge on the same basic finding" (p. 12).

Two syntheses (Genesee et al. 2006; August and Shanahan 2008) found strong evidence that students' L1 proficiency influences their L2 development. August and Shanahan (2008) found that both oral proficiency and literacy in students' L1 can be used to facilitate literacy development in their L2; Genesee et al. (2006) echoed this finding, concluding that language knowledge and experiences in students' L1 can facilitate their literacy development in their L2, with L1 literacy playing a particularly important role. August et al. (2008) also found evidence suggesting transfer on a number of smaller measures such as vocabulary, word recognition and reading comprehension—skills and ability in L1 did predict or support skills in L2. Laija-Rodriguez, Ochoa, and Parker (2006) also found evidence of cross-linguistic transfer in students' cognitive academic language in Spanish and English, suggesting that transfer can occur with specialized academic language and usage (see the "Different Kinds of Language" section of this document).

Together, these findings clearly suggest that students with strong L1 skills (particularly in literacy and oral language) will likely acquire English more quickly and more successfully than those without strong L1 skills. By extension, these findings also suggest that any model that uses or develops L1 skills, particularly literacy and oral proficiency in students' L1, is likely to be more effective and advantageous for ELs than one that does not. Indeed, research suggests that the more and longer a student receives L1 instruction, the better that student will fare (August and Shanahan 2008; Genesee et al. 2006; Goldenberg 2008).

These findings do not suggest that ESL models cannot also successfully help ELs to learn English and meet high standards. It may still be possible to leverage L1 literacy and oral proficiency skills without delivering instruction in students' L1 (e.g., through modified instructional materials that highlight connections between L1 and L2 literacy skills or that encourage ELs to make use of their L1 knowledge to access instruction or classroom texts). Instructional quality makes a difference in this equation—there can be poorly designed and poorly implemented bilingual programs, and there can be well-designed and well-implemented ESL programs.

Nonetheless, these findings do suggest that models that do not incorporate students' L1 skills—at least by leveraging them or, at most, by actively developing them—are forgoing the use of a valuable resource in developing students' L2 literacy and linguistic proficiency.

A few additional caveats: first, the meta-analyses on this subject have focused specifically on *literacy* development, not content area instruction. The basic finding supported by the five convergent meta-analyses is, as Goldenberg (2008) puts it, that "*learning to read* in the home language promotes reading achievement in the second language" (emphasis added) (p. 14). As such, the relative advantage of L1 instruction may differ for other content areas; whether or not learning science in the home language promotes science achievement in the L2 remains to be seen.

L1 instruction may also be less critical as an approach for students who are already fully literate in their L1 because, as suggested above, ESL programs may still be able to leverage these students' existing language skills without actually delivering instruction in the L1. The picture may also be less clear for older ELs, because most research on literacy has, as mentioned earlier, focused on elementary programs, when all students are learning to read. Given that not all ELs with low reading and writing proficiency in English are in first grade, there may be a need to learn more about what kinds of literacy instruction are effective for older ELs.

Finally, no matter what recent and future studies find, it is important to note that a school's or school district's decision about what kind of approach to take may be influenced by factors other than research findings. Although, as noted earlier, Title III law explicitly remains neutral on the topic of language of instruction, school districts within states that restrict the use of native language for instruction of ELs will face much greater challenges in implementing bilingual programs.[9] Based on the review of the literature, the authors of this review concluded that bilingual education also tends to work best in areas where the EL population is young, linguistically homogeneous and stable—it is often recommended that students speak the same non-English language and that they stay in a program for 3 to 6 years (depending on its design) in order to achieve the program goals and attain fluency (Goldenberg, 2008). As a result, school districts with diverse EL populations, either in terms of age or in terms of languages spoken, or with a highly mobile population, might face additional challenges in serving their ELs when using models under the bilingual approach. As stated previously, however, experts have found exemplary ESL programs (Francis et al. 2010; Smith, Coggins, and Cardoso 2008; Williams, Hakuta, and Haertel 2007; Rivera et al. 2010; Merickel et al. 2003; Parrish et al. 2006) that are producing strong student outcomes.

Different kinds of language. As discussed in greater detail in the next section of this document, second-language acquisition theories have increasingly posited that there are different registers of language that students may develop, and that these may develop differently and on different time frames. Cummins (1979a) articulated a distinction between what he named basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP). Cummins argued that students attain what he called "conversational fluency" (BICS, 1 to 2 years) more quickly than they do "academic fluency" (CALP, 5 to 7 years), and that the two types of fluency differ in significant conceptual ways, such that a student's proficiency in one register is not necessarily indicative of, predictive of or reducible to proficiency in the other.

If the BICS-CALP distinction is credible, as many believe it to be, then programs should be designed with this distinction in mind (Cummins 1979a). Specifically, if CALP is distinct from BICS and takes longer to develop, then students should receive linguistic support and instruction for long enough to ensure that they have mastered CALP, which they will need in order to meet high standards in classrooms where English is the language of instruction. Synthesizing other research on the topic, Saunders and Goldenberg (2010) report that it does appear that ELs typically achieve "early advanced" proficiency within about 4 to 6 years but often plateau at this level, taking much longer to progress to native speaker fluency, if they achieve this at all. They hypothesize that one cause for this may be that students often do not receive further language instruction once they reach this near-fluent level.

Some findings about student performance in different models provide potential support for the BICS-CALP distinction. For example, Ramirez, Yuen, and Ramey (1991) found comparable growth and performance among students who were mainstreamed after 2 to 3 years via either an ESL or an early-exit transitional bilingual model, but significantly higher growth and performance for students in a late-exit model who were mainstreamed after 6 years. In other words, the language of instruction appeared to matter less than the length of instruction. A notable trait of late-exit models is that they retain students in the program through its end (usually in sixth grade), regardless of whether the students meet other proficiency standards in English. The next section discusses how and why such proficiency standards may indeed be based more on BICS than on CALP. However, the finding that students who stay in a LIEP longer fare better in the long run may provide support for the CALP concept and time frame.

[9] Many English-only states have waiver or bypass systems in place, whereby parents may petition for or request bilingual programs for their children. The exact conditions under which such exceptions are granted vary by state or even by site, depending on state and local policies, resources, and other factors.

There may also be differences in how BICS and CALP are best learned or taught—specifically, it has been speculated that students may be more likely to acquire BICS based on Krashen's theory (1982) but CALP must be taught (Anstrom et al. 2010). This belief is examined in greater detail in this literature review's discussion of academic language (a contemporary conceptualization of CALP). While this idea has not been validated definitively, various efforts are under way to operationalize and define academic language, as well as to test and refine instructional practices that help students to learn it.

The role of oral language in second-language acquisition. Oral language has been found to play a particularly important role in the second-language acquisition process, primarily because it appears to serve as leverage for developing other modalities—particularly L2 literacy. In a small-scale descriptive study of Spanish-speaking sixth graders, Royer and Carlo (1991a) found that L2 listening skills predict L2 reading proficiency one year later. A larger research synthesis by Genesee and Riches (2006) found, similarly, that oral language skills in L2 can facilitate L2 literacy in second-language learners. Lesaux and Geva (2008) found that phonological processing was particularly important in this regard. In a small-scale experimental study in eight kindergarten classrooms, Giambo and McKinney (2004) found that elementary students who received explicit instruction in phonological awareness showed better scores on an oral proficiency measure than those who were simply read aloud to, suggesting that direct instruction in this area may help to accelerate students' acquisition of L2 oral language proficiency. Together, all of these findings suggest that oral language development can play an important role in helping ELs to develop proficiency in other linguistic modalities (specifically, in reading), and that explicit instruction or practice in this area can facilitate the development process.

From an instructional standpoint, oral language is also important because academic content instruction often occurs via, or accompanied by, oral delivery from teachers. Two large-scale studies, one descriptive (Padrón et al. 2000) and one quasi-experimental (Ramirez, Yuen, and Ramey 1991), and one research synthesis (Saunders and Goldenberg 2010) all found that in delivering instruction across a variety of models, teachers typically do most of the talking, and students either watch, listen or work independently. Thus students who struggle with aural proficiency (listening comprehension) are at risk of missing out on instructional content.

Despite the generally teacher-dominated nature of classroom instruction, it is also the case that students sometimes must participate or demonstrate their comprehension by giving oral responses in class; they may also need to participate with other students in group interactions in class. Based on their review of nearly 100 studies for the California Department of Education, Saunders and Goldenberg (2010) reason that building L2 oral language proficiency may also be critical at the early stages of the L2 acquisition process because ELs may be particularly hesitant to speak up before they have amassed sufficient oral proficiency and confidence. The authors argue that increased L2 oral proficiency can lead to increased L2 use, essentially creating a positive feedback cycle that can eventually lead to improvements in literacy as oral language continues to improve (Saunders and Goldenberg, 2010).

In light of findings like these, experts have emphasized the importance of actively developing oral language as an important component to the overall second-language acquisition process. Saunders and Goldenberg (2008) recommend that "[English language development] instruction should emphasize listening and speaking" (p. 36). In a research synthesis on oral language (part of Genesee et al. 2006), Saunders and O'Brien observe that "many [models] (that is, ESL pull-out, English immersion, transitional bilingual, developmental bilingual, and TWI) recommend daily oral English language instruction until students achieve at least a minimum level of proficiency in English" (p. 14).

Theory as theory. Finally, as noted in the opening of this topic's discussion, it is important to bear in mind the complexity of the role of second-language acquisition theories in education practice and

program implementation. On the one hand, such theories are critically important both to the quality of a model or program's design and to a school district's ability to meet statutory federal requirements. On the other hand, as Krashen (1982) notes, such theories are truly *theories*, in the sense that their primary purpose is to attempt to explain existing data and predict new data; they cannot, in other words, be *proven*—only supported or disproven. Clearly, if a theory explains existing data well and consistently predicts new data findings, this is likely a testament to the theory's strength. Regardless, theories are always subject to change or revision, as must be any programs for which they form the conceptual basis.

Thus, for the practitioner looking to design, implement or evaluate a program, sound underlying theory is a necessary, but by no means a sufficient, condition for that program's success. This point is particularly critical as it pertains to program evaluation in schools and school districts. Similarly, as theories evolve, so must models and programs. Therefore, practitioners should never assume that a program's theoretical basis is enough to guarantee high-quality functioning or outcomes; these goals almost always require monitoring, problem solving and adaptation at the school or school district level.

Exhibit 7. Key articles on theories of second-language acquisition

Author(s)	Year	Title	Type of study
August and Shanahan	2006	Developing literacy in second-language learners: Report of the national literacy panel on language-minority children and youth (Executive Summary)	Expert opinion based on research
August and Shanahan	2008	Developing reading and writing in second-language learners	Literature review and synthesis
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Instruction and professional development. In *Developing reading and writing in second-language learners*	Literature review and synthesis
Chamot and O'Malley	1986	A Cognitive Academic Language Learning Approach: An ESL content-based curriculum	Expert opinion based on research
Chamot and O'Malley	1996	The Cognitive Academic Language Learning Approach: A model for linguistically diverse classrooms	Expert opinion based on research
Collier and Thomas	1997	School effectiveness for language minority students	Expert opinion based on research
Cummins	1979a	Cognitive/academic language proficiency, linguistic interdependence, the optimum age question, and some other matters	Expert opinion based on research
Cummins	1979b	Linguistic interdependence and the educational development of bilingual children	Expert opinion based on research
Cummins	1980	The construct of proficiency in bilingual education	Expert opinion based on research
Faltis and Arias	1993	Speakers of languages other than English in the secondary school: Accomplishments and struggles	Descriptive study
Francis, August, Carlo, and Vaughn	2010	Optimizing educational outcomes for English language learners: IES final performance report	Experimental study
Genesee, Lindholm-Leary, Saunders, and Christian	2006	Educating English language learners: A synthesis of research evidence	Literature review and synthesis

Author(s)	Year	Title	Type of study
Gersten and Woodward	1995	A longitudinal study of transitional and immersion bilingual education programs in one district	Quasi-experimental study
Goldenberg	2008	Teaching English language learners: What the research does—and does not—say	Expert opinion based on research
Krashen	1982	Principles and practices in second language acquisition	Expert opinion based on research
Laija-Rodriguez, Ochoa, and Parker	2006	The cross-linguistic role of cognitive academic language proficiency on reading growth in Spanish and English	Descriptive study
Lindholm-Leary and Borsato	2006	Academic Achievement. In *Educating English Language Learners: A Synthesis of Research Evidence*	Literature review and synthesis
Long	1991	Focus on form: A design feature in language teaching methodology. In *Foreign Language Research in Cross-Cultural Perspective*	Expert opinion based on research
Long and Robinson	1998	Focus on form: Theory, research and practice. In *Focus on Form in Classroom Second Language Acquisition*	Expert opinion based on research
Lyster	2004a	Research on form-focused instruction in immersion classrooms	Quasi-experimental study
Lyster	2004b	Differential effects of prompts and recasts in form-focused instruction	Quasi-experimental study
Merickel, Linquanti, Parrish, Perez, Eaton, and Esra	2003	Effects of the implementation of Proposition 227 on the education of English learners, K-12: Year 3 report	Descriptive study
Padrón, Waxman, Brown, and Powers	2000	Improving classroom instruction and student learning for resilient and non-resilient English language learners	Descriptive study
Parrish, Merickel, Perez, Linquanti, Socias, and Spain	2006	Effects of the implementation of Proposition 227 on the education of English learners, K-12	Descriptive study
Ramirez, Yuen, and Ramey	1991	Final report: Longitudinal study of structured English Immersion strategy, early-exit and late-exit transitional bilingual education programs for language-minority children (Executive summary)	Quasi-experimental study

Author(s)	Year	Title	Type of study
Rivera, Francis, Fernandez, Moughamiam, and Jergensen	2010	Effective practices for English language learners: Principals from five states speak	Descriptive study
Rossell and Baker	1996	The educational effectiveness of bilingual education	Literature review and synthesis
Saunders and Goldenberg	2010	Research to guide English language development instruction. In *Improving Education for English Learners: Research-Based Approaches*	Literature review and synthesis
Slavin and Cheung	2005	A synthesis of research on language of reading instruction for English language learners	Literature review and synthesis
Slavin, Madden, Calderon, Chamberlain, and Hennessy	2011	Reading and language outcomes of a multiyear randomized evaluation of transitional bilingual education	Experimental study
Smith, Coggins, and Cardoso	2008	Best practices for ELLs in Massachusetts: Five years after the question 2 mandate	Expert opinion based on research
Snow	2008	Cross-cutting themes and future research directions. In *Developing Reading and Writing in Second-Language Learners: Lessons From the Report of the National Literacy Panel on Language-Minority Children and Youth*	Literature review and synthesis
Thomas and Collier	2002	A national study of school effectiveness for language minority students' long-term academic achievement	Descriptive study
Williams, Hakuta, and Haertel	2007	Similar English learner students, different results: Why do some schools do better? A follow-up analysis based on a large-scale survey of California elementary schools serving low-income and EL students	Descriptive study

The Construct of Academic English Language

The academic English language (AEL)[10] construct is in many ways a more modern counterpart to Cummins' CALP construct (see preceding section). Theories of academic English build on Cummins' observation that cognitive academic language is conceptually different, and develops differently and more slowly, than social language (BICS). To this they add the assertion that, because the two constructs (academic and social language) are conceptually distinct, policy and instruction should focus on proficiency with academic language as the true indicator that a student is prepared to succeed in mainstream classrooms.

The discussion among experts about AEL usually focuses on one or more of the following three areas: (1) defining and operationalizing the academic English construct, (2) the importance of academic language (as opposed to social language) as the primary focus for English language proficiency assessment, and (3) teaching academic English to ELs. Building on these foci, reviewers included articles on this topic that provided insight to the following questions:

What is academic English language, and why does it matter?

How can instructors support and encourage ELs to acquire and use academic language?

Listed below are key concepts and findings on this topic, followed by detailed discussions on certain issues; see Exhibit 8 at the end of this section for a list of key articles pertaining to the construct of academic English language.

- Theorists from a number of different fields have argued that the kind of language used in academic settings (e.g., classrooms, assessments, textbooks) is distinct from the social language used in nonacademic settings (Bailey and Butler, 2007; Belcher 2006; Chamot and O'Malley 1986; Anstrom et al. 2010; Scarcella 2003a; Coxhead 2000).
- Despite a great deal of conceptual overlap in the field, there is not a common working definition for academic English or academic language; rather, different experts define the construct differently, often based on the field and framework from which they approach it (Bailey and Butler, 2007; Coxhead 2000; Scarcella 2003a).
- Regardless of how they define or characterize academic language, experts and researchers on the topic agree that students need to master it in order to meet expectations and standards in academic settings (Bailey and Butler 2007; Coxhead 2000; Scarcella 2003a).
- Although ELs should be proficient with academic English in all linguistic modalities (reading, writing, speaking and listening), at least one literature review on the topic found that oral language development may be particularly important for developing proficiency in this type of language (Anstrom et al. 2010).
- There is some consensus in the field that academic English may need to be taught explicitly; instructors should not assume that students will acquire it independently or passively (Anstrom et al. 2010; Bailey and Butler 2007; Gersten et al. 2007; Heritage, Silva, and Pierce 2007).

[10] Different experts refer to this construct by different names, such as English for academic purposes (EAP), academic language (AL) and academic English (AE). This review uses the phrase *academic English language* (AEL) for general discussion, though other authors' terminologies are used when describing their work.

- Some experts believe that students may need more time to develop academic language than social language (Anstrom, et al. 2010).
- Although efforts are currently under way to develop a new generation of English language proficiency assessments that focus explicitly on academic English as opposed to general or social language, some assessments in current use may not measure academic English well, or at all. Where this is the case, policy makers and practitioners should be aware that students who attain proficiency on such assessments may not yet have the academic language skills they need to succeed in ESL classrooms (Abedi 2001; Abedi 2004; Linquanti 2001; Ragan and Lesaux 2006; Stevens, Butler, and Castellon-Wellington 2000; Butler and Castellon-Wellington 2000).

Policy context. The importance of AEL is in part a product of the current policy context surrounding LIEP design and implementation. *NCLB* provided a number of additional high-stakes incentives to serve and include ELs in assessments by introducing the following three requirements:

1. States must develop and adopt standards for English language proficiency that raise the level of English proficiency for ELs and that are aligned to the achievement of the state academic content and student academic achievement standards expected of all children (Sec. 3113(b)(2);

2. To meet annual accountability requirements for Title I, states must include at least 95 percent of all ELs (called limited English proficient [LEP] students in the law) in the same summative reading or language arts, mathematics and science assessments required of all students, and they must report these students' performance as a disaggregated LEP subgroup; and

3. Under both Title I and Title III, states must annually test the English proficiency of all students in the LEP subgroup, and, for Title III accountability purposes, must report the number or percentage of students who are making progress toward the state's definition of English proficiency and the number or percentage of students who are achieving English language proficiency.

For both Title I and Title III, states must set annual accountability targets and receive federal approval. School districts that fail to meet these targets will, under Title I, be subject to increasingly intensive interventions and, under Title III, will be required to take corrective actions and risk losing funds. As an important note, states are encouraged, but not required, to use the same criteria for English language proficiency under Title I and Title III, such that students who are identified as proficient for Title III accountability purposes are also prepared to exit the LEP subgroup under Title I and be reclassified as "former LEPs"[11] for Title I accountability purposes.

In practice, these requirements have meant that states have had to determine the following necessary subcomponents for themselves:

1. How they will identify ELs (by what process and with which testing instrument);

2. The content, organization and scaling of their English language proficiency standards;

3. Which test they will use to annually assess their students' English language proficiency; and

[11] *ESEA* also requires that states monitor the progress of former LEPs for at least 2 years once these students exit services; 34 CFR § 200.20(f)(2) also allows states to include students who are in this monitoring stage in the LEP subgroup for accountability purposes.

4. How they will define proficiency in English, and how they will determine that ELs are ready to exit the Title III LEP subgroup, stop receiving services and be reclassified as former ELs (former LEPs).

The ways in which these concepts are defined have significant implications for the education of ELs, and they may vary significantly from state to state. The first and fourth items cited above are particularly critical in this sense because each state must determine the specific processes it will use to ensure that ELs are appropriately identified to receive services and reclassified to stop receiving services—both high-stakes decisions for the children they affect.

AEL—however it is defined—has taken on a particular importance in light of this policy framework: because states must set standards for English proficiency, and must test and reclassify students according to these standards, it is important that these standards, and the instruments that test them, are valid and reliable measures of the linguistic skills that ELs need to engage in and benefit from academic instruction delivered in English without any special supports. In order to function as intended, this requires that students who score at or above the "proficient" level on their state's English language proficiency assessment have the linguistic skills and knowledge necessary to engage with academic content instruction delivered in English without further support—in other words, that they are proficient specifically in academic English, sometimes called "the language of school" (Anstrom et al. 2010).

Ragan and Lesaux (2006) found, in a survey of federal, state and local policies about identification and reclassification, that agencies at all three levels have focused primarily on the goal of quickly reclassifying ELs as fluent, at the potential expense of articulating a more long-term vision for these students' overall success. At the federal level, they observed that *ESEA* and the *Castañeda* principles both seemed to focus on—and even overemphasize—English language skills at the expense of academic achievement. At the state level, in their sample they found that, generally, states seem not to attend to or have long-term goals for ELs' academic achievement once they have attained proficiency according to the state's ELP assessment.

Implicit in Ragan and Lesaux's (2006) concern is the idea that linguistic proficiency and academic proficiency are distinct skill sets, and that a student's demonstration of proficiency in the former does not necessarily imply or guarantee proficiency in the latter. This disconnect is the underlying impetus for conversations about AEL: identifying and emphasizing the linguistic forms and practices that are specific to academic settings represents an effort to bridge the divide between language and content.

Defining academic English language. Definitions of AEL appear to differ substantively even if they are functionally similar. Anstrom et al. (2010) noted in their review of the literature on this topic that "[academic English] is an evolving construct not agreed upon in the literature" and "has been contrasted with everyday language, equated with academic vocabulary, viewed as one of a continuum of social languages, and depicted as a foundation for developing [other specialized, content-specific registers]" (pp. 4, 12). The ways in which a researcher defines AEL will almost certainly depend on the individual's field and orientation to conceiving of language more broadly.

Belcher (2006) classifies "English for academic purposes" (EAP) as a subgenre of "English for specific purposes" (ESP), a sociocultural formulation in which learners are taught language according to the settings in which and means for which they need or are expected to use it; for K-12 learners, this setting would be ESL K-12 content classrooms and assessments. In the ESP approach, language is defined by its uses (purposes) and so becomes a tool for learners, rather than an object of instruction itself. By this definition, one might measure a student's proficiency by assessing the success with which the student can

use and apply English for academic purposes in academic settings—which could include navigating a content assessment in English.

Other experts have approached AEL from a more traditional linguistic angle, defining it in terms of its linguistic forms and structures. Although not attempting to exhaustively define AEL, Coxhead (2000), who uses the term "English for academic purposes" (EAP), created a resource known as the "academic word list," which identifies 570 word families (e.g., variations on forms and roots) that appear nearly 10 times more frequently in academic texts than in fiction or other nonacademic works. Although the list is primarily conceived for university students, it provides concrete evidence that the language used in academic settings and texts does indeed differ from that used in other linguistic settings.

Scarcella (2003a) defines academic English as "a variety or register of English used in professional books and characterized by the specific linguistic features associated with academic disciplines," also noting that it "includes many diverse sub-registers associated with different disciplines such as science, economics and mathematics" (p. 9). She defines AEL as comprising five linguistic components: phonological, lexical, grammatical, sociolinguistic and discourse, as well as five components along a cognitive dimension: knowledge, higher-order thinking, strategic, metalinguistic awareness and sociocultural or psychological. The latter set of components marks the distinction between social and academic language, and Scarcella proposes that assessments of linguistic proficiency must also tap this second set of components to measure students' facility with academic English accurately.

Bailey builds on a previously articulated definition from Chamot and O'Malley (1994), who assert that academic language is "the language that is used by teachers and students for the purpose of acquiring new knowledge and skills,…imparting new information, describing abstract ideas, and developing students' conceptual understanding" (Bailey, 2007, p. 9) Bailey further articulates that an individual's proficiency in this register should be defined by the ability to "use general and content-specific vocabulary, specialized or complex grammatical structures, multifarious language functions, and discourse structures—all for the purpose of acquiring new knowledge and skills, interacting about a topic, or imparting information to others" (p. 10). Bailey also identifies lexical, grammatical and discourse features of AEL, and proposes a conceptual framework of AEL (Bailey and Butler, 2007) based on analysis of the language demands assumed in national content standards, state content standards, ESL standards, teacher expectations for language comprehension and production, and classroom exposure to AEL (through various modalities such as reading, speaking and listening).

In support of this framework, and also as a means to demonstrate the gaps between English language proficiency or ESL demands and academic content demands, Bailey, Butler, and their colleagues have conducted intensive linguistic analyses on various standards (Bailey, Butler, and Sato 2007), assessments (Butler and Castellon-Wellington 2000; Stevens, Butler, and Castellon-Wellington 2000) and other classroom materials (Bailey, Butler, Stevens et al. 2007).

It is important to note here that many experts agree that academic English exists in both general and content-specific forms. Bailey and Butler (2007) talk about "common core AEL" and "content area-specific AEL"; Anstrom et al. (2010) discuss "content area AEL" as opposed to general AEL. Some studies have looked specifically at building students' AEL in particular content areas (Case 2002; Schleppegrell, Achugar, and Oteíza 2004; Lee et al. 2008).

Assessing academic English. As discussed, assessment is a critical issue in the AEL discussion. The experts express two primary concerns: (1) older English language proficiency assessments, some of which remain in use, do not measure AEL, and (2) students in some states and school districts may be reclassified as fluent based solely on their performance on these assessments (Abedi 2001; Abedi 2004;

Linquanti 2001; Ragan and Lesaux 2006; Stevens, Butler, and Castellon-Wellington 2000; Butler and Castellon-Wellington 2000). In one study, Stevens, Butler, and Castellon-Wellington (2000) compared the language tested on a commonly used assessment, the Language Assessment Scales (LAS), with the language used on the Iowa Tests of Basic Skills (ITBS) Social Studies Test for Seventh Grade (Level 13), and found the language tested on the LAS to be more limited than the language that appeared on the ITBS. It is important to note that they reviewed the language of the ITBS test *form*—that is, the questions that appear on the test and to which students must respond—meaning that this finding implies that students who pass the LAS may not have the language skills necessary to even read and comprehend the questions on their content assessments, let alone to respond to them. Butler and Castellon-Wellington (2000) also found that reliability coefficients for ELs on the ITBS were low, indicating that the test is not providing consistent information for this population, and scores may lack the validity necessary to make their use appropriate for decisions about student needs or progress. Abedi (2001, 2004) notes that validity is a major concern on summative content assessments for ELs for various reasons, including that students may score poorly due to language obstacles, rather than content knowledge (or lack thereof).

Readers may be aware that newer ELP standards and assessments have been, and continue to be, developed in the years since the studies above, and many of these newer materials focus more on academic language than their predecessors. In the fall of 2011, the Department awarded an Enhanced Assessment Grant (EAG) to the Wisconsin Department of Public Instruction to fund extensions to the ELPA system established in 2002 through the World-class Instructional Design and Assessment (WIDA) consortium. Twenty-four states were using the WIDA-designed ELPA as of March 2012. The priorities for the EAG competition required that the assessment systems be "aligned with a common set of English language proficiency standards that correspond to a common set of college- and career-ready standards in English language arts and mathematics" and "produce results that indicate whether individual students have attained the English proficiency necessary to participate fully in academic instruction in English and meet or exceed college- and career-ready standards." It is important to note that this award will fund augmentations of an existing ELPA, but not the development of new ELP standards.

As the field awaits the development of new and better assessment instruments for ELs, one option to improve assessment practices in the interim is to use additional indicators beyond ELP assessment scores to make decisions about redesignation. Valdez-Pierce and O'Malley (1992) propose a framework for using portfolio assessments for ELs; Royer and Carlo's (1991b) sentence verification technique (SVT) for assessment, in which students respond to "yes" or "no" questions about reading and listening passages, has also shown promise in terms of reliability and validity. Linquanti (2001) provides a framework of practices for monitoring reclassified ELs to ensure that their needs are being met and that they are meeting high academic standards.

Gandara and Merino (1993) and, more recently, Linquanti (2001) and Parrish et al. (2006) have also looked at exit criteria in various programs, and emphasized the necessity and importance of monitoring ELs' academic growth well beyond their exit from services. Former ELs' performance on content assessments has the potential to be a critical indicator both for program quality and for the validity of exit criteria; if students who are former ELs continue to perform significantly below students who have never been ELs, this suggests that the students may not be exiting with the skills necessary to meet academic achievement standards in ESL classrooms. Indeed, in a study comparing the performance of different student groups on the LAS and the Stanford Achievement Test Series (Stanford 9), Butler and Castellon-Wellington (2000) found that students who scored in the same "competent reader" category on the LAS showed significant differences among their scores on the Stanford 9, with former ELs underperforming non-ELs on the content assessment, despite scoring in the same range on the LAS.

This finding, although somewhat outdated at this point, underscores the potential danger of using poorly designed ELPAs to inform redesignation decisions for ELs.

Teaching academic English. The necessity of building ELs' skills in academic English transcends any particular model or approach. That said, because academic content instruction and associated assessments are both delivered in English once students are reclassified as proficient, it remains critical that students are adept at using academic language in *English,* no matter what other language(s) they encounter in their instruction.

Experts researching AEL seem to agree that it must be explicitly taught to students, as students seem not to acquire it passively (Anstrom et al. 2010; Gersten et al. 2007; Bailey and Butler, 2007; Heritage, Silva, and Pierce 2007; Scarcella 2003a; Scarcella 2003b). This suggests that teachers must, by extension, understand and be familiar with AEL themselves, so that they can teach it to their students and recognize and evaluate it in their students' work (Heritage, Silva, and Pierce 2007). Some argue that this explicit instruction is best achieved (or at least supported) by equipping students with metacognitive learning and self-monitoring strategies, so that they may play an active role in their own second-language acquisition (Spaulding, Carolino, and Amen 2004; Chamot and Beard El-Dinary 1999; Chamot and O'Malley 1996; Lyster 2004b; Lyster 2004a; Anstrom et al. 2010). Harper and de Jong (2004) observe that this notion of passive acquisition is a common misperception among educators; and a number of studies have sought to show that students who receive explicit instruction in academic English show greater progress than those who do not (Lee et al. 2008; Case 2002; Schleppegrell, Achugar, and Oteíza 2004; Lyster 2004a; Lyster 2004b; Aguirre-Munoz et al. 2001).

Oral language was emphasized as a particularly important component of AEL development. Anstrom et al. (2010) found that the literature they reviewed "focuses on how AE is developed through social interactions and in social settings," and observed repeatedly that teaching AE requires a more balanced division of oral communication among teachers and students (as opposed to a configuration in which teacher talk dominates interactions) (p. vi). They found multiple texts recommending that teachers model oral discourse and questioning techniques, and reinforce these with small-group or independent practice.

Spaulding, Carolino, and Amen (2004) encourage teachers of secondary ELs and immigrant youth to focus on promoting what they term "academic literacy," specifically by integrating language and content learning and by creating literacy-rich environments that are stocked with various kinds of materials to support students' literacy developments. For more specific strategies and practices, Anstrom et al. (2010) found that the majority of research on teaching AEL has focused on vocabulary instruction, and that this body has yielded recommendations for preteaching and previewing new vocabulary, explicitly identifying and classifying important vocabulary, and modeling or encouraging explicit vocabulary practice for ELs. The research in this area cautions that focusing solely on vocabulary is inadvisable, as AEL is ultimately more complex than just vocabulary, and includes grammar and higher-order language skills.

Anstrom et al. (2010) found only a handful of studies focusing on these other aspects of AEL. The few studies on grammar instruction of AEL included expert recommendations, but Anstrom et al. (2010) noted that none of the proposed practices has been researched or tested enough to be linked to gains in AEL or general performance. Scarcella (2003b) does offer a comprehensive, though untested, resource in her text *Accelerating Academic English: A Focus on the English Learner.*

Per Scarcella's (2003a) suggestion that various kinds of comprehension are critical to academic English proficiency, August et al. (2008) found very few studies of reading comprehension in ELs, and rather bleak results in those they did find—effect sizes were consistently small or insignificant in comprehension studies or interventions, and student gains in reading comprehension were consistently

smaller than gains made in other areas such as word recognition. Although the research base is too small to draw any definite conclusions, these findings suggest that reading comprehension is an area in which ELs may struggle and require extra support, and that the field should attend more to this issue, in addition to addressing vocabulary or grammar.

Exhibit 8. Key articles on the construct of academic English language

Author(s)	Year	Title	Type of study
Abedi	2001	Assessment and accommodations for English language learners: Issues and recommendations	Expert opinion based on research
Abedi	2004	The *No Child Left Behind* Act and English language learners: Assessment and accountability issues	Expert opinion based on research
Aguirre-Munoz, Park, Amabisca, and Boscardin	2001	Developing teacher capacity for serving English language learners' writing instructional needs: A case for systemic functional linguistics	Quasi-experimental study
Anstrom, DiCerbo, Katz, Millet, and Rivera	2010	A review of the literature on academic English: Implications for K-12 English language learners	Literature review and synthesis
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Instruction and professional development. In *Developing Reading and Writing in Second-Language Learners*	Literature review and synthesis
Bailey	2007	The language demands of school: Putting academic English to the test	Expert opinion based on research
Bailey and Butler	2007	A conceptual framework for academic English language for broad application to education. In *The Language Demands of School: Putting Academic English to the Test*	Expert opinion based on research
Bailey, Butler, and Sato	2007	Standards-to-standards linkage under title III: Exploring common language demands in ELD and science standards	Expert opinion based on research
Bailey, Butler, Stevens, and Lord	2007	Further specifying the language demands of school. In *The Language Demands of School: Putting Academic English to the Test*	Descriptive study
Belcher	2006	English for specific purposes: Teaching to perceived needs and imagined futures in worlds of work, study, and everyday life	Expert opinion based on research
Butler and Castellon-Wellington	2000	Students' concurrent performance on tests of English language proficiency and academic achievement	Descriptive study

Author(s)	Year	Title	Type of study
Case	2002	The intersection of language, education, and content: Science instruction for ESL students	Expert opinion based on research
Chamot and Beard El-Dinary	1999	Children's learning strategies in language immersion classrooms	Descriptive study
Chamot and O'Malley	1986	A Cognitive Academic Language Learning Approach: An ESL content-based curriculum	Expert opinion based on research
Chamot and O'Malley	1994	The CALLA handbook: Implementing the Cognitive Academic Language Learning Approach	Expert opinion based on research
Chamot and O'Malley	1996	The Cognitive Academic Language Learning Approach: A model for linguistically diverse classrooms	Expert opinion based on research
Coxhead	2000	A new academic word list	Descriptive study
Gandara and Merino	1993	Measuring the outcomes of LEP programs: Test scores, exit rates, and other mythological data	Expert opinion based on research
Gersten, Baker, Shanahan, Linan-Thompson, Collins, and Scarcella	2007	Effective literacy and English language instruction for English learners in the elementary grades: A practice guide	Expert opinion based on research
Harper and de Jong	2004	Misconceptions about teaching English language learners	Expert opinion based on research
Heritage, Silva, and Pierce	2007	Academic English: A view from the classroom. In *The Language Demands of School: Putting Academic English to the Test*	Expert opinion based on research
Lee, Maerten-Rivera, Penfield, LeRoy, and Secada	2008	Science achievement of ELLs in urban elementary schools: Results of a first-year professional development intervention	Experimental study
Linquanti	2001	The redesignation dilemma: Challenges and choices in fostering meaningful accountability for English learners	Expert opinion based on research
Lyster	2004a	Research on form-focused instruction in immersion classrooms	Quasi-experimental study
Lyster	2004b	Differential effects of prompts and recasts in form-focused instruction	Quasi-experimental study

Author(s)	Year	Title	Type of study
Parrish, Merickel, Perez, Linquanti, Socias, and Spain	2006	Effects of the implementation of Proposition 227 on the education of English learners, K-12	Descriptive study
Ragan and Lesaux	2006	Federal, state, and district level English language learner program entry and exit requirements: Effects on the education of language minority learners	Descriptive study
Royer and Carlo	1991a	Assessing the language acquisition progress of limited English proficient students: Problems and a new alternative	Expert opinion based on research
Scarcella	2003a	Academic English: A conceptual framework	Expert opinion based on research
Scarcella	2003b	Accelerating academic English: A focus on the English learner	Expert opinion based on research
Schleppegrell, Achugar, and Oteíza	2004	The grammar of history: Enhancing content-based instruction through a functional focus on language	Expert opinion based on research
Spaulding, Carolino, and Amen	2004	Immigrant students and secondary school reform: Compendium of best practices	Expert opinion based on research
Stevens, Butler, and Castellon-Wellington	2000	Academic language and content assessment: Measuring the progress of ELLs	Descriptive study
Valdez-Pierce and O'Malley	1992	Performance and portfolio assessment for language minority students	Expert opinion based on research

Models and Considerations for LIEP Design

A wide range of models satisfy, at least in theory, the statutory definition and requirements for a LIEP put forth in the Title III legislation. Various models have been developed to serve ELs based on the available research information about the topics discussed so far (second-language acquisition and academic language), as well as other pedagogical and practical factors. Models become components of the LIEP program. Therefore, given the wide variety of their characteristics in terms of instructional time, class composition or teacher practices, practitioners will discover many viable alternatives. This section summarizes various models in terms of their design and approach, focusing primarily on theory and design, as well as implementation factors or lessons; instructional practices and professional development are addressed separately in the following section. The questions guiding reviewers' exploration of this topic were as follows:

What are the characteristics of different models, and how can or should these be actualized in implementation?

What characteristics of a model may be variable, and which are critical to its success?

To reiterate, this review does not aim to compare or rank different models; rather, it aims to present a comprehensive picture of the information available on each. The discussion pertains primarily to design and implementation, and includes a variety of literature types, ranging from large-scale experimental research reports to short, research-based expert opinion pieces and descriptive ethnographic studies. Many of the papers included in this section actually combine these different forms, providing conceptual research- or expert-based summaries for models, followed or supported by case studies of programs. Essentially, reviewers included any reports that granted insight into how different models are supposed to work or what they look like in action.

As outlined earlier, reviewers grouped different models according to their general approach to second-language acquisition and instruction, and the discussion is organized accordingly: ESL, bilingual or newcomer. Key findings and ideas for models and considerations for LIEP design are summarized below, followed by an in-depth discussion on a number of key ideas. See Exhibit 9 at the end of this section for a list of key articles on models and considerations for LIEP design.

General Findings

- The research reviewed for this study suggests that ELs who receive some kind of language support or specialized instruction show better outcomes on various academic measures than those who receive no specific language learning support (Thomas and Collier 2002; Menken and Kleyn 2010; Lindholm-Leary and Borsato 2006).

- While multiple meta-analyses and large-scale research studies and systematic syntheses of research have found that models following the bilingual approach can produce better outcomes than ESL models, as measured by general academic content assessments or measures of reading comprehension or skills (Thomas and Collier 2002; Genesee et al. 2006; Goldenberg 2008; Saunders and Goldenberg 2010; August and Shanahan 2008), other studies, including a recent large-scale quasi-experimental study and a recent large-scale experimental study, indicate that quality of instructional practices matter as well as language of instruction (Irby et al. 2010; Slavin et al. 2011). In other words, researchers have found examples of high-quality programs that come from both bilingual and ESL approaches, which suggests that no single approach (e.g., ESL or bilingual) is effective at all times and under all circumstances (Williams, Hakuta, and

Haertel 2007; Parrish et al. 2006; Howard and Christian 2002; August and Pease-Alvarez 1996).

- Reviewers found less detail about instructional practices in literature about bilingual models than in literature about ESL models. Research on bilingual models tended to focus more on the models' structure (e.g., balance of languages, transition between languages) and content (e.g., literature instruction, phonological processing instruction, vocabulary instruction) than on the specific instructional practices used at the classroom level (Genesee 1999; Gersten and Woodward 1995; Irby et al. 2010; Ramirez, Yuen, and Ramey 1991; Slavin et al. 2011).
- In addition to ESL and bilingual models, the literature revealed a subgenre of scholarship on ELs who are most commonly referred to as "newcomers" (August et al. 2008; Boyson and Short 2003; Genesee 1999; Rivera et al. 2010; Spaulding, Carolino, and Amen 2004; Thomas and Collier 2002). Different sources may name or define this group differently, but broadly speaking, the literature typically describes newcomers as students who are recent immigrants to the United States, and who may lack or have interruptions in their formal schooling.
    - Because of differences in the language demands at different grade levels, newcomers are often discussed particularly at the secondary level, where their schooling interruptions or language barriers may present a more imposing obstacle than those faced by younger newcomers.
    - School districts or schools may offer special programs for newcomer students that address these students' unique academic, linguistic and cultural needs compared to other ELs. The literature suggested that the goal for many newcomer models is to introduce and prepare students for formal education in American schools and for entry into the district's or school's regular LIEP, whether it uses an ESL approach or a bilingual approach (Boyson and Short 2003).

Models Under the ESL Approach

- Some research suggests that models under the ESL and bilingual approaches may produce comparable results, if implemented well and thoroughly (Slavin et al. 2011), and there are examples across the country of ESL programs that are producing strong learning outcomes for their students (Williams, Hakuta, and Haertel 2007; Parrish et al. 2006; Smith, Coggins, and Cardoso 2008; Rivera et al. 2010; Echevarria and Short 2010).
- There is evidence that ESL models (language or content based) are likely to produce better outcomes on various academic performance measures than general instruction in English that does not follow an ESL model or acknowledge ELs' specific linguistic needs (Saunders and Goldenberg 2010; Goldenberg 2008; Genesee et al. 2006; August et al. 2008; Thomas and Collier 2002). So despite delivering instruction in English, the ESL approach is not synonymous with "no LIEP." In addition, effective strategies used in ESL programs under this approach could also be used in bilingual programs.
- Models under the ESL approach may focus on language instruction in itself, or they may integrate language and content instruction. Experts have argued that the strongest programs include both types—that is, dedicated language instruction (ESL, ELD, or ESOL) in addition to specialized content instruction such as SDAIE, SI or Cognitive Academic Language Learning Approach (CALLA) (Saunders and Goldenberg 2010).[12]
- Models under the ESL approach can also be appropriate for use in the English portion of

[12] Although reviewers did not find this discussed in the literature they reviewed, this finding could be—and likely is—also true of instruction delivered in models following the bilingual approach.

bilingual models. Therefore, teachers working with ELs should understand second-language oral and literacy development and know how to implement practices that enhance such development (Slavin et al. 2011; August and Shanahan 2008; Goldenberg 2008; Ramirez, Yuen, and Ramey 1991).

- ESL models may be a necessary or more practical choice for schools or school districts in states that restrict the use of native language for instruction of ELs or schools that lack linguistically qualified teachers. Reviewers also concluded, based on the available literature, that ESL models may also be more convenient for schools with linguistically heterogeneous EL populations, highly mobile EL populations or EL populations that are diverse in terms of students' age or grade level (Goldenberg 2008; Saunders and Goldenberg 2010; Williams, Hakuta, and Haertel 2007).

Models Under the Bilingual Approach

- Two meta-analytic research syntheses (August and Shanahan 2008; Genesee et al. 2006), one expert's analysis of these syntheses (Goldenberg 2008) and one large-scale descriptive study (Thomas and Collier 2002) found that students who receive L1 instruction go on to reach the same or higher levels of achievement in English than those who do not. These syntheses also found that L1 language skills play a positive role in the development and acquisition of L2 language skills (Genesee et al. 2006; August and Shanahan 2008). One descriptive study also found evidence for transfer of academic language skills from students' L1 to L2 (Laija-Rodriguez, Ochoa, and Parker 2006).

- Models under the bilingual approach differ primarily by the extent to which they incorporate students' L1 into instruction—some models use L1 to support and scaffold students' development of English, and then gradually phase it out; others pursue full bilingualism and biliteracy as program goals (Bahamonde and Friend 1999).

- At least two research syntheses (Lindholm-Leary and Borsato 2006; August and Shanahan 2008;, one large-scale descriptive study (Thomas and Collier 2002) and one large-scale quasi-experimental study (Ramirez, Yuen, and Ramey 1991) have found that, with L1 instruction, more is better—bilingual programs with extended instruction in students' L1 over time appear to result in better outcomes**.**

- Models under the bilingual approach can and should still employ ESL best practices or techniques for the portion of their instructional program that is delivered in English. When implementing models under the bilingual approach, teachers essentially employ bilingual instruction for some aspects of their programs, *in addition* to ESL instruction for the other portions (effective strategies used in bilingual programs could also be used in ESL programs) (Proctor et al. 2009; Fung, Wilkinson, and Moore 2003; Vaughn et al. 2006; Linan-Thompson et al. 2003).

- Although models under the bilingual approach could potentially be appropriate for older ELs, based on the models' potential to leverage students' L1 skills, this review found only two examples of a bilingual program that was designed for students to enter later than first grade (Howard and Christian 2002; Freeman 2000). All other examples in the reviewed literature were designed for students to begin in kindergarten or first grade and did not suggest in their language that it was possible for students to enter the program after first grade (Genesee 1999; Christian et al. 1997; Gersten and Woodward 1995; Ramirez, Yuen, and Ramey 1991; Bahamonde and Friend 1999; Saunders 1999; Slavin et al. 2011; Montone and Loeb 2000; Bearse and de Jong 2008; Lindholm-Leary and Borsato 2001; DeJesus 2008).

Genesee (1999) provides a clear and robust summary for the majority of the models for ELs that will be summarized here: SI, ESL, newcomer, TBE, DBE and TWI. For each model, he discusses the theoretical rationale, salient pedagogical program features (common features and variable features), necessary resources and necessary local conditions. Genesee also includes descriptions of real, exemplary programs for each model. In addition to Genesee's (1999) snapshots, Thomas and Collier (2002) provide relatively detailed descriptions of the bilingual programs they include in their longitudinal study, which include 90-10 and 50-50 models for transitional, developmental ("one-way bilingual") and TWI ("two-way bilingual"). Reviewers did find additional program descriptions for nearly all models in the literature, though such descriptions were rarely detailed enough to inform implementation fully.

English as a Second Language Models

Technically, because even bilingual models deliver some of their instruction in English, *all* LIEPs may find the need to implement ESL models (or instructional practices thereof). ESL models focus on developing English and teaching in English—they make minimal use, if any, of students' L1. As suggested above, schools or school districts that use exclusively ESL models may often do so out of necessity, based on factors such as policy, population or resources. Zehler et al. (2003) found in a nationwide survey that between 1992 and 2002, the percentage of ELs receiving ESL services increased from approximately a third to nearly half. However, ED*Facts* CSPR 2004–07 reports that bilingual models increased by 9 percent. As the nation's EL population grows ever more diverse, and in the event that more states employ English-only statutes mandating the use of ESL models in their schools, it is likely that use of these models will continue to increase.

It is important to note that ESL models do not call for simply placing unsupported ELs in mainstream classrooms. This approach, sometimes referred to as "submersion" (Collier and Thomas 1997), is not only ineffective for students (Lindholm-Leary and Borsato 2006; Thomas and Collier 2002), it does not conform with federal civil rights requirements or federal education legislation (Forte and Faulkner-Bond 2010). Although many instructional techniques that are effective for English-speaking students may also be effective with ELs (D'Angiulli, Siegel, and Maggi 2004; August and Hakuta 1998; August et al. 2008; Goldenberg 2008), these techniques would not likely be seen as sufficient support for ELs according to *ESEA*. Thus, ESL models constitute programs and instructional practices that deliver instruction that is specially tailored to support ELs in light of their linguistic challenges in the classroom.

As mentioned above, ESL models generally fall into one of two further categories: content-based instruction and language-based instruction. In simplest terms, language instruction teaches English, and content-based instruction teaches subject content *in* English, but in a way that fosters language development. CALLA represents a hybrid approach that integrates content and language learning to a large degree. SDAIE and SI are two specialized content delivery models; some consider the former to be subsumed by the latter (Echevarria and Short 2010). Both of these models deliver content instruction using specific instructional practices and techniques that are designed to accommodate ELs' needs as language learners.

ESL models also differ according to who delivers instruction. For language instruction models (ELD or ESL), and for some content-based instructional models, the instructor is generally certified or credentialed in language instruction (however the state defines such qualifications). Specialized content instruction, meanwhile, is generally delivered by a general education content teacher. In most states, content instructors are not required to have any experience or knowledge for instructing ELs, meaning that teachers who deliver content-based ESL will almost certainly need additional special preparation before they are ready to provide specialized instruction for their ELs.

It is important to note that an effective ESL program should employ *both* kinds of ESL instruction (language and content). To put ELs in mainstream classes without language support would violate *ESEA* requirements to teach the English language and help ELs keep pace in content, and there is evidence that providing dedicated ELD instruction in addition to content-based ESL instruction better supports L2 acquisition and academic achievement (Saunders and Goldenberg 2010; Harper and de Jong 2004). As the previous paragraph suggests, ESL or ELD instruction may also provide ELs with an additional opportunity to receive instruction from a qualified individual who is more likely to be familiar with their needs. The practice of pairing ESL instruction with special content instruction is advocated or observed in some of the pieces reviewed below (Genesee 1999; Williams, Hakuta, and Haertel 2007; Saunders and Goldenberg 2010).

Content and content-based instruction for ELs. As referenced earlier, content-based instruction for ELs seeks to integrate students' instruction and learning of content and language. Teachers may use content lessons as opportunities to teach language, and also may modify their instruction or delivery to ensure that ELs can have access to content instruction in English. Content-based instructional models may vary both by how they balance English and content and by how they teach English (e.g., explicitly, indirectly, or via interaction).

On one end of the spectrum, CALLA is an ESL content-based model based on cognitive learning theory, first proposed by Chamot and O'Malley (1986). CALLA's general approach is not to modify instruction based on language needs; rather, it aims to equip learners with strategies that will help them decode and access content even as they are learning English. Its core premise is that students are active participants in their own learning and in the teaching-learning exchange. Chamot and O'Malley (1996) specify the following as the model's three central components:

- High-priority content topics;
- Academic language development based on the content; and
- Explicit instructions in learning strategies that can help students understand and remember both the content and the language.

As these components show, CALLA treats language as a "medium for communication" rather than a subject for learning, an orientation that leans toward Belcher's (2006) English for specific purposes theory. Teachers emphasize and students learn to recognize the ways in which linguistic use permeates all content learning, and students are taught to apply the same kinds of learning strategies to their second-language acquisition as they do to their content learning. In this way, language and content learning are closely interrelated in CALLA models.

The learning strategies in the third component are one of the most important features of the CALLA model, and are further classified into three subtypes: metacognitive strategies, cognitive strategies, and social and affective strategies. These strategies are taught by teachers via a five-stage cyclical process that begins with very explicit instruction and gradually fades so that students may take responsibility for their own learning by using the strategies. The instructional stages for teaching strategies are introducing, teaching, practicing, evaluating and applying; these stages are rehearsed each time students encounter new content or skills until, ideally, they are comfortable and familiar enough to simply apply strategies (the fifth stage).

Chamot and O'Malley (particularly the former) created the CALLA model and remain its most active proponents. Their research has focused on identifying the learning strategies used by strong learners

both as evidence for the theory and to inform program design (Chamot and Beard El-Dinary 1999). In various works, they have offered sample instructional materials and performance assessments (Chamot and O'Malley 1986; Chamot and Beard El-Dinary 1999; Chamot and O'Malley 1994).

Toward the other end of the content-based instruction spectrum, SDAIE and SI focus more on modifying and delivering instruction in ways that are cognizant of ELs' specific linguistic needs and challenges. Despite their different names, SDAIE and SI are more similar than different in many ways—some even consider SDAIE to be a specific type of SI (Echevarria and Short 2010).

SDAIE is a model used predominately in California; it shares many similarities with CALLA and also borrows from transitional models for students who are transitioning out of TBE models (discussed further below) into ESL classrooms. Like CALLA, SDAIE proposes a framework for teaching both language and content simultaneously; however, CALLA focuses more on individual learning strategies while SDAIE focuses on collaboration, cooperation and interaction as central concepts (Cline and Necochea 2003; Sobul 1995).

In addition, SDAIE is designed for students with intermediate English skills or higher and strong L1 skills (these stem from its derivation from transition models from TBE programs; the students in such programs would have strong proficiency in their L1 and some proficiency in English due to the nature and design of TBE models; see below). This fact is noteworthy in light of findings (Merickel et al. 2003; Parrish et al. 2006) that the number of students enrolled in SDAIE programs has increased in California since the passage of Proposition 227. Because Proposition 227 all but outlawed bilingual education in California, school districts have had to choose among ESL models to serve their ELs. The state has approved four program configurations from which districts may choose to design their programs, according to Williams, Hakuta, and Haertel (2007):

1. ELD only;

2. ELD and SDAIE;

3. ELD and SDAIE with primary language (L1) support; and

4. ELD and academic subjects through L1.

According to the available definitions for the SDAIE model, only options 3 or 4 would likely be appropriate for ELs who are true beginners. Information about distribution of these program configurations within the state was not available in any of the documents reviewed.

Echevarria and Short (2010) cite the California Commission on Teacher Credentialing as defining SDAIE according to a cluster of instructional techniques that include "slower, enunciated speech; use of visuals and realia; sufficient repetition; hands-on learning tasks; [and] providing authentic language experiences" (p. 264). Cline and Necochea (2003) provide a more fleshed out conceptual framework for an SDAIE program, identifying eight critical program components to serve as a guide to policy makers and practitioners:

1. Connect to previous learning;

2. Visuals and manipulatives;

3. Low-risk and safe environment;

4. Multiple access points;
5. Cooperative and interactive;
6. Chunking and webbing;
7. Respectful of learner; and
8. Primary language support.

Reviewers were unable to find any comprehensive or detailed descriptions of SDAIE programs or instruction in schools, and Echevarria and Short (2010) argue that many teachers who use SDAIE may use or modify techniques selectively, which could result in wide variation as to what SDAIE actually looks like from school to school or from classroom to classroom.

SI is similar to SDAIE in that it is content-based instruction and represents a general method for content instruction in which instructors modify their materials and delivery to support and accommodate the specific needs and challenges of ELs in content classrooms. SI may be used in EL-only content classes, or in mixed classes with ELs and non-ELs; it is also compatible with nearly every model described here, as it may help students to access content delivered in English until they become fluent enough to participate without additional help (Genesee 1999).

Like SDAIE, SI is essentially a cluster of research-based instructional techniques that are believed to support both language and content learning for non-native speakers. Many of SI's principles are actually derived from lessons learned from bilingual education and ESL instruction. At the same time, as Genesee (1999) notes, "SI uses many of the strategies found in high quality instruction for native English speakers, but it is characterized by careful attention to ELs' distinctive L2 development needs and to gaps in their educational backgrounds" (p. 9). Pedagogical features for general SI include instructional tactics like scaffolding, providing ELs with supplemental adapted materials, and clearly identifying language and content objectives for each lesson (Genesee 1999). As a result of being a cluster of techniques, SI may look very different from one classroom to another (Short and Echevarria 1999).

Although SI is a general model that may take on a number of forms in implementation, for many in the field it has become synonymous with a specific version of the model known as the SIOP model (Short and Echevarria 1999; Echevarria, Vogt, and Short 2004; Echevarria and Short 2010; Echevarria, Powers, and Short 2006). Building on the best practices listed above, the SIOP model focuses on ensuring that teachers understand and apply good SI practices in very specific structured ways. As its creators have phrased it, "the SIOP model offers a framework for teachers to present curricular content concepts to ELLs through strategies and techniques that make new information comprehensible to the students" (Echevarria, Powers, and Short 2006, p. 201). SIOP grew out of a rubric its creators were using to do classroom observations; as they refined their rubric, they began to realize its potential value as a tool for teacher reflection.

The model's teacher-oriented central framework is a recursive cycle of planning, instruction, and review or evaluation. Within the instruction phase of the sequence, teachers self-evaluate and are evaluated based on how well they execute or incorporate the following instructional components: lesson planning, building background, comprehensible input, strategies, interaction, practice or application, lesson delivery, and review and assessment. As such, SIOP is as much a PD model and program as it is one for student learning; it is designed to evaluate and support self-evaluation of teachers' lessons, according to their success at incorporating certain SI techniques.

SIOP incorporates a number of instructional techniques that overlap with SDAIE, such as "slower speech and clear enunciation, use of visuals and demonstrations, scaffolded instruction…and use of supplementary materials" (Echevarria, Powers, and Short 2006, p. 199), as well as some additional specific practices such as defining and displaying language objectives for each lesson, providing targeted vocabulary development and fostering student-to-student interaction (Echevarria, Powers, and Short 2006; Echevarria and Short 2010; Echevarria, Vogt, and Short 2004). These authors present the SIOP model in depth in a number of publications (Echevarria, Vogt, and Short 2004; Short and Echevarria 1999; Echevarria and Short 2010), and the next section of this review revisits some of the model's specific instructional techniques. SIOP authors provide program descriptions of effective sheltered programs in a recent publication from the California Department of Education (Echevarria and Short 2010).

It is important to clarify that the SIOP model is a very specific form of SI (a product, essentially), and that SIOP is not synonymous with SI as a whole. In other words, not all programs that employ SI use SIOP specifically. The SIOP model's creators describe it as the only tested and validated model for SI delivery (Echevarria and Short 2010) and, more important, they have found that teachers who used SI without the observation protocol did not deliver lessons that scored as highly on the rubric as those teachers who were familiar with the protocol, suggesting that the SIOP model does improve practice even for teachers who are already familiar with SI techniques (Echevarria, Powers, and Short 2006).

Language instruction for ELs. In addition to content-based language instruction, ELs may receive, and will likely benefit from, instruction that focuses explicitly on language learning as instructional content in its own right. This kind of instruction is referred to as ESL instruction, ELD or ESOL,[13] depending primarily on where (in which state) the program is implemented. For the remainder of this section, the term ELD is used. The two most common configurations for ELD instruction are either self-contained ESL or pull-out sessions wherein language specialists pull students out of their regular classes to provide intensive language instruction and support (Diaz-Rico and Weed 2002). In the latter configuration, it is considered good practice for instructors to tie or align students' pull-out instruction to the content classes from which they are being pulled, both so that students can make connections between their growing English skills and their content instruction, and so that they do not miss out on content instruction for the periods in which they receive pull-out instruction over time.

In the past, experts have expressed concern that ELD instruction isolates ELs from English-speaking peers for instruction (Harklau 1994; Lucas and Katz 1994) and also isolates language learning from content learning. Genesee, for example, notes that "direct language instruction that is separate from academic instruction is less effective" (1999, p. 9). More recently, however, Harper and de Jong (2004) argue that SI, though valuable for its role in ensuring that ELs can still access content, is insufficient to help ELs develop true proficiency. Essentially, modified content instruction helps ELs get around language barriers; it is also important to help ELs actually approach and surmount those barriers.

Saunders and Goldenberg (2010) make a research-based argument for providing ELs with daily ELD instruction that includes direct instruction of key linguistic elements (e.g., grammar, syntax and functions). They argue that a critical benefit of ELD instruction is that it fosters greater opportunities for students to practice speaking, compared to content-based instruction. Research suggests that oral language proficiency can play a critical role in literacy development in both L1 and L2 (Genesee et al. 2006; August and Shanahan 2008), particularly because increased oral proficiency can lead to increased

[13] The reviewers did not find any literature that used the name or term ESOL to describe an English language instruction model; it is included on this list because it remains familiar to many readers in various school districts and schools, but it is not used it in the discussions of language-based ESL models elsewhere in this document.

use, which in turn leads to improvements in both oral language and literacy. Content classes do not always provide opportunities to practice speaking (Ramirez, Yuen, and Ramey 1991; Padrón et al. 2000), and ELs may be particularly hesitant to speak up before they have amassed sufficient oral proficiency and confidence to interact with more fluent peers (Saunders and Goldenberg 2010). Notably, opportunities for speaking in content classes may occur only via interactive activities with English-speaking students, but the literature makes clear that interaction in itself is not necessarily helpful; activities must be carefully structured, and non-ELs must participate in certain ways, in order for such interaction to be successful (Saunders and O'Brien 2006; Genesee et al. 2005; Saunders and Goldenberg 2010).

In their ELD framework, Saunders and Goldenberg (2010) also advocate for a general emphasis on meaning and oral communication in ELD instruction, including carefully structured interactive activities among students, as well as explicit, corrective feedback from the teacher on language use. Not surprisingly, they argue that ELD instruction should maximize the use of English over L1 and should emphasize academic language in addition to conversational language. Exactly what these instructional practices might look like is discussed further in the section on instructional practices and PD.

Although most of the literature reviewed focuses on oral language proficiency (listening or speaking), reading and writing are nonetheless important instructional components of ESL approaches. For instance, Saunders discussed the role of writing modality in literacy development by noting that writing provides students with opportunities to reflect on learning and to practice expression individually (Saunders 1999; Saunders and Goldenberg 1999; Saunders et al. 1999). In addition, August et al. (2005) points out the role of reading, particularly through read-alouds, as an important strategy in ESL that supports development of vocabulary and word recognition. Snow, Lawrence, and White (2009) likewise promote reading as instrumental in teaching academic English language and vocabulary.

Bilingual Models

There are three primary models for LIEPs using the bilingual approach: TBE, DBE (which is also referred to as maintenance bilingual), and TWI. Bahamonde and Friend (1999) provide a succinct summary of each, as well as research-based strengths and weaknesses. While there are significant differences across these models, they do share a few basic features. First, all of these models use L1 instruction as part of their design. As a result, a necessary condition for implementing any of these programs is a sufficiently sized population of ELs who speak the same language. Based on the composition of the United States' EL population, the vast majority of bilingual models are Spanish-English programs (Howard and Christian 2002; Potowski 2004).

Second, all bilingual models require teachers who are fluent in one or both of the languages of instruction. Depending on the program structure, this may be accomplished either by coteaching, wherein some teachers provide instruction in one language and some in the other (Howard and Christian 2002; Bahamonde and Friend 1999), or by employing individuals who are themselves fluent bilinguals in the languages of the program.

Finally, although reviewers did find exceptions in the literature (Rivera et al. 2010; Freeman 2000; Bearse and de Jong 2008; Montone and Loeb 2000), generally, bilingual models appeared to be designed to commence at the beginning of formal schooling, meaning students enroll in kindergarten or first grade, and the models continue through elementary or even middle school (depending on the specific model). The majority of articles that reviewers found about bilingual education described models that started at the elementary level, specifically kindergarten or first grade (Gersten and Woodward 1995; Howard and Christian 2002; Howard, Christian, and Genesee 2004; Christian et al. 1997; Ramirez, Yuen, and Ramey

1991; Thomas and Collier 2002; Collier and Thomas 1997; Potowski 2004; Cazabon, Nicoladis, and Lambert 1998; Slavin et al. 2011). It was unclear from the literature whether this pattern is inherent to bilingual models by design or is a byproduct of the aforementioned finding that very little research on L2 acquisition has focused on secondary students (August and Shanahan 2008).

Bilingual models also differ from one another, most notably by their stance toward bilingualism. Transitional models recognize the value of L1 skills and development, but use these as a means to the end of developing English proficiency—this stance is sometimes referred to as "subtractive bilingualism" (August and Hakuta 1998). By contrast, developmental and two-way models take an "additive bilingualism" approach (August and Hakuta 1998) and hold biliteracy, bilingualism and biculturalism as goals. Whereas TBE models aim to get students into the mainstream as soon as possible, DBE models and TWI models are often designed to last a certain number of years (often 6 to 8), regardless of whether ELs meet English-language proficiency standards or requirements.

As a note, the reviewers found significant variations in labeling conventions in the discussion of bilingual models. Some authors considered both early- and late-exit models to be variations of TBE (Bahamonde and Friend 1999). Others equated late-exit models with DBE (Genesee 1999) or continued to use the name "maintenance bilingual" or "bilingual maintenance" as synonymous with "developmental bilingual" (Bahamonde and Friend 1999; Medina 1991). Gersten and Woodward (1995) describe as "bilingual immersion" a program that aligned more closely to other reviewers' descriptions of developmental models, primarily because the program did not appear to enroll non-ELs (or if it did, these students were not mentioned).

Transitional bilingual education (TBE). Although this review includes TBE models under the bilingual heading, it is important to note that many in the field do not consider TBE models to be truly bilingual, because bilingualism is not a goal for these programs. Menken and Kleyn (2010) argue that ELs who enroll in subtractive TBE models are not able to experience the academic benefits that come with L1 development in schools because they do not have the advantage of a strong academic literacy foundation established in their L1 on which to build as they acquire English. This is compounded by the fact that these students are often moved in and out of bilingual, ESL and mainstream classrooms, thereby prolonging the length of time it takes to acquire sufficient academic English to succeed in the classroom.

Transitional bilingual models are sometimes referred to as early-exit bilingual models, based on their design to have children receiving ESL instruction by the end of elementary school at the latest, and usually by grade 3. TBE models generally begin by providing L1 instruction for literacy and content for the first 2 to 3 years of school (usually grades K or 1 through grades 2 or 3), and then transition to instruction in English only over the course of 2 to 3 years (Genesee 1999; Gersten and Woodward 1995; Bahamonde and Friend 1999).

Genesee (1999) identifies the following as salient pedagogical features of TBE models:

1. Effective L1 instruction;
2. Effective and continuous oral ELD;
3. Additional support for students who have difficulty in the early grades;
4. Effective transitional instruction;

5. SI strategies;

6. Careful and accurate assessment;

7. High standards and challenging curriculum;

8. Mixing students for some subjects; and

9. Parent involvement. (Genesee 1999, pp. 20–21)

It is also important to note that, as a model that straddles the line between ESL and bilingual, TBE uses SI to support students through their transition to ESL instruction. Saunders (1999) describes a framework and indicators for a transition program based on the four principles of challenge, continuity, connections and comprehensiveness. His model paces students' transition based on their attainment of measurable interim achievement benchmarks (i.e., the students must demonstrate certain skills in English literacy before advancing to the next phase of transition), meaning the transition is more tailored to student capacity and needs, rather than rigidly tied to grade levels.

Reviewers found multiple studies that included TBE models in their cohorts and provided descriptions of the programs (August et al. 2008; Slavin and Cheung 2005; Gersten and Woodward 1995; Ramirez, Yuen, and Ramey 1991). Although these descriptions were not often detailed, they do offer some insight into what TBE programs look like in practice. Gersten and Woodward (1995) described a transitional program in which students receive all content instruction in their L1 (in this case, Spanish) in kindergarten, and begin receiving ESL instruction for 1 hour a day in first grade. Over the next few years, instruction in English increases, until students exit, usually by grade 4 or 5, into ESL instruction for all content classes. Slavin et al. (2011) described a transitional bilingual reading program in which students begin their literacy instruction entirely in their L1 (Spanish) in kindergarten, begin the transition to English in first grade, and are taught entirely in English by grade 3; for this study, the authors do not comment on how the participating students are instructed in content areas. Genesee (1999) described a TBE program in which students are expected to transition in grade 3 and begin receiving sheltered English instruction for math only starting in their second semester of grade 2. In preparation for the transition, students receive 45 minutes per day of ELD instruction and participate in mixed classes for art, music and physical education. Thomas and Collier (2002) described a Texas TBE program for elementary students with on-grade-level academic instruction that uses L1 for most of the school day up to grade 6. Thereafter, the TBE program offers on-grade-level academic instruction using the L2 (English) for a greater majority of the school day. The program also uses approaches to teaching the academic curriculum through two languages and transforms the sociocultural context for language minority students' schooling.

In contrast to other TBE studies reviewed, Ramirez, Yuen, and Ramey (1991) described a TBE program in which students only receive primary language instruction focusing on "the introduction of initial reading skills" for 30 to 60 minutes per day; in content classes, students receive primary language support, but instruction is delivered in English. This program also differed from others described in that it was very short; it aimed to exit all ELs into the mainstream by the end of first or second grade, and it delivered nearly all instruction in English by second grade.

Developmental bilingual education (DBE). Developmental models (also referred to as maintenance bilingual and late-exit models in the literature) generally follow one of two configurations for distribution

of the two languages: 50-50 or 90-10.[14] In 50-50 models, instruction is split equally between the two languages throughout, so that students spend 50 percent of their class time receiving instruction in each language. In 90-10 models, the program begins such that the non-English language is used for 90 percent of the instructional time, and English the other 10 percent (Genesee 1999; Thomas and Collier 2002). Over time, this balance shifts to an even 50-50. In either design, the nature of this 50-50 split may vary from program to program—instructional time may be split by content area (e.g., students are taught certain subjects in each language for the duration of the year), by time (e.g., students are taught subjects in both languages and alternate by time periods such as weeks, months, semesters, or units) or by proportion (e.g., students receive instruction for all subjects in both languages).

Most DBE models are designed to last throughout elementary school (through the end of fifth or sixth grade). As stated previously, the goal for the DBE model is not to exit students quickly—or at all—rather, it is to keep them enrolled and learning (in) both languages for the duration of the program. Reviewers of the literature found it somewhat common for DBE programs to grow out of, alongside or in response to TBE programs in the same schools or school districts (Thomas and Collier 2002; Genesee 1999; Gersten and Woodward 1995). That is, the research showed examples of school districts whose DBE programs had been developed either as an extension option to a TBE program, with some students exiting and some staying in (Thomas and Collier 2002); as an evolution of a TBE program over time (Genesee 1999); or as an alternative to a TBE program, based on community members' (most often, parents and teachers) belief that the TBE program did not go far enough in its scope (Gersten and Woodward 1995).

Program descriptions of 90-10 DBE programs strongly resembled TBE program descriptions, with the difference being that the transition to English stopped at a 50-50 split, rather than continuing to full English instruction for all subjects. Genesee (1999) describes a 90-10 DBE program that starts in kindergarten and shifts the language of instruction ratio by 10 percent each year, such that by grade 4, students have reached the 50-50 balance, which they continue with in grade 5 before the program ends. For both DBE and TWI programs, reviewers found examples of school districts that had feeder middle and high schools for students who wished to continue with their bilingual education beyond the end of their elementary school program (Thomas and Collier 2002; Christian et al. 1997).

In terms of potential efficacy, in a quasi-experimental study, Ramirez, Yuen, and Ramey (1991) found that students in a late-exit program fared better on reading and math measures than students in early-exit or ESL programs. In descriptive studies, Collier and Thomas (1997) discussed observations that the results reported by Ramirez et al. (1991) and Thomas and Collier (2002) also described positive outcomes among students participating in DBE models. It should be noted, however, that the descriptive nature of the Collier and Thomas (1997) and Thomas and Collier (2002) studies preclude their results from providing any evidence of relative effectiveness between DBE and TBE.

Two-way immersion (TWI). Like DBE models, TWI models have bilingualism and biliteracy as their goals. They, too, typically follow either a 90-10 or 50-50 model and typically begin in kindergarten. The 90-10 TWI model often strongly resembles 90-10 DBE programs (i.e., all students receive 90 percent of their instruction in the non-English language starting in kindergarten, then phase English in gradually, usually starting in the second or third grade), with the difference being that TWI programs also enroll English speakers.

[14] TBE programs may sometimes follow the 90-10 or 50-50 model as well (notably, see Thomas and Collier 2002), but this kind of classification was less common for TBE programs, and experts who reviewed this literature argued that it is very rare and unusual to hear TBE programs organized according to this distinction.

In contrast to DBE, however, TWI models enroll equal populations of ELs and non-ELs, and instruct both groups in both languages, so that all students become fluent in each. As a result of this design feature, biculturalism is an important aspect of TWI programming as well—students from two different cultures interact regularly, learn one another's L1 and, in the process, attain cultural appreciation for one another. Multiple authors emphasized that granting equal status to both languages and cultures is an important design component for TWI programs (Howard and Christian 2002; Genesee 1999; Potowski 2004).

Howard and Christian provided a comprehensive overview of two-way programs and identified eight criteria for a successful TWI program:

1. Programs should provide a minimum of 4 to 6 years of bilingual instruction to participating students;

2. The focus of instruction should be the same core academic curriculum that students in other programs experience;

3. Optimal language input (input that is comprehensible, interesting and of sufficient quantity) as well as opportunities for output should be provided to students, including quality language arts instruction in both languages;

4. The…[non-English] language should be used for instruction a minimum of 50 percent of the time (to a maximum of 90 percent in the early grades), and English should be used at least 10 percent of the time;

5. The program should provide an additive bilingual environment where all students have the opportunity to learn an L2 while continuing to develop their L1 proficiency;

6. Classrooms should include a balance of students from the target language and English backgrounds who participate in instructional activities together;

7. Positive interactions among students should be facilitated by the use of strategies such as cooperative learning; and

8. Characteristics of effective schools should be incorporated into programs, such as qualified personnel and home-school collaboration. (Howard and Christian 2002, p. 4)

At the secondary level, Montone and Loeb (2000) provided an implementation framework for secondary TWI programs, with guidance specifically pertaining to program planning; language distribution, curriculum and materials; student participation and motivation; attrition and late entries; student scheduling; teams, clusters and houses; staffing; transportation; and parent involvement. As mentioned previously, discussion of TWI at the secondary level was relatively rare in the literature reviewed; most program descriptions were for elementary programs.

The reviewers found a number of in-depth program descriptions of TWI programs in the literature they reviewed. The most notable differences across programs were the ways in which they balanced the languages of instruction. The most common configuration was to see certain subjects assigned to specific languages: Genesee (1999) described a 50-50 program in which different subjects are assigned to different languages, with language arts, math, social studies and music taught in English, and language arts, science, physical education and art taught in Chinese. Freeman (2000) observed a program in which

students received math and science instruction in Spanish, and language arts and social studies instruction in English. Christian et al. (1997) described one program in which students receive language arts in both English and Spanish, in addition to having other languages assigned to different content areas (science and math in Spanish; social studies and special subjects like art or music in English), and another program in which students receive all instruction in Spanish through the end of third grade, after which they transition to social studies in English (fourth or fifth grade) and then science in English (sixth grade). In the latter program, 90 percent of instruction for all students (including English-dominant students) is in Spanish for the first 3 to 4 years before a transition begins.

By contrast, some TWI programs may also balance language of instruction by time, or by instructor. Thomas and Collier (2002) described a 50-50 program in which students' language of instruction alternates by day in grades 1 and 2, and by week in grades 3 to 5. Christian et al. (1997) described one program in which the language of instruction switches for students at midday, and another in which teachers alternate languages by unit. In the latter case, all instructors in the program were bilingual, and they would alternate languages themselves within instruction. In other programs, schools may employ native speakers of each language (Cazabon, Nicoladis, and Lambert 1998; Christian et al. 1997) and have students switch instructors periodically to provide exposure to each language.

In all TWI programs, code switching, or alternating between the two languages, is generally discouraged for instructors (Thomas and Collier 2002; Freeman 2000; Christian et al. 1997), as this is believed to be detrimental to students' second-language acquisition and undermines the true immersion experience. Students are often discouraged from code switching, too, though their use of language outside the classroom can be difficult to control. In an ethnographic study of language use by students in a K-8 TWI school in Chicago, Potowski (2004) found that students used Spanish more for on-task work, but were far less likely to use it when talking to each other outside of class, despite school policy. Freeman's (2000) detailed ethnographic account of a Philadelphia middle school's TWI program drives this point home: in that program, nearly all students were Puerto Rican, with some students identified as Spanish-dominant and some as English-dominant, to give the program its necessary mix of English speakers and ELs. In this program, Freeman found that code switching was prevalent among teachers, many of whom assumed that all students in the program were fluent in Spanish, including those identified as English dominant. In addition, students' attitudes toward English and Spanish were very nuanced, based on their language dominance and relationship to Puerto Rico, and their attitudes toward the use and value of Spanish versus English varied depending on whether they were in the classroom or outside it.

Findings like Potowski's (2004) and Freeman's (2000) highlight an important dynamic that TWI programs often must balance: the relative dominance of English language in the larger culture. Although the TWI model emphasizes the importance of placing equal value on both languages and fostering respect and interest in other cultures for all student participants, there remains an inescapable power dynamic between the two groups of students based on the fact that only one language—English—is ultimately the language in wider use. A few authors did find that the value and meaning of TWI programs may be very different for ELs and English speakers enrolled in the program. Bearse and de Jong (2008) and Valdes (1997) both found that English-speaking students in TWI programs viewed their learning and use of another language as an enrichment opportunity that would serve them professionally in their postsecondary lives, whereas for ELs the program was not a bonus but a necessity. Consistent with this finding, Howard, Christian, and Genesee (2004) conducted a 3-year descriptive study comparing the performance of native English speakers and native Spanish speakers on language and literacy development in the two languages. All students participated in a TWI program. In the study, the researchers collected data on students in TWI and described their language development over the grades. Analysis of data collected showed that native English speakers consistently underperformed native Spanish speakers in Spanish oral proficiency, and that native Spanish speakers generally showed stronger

abilities in reading, writing and oral language in both English and Spanish than their native-English-speaking counterparts. Howard et al. attributed this outcome to greater opportunities among native Spanish speakers to practice and thus further develop both Spanish and English outside of the school environment. Christian et al. (1997) note that one of the programs they profiled began as a 50-50 program and switched to an 80-20 model after finding that English speakers' Spanish proficiency was weaker than their English skills, and weaker than Spanish speakers' English proficiency, by comparison.

Despite these potential concerns, however, plenty of authors have also found evidence that TWI programs can have positive effects of various kinds for both ELs and non-ELs (Lindholm-Leary and Borsato 2001; Cazabon, Nicoladis, and Lambert 1998; Christian et al. 1997; Potowski 2004). Multiple authors found that students in TWI programs had positive attitudes toward school, toward their program, toward other cultures, and toward postsecondary options, and they were less likely to drop out than students in other kinds of programs (Thomas and Collier 2002; Lindholm-Leary and Borsato 2001; Cazabon, Nicoladis, and Lambert 1998; Potowski 2004). Some authors also found evidence that students in TWI programs either met grade-level standards in English or outperformed other ELs, including ELs in other bilingual models, on various achievement measures (Thomas and Collier 2002; DeJesus 2008; Lindholm-Leary 2005; Christian et al. 1997).

Beyond Approach: Newcomer Models

In addition to bilingual and ESL models, reviewers found a subgenre of literature on newcomer programs. LIEPs that follow the newcomer model are generally intended for new immigrant students who enter schools in grades 6 to 12, with a particular focus on the subset of these students who have had interruptions in their formal education.

The specific need for a newcomer model can stem from two potential facts. First, the academic English language demands of secondary classrooms are likely to be significantly greater than those for lower grade levels (Anstrom et al. 2010), meaning that older ELs may experience a greater gap (compared with younger students) between their language skills and the language demands of their instruction. They also may be more likely to need heavily modified instruction or materials in order to keep up. Second, the general assumption is that students in secondary grade levels already have at least basic literacy skills; except for students who are receiving specialized reading instruction or interventions, instruction at these grade levels does not generally focus on developing literacy.

In response, many school districts offer the newcomer model to provide targeted or intensive instruction to build foundational skills designed to help orient and prepare students for participation in a school's or district's regular LIEP. Exact definitions of "newcomer" vary (Genesee 1999). In one publication, the newcomer model is defined as "one serving recent immigrant students who have very limited or no English language proficiency and who often have had limited formal education in their native countries" (Boyson and Short 2003 [Abstract]). Spaulding, Carolino, and Amen (2004) named newcomer centers or programs as a good practice to meet the needs of secondary students who have had little formal education in their home countries. It is important to note that what makes a student a newcomer is that he or she is new to *education*, not simply new to the country. Not all students who are recent immigrants have gaps in their formal education, which means that not all such students need newcomer programs.

Due to their lack of formal schooling, newcomers may need instruction in far more than just English language, and newcomer programs are designed to meet these needs. Students who are illiterate or have low literacy in their L1, for example, must learn to read before they can be ready even for regular ESL classes or grade-level SI; literacy instruction is often a central feature of a newcomer program (Genesee 1999). Notably, many of these students must learn to read for the first time—a challenge in itself—in a

language that is new to them (August et al. 2008). Students may also need to build basic skills in other content areas before they are ready for SI or any kind of participation in grade-level courses (e.g., they must have foundational math skills such as multiplication and division before they can access grade-level math instruction in pre-algebra). Newcomer students may also need more general orientation to American culture, and specifically the culture of American schools (Genesee 1999).

Based on a national survey of 115 newcomer programs from around the country, Boyson and Short (2003) found that the most common newcomer configuration is a full-day program that lasts for one year, operates as a program within a school, and offers sheltered content instruction and American cultural orientation in addition to English language courses. They also describe common dimensions of variation on this model, as does Genesee (1999):

1. **Site location**—In addition to the most common configuration of operating as a program within a school, newcomer programs may also run at independent nonschool sites, or as independent self-contained schools.

2. **Program goals**—Most newcomer programs aim to prepare students for "the literacy and content demands of bilingual, ESL, or mainstream courses" (Boyson and Short 2003, p. 7); some programs, however—particularly those that operate as independent sites or schools—may have more or larger goals, such as helping newcomers graduate from high school.

3. **Length of daily program**—Apart from the full-day design, programs may operate for half of the academic day or less, or take place after school. A combination of these other options was the most common configuration for the 1999–2000 school year, after the full day model (Boyson and Short 2003).

4. **Exit criteria and maximum length of stay**—Although one school year was the most common program length (Boyson and Short 2003), newcomer programs may be more (e.g., a school year plus a summer) or less time (e.g., one semester only). Both Genesee (1999) and Boyson and Short (2003) note that students often transition out of the program based on individual factors and preparation. Generally, there is likely a high incentive to integrate students into regular LIEPs as quickly as possible to minimize the amount of time that they are isolated from peers.

Notably, Boyson and Short (2003) are among the few authors who discuss funding sources for programs. They found that the majority of the secondary newcomer programs in their survey (82 percent) received district-level funds, with a quarter of all newcomer programs (26 percent) supported by school district funds alone. The authors specifically noted that "the most effective and sustained programs seem to be those that receive strong support and a major share of their funding from the local school district" (Boyson and Short 2003, p. 14). This finding makes sense in light of the fact that a newcomer program must always be offered in addition to some other LIEP (because not all ELs are newcomers).

The role of parent and community support and involvement is highlighted as a feature that is particularly important in newcomer programs (Genesee 1999; Spaulding, Carolino, and Amen 2004; Boyson and Short 2003). Especially for students who are unfamiliar with the culture of formal education, acclimating them to an American school will necessarily involve acclimating their families as well, so that parents understand the expectations and customs of school. Some newcomer programs may even offer additional services for parents, such as adult ESL courses, General Educational Development (GED) courses, counseling and citizenship classes (Boyson and Short 2003; Genesee 1999).

Genesee (1999) and Spaulding, Carolino, and Amen (2004) both provided descriptions of different newcomer programs. Genesee (1999) gave brief summaries of five different newcomer programs from across the country, which range from a special course that newcomers take for one year as part of their curriculum to a full, self-contained, 4-year high school program. Spaulding, Carolino, and Amen (2004) provided similarly brief snapshots of four newcomer programs from around the country; all are for secondary students, and most are school-within-a-school programs that last for one year.

Exhibit 9. Key articles for models and considerations for LIEP design

Author(s)	Year	Title	Type of study
Models under the ESL approach			
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Instruction and professional development. In *Developing Reading and Writing in Second-Language Learners*	Literature review and synthesis
August and Hakuta	1998	Educating language-minority children	Literature review and synthesis
Belcher	2006	English for specific purposes: Teaching to perceived needs and imagined futures in worlds of work, study, and everyday life	Expert opinion based on research
Chamot and Beard El-Dinary	1999	Children's learning strategies in language immersion classrooms	Descriptive study
Chamot and O'Malley	1986	A Cognitive Academic Language Learning Approach: An ESL content-based curriculum	Expert opinion based on research
Chamot and O'Malley	1994	The CALLA handbook: Implementing the Cognitive Academic Language Learning Approach	Expert opinion based on research
Chamot and O'Malley	1996	The Cognitive Academic Language Learning Approach: A model for linguistically diverse classrooms	Expert opinion based on research
Cline and Necochea	2003	Specially designed academic instruction in English (SDAIE): More than just good instruction	Expert opinion based on research
Collier and Thomas	1997	School effectiveness for language minority students	Expert opinion based on research
D'Angiulli, Siegel, and Maggi	2004	Literacy instruction, SES, and word-reading achievement in English-language learners and children with English as a first language: A longitudinal study	Quasi-experimental study
Diaz-Rico and Weed	2002	The cross-cultural, language, and academic development handbook: A complete K-12 reference guide	Expert opinion based on research
Echevarria and Short	2010	Programs and Practices for Effective Sheltered Content Instruction. In *Improving Education for English Learners: Research-Based Approaches*	Expert opinion based on research

Author(s)	Year	Title	Type of study
Echevarria, Powers, and Short	2006	School reform and standards-based education: A model for English language learners	Quasi-experimental study
Echevarria, Vogt, and Short	2004	Making content comprehensible for English learners	Expert opinion based on research
Genesee	1999	Program alternatives for linguistically diverse students	Literature review and synthesis
Genesee, Lindholm-Leary, Saunders, and Christian	2006	Educating English language learners: A synthesis of research evidence	Literature review and synthesis
Harklau	1994	ESL versus mainstream classes: Contrasting L2 learning environments	Descriptive study
Harper and de Jong	2004	Misconceptions about teaching English-language learners	Expert opinion based on research
Irby, Fuhui Tong, Lara-Alecio, Mathes, Acosta, and Guerrero	2010	Quality of instruction, language of instruction, and Spanish-speaking English language learners' performance on a state reading achievement test	Quasi-experimental study
Lucas and Katz	1994	Reframing the debate: The roles of native languages in English-only programs for language minority students	Descriptive study
Merickel, Linquanti, Parrish, Perez, Eaton, and Esra	2003	Effects of the implementation of Proposition 227 on the education of English learners, K-12: Year 3 report	Descriptive study
Padrón, Waxman, Brown, and Powers	2000	Improving classroom instruction and student learning for resilient and non-resilient English language learners	Quasi-experimental study
Parrish, Merickel, Perez, Linquanti, Socias, and Spain	2006	Effects of the implementation of Proposition 227 on the education of English learners, K-12	Descriptive study
Ramirez, Yuen, and Ramey	1991	Final report: Longitudinal study of structured English Immersion strategy, early-exit and late-exit transitional bilingual education programs for language-minority children (Executive summary)	Quasi-experimental study
Reeves	2004	"Like everybody else": Equalizing educational opportunity for English language learners	Descriptive study
Reeves	2006	Secondary teacher attitudes toward including English-language learners in mainstream classrooms	Descriptive study

Author(s)	Year	Title	Type of study
Saunders and O'Brien	2006	Oral Language. In *Educating English Language Learners: A Synthesis of Research Evidence*	Literature review and synthesis
Saunders and Goldenberg	2010	Research to guide English language development instruction. In *Improving Education for English Learners: Research-Based Approaches*	Literature review and synthesis
Short and Echevarria	1999	The Sheltered Instruction Observation Protocol: A tool for teacher researcher collaboration and professional development	Expert opinion based on research
Slavin, Madden, Calderon, Chamberlain, and Hennessy	2011	Reading and language outcomes of a multiyear randomized evaluation of transitional bilingual education	Experimental study
Sobul	1995	Specially designed academic instruction in English	Expert opinion based on research
Thomas and Collier	2002	A national study of school effectiveness for language minority students' long-term academic achievement	Descriptive study
Williams, Hakuta, and Haertel	2007	Similar English learner students, different results: Why do some schools do better? A follow-up analysis based on a large-scale survey of California elementary schools serving low-income and EL students	Descriptive study
Zehler, Fleischman, Hopstock, Stephenson, Pendzick, and Sapru	2003	Descriptive study of services to LEP students and LEP students with disabilities	Descriptive study
Models under the bilingual approach			
August and Shanahan	2008	Developing reading and writing in second-language learners	Literature review and synthesis
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Instruction and Professional Development. In *Developing Reading and Writing in Second-Language Learners*	Literature review and synthesis
August and Hakuta	1998	Educating language-minority children	Literature review and synthesis
Bahamonde and Friend	1999	Teaching English language learners: A proposal for effective service delivery through collaboration and co-teaching	Expert opinion based on research

Author(s)	Year	Title	Type of study
Bearse and de Jong	2008	Cultural and linguistic investment: Adolescents in a secondary two-way immersion program	Descriptive study
Cazabon, Nicoladis, and Lambert	1998	Becoming bilingual in the Amigos two-way immersion program	Descriptive study
Christian, Montone, Lindholm, and Carranza	1997	Profiles in two-way immersion education	Descriptive study
Collier and Thomas	1997	School effectiveness for language minority students	Descriptive study
DeJesus	2008	An astounding treasure: Dual language education in a public school setting	Descriptive study
Freeman	2000	Contextual challenges to dual-language education: A case study of a developing middle school program	Descriptive study
Genesee	1999	Program alternatives for linguistically diverse students	Literature review and synthesis
Genesee, Lindholm-Leary, Saunders, and Christian	2006	Educating English language learners: A synthesis of research evidence	Literature review and synthesis
Gersten and Woodward	1995	A longitudinal study of transitional and immersion bilingual education programs in one district	Quasi-experimental study
Greene	1997	A meta-analysis of the Rossell and Baker review of bilingual education research	Literature review and synthesis
Goldenberg	2008	Teaching English language learners: What the research does—and does not—say	Expert opinion based on research
Howard and Christian	2002	Two-way immersion 101: Designing and implementing a two-way immersion education program at the elementary level	Expert opinion based on research
Howard, Christian, and Genesee	2004	The development of bilingualism and biliteracy from grade 3 to 5: A summary of findings from the CAL/CREDE study of two-way immersion education	Descriptive study
Lindholm-Leary	2005	The rich promise of two-way immersion	Expert opinion based on research

Author(s)	Year	Title	Type of study
Lindholm-Leary and Borsato	2006	Academic Achievement. In *Educating English Language Learners: A Synthesis of Research Evidence*	Literature review and synthesis
Lindholm-Leary and Borsato	2001	Impact of two-way bilingual elementary programs on students' attitudes toward school and college	Quasi-experimental study
Medina	1991	Native and Spanish language proficiency in a bilingual education program	Quasi-experimental study
Menken and Kleyn	2010	The long-term impact of subtractive schooling in the educational experiences of secondary English language learners	Expert opinion based on research
Montone and Loeb	2000	Implementing two-way immersion programs in secondary schools	Expert opinion based on research
Potowski	2004	Student Spanish use and investment in a dual immersion classroom: implications for second-language acquisition and heritage language maintenance	Descriptive study
Rivera, Francis, Fernandez, Moughamiam, and Jergensen	2010	Effective practices for English language learners: Principals from five states speak	Descriptive study
Ramirez, Yuen, and Ramey	1991	Final report: Longitudinal study of structured English Immersion strategy, early-exit and late-exit transitional bilingual education programs for language-minority children (Executive summary)	Quasi-experimental study
Rolstad, Mahoney, and Glass	2005	The big picture: A meta-analysis of program effectiveness research on English language learners	Literature review and synthesis
Saunders	1999	Improving literacy achievement for English learners in transitional bilingual programs	Experimental study
Slavin and Cheung	2005	A synthesis of research on language of reading instruction for English language learners	Literature review and synthesis
Slavin, Madden, Calderon, Chamberlain, and Hennessy	2011	Reading and language outcomes of a multiyear randomized evaluation of transitional bilingual education	Experimental study
Thomas and Collier	2002	A national study of school effectiveness for language minority students' long-term academic achievement	Descriptive study

Author(s)	Year	Title	Type of study
Valdes	1997	Dual-language immersion programs: A cautionary note concerning the education of language-minority students	Expert opinion based on research
Newcomer model			
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Instruction and professional development. In *Developing Reading and Writing in Second-Language Learners*	Literature review and synthesis
Boyson and Short	2003	Secondary school newcomer programs in the United States	Descriptive study
Genesee	1999	Program alternatives for linguistically diverse students	Literature review and synthesis
Rivera, Francis, Fernandez, Moughamiam, and Jergensen	2010	Effective practices for English language learners: Principals from five states speak	Descriptive study
Spaulding, Carolino, and Amen	2004	Immigrant students and secondary school reform: Compendium of best practices	Expert opinion based on research
Thomas and Collier	2002	A national study of school effectiveness for language minority students' long-term academic achievement	Descriptive study

Instructional Practices and Professional Development

Simply choosing a model is not enough to establish a strong program. While models provide the broader structure for an EL's education, the discrete instructional practices the student encounters on a day-to-day basis in the classroom are what give models substance. Thus, instructional practices play a critical role in the success and quality of LIEP implementation; variations in instructional practice may be the primary source of program variation from school to school or from district to district. Indeed, two recent large-scale experimental studies both found that instructional practices used in both SEI and TBE models appear to play a greater role in student outcomes than the LIEP model (Irby et al. 2010; Slavin et al. 2011).

It is important to note that a LIEP model may not explicitly specify *how* instruction should be delivered or how best to build students' skills and knowledge in support of their development of language or content. Instead, these decisions may be at the discretion of district- or school-level administrators, and the selected strategies may range from locally grown practices to off-the-shelf tools and methods designed by experts.

Instructional practice for ELs is a broad topic that subsumes a variety of distinct subcategories. As the statutory language of Title III states, all LIEPs must help ELs both to acquire English proficiency and to stay on track with content instruction as they do so. Thus, instructing ELs involves teaching the students both content and English, and may involve delivering instruction in English, in students' L1 or in some combination of the two. As a population that covers the full K-12 age range, ELs may respond to or benefit from different practices depending on their age or grade level; different instructional practices may also be more promising for students depending on their level of English language proficiency, their L1 proficiency or their formal education background. In light of these facts, it is likely the case that, as with models, there is no single instructional practice or set of practices that is a panacea for all ELs in all settings.

Professional development also plays a key role in a discussion of instructional practices. Classroom instruction can only be as strong as the individuals who deliver it; teachers must have the training, support, knowledge and resources to deliver effective instruction to their EL students. Two descriptive studies (Reeves 2006, 2004) suggest that, in addition to the specific practices that teachers employ with ELs, teacher attitudes about ELs' needs and abilities may also play a role in teachers' ability to serve this population. Thus, the degree to which teachers are prepared to teach ELs—in terms of both what they teach and how they teach it—is a critical component of the instructional landscape.

To shed further light on these topics, reviewers gathered articles that addressed the following questions:

What specific practices and protocols can teachers adopt during their class instruction to support ELs' acquisition of English or mastery of academic content?

What are the content and components of promising professional development (PD) for teachers in LIEPs?

How should PD be implemented and evaluated?

Listed below are key ideas and findings related to instructional practices and professional development.

Instructional Practices

- In general, very few instructional practices have been validated by enough research to be considered definitively effective in a strong sense, particularly for ELs.
- Multiple examples of descriptive studies, expert opinion pieces and quasi-experimental studies suggest that high standards and challenging content are good for ELs (August and Pease-Alvarez 1996; Dalton 1998; Gersten 1996; Rubinstein-Avila 2003; Saunders 1999; Thomas and Collier 2002; Callahan 2005; Zetlin, MacLeod, and Michener 1998). These authors and others in the field (Henze and Lucas 1993; Collier and Thomas 1997; Minaya-Rowe 2004; Ray 2009) found that ELs, like all students, benefit from being held to high expectations and challenging content and achievement standards.
- Using What Works Clearinghouse (WWC) practice guide standards for evidence and efficacy, Gersten et al. (2007) conclude that monitoring ELs for reading risks is an instructional practice with strong research-based support. The WWC practice guides define "strong" as studies with both high internal validity and high external validity (Gersten et al. 2007, p. 2). Reviewers found multiple studies by a team of experts who have been staging small-scale quasi-experimental studies aimed at determining the efficacy of response to intervention (RTI) for ELs, and results are promising thus far (Gersten et al. 2007; Linan-Thompson, Cirino, and Vaughn 2007; Vaughn et al. 2006; Linan-Thompson et al. 2003; Vaughn et al. 2008).
- Interactive instruction and activities are often touted as promising practice for instructing ELs, but two research syntheses found that such interactions should be carefully structured to maximize their utility (Genesee et al. 2006; Saunders and Goldenberg 2010). Goldenberg (2008) refers to "interactive instruction" as "instruction with give and take between learners and teacher, where the teacher is actively promoting students' progress by encouraging higher levels of thinking, speaking, and reading at their instructional levels" (p. 18). Saunders and Goldenberg (2010) define "activities" as distinct from other systematic, explicit vocabulary and language teaching and involving tasks such as "sharing personal experiences, identifying and naming colors, describing picture cards, naming children in the class, and sing-alongs" (p. 35). ELs should potentially be required to produce oral language that relates to the learning objective as part of the interaction, and the non-EL participants in the interaction should have a clear understanding of their role in the interaction.
- Based on a synthesis of 17 studies, August et al. (2008) concluded that ELs benefit from instruction that focuses on the five key components of literacy: phonemic awareness, phonics, fluency, vocabulary and text comprehension. Reviewers found a number of other articles in which experts made research-based arguments for focusing instruction on vocabulary and phonemics (Nelson, Vadasy, and Sanders 2011; August et al. 2005; Dalton 1998; Echevarria, Vogt, and Short 2004; Gersten 1996; Knight and Wiseman 2006; Gersten et al. 2007; Manyak and Bouchereau Bauer 2009; Manyak 2007; Teale 2009; Young 1996), whereas support for other literacy components—particularly text comprehension—was less common.
- One research synthesis concluded that providing ELs with explicit, language-specific feedback may both help instructors to feel more confident in their ability to serve ELs and help ELs to improve their language skills (Saunders and Goldenberg 2010). Reviewers found specific examples of this practice in small-scale descriptive studies that focused on writing (Aguirre-Munoz et al. 2001) and oral language (Lyster 2004b; Lyster 2004a).
- Reviewers found multiple experts who argued, based on research, that including explicit language objectives and identifying these clearly in each lesson is likely good practice, even (and especially)

in content-based ESL instruction (Echevarria, Vogt, and Short 2004; Echevarria and Short 2010; Saunders and Goldenberg 2010).

- Learning strategies and self-monitoring strategies are also recommended by multiple experts as tools to help ELs acquire content or language skills (Chamot and O'Malley 1996; Lyster 2004a; Echevarria and Short 2010; Gersten 1996; Swain and Lapkin 1995; Fung, Wilkinson, and Moore 2003).
- Scaffolding and background-building are also commonly discussed instructional strategies, particularly for content instruction (Echevarria, Vogt, and Short 2004; Cline and Necochea 2003; Gersten 1996; Saunders et al. 1999; Walqui 2002).

Professional Development

- Multiple experts argued that teacher attitudes are critical when it comes to serving ELs, and that teachers who understand and accept ELs' special needs are likely to be better equipped to serve these students (Gersten 1996; Knight and Wiseman 2006; Manyak 2007; Saunders and Goldenberg 2010; Reeves 2004, 2006; Ray 2009; Aguirre-Munoz et al. 2001).
- It may be helpful for teachers to understand the second-language acquisition process, and how to recognize and support students' needs according to where they are in this process (Harper and de Jong 2004; Pappamihiel 2002; Ernst-Slavit, Moore, and Maloney 2002).
- Multiple experts argued or observed that PD that is ongoing, collaborative and integrated into teachers' experience on a regular basis is more likely to help teachers serve ELs appropriately (Darling-Hammond 1997; Buysse, Castro, and Peisner-Feinberg 2010; González and Darling-Hammond 1997; Reyes 2002; Henze and Lucas 1993; Minaya-Rowe 2004; Zetlin, MacLeod, and Michener 1998).
- Teachers' frustrations with serving ELs may stem from lack of confidence or understanding about how to serve these students; as teacher competence increases, attitudes may change (Arellano-Houchin et al. 2001; Gersten 1999; Ernst-Slavit, Moore, and Maloney 2002).

The discussion that follows is organized into instructional practices for language and literacy, instructional practices for content, and PD. Reviewers determined that most of the instructional practices and findings included in this review could be used in any model. Because even bilingual models still use English for some part of students' instructional time, reviewers reasoned that any instructional practice that uses English predominately[15] or exclusively could potentially be appropriate for any model. For the purpose of this discussion, practices in this subsection are further divided into two categories: those that specifically focus on language development (most of which focus on literacy and oral language development) and those that focus on teaching content (including practices in which language is taught via content).

Others who have discussed the topic of instruction for ELs have organized findings according to a more pedagogical framework. Genesee et al. (2006, 2005), for example, sorted practices according to three types: direct, interactive and process based. Each type is as its name suggests: direct instructional practices involve explicit teaching of specific skills or strategies, interactive instructional practices

[15] The phrase "predominately English" is used here because even some instructional techniques that make very basic or minimal use of students' L1—e.g., the use of L1-L2 cognates to help students build vocabulary, or the use of L1-L2 glossaries to accompany instructional materials in content classes—might be used in an ESL program such as SDAIE or sheltered instruction even without a trained bilingual instructor.

emphasize interaction with other students (EL or non-EL) and with the teacher as a conduit to learning, and process-based instructional practices engage students in an inductive process wherein they derive language skills and strategies on their own through the use of holistic language and expression (Genesee et al. 2005, 2006). August and Shanahan (2008) distinguished among instructional practices that focus on specific literacy elements like vocabulary or phonemic awareness (which tend to require more direct instructional practices) and those that take a more complex pedagogy, where literacy is taught holistically (which they identify as more indirect). Genesee et al. (2006, 2005) found the most support in the research for direct strategies used in combination with interactive strategies, so most of the studies included in the current review focus on these two types. Readers should note, however, that some practices included in this review may employ any one or more of these three instructional practices.

A note on teaching and learning. Because instruction is so closely tied to learning, outcomes and effectiveness are difficult metrics to avoid in this discussion. However, discussing instructional practices for ELs solely in terms of outcomes and research-based evidence presents a number of challenges. First, the research base for this population is neither as extensive nor as robust as one might like. While a great deal of research has been done about practices and strategies for the general population, far less research has attended specifically to ELs. In a large-scale review of literacy research pertaining to language-minority students and youth, for example, August et al. (2008) observed a general lack of research on either EL-specific interventions or on the effects of general interventions for ELs. Although the reviewers on that panel found more than 400 general studies about the effects of various literacy instruction practices, only 17 reported on or were designed for language-minority students. There is a need for experimental and quasi-experimental research on instructional practice specifically for ELs; as yet, however, the field lacks sufficient research of this type to support many definitive conclusions on how best to instruct this population.

Second, the existing research is not always thorough or generalizable. In their research synthesis for the Center for Research on Education, Diversity and Excellence, Genesee et al. (2006) noted that most of the studies available are small in scale, and they frequently offer either narrative descriptions of practice *or* quantitative findings of effectiveness, but not both. August et al. (2008) echoed this observation, noting in the National Literacy Panel synthesis that many experimental and quasi-experimental studies did not provide much detail about the specific ways in which they modified instructional practices for ELs, making it difficult for others to replicate their experiments or findings. Both sets of reviewers, as well as the authors of this report, also opted to include descriptive studies in their discussions of instructional practice. Please note, as stated previously, that studies of this kind cannot rule out alternate explanations for their findings.

Third, as a result of all these factors, much of the literature on this topic takes the form of expert opinion based on research and theory. For some questions, there simply is not a large enough experimental research base to speak definitively about recommendations. Two of the three large-scale research syntheses discussed in this section (August and Shanahan 2008; Saunders and Goldenberg 2010) also chose to expand their scope for certain research questions to include studies of older ELs (e.g., ELs in higher education settings or adult education), ELs in other countries (e.g., Canada and the United Kingdom), or second-language learners whose L2 is other than English (e.g., English-speaking students learning French as a second language), reasoning that such findings may add value to the discussion, even if education researchers cannot yet be certain whether such findings are applicable to or replicable within the K-12 population in the United States.

A study by D'Angiulli et al. (2004) provides a representative snapshot of the strengths and weaknesses in the instructional practice research landscape: The authors described the results of a 5-year longitudinal study of a districtwide K-5 intensive literacy program. All three of Genesee et al.'s (2006) instructional

practices are featured in the program's design: the students received direct instruction on sound-symbol relationships using an off-the-shelf reading curriculum with a heavy emphasis on phonemic awareness; the program included six reading components, including shared reading, home reading and "read aloud and respond," as well as cooperative story writing, all of which are examples of interactive instruction; and students engaged in journal writing using "inventive spelling" and independent reading, both of which are holistic, process-based activities. Although the program was provided across the school district, inclusion in the study was limited to those families who gave consent (a self-selecting group). Further, there was no control group, although the authors compared student outcomes against trajectory projections based on student socioeconomic status (SES). The authors provided a brief description of the program's instructional design, but said nothing about how teachers were prepared to deliver instruction, nor did they track teachers' fidelity of implementation. The results suggest that, overall, the reading program showed promise for helping children (ELs and English speakers) who were at risk for reading failure, including students whose low SES posed a significant risk factor. The study was conducted in Vancouver, British Columbia, Canada.

As readers may observe, the D'Anguilli et al. (2004) study did many things well, making its findings potentially noteworthy. Its longitudinal nature and large cohort (1,108 students in all) lend the findings credibility, and the authors' use of trajectories and attention to SES as a confounding variable help make the findings specific. Researchers disaggregated findings both by language status (ELs and English speakers) and by SES quartile to see whether and how the two variables interact. The literacy instruction includes many research-based practices that could feasibly produce results, and could be replicated if found to be effective. Despite these positives, the study's design did not include a comparison group and therefore can produce only plausible explanations for the observed result patterns. The cohort was self-selecting (parents and students both must consent to participate) and unmatched (there is no control group). The research report mentioned nothing about whether or how teachers were trained to administer the program, and the authors did not collect any data about teachers' fidelity of implementation. The program, though it includes many research-based practices, may also include so many that it would be difficult to determine whether certain practices within the overall design play a more significant role than others in student outcomes (e.g., perhaps only two of the many instructional practices are producing the majority of the results). The reviewers included the study based on its relatively promising discussion and findings, and based on the program's use of instructional practices that other practitioners may be trying or may want to try.

With this example in mind, and in light of the considerations raised above, readers should approach this section of the literature review carefully. To reiterate, the aim of this review is to summarize the ideas and findings that populate discussion in the field, not to recommend practices as effective or ineffective. Although the discussion is grounded in the findings of the research syntheses described below, very few of the practices discussed can be considered proven in terms of their quality or efficacy. Further research may yet show some of these practices to be ineffective or may suggest alternatives or modifications that will improve practices currently showing promise. At its core, this section summarizes the ideas and discussions that are current and ongoing on this topic, and makes no effort to identify topics within that discussion as more or less worthwhile.

Readers may refer to Exhibit 10 for a summary of instructional findings in many of the key articles that will be discussed in the section that follows.

General instructional findings. As a general first point, Saunders and Goldenberg (2010) argued, based on the available research, that providing ELs with dedicated English language development (ELD) instruction is likely to be beneficial for students in addition to any content-based language instruction that students may receive. As discussed previously, they argued that ELD instruction is likely to benefit

students in any kind of approach (bilingual or ESL), primarily because it provides ELs with critical opportunities to practice expressive language (i.e., writing and speaking), modalities that may get less practice or attention in content classes. They argued for this point based on the results of two moderate-scale studies in California and Texas, both of which found that students in both bilingual and ESL programs performed better than matched counterpoints when they received dedicated ELD instruction.

Another important general point is the previously noted finding that **specialized instructional practices** in the classroom show promise for helping ELs to learn English and meet high standards. Goldenberg (2008) notes, in a discussion of two large research reviews on instruction (August and Shanahan 2008; Genesee et al. 2006), that both review panels found that instruction that is modified or that accommodates the special needs of ELs is more likely to help these students progress than instruction that is not modified. Although there is no reason to believe that what counts as good instruction for English speakers is *harmful* for ELs, studies and reviews have found that such practices may be less effective for ELs than for native speakers (O'Day 2009; August et al. 2008; August and Hakuta 1998; D'Angiulli, Siegel, and Maggi 2004; Gersten 1996). Thus, providing well-designed and well-delivered general instruction for ELs is a good start but is not sufficient, nor is it likely to be as effective for these students as special instruction.

Instructional practices for language and literacy. Most of the texts that reviewers found about instructing ELs focused on language development as opposed to content, and most of the language development works focused on literacy or oral language proficiency. Literacy appeared not only as a direct construct or subject in a number of studies, expert opinions and syntheses (the authors of this review found 73 articles that focused on literacy instruction, or components thereof), but also indirectly, as a central or sole metric by which some studies measured linguistic proficiency (Gersten and Woodward 1995; Ramirez, Yuen, and Ramey 1991; Linan-Thompson, Cirino, and Vaughn 2007; Linan-Thompson et al. 2003; Fung, Wilkinson, and Moore 2003; Irby et al. 2010; Slavin et al. 2011). Although literacy represents only one linguistic domain and should not necessarily be the sole measure of an EL's linguistic proficiency,[16] its prevalence in the literature reviewed here suggests that many researchers view it as a particularly critical component of the language proficiency construct. Oral proficiency appears to facilitate literacy development (Genesee et al. 2006; August and Shanahan 2006; August 2003), and thus appears in the instructional practice literature to a fair degree as well.

Two research syntheses found that, for teaching literacy, many instructional practices found to be effective for native speakers also show promise for ELs (August et al. 2008; August and Hakuta 1998); August et al. (2008) suggest, however, that such practices may be more effective if they are slightly tailored to account for ELs' specific needs by, for example, giving special attention to vocabulary, presenting ideas using a variety of language modalities, or providing extra practice for ELs. August et al. (2008) also specifically identified five key components of literacy: phonemic awareness, phonics, fluency, vocabulary and text comprehension, and found that direct instruction in these areas may help ELs make academic gains. That National Literacy Panel found 17 experimental and quasi-experimental studies that focused on direct instruction of one or more of these components, and found that instruction in these areas (which is generally direct and explicit, though not always) shows promising outcomes for ELs. August (2003) also provided a research synthesis and promising practice recommendation for each component independently.

The authors of this review also found examples of experts and researchers advocating for specific strategies for teaching the components of literacy. **Vocabulary instruction and word recognition** were

[16] The current law requires that ELs be tested annually on their proficiency in the four language domains of reading, writing, listening and speaking for Title I purposes; for Title III, states also must produce a score for comprehension.

recommended in a number of articles, with examples in all four language modalities (reading, writing, speaking and listening). August, Carlo, Dressler, and Snow (2005) asserted that to help increase EL vocabulary development, educators should utilize the student's L1, especially if it shares cognates with English; ensure that ELs know the meaning of basic (Tier 1) words that English-proficient students already know; and review and reinforce vocabulary, using read-alouds as a strategy. Other useful strategies include providing definitional and contextual information about each word's meaning; involving students in word learning through talking about, comparing, analyzing and using target words; providing multiple exposures to meaningful information about each word; and word analysis.

Gersten et al. (2007) advocated for "extensive and varied" vocabulary instruction as an instructional practice with strong evidence. WWC practice guides deem evidence as "strong" when such evidence is based on studies that have both high internal and high external validity. Manyak and Bouchereau Bauer (2009) identified six strategies to help ELs build vocabulary: (1) provision of explicit, intensive vocabulary instruction for all grades; (2) the inclusion of basic vocabulary in vocabulary instruction; (3) balance between basic and higher-level vocabulary; (4) development of students' word consciousness; (5) application of EL-specific instructional strategies to known or proven practices for English speakers; and (6) the incorporation and integration of vocabulary instruction throughout the day and across subjects. Snow, Lawrence, and White (2009) investigated a vocabulary intervention program targeting sixth to eighth graders that focuses on deep reading, comprehension of current events topics, productive classroom discussion, developing arguments, and producing persuasive essays as useful strategies in teaching academic language and vocabulary.

Giambo and McKinney (2004) described a small experiment with kindergarteners in which they attempted to build oral proficiency by explicitly teaching phonological awareness as a component of reading aloud with students. Although the reading aloud generally helped all students to build their receptive vocabulary, students with the explicit phonological instruction showed significantly greater gains in oral language proficiency, compared to control-group students, who experienced only the reading aloud. Nelson, Vadasy, and Sanders (2011) described an intervention designed to simultaneously develop root word vocabulary and reinforce decoding skills in kindergarteners through practice in phoneme blending and spelling of target vocabulary words and independent reading of decodable text. Vaughn et al. (2009) proposed four instructional strategies for improving vocabulary and comprehension knowledge: overview and vocabulary instruction, the use of brief videos and purposeful discussion to build concepts, the use of graphic organizers and other writing activities to build comprehension and vocabulary through writing, and structured paired grouping. Phonics is also featured strongly in the classroom instruction of a teacher deemed effective in a California study of teachers providing ESL instruction to students from a variety of linguistic backgrounds (Graves, Gersten, and Haager 2004).

After addressing literacy components, one of the most commonly advocated instructional practices observed in the literature was **grouping or providing ELs with opportunities for oral interaction** with other ELs, with English-speaking peers and with the instructor (Dalton 1998; Echevarria, Vogt, and Short 2004; August and Pease-Alvarez 1996; Garcia 1991; Gersten et al. 2007; Knight and Wiseman 2006; Rubinstein-Avila 2003; Saunders et al. 1999; Saunders and Goldenberg 2010; Young 1996). While the findings of two research syntheses did support this practice (Genesee et al. 2006; Saunders and Goldenberg 2010), they also added two important caveats. First, both review panels observed that not all interactive activities are equally beneficial—e.g., not all students participate equally, or English-speaking students may not understand how to include ELs appropriately based on their language needs. Both Genesee et al. (2006) and Saunders and Goldenberg (2010) cautioned that interactive activities should be very carefully structured to ensure they are actually providing ELs with the appropriate opportunities to communicate and interact.

Second, Saunders, and Goldenberg (2010) in particular noted that, while grouping ELs according to ability for language instruction may make sense for some settings, such groupings should also be as fluid as possible and should provide students with opportunities to change groups and advance as soon, and as frequently as, they may demonstrate that they are ready. In combination, these findings on interaction and grouping suggest that a promising strategy would be to group ELs by proficiency level until they have built the foundational oral fluency and confidence necessary to support their interaction with more fluent peers, at which point they should be grouped with English-speaking peers instead. Genesee et al. (2006) noted that, after a basic level of oral proficiency is reached, a feedback loop is common in which students' increased confidence leads to increased use, which leads to further improvement and more confidence.

Many experts also advocated for directly teaching **learning strategies** to help students attack language or content tasks (Shih 1992; Gersten 1996; Knight and Wiseman 2006; Saunders and Goldenberg 2010). Such strategies are often more process based, to use Genesee et al.'s (2006) terminology, but may complement direct instruction (e.g., the SIOP Model, Echevarria and Short 2010, incorporates all three types of instruction, which may in turn contribute to the strong outcomes its authors are beginning to see). For example, Shih (1992) laid out a framework for building the text comprehension of intermediate and advanced ELs, in which students apply cognitive and metacognitive learning strategies to their reading. The authors listed strategies that ELs may be taught to use before, during and after reading to aid their comprehension; these include previewing and background building (before), self-questioning and setting vocabulary priorities (during), and summarizing and conceptual mapping (after). Similarly, Fung, Wilkinson, and Moore (2003) asserted that explicit teaching should be paired with reciprocal teaching as a means to enhance the reading comprehension skills of ELs. In reciprocal teaching, students learn how to monitor their comprehension by using the cognitive and metacognitive strategies of questioning, summarizing, clarifying and predicting, in collaborative small-group discussions using a common text. Multiple authors also advocated for the use of clear language objectives in lesson delivery, in addition to content objectives (if applicable) (Echevarria, Vogt, and Short 2004; Teale 2009; Saunders and Goldenberg 2010).

Feedback is also an instructional practice that appeared repeatedly in the literature reviewed, with the general consensus that explicit, direct feedback is likely to be helpful to students' English language development. Aguirre-Munoz et al. (2001) described a study of a systemic-functional linguistic (SFL) writing intervention in which they taught teachers to analyze and respond to student writing using three primary concepts from SFL—field, tenor and mode—and provide students with specific, constructive, language-oriented feedback along these three dimensions. Samples (included in the article) of student work showed that ELs' writing did improve as their teachers learned to apply their new evaluation techniques, and teachers reported greater confidence in their ability to serve ELs. Lyster (2004b) found that form-focused instruction, which draws student attention to linguistic forms in spoken communicative context, rather than in isolated instruction, was more effective when paired with teacher prompts for correction when students misspoke; prompts were found to be more successful than other, less direct forms of feedback. Feedback is also a key component of the SIOP model as part of the "review and assessment" component (Echevarria and Short 2010).

Scaffolding instruction, in which teachers guide student learning by providing structures or frameworks that are gradually removed, was also commonly cited in the literature (Dutro and Kinsella 2010; Echevarria, Vogt, and Short 2004; Gersten 1996; Rubinstein-Avila 2003). Various researchers proposed doing this in different ways, ranging from visual scaffolding (Rubinstein-Avila 2003), writing scaffolds (Carrier and Tatum 2006), vocabulary scaffolds (Dutro and Kinsella 2010), oral scaffolds (e.g., think alouds, Echevarria and Short 2010), and, as noted below, scaffolds in science instruction (Case 2002). Walqui (2002) described a model of scaffolding that emphasizes the interactive social nature of

learning. She proposed that instructional scaffolding is about both structure and process, and that there are six main types: modeling, bridging, contextualizing, building schema, representing text and developing metacognition.

Saunders was one of few experts to focus on the role of the **writing modality**, both in itself and as a means to promote literacy (Saunders 1999; Saunders and Goldenberg 1999; Saunders et al. 1999). He argued that writing provides students with opportunities both to reflect on their own learning and comprehension and to practice their expression individually, and literature logs and writing assignments figure centrally in a literature program he designed for students transitioning out of transitional bilingual education programs into ESL. Saunders and Goldenberg (1999) found that a combination of writing (keeping literature logs) and engaging in instructional conversations about stories may have helped ELs to improve their comprehension, particularly of story themes.

For ELs who do struggle with literacy, many experts are interested in exploring the extent to which **response to intervention (RTI)** can be applied for ELs. Gersten et al. (2007) named monitoring as a practice with strong evidence (based on studies that have both high internal and external validity), and reviewers found multiple studies by a group of researchers who have been developing and testing EL-specific RTI practices (Linan-Thompson, Cirino, and Vaughn 2007; Linan-Thompson et al. 2003; Vaughn et al. 2006). It should be noted that WWC practice guides deem evidence as "strong" when it is based on studies with both high internal and high external validity (Gersten et al. 2007, p. 2). In one small study, Linan-Thompson et al. (2003) tested an intervention that provided explicit instruction of various literacy components, including fluent reading, phonological awareness, instructional-level reading, word study and writing; in posttest outcomes, student scores increased significantly for word attack, passage comprehension and phoneme segmentation. Interestingly, a 4-month follow-up indicated significant gains for oral reading fluency, but losses in phoneme segmentation fluency. Vaughn et al. (2008) proposed an individualized intervention that features increased responsiveness to student needs. Decision making is based on student assessment results, and motivation is considered in text selection, instructional materials and curricula specification.

Another theme that emerged from the literature is the benefit of implementing **native-language instructional practices** into literacy instruction for ELs. A study by Fung, Wilkinson, and Moore (2003) promoted utilizing students' L1 in conjunction with English in L1-assisted reciprocal teaching, under the assumption that using a student's stronger language to convey procedural knowledge would depict a more complete picture of reading comprehension. Students in the study were able to think aloud in their L1 when reading English text. Proctor et al. (2009) described a digital reading program that also incorporates students' L1. These researchers argued that universal design provides a means of representing text and expressing student learning through the use of Spanish and English images, audio recordings and written language, and engages students through choice, feedback and multimedia. Notably, the descriptions of instruction in TBE, DBE and TWI models suggest that literacy instruction does not necessarily (and need not) vary according to language, meaning that promising instructional practices for ELs' L1 literacy may be similar or identical to promising practices for their L2 literacy.

Vaughn et al. (2006) and Linan-Thompson et al. (2003), for example, have conducted small experimental and quasi-experimental studies, respectively, on L1 reading interventions for Spanish-speaking ELs. These studies found that treatments that use strategies similar to those effective for struggling readers in English can also help struggling readers in Spanish to build their Spanish reading skills. The interventions focused on building students' skills in phonemic awareness, phonemic decoding, word recognition and text processing, construction of meaning, vocabulary, spelling and writing (Vaughn et al. 2006). Notably, Vaughn et al. (2006) reported increases in reading comprehension, a particularly elusive improvement dimension (Snow 2008).

Content instruction for ELs. All ELs (even those experiencing TWI bilingual models) receive some, if not all, of their content instruction in English. Content instruction poses both dual opportunities and dual challenges, which are essentially the same: students must learn content somehow, and they may learn language as part of the process. Reviewers found less literature that focused specifically on content instruction, but what was found was published relatively recently, which indicates that research in this area may be increasing. Readers should note that many of the instructional practices discussed in the preceding section (e.g., setting language goals, scaffolding instruction, providing explicit vocabulary instruction) need not be limited to application in literacy instruction; these practices could potentially be appropriate for use in content instruction.

August et al. (2009) investigated the Quality English and Science Teaching (QuEST) intervention, which was designed to develop both the science knowledge and the academic language of middle grade ELs. In addition to inquiry-based science learning, QuEST builds on the strengths of ELs by making content clear through visuals, modeling and ongoing discussion. August et al. (2009) describe QuEST as designed based on the rationale that oral proficiency can be developed through science instruction via explicit vocabulary instruction, guided reading and partnering with English-proficient classmates. Vaughn et al. (2009) conducted two experimental studies in seventh-grade social studies classrooms with ELs. ELs in the study improved in their word knowledge and social studies comprehension through the use of materials and strategies such as videos, small-group discussions, writing activities and paired grouping with classmates. ELs also showed word gains at the rate of non-LEPs. Case (2002) proposed a science learning cycle with many characteristics that appeared repeatedly throughout the literature on instruction for ELs: he recommended teaching the language of science as an integrated component of instruction, scaffolding intersections between language and content, and assessing students with multiple measures to determine what they know and can do.

In their first-year report on a longitudinal experimental study of a science curriculum and PD program aimed to improve outcomes for ELs, Lee et al. (2008) described the approach and teacher preparation to deliver a science curriculum consisting of nine units with specially designed materials and practices to support students' comprehension and second-language acquisition. The curriculum in the study involves many of the same instructional practices discussed above, including vocabulary instruction, scaffolding, modified materials, visual materials and realia, writing practice, varied grouping, and multiple modes of expression and communication. Although the study of the curriculum is ongoing, thus far ELs and English speakers have all shown similar, statistically significant gains in math and science compared to the control group; although achievement gaps did not close, they did not widen either.

Schleppegrell, Achugar, and Oteíza (2004) presented a framework for providing language and content instruction in history, with a specific focus on grammar. Their model proposes teaching and coaching students in the practice of identifying various important concepts in history writing (events, participants) and higher order concepts (information organization, relationships between participants and events) with grammar instruction integrated as part of the exercise.

Professional development. Evidence for a relationship between the quality, experience and preparation of teachers and the outcomes of students has been established, even if its nuances remain debatable (Darling-Hammond 1997; Sanders and Rivers 1996; Wright, Horn, and Sanders 1997; Darling-Hammond, Berry, and Thoreson 2001; Weisberg et al. 2009; Goe and Stickler 2008; Graves, Gersten, and Haager 2004). Buysse, Castro, and Peisner-Feinberg (2010) advocated intensive ongoing PD for pre-K teachers who serve ELs. They proposed three components to a beneficial program: PD institutes to promote teachers' acquisition of core content knowledge and skills; individualized consultation sessions to support teachers in implementing new instructional strategies in the classroom; and community of practice meetings to provide teachers with opportunities for feedback, reflection and

collaborative problem-solving. Results of the intervention displayed improvements in overall quality of teachers' language and literacy practices, especially regarding ELs, as well as greater gains in children's phonological awareness skills in their primary language.

Multiple experts have found or argued that, like all students, ELs generally benefit from high expectations and challenging curricula (Henze and Lucas 1993; Collier and Thomas 1997; Minaya-Rowe 2004; August and Pease-Alvarez 1996; Ray 2009). Callahan (2005) found that the classes into which ELs are placed are a stronger predictor of academic achievement than students' language status—those students who are placed in lower classes on a tracking system are less likely to do well, presumably because the instruction they receive in such classes is less challenging and of lesser quality. Zetlin, MacLeod, and Michener (1998) reported that teachers with high expectations had students who showed fewer behavior issues, more accelerated learning, gains in social skills and increased motivation. When instruction was delivered by teachers who had low expectations and structured their learning environments around intellectually limited exercises and low-level literacy skills, ELs struggled and outcomes were poor, by comparison. Thomas and Collier (2002) also found that students in segregated, remedial programs tended to languish after exiting into the mainstream.

In a largely anecdotal piece, Kaplan (2009) discussed the design and delivery of a research-based mandatory PD course for Arizona instructors to learn more about ELs, and observed that, despite the program being mandatory for all teachers, those teachers who seemed to contribute to and benefit most from the program were those whose attitudes toward ELs were already positive. In short, this was the population of teachers who were least likely to need the PD, and those who may have been most likely to pursue PD in the area anyway. Kaplan reported more difficulty in engaging with teachers who were resistant to the program's focus on ELs and who were clearly there only because it was mandatory.

The literature also suggests that teachers should understand that ELs have specific educational needs based on their linguistic status and that they require different instructional treatment as a result (August and Pease-Alvarez 1996; Young 1996; Reeves 2004, 2006; Kaplan 2009; Rubinstein-Avila 2003). Teachers must not only know this but understand and accept it—teachers with attitudes that non-English languages are a burden or that EL needs are inconvenient to deal with are not likely to produce supportive learning environments for these students. In light of this suggestion, the importance of school culture on EL education—that is, the attitude of the larger community in which teachers are embedded—is likely connected strongly to teachers' individual attitudes. Saunders and Goldenberg (2010) note that it is often easier to implement and sustain a strong ELD program when the school or school district makes this a priority.

Research also suggests that prejudice is not necessarily the reason why teachers may feel hesitant about serving ELs. Rather, teachers' sense of urgency and competency with regard to their EL students may be a key factor in teacher attitudes. In interviews with teachers in California, for example, Arellano et al. (2001) found that the interviewees' primary frustration with the shift to ESL instruction after Proposition 227 was that they had had to change their teaching style without receiving adequate support or training to do so; many did not feel as though they had adequate training to implement the state's new ESL approach. Gersten (1999) interviewed three California teachers and found that one primary frustration in serving ELs stemmed from tension in balancing expectations for correct linguistic usage with efforts to push students to express themselves in whatever way they can. The interviewees also asked for potential solutions to the problems that they observed. Ernst-Slavit, Moore, and Maloney (2002), meanwhile, maintained that teachers will be able to serve students better, and feel more competent, if they understand the stages of the second-language acquisition process and how to provide instruction that will meet students' needs at each phase.

In a research synthesis on teacher preparation specifically for serving ELs, Knight and Wiseman (2006) found a body of work on best practices for teaching ELs, but very little about how to help teachers learn or implement these practices. York-Barr, Ghere, and Sommerness (2007) provided helpful data detailing teachers' positive and negative reactions to a PD effort over 2 school years, and noted that instructionally focused collaboration among teachers was beneficial for the LIEP in which they worked as well. Gonzalez and Darling-Hammond (1997) provided a comprehensive framework for preparing teachers to work with immigrant students (a subset of ELs, as not all ELs are immigrants), in which they also delineated some critical characteristics to PD design and delivery. Gersten et al. (2007) characterize effective PD as PD that is designed and delivered based on teacher needs and adult learning styles, and requires a systemic commitment of time and resources (ongoing in nature) from the school to yield results. It is described as job embedded, collaborative among all EL instructors and focused on fidelity of instructional techniques with time allotted for teachers to practice. Gonzalez and Darling-Hammond (1997) noted that it may be years before the expected changes from the PD are measurable, and so the school district must be committed to sustaining and supporting its program. They also encourage the inclusion of teachers in the PD design or planning process.

A commonly repeated characteristic of effective PD was to embed it in teachers' regular routines and community, rather than presenting it as an event or task that is isolated from daily practice (González and Darling-Hammond 1997; Reyes 2002; Henze and Lucas 1993; Minaya-Rowe 2004; Zetlin, MacLeod, and Michener 1998; Spaulding, Carolino, and Amen 2004; York-Barr, Ghere, and Sommerness 2007). In a study on science instruction and PD, Lee et al. (2008) required the participating teachers to attend PD workshops throughout the school year, and found promising outcome data in their student cohort in the first year (the study is longitudinal and ongoing). Notably, Lee et al.'s PD involved teachers as active agents in the planning process, and encouraged them to communicate and collaborate with one another about beliefs and practice.

On a similar note, professional learning communities (PLCs) were another frequently repeated characteristic of effective PD. In their descriptions of PD frameworks for in-service and preservice teachers, Gonzalez and Darling-Hammond (1997); Minaya-Rowe (2004); Reyes (2002), Henze and Lucas (1993); Spaulding, Carolino, and Amen (2004); York-Barr, Ghere, and Sommerness (2007); and Zetlin, MacLeod, and Michener (1998) all named collaboration, community building and collegiality as important features of effective PD, both as program characteristics and as program outcomes. Collaboration, in particular between language specialists and general educators or content teachers, can be especially important, particularly in school districts that use ESL models that integrate language and content learning.

Self-reflection and evaluation also surfaced in many authors' discussions of PD, implying that PD need not always be a top-down or outside-in phenomenon for teachers, but also a self-oriented strategy that all teachers can apply to their own practice. Indeed, reflective self-evaluation is a central characteristic of the SIOP model (Echevarria, Powers, and Short 2006; Echevarria, Vogt, and Short 2004; Short and Echevarria 1999). As mentioned previously, the creators of the SIOP model are working to show the model's effects on student outcomes; in at least one study (Echevarria, Powers, and Short 2006), they found results indicating that students of teachers using the SIOP model to deliver their SI performed slightly better than students who received SI without the model's support. Minaya-Rowe (2004) also found that using SIOP techniques to deliver PD to preservice teachers in their nondominant language both improved teachers' L2 and helped them to understand EL needs and experiences better in the process.

In the vein of reflective practice, August and Pease-Alvarez (1996) included in their summary of attributes of effective ESL programs a tool that provides benchmarks for school staff so that they may

compare their practices with those considered exemplary, and develop their routes to effectiveness. Exhibit 10 presents promising instructional practices for ELs, while Exhibit 11 displays the key articles reviewed as part of this section.

Exhibit 10. Promising instructional practices for ELs

Instructional practices	Vocabulary instruction	Teacher attitudes and cultural awareness	Interaction with fluent non-ELs	High standards and expectations	Monitoring and feedback
August et al. (2009)					
Inquiry-based learning, visuals, modeling, ongoing discussion	Language and literacy development in the context of content area; Explicit vocabulary instruction	Use students' L1s to facilitate instruction	Partnering with English-proficient classmates	Curriculum aligned with national standards	Provide PD to teachers
August and Pease-Alvarez (1996)					
Individualized instruction		Schoolwide curriculum is inclusive of other cultures and languages	Small group work; Cooperative learning; Peer tutoring	Core curriculum is aligned with rigorous content standards; ELs have equal access to high-quality resources	
Dalton (1998)					
Instructional conversation	Language development	Contextualization	Joint productive activity	Challenging activity	

Instructional practices	Vocabulary instruction	Teacher attitudes and cultural awareness	Interaction with fluent non-ELs	High standards and expectations	Monitoring and feedback
Echevarria, Vogt, and Short (2004)					
Clear content and language objectives, materials, meaningful activities; Appropriate speech, clear explanations, variety of techniques; Hands-on materials or manipulatives, apply content and language knowledge, integrate all language skills	Concepts linked to experience and key vocabulary		Interaction by grouping	Scaffolding with questions to promote higher order thinking	Regular feedback; Objectives are supported, students engaged, pacing; Assessment of student comprehension
Garcia (1991)					
Instruction of basic skills and academic content			Collaborative learning techniques; Functional communication between teacher and students and among fellow students		
Gersten (1996)					
Structures, frameworks, scaffolds and strategies	Relevant background knowledge and key vocabulary concepts	Respect for and responsiveness to cultural and personal diversity	Active involvement of all students	Challenge (implicit and explicit)	Mediation and feedback

Instructional practices	Vocabulary instruction	Teacher attitudes and cultural awareness	Interaction with fluent non-ELs	High standards and expectations	Monitoring and feedback
Gersten et al. (2007)					
Provide intensive small-group reading interventions; Develop students' academic English	Provide extensive and varied vocabulary instruction		Schedule regular peer-assisted learning opportunities		Screen for reading problems and monitor progress
Knight and Wiseman (2006)					
	Developing language and literacy across the curriculum	Making meaning—connecting school to students' lives	Teachers and students producing together; Teaching through conversation	Teaching complex thinking	
Manyak (2007)					
Explicit code and comprehension instruction; An additive approach to literacy instruction	Language-rich instruction	Socioculturally informed instruction			

Instructional practices	Vocabulary instruction	Teacher attitudes and cultural awareness	Interaction with fluent non-ELs	High standards and expectations	Monitoring and feedback
Manyak and Bouchereau Bauer (2009)					
Enhance knowledge or proven vocabulary instruction practices for non-ELs by applying additional strategies that are specifically known to help ELs	Include basic vocabulary in vocabulary instruction; Develop students' word consciousness; Incorporate vocabulary instruction and activities throughout the day and across subjects			Provide explicit, intensive vocabulary instruction for all grades; Balance basic with higher level vocabulary	
Rubinstein-Avila (2003)					
Slowing speech; Visual scaffolding; Activate prior knowledge; Supplemental sources such as visual aids			Opportunities to interact academically with peers or non-ELs	Hold high expectations for all learners	

Instructional practices	Vocabulary instruction	Teacher attitudes and cultural awareness	Interaction with fluent non-ELs	High standards and expectations	Monitoring and feedback
Saunders (1999)					
Instruction is delivered to students in small, homogenous groups based on proficiency level; Achieve continuity in curriculum and instruction across grades; Build connections between prior knowledge and curriculum; Address both meaning and skills, both higher level thinking and appropriate drill	Teacher provides lessons on specific conventions (punctuation, capitalization, grammar)			Challenge students academically	

Instructional practices	Vocabulary instruction	Teacher attitudes and cultural awareness	Interaction with fluent non-ELs	High standards and expectations	
Saunders and Goldenberg (2010)					
ELD instruction should be planned and delivered with specific language objectives in mind; ELD instruction should integrate meaning and communication to support explicit teaching of language	ELD instruction should explicitly teach elements of English (e.g., vocabulary, syntax, grammar, functions, and conventions)	Teachers should attend to communication and language-learning strategies and incorporate them into ELD instruction	ELD instruction should include interactive activities, but they must be carefully planned and executed		ELD instruction should provide students with corrective feedback on form
Teale (2009)					
Clear learning objectives; Texts with content familiarity	Comprehension, vocabulary, phonological awareness, phonics and word recognition, reading fluency, writing	Culturally compatible instruction	Consolidating text knowledge by having the teacher, other students and ELs paraphrase		Assessment and instruction linked on an ongoing basis

Instructional practices	Vocabulary instruction	Teacher attitudes and cultural awareness	Interaction with fluent non-ELs	High standards and expectations	Monitoring and feedback
Vaughn et al. (2009)					
Use of brief videos and purposeful discussion to build concepts	Explicit vocabulary and concept instruction; Use of graphic organizers and writing activities to build comprehension and vocabulary through writing		Collaborative or cooperative learning with heterogeneous groups		
Young (1996)					
Meaning-based instruction; Language experience approaches; Language drills	Sheltered vocabulary		Cooperative learning		
Additional articles					
González and Darling-Hammond (1997); Case (2002); Carrier and Tatum (2006); Echevarria, Powers, and Short (2006); Fung, Wilkinson, and Moore (2003); Proctor et al. (2009); Snow (2009); Walqui (2002)	August (2003); August et al. (2005); Nelson, Vadasy, and Sanders (2011)	Reeves (2004); Reeves (2006); Kaplan (2009); Ray (2009); Aguirre-Munoz et al. (2001)		Henze and Lucas (1993); Collier and Thomas (1997); Ray (2009); Zetlin, MacLeod, and Michener (1998); Thomas and Collier (2002); Callahan (2005)	Shih (1992); Chamot and O'Malley (1996); Vaughn et al. (2008)

Exhibit 11. Key articles on instructional practices and professional development

Author(s)	Year	Title	Type of study
Aguirre-Munoz, Park, Amabisca, and Boscardin	2001	Developing teacher capacity for serving English language learners' writing instructional needs: A case for systemic functional linguistics	Quasi-experimental study
Arellano-Houchin, Flamenco, Merlos, and Segura	2001	Has California's passage of Proposition 227 made a difference in the way we teach?	Descriptive study
August	2003	Supporting the development of English literacy in English language learners	Expert opinion based on research
August, Carlo, Dressler, and Snow	2005	The critical role of vocabulary development for English language learners	Literature review and synthesis
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Instruction and professional development. In *Developing Reading and Writing in Second-Language Learners*	Literature review and synthesis
August, Branum-Martin, Cardenas-Hagan, and Francis	2009	The impact of an instructional intervention on the science and language learning of middle grade English language learners	Quasi-experimental study
August and Pease-Alvarez	1996	Attributes of effective programs and classrooms serving English language learners	Expert opinion based on research
August and Shanahan	2006	Developing literacy in second-language learners: Report of the national literacy panel on language-minority children and youth (Executive summary)	Expert opinion based on research
August and Shanahan	2008	Developing Reading and Writing in Second-Language Learners	Literature review and synthesis
Callahan	2005	Tracking and high school English learners: Limiting opportunity to learn	Descriptive study
Carrier and Tatum	2006	Creating sentence walls to help English-language learners develop content literacy	Expert opinion based on research
Case	2002	The intersection of language, education, and content: Science instruction for ESL students	Expert opinion based on research

Author(s)	Year	Title	Type of study
Chamot and O'Malley	1996	The Cognitive Academic Language Learning Approach: A model for linguistically diverse classrooms	Expert opinion based on research
Cline and Necochea	2003	Specially designed academic instruction in English (SDAIE): More than just good instruction	Expert opinion based on research
Collier and Thomas	1997	School effectiveness for language minority students	Expert opinion based on research
Dalton	1998	Pedagogy matters: Standards for effective teaching practice	Expert opinion based on research
D'Angiulli, Siegel, and Maggi	2004	Literacy instruction, SES, and word-reading achievement in English-language learners and children with English as a first language: A longitudinal study	Quasi-experimental study
Darling-Hammond	1997	Doing what matters most: Investing in quality teaching	Expert opinion based on research
Darling-Hammond, Berry, and Thoreson	2001	Does teacher certification matter? Evaluating the evidence	Literature review and synthesis
Dutro and Kinsella	2010	English language development: Issues and implementation at grades six through twelve. In *Improving Education for English Learners: Research-Based Approaches*	Expert opinion based on research
Echevarria and Short	2010	Programs and practices for effective sheltered content instruction. In *Improving Education for English Learners: Research-Based Approaches*	Expert opinion based on research
Echevarria, Powers, and Short	2006	School reform and standards-based education: A model for English language learners	Quasi-experimental study
Echevarria, Vogt, and Short	2004	Making content comprehensible for English learners	Expert opinion based on research
Ernst-Slavit, Moore, and Maloney	2002	Changing lives: Teaching English and literature to ESL students	Literature review and synthesis
Fung, Wilkinson, and Moore	2003	L1-assisted reciprocal teaching to improve ESL students' comprehension of English expository text	Quasi-experimental study

Author(s)	Year	Title	Type of study
Garcia	1991	Education of linguistically and culturally diverse students: Effective instructional practices	Expert opinion based on research
Genesee, Lindholm-Leary, Saunders, and Christian	2005	English language learners in U.S. schools: An overview of research findings	Literature review and synthesis
Genesee, Lindholm-Leary, Saunders, and Christian	2006	Educating English language learners: A synthesis of research evidence	Literature review and synthesis
Gersten	1996	Literacy instruction for language-minority students: The transition years	Expert opinion based on research
Gersten	1999	Lost opportunities: challenges confronting four teachers of English-language learners	Descriptive study
Gersten, Baker, Shanahan, Linan-Thompson, Collins, and Scarcella	2007	Effective literacy and English language instruction for English learners in the elementary grades: A practice guide	Expert opinion based on research
Giambo and McKinney	2004	The effects of a phonological awareness intervention on the oral English proficiency of Spanish-speaking kindergarten children	Experimental study
Goe and Stickler	2008	Teacher quality and student achievement: Making the most of recent research	Literature review and synthesis
González and Darling-Hammond	1997	New concepts for new challenges: Professional development for teachers of immigrant youth	Expert opinion based on research
Graves, Gersten, and Haager	2004	Literacy instruction in multiple-language first-grade classrooms: Linking student outcomes to observed instructional practice	Descriptive study
Harper and de Jong	2004	Misconceptions about teaching English-language learners	Expert opinion based on research
Henze and Lucas	1993	Shaping instruction to promote the success of language minority students: An analysis of four high school classes	Expert opinion based on research
Irby, Fuhui Tong, Lara-Alecio, Mathes, Acosta, and Guerrero	2010	Quality of instruction, language of instruction, and Spanish-speaking English language learners' performance on a state reading achievement test	Quasi-experimental study

Author(s)	Year	Title	Type of study
Kaplan	2009	The impact of English-only legislation on teacher professional development: Shifting perspectives in Arizona	Descriptive study
Knight and Wiseman	2006	Lessons learned from a research synthesis on the effects of teachers' professional development on culturally diverse students	Literature review and synthesis
Lee, Maerten-Rivera, Penfield, LeRoy, and Secada	2008	Science achievement of ELLs in urban elementary schools: Results of a first-year professional development intervention	Experimental study
Linan-Thompson, Cirino, and Vaughn	2007	Determining English language learners' response to intervention: Questions and some answers	Quasi-experimental study
Linan-Thompson, Vaughn, Hickman-Davis, and Kouzekanani	2003	Effectiveness of supplemental reading instruction for second-grade English language learners with reading difficulties	Quasi-experimental study
Lyster	2004b	Differential effects of prompts and recasts in form-focused instruction	Quasi-experimental study
Manyak	2007	English learners: A framework for robust literacy instruction for English learners	Expert opinion based on research
Manyak and Bouchereau Bauer	2009	English learners: English vocabulary instruction for English learners	Literature review and synthesis
Menken and Kleyn	2010	The long-term impact of subtractive schooling in the educational experiences of secondary English language learners	Expert opinion based on research
Minaya-Rowe	2004	Training teachers of English language learners using their students' first language	Descriptive study
Nelson, Vadasy, and Sanders	2011	Efficacy of a Tier 2 supplemental root word vocabulary and decoding intervention with kindergarten Spanish-speaking English learners	Experimental study
Pappamihiel	2002	English as a second language students and English language anxiety: Issues in the mainstream classroom	Descriptive study

Author(s)	Year	Title	Type of study
Proctor, Dalton, Uccelli, Biancarosa, Mo, Snow, and Neugebauer	2009	Improving comprehension online: Effects of deep vocabulary with bilingual and monolingual fifth graders	Quasi-experimental study
Ray	2009	A template analysis of teacher agency at an academically successful dual language school	Expert opinion based on research
Reeves	2004	"Like everybody else": Equalizing educational opportunity for English language learners	Descriptive study
Reeves	2006	Secondary teacher attitudes toward including English-language learners in mainstream classrooms	Descriptive study
Reyes	2002	Professional development in a bilingual adult learning community	Descriptive study
Rubinstein-Avila	2003	Facing reality: English language learners in middle school classes	Expert opinion based on research
Sanders and Rivers	1996	Cumulative and residual effects of teachers on future student academic achievement	Literature review and synthesis
Saunders	1999	Improving literacy achievement for English learners in transitional bilingual programs	Experimental study
Saunders, O'Brien, Lennon, and McLean	1999	Successful transition into mainstream English: Effective strategies for studying literature	Expert opinion based on research
Saunders and Goldenberg	1999	Effects of instructional conversations and literature logs on limited- and fluent-English-proficient students' story comprehension and thematic understanding	Experimental study
Saunders and Goldenberg	2010	Research to guide English language development instruction. In *Improving Education for English Learners: Research-Based Approaches*	Expert opinion based on research
Schleppegrell, Achugar, and Oteíza	2004	The grammar of history: Enhancing content-based instruction through a functional focus on language	Expert opinion based on research
Shih	1992	Beyond comprehension exercises in the ESL academic reading class	Expert opinion based on research

Author(s)	Year	Title	Type of study
Short and Echevarria	1999	The Sheltered Instruction Observation Protocol: A tool for teacher researcher collaboration and professional development	Expert opinion based on research
Slavin, Madden, Calderon, Chamberlain, and Hennessy	2011	Reading and language outcomes of a multiyear randomized evaluation of transitional bilingual education	Experimental study
Snow	2008	Cross-cutting themes and future research directions. In *Developing Reading and Writing in Second-Language Learners: Lessons From the Report of the National Literacy Panel on Language-Minority Children and Youth*	Literature review and synthesis
Snow, Lawrence, and White	2009	Generating knowledge of academic language among urban middle school students	Quasi-experimental study
Spaulding, Carolino, and Amen	2004	Immigrant students and secondary school reform: Compendium of best practices	Expert opinion based on research
Swain and Lapkin	1995	Problems in output and the cognitive processes they generate: A step towards second-language learning	Expert opinion based on research
Teale	2009	Students learning English and their literacy instruction in urban schools	Expert opinion based on research
Thomas and Collier	2002	A national study of school effectiveness for language minority students' long-term academic achievement	Descriptive study
Vaughn, Linan-Thompson, Mathes, Cirino, Carlson, Pollard-Durodola, Cardenas-Hagan, and Francis	2006	Effectiveness of Spanish intervention for first-grade English language learners at risk for reading difficulties	Experimental study
Vaughn, Fletcher, Francis, Denton, Wanzek, Wexler, Cirino, Barth, and Romain	2008	Response to intervention with older students with reading difficulties	Descriptive study
Vaughn, Martinez, Linan-Thompson, Reutebuch, Carlson, and Francis	2009	Enhancing social studies vocabulary and comprehension for seventh-grade English language learners: Findings from two experimental studies	Experimental study

Author(s)	Year	Title	Type of study
Walqui	2002	Scaffolding instruction for English language learners: A conceptual framework	Expert opinion based on research
Weisberg, Sexton, Mulhern, and Keeling	2009	The widget effect: Our national failure to acknowledge and act on differences in teacher effectiveness	Expert opinion based on research
Wright, Horn, and Sanders	1997	Teacher and classroom context effects on student achievement: Implications for teacher evaluation	Descriptive study
York-Barr, Ghere, and Sommerness	2007	Collaborative teaching to increase ELL student learning: A three-year urban elementary case study	Descriptive study
Young	1996	English (as a second) language arts teachers: The key to mainstreamed ESL student success.	Expert opinion based on research
Zetlin, MacLeod, and Michener	1998	Professional development of teachers of language minority students through university-school partnership	Descriptive study

School District, School and Community Culture

In addition to instructional approaches in the classroom and broader curricular and program design features, the LIEP picture involves consideration of the community in which such practices and models are implemented and the role these features play in a program's success. More than other students, ELs may be vulnerable to negative cultural environments as a result of their language minority status; conversely, they may also benefit significantly more from a supportive culture than other students. To collect literature on this topic, reviewers compiled articles that spoke to the following questions:

What contextual and environmental factors in a school district, school or community may impact a LIEP's ability to meet the requirements of Title III?

What cultural and demographic factors in a school district, school or community are important to consider in implementing a LIEP?

Key ideas and findings for school district, school, and community culture are listed below, followed by a discussion of the findings. See Exhibit 12 at the end of this section for a list of key articles on school district, school, and community culture.

- Although reviewers did not find any experimental or quasi-experimental research on this topic, they did find many examples of experts who discussed indications that cultural and environmental factors at the classroom, school and district levels may play a role in ELs' comfort and ability to learn in the academic environment (Michael et al. 2007; Dryfoos 1996).
- An environment that is welcoming and respectful of different cultures is a commonly cited trait in well-implemented LIEPs (Reeves 2004).
- Experts believe that teachers can be particularly important ambassadors to ELs and their families in the classroom and community (Pappamihiel 2002; Miller and Endo 2004; Curran 2003; Freeman and Freeman 2001).
- Experts believe that teachers' attitudes may play a significant role in EL outcomes—negative or misguided attitudes can be harmful, and positive attitudes and respect can be highly beneficial to students' success (Reeves 2006; Harper and de Jong 2004).
- Parent and community involvement, believed to be important factors in the educational success of all students, may be particularly important—and also require particular effort—for ELs (Dryfoos 1996; Genesee 1999; Spaulding, Carolino, and Amen 2004; August and Pease-Alvarez 1996; Berman et al. 1995; Berman et al. 2000; Curran 2003; Freeman and Freeman 2001).

Collier and Thomas (1997) report that schools with positive sociocultural environments ("additive bilingual contexts") for minority languages and language-minority students were associated with students' long-term academic success. Additive bilingualism perspectives consider other languages and cultures to be valuable resources; these contrast with subtractive perspectives, which consider other languages and cultures to be negative obstacles. Indeed, every one of the evaluation models in the next section ("Indicators and Evaluation of Success"), many of which were derived by identifying common traits of exemplary programs, include community or cultural relation as an important evaluation metric, suggesting that this realm is important and related to EL success (Berman et al. 2000; Lucas 1993; Necochea and Cline 2000; Ochoa and Cadiero-Kaplan 2004; Williams, Hakuta, and Haertel 2007). On a larger scale, studies or reviews often identify cultural factors that are common across different programs (August and Pease-Alvarez 1996).

Community and parent involvement are also commonly cited practices that enhance a school or school district's ability to support ELs (Dryfoos 1996; Genesee 1999; Spaulding, Carolino, and Amen 2004; August and Pease-Alvarez 1996; Berman et al. 1995; Berman et al. 2000; Curran 2003; Freeman and Freeman 2001). Spaulding, Carolino, and Amen (2004) proposed six practices to foster parent involvement with newcomer programs:

1. Provide explicit information to immigrant families about the expectations, challenges and opportunities in the U.S. educational system.

2. Develop communication strategies that are mindful of cultural and linguistic differences between the home and the school.

3. Encourage families of ELs to support L1 maintenance.

4. Design parent involvement activities with multiple channels for familial contributions.

5. Partner with adult education programs and community organizations to develop parent education, leadership and ESL programs.

6. Facilitate two-way planning that allows parents and extended families of ELs to be full educational partners with schools.

Teachers also play a critical role in creating welcoming environments for ELs, both in the classroom and in the school at large. Pappamihiel (2002) found that ELs' anxiety levels, particularly in mainstream classrooms, could be quite high and sometimes led to avoidance behaviors from students who did not feel comfortable expressing themselves. Miller and Endo (2004) noted that teachers have many means at their disposal to create a positive learning environment by taking active steps to ensure that their teaching strategies are sensitive to ELs' cultural, cognitive and language loads in the classroom. Beyond straight instructional practices, Curran (2003) noted that teachers may help ELs to feel more welcome in the classroom by learning more about the students' backgrounds, pairing ELs with non-ELs in a buddy system until ELs feel more comfortable and secure, and respecting, rather than stifling, language diversity in the classroom. These authors also noted that teachers often serve as an important bridge between parents and the school (Miller and Endo 2004; Curran 2003; Freeman and Freeman 2001).

As suggested in the previous section, measuring and altering teacher attitudes may be difficult, but can be critical. In a survey of 279 teachers, Reeves (2006) found that many participants claimed to have a welcoming attitude, yet also believed that ELs should enter mainstream classes only after they have a minimum level of English proficiency. This finding suggests that these teachers might act less welcoming toward students who have not achieved this minimum level of proficiency, as these teachers might view these students' presence in their classrooms as inappropriate. Meanwhile, Harper and de Jong (2004) noted that a common misconception among teachers is that second-language acquisition will occur without active instruction, so that teachers may take a more hands-off attitude about ELs' acquisition of English. From a cultural standpoint, this may have the effect of excluding ELs and making them feel anxious, as discussed by Pappamihiel (2002).

On a related point, teachers and administrators who wish to foster a culturally inclusive environment may need to counteract the feeling among some that recognizing ELs' differences is somehow harmful or inappropriate. Reeves (2004) compared the approaches of "differentiation" versus "universalism" to equalizing educational opportunity for students, where the former provides tailored services and instruction according to student needs, while the latter seeks to provide the same services to all students.

She found that although teachers espouse difference-blindness as a fairer option, such attitudes may be less neutral than they first appear, and may fail to benefit, or may even harm, ELs' well-being and outcomes in school settings.

For particular case studies and program reviews in the area of culture, Michael, Andrade, and Bartlett (2007) described the efforts at one high school in New York City to create a culturally positive environment in which students' cultural and linguistic resources are valued and prioritized, specifically by creating a culture in which Spanish was viewed as a high-status skill. Dryfoos (1996) described a New York school with a comprehensive parent involvement schema, and identified other exemplary parent programs in New York and California.

Exhibit 12. Key articles on school district, school and community culture

Author(s)	Year	Title	Type of study
August and Pease-Alvarez	1996	Attributes of effective programs and classrooms serving English language learners	Expert opinion based on research
Berman, McLeod, Nelson, McLaughlin, Minicucci, and Woodworth	1995	School reform and student diversity, volume I: Findings and conclusions: Studies of education reform	Descriptive study
Berman, Aburto, Nelson, Minicucci, and Burkart	2000	Going schoolwide: Comprehensive school reform inclusive of limited English proficient students: A resource guide	Expert opinion based on research
Collier and Thomas	1997	School effectiveness for language minority students	Expert opinion based on research
Curran	2003	Linguistic diversity and classroom management	Expert opinion based on research
Dryfoos	1996	Full-service schools	Expert opinion based on research
Freeman and Freeman	2001	Between worlds: Access to second language acquisition	Expert opinion based on research
Genesee	1999	Program alternatives for linguistically diverse students	Literature review and synthesis
Harper and de Jong	2004	Misconceptions about teaching English-language learners	Expert opinion based on research
Lucas	1993	Applying elements of effective secondary schooling for language minority students: A tool for reflection and stimulus to change	Expert opinion based on research
Michael, Andrade, and Bartlett	2007	Figuring "success" in a bilingual high school	Descriptive study
Miller and Endo	2004	Understanding and meeting the needs of ESL students	Expert opinion based on research
Necochea and Cline	2000	Effective educational practices for English language learners within mainstream settings	Expert opinion based on research

Author(s)	Year	Title	Type of study
Ochoa and Cadiero-Kaplan	2004	Towards promoting biliteracy and academic achievement: Educational programs for high school Latino English language learners	Expert opinion based on research
Pappamihiel	2002	English as a second language students and English language anxiety: Issues in the mainstream classroom	Descriptive study
Reeves	2004	"Like everybody else": Equalizing educational opportunity for English language learners	Descriptive study
Reeves	2006	Secondary teacher attitudes toward including English-language learners in mainstream classrooms	Descriptive study
Spaulding, Carolino, and Amen	2004	Immigrant students and secondary school reform: Compendium of best practices	Expert opinion based on research
Williams, Hakuta, and Haertel	2007	Similar English learner students, different results: Why do some schools do better? A follow-up analysis based on a large-scale survey of California elementary schools serving low-income and EL students	Descriptive study

Indicators and Evaluation of Success

This review emphasizes program evaluation as a critical (and federally mandated) feature of LIEP success (Berman et al. 2000). How to conduct a high-quality evaluation, however, is not always immediately clear to school districts. Although the concept may be simple—identify program goals and then determine whether and how well the program is meeting them—in practice, this task can be more complicated than it first appears. Specifically, high-quality evaluation requires that school districts identify indicators of success and of problems; one must know not only where to look for these, but how to interpret findings and what kinds of findings reflect success or trigger concerns. This section looks to the literature to answer the following questions:

What indicators might reflect whether a LIEP has been implemented successfully? How might these indicators vary in the initiation, scaling and maintenance phases?

What indicators would reflect effectiveness of the LIEP in terms of its own stated goals?

Key ideas and findings for indicators and evaluation of success are listed below, followed by a more in-depth discussion. Exhibit 13 (later in this section) lists indicators of success, by literature review articles and by theme, while Exhibit 14 (at the end of this section) lists key articles related to indicators and evaluation of success.

- Under Title III, school district programs must self-evaluate, may be monitored to determine effective implementation, and must make changes to any programs that are failing to perform as intended (Berman et al. 2000).
- Evaluation of implementation requires a more holistic and varied approach compared to evaluation for effective performance or outcomes (Berman et al. 2000; Williams, Hakuta, and Haertel 2007).
- Various evaluation rubrics from the past 20 years include similar indicators and metrics for assessing a program's implementation. Many indicators for LIEP success are similar or identical to indicators of any program's success (e.g., access to and allocation of resources (Lucas 1993; Berman et al. 2000; Collier and Thomas 1997; Necochea and Cline 2000; Ochoa and Cadiero-Kaplan 2004; Smith, Coggins, and Cardoso 2008; Williams, Hakuta, and Haertel 2007).
- Judging by the proposed evaluation tools in the literature and by reviews of high-quality programs around the country, indicators of successful implementation transcend curriculum and instruction and may include more general areas such as school culture and resources (Lucas, 1993).
- The most useful evaluation models include both indicators of effective implementation and a framework or rubric for how to operationalize an evaluation of these indicators and draw conclusions from findings (Necochea and Cline 2000; Berman et al. 2000).

Although evaluation as a concept is present in conversations about LIEPs, reviewers found relatively few studies or reports about effective evaluation models for practitioners. The SIOP model was one exception in this area (Echevarria, Powers, and Short 2006; Echevarria, Vogt, and Short 2004); a rubric for assessing lessons is a critical facet of the model's design, such that practitioners are evaluating and being evaluated on the fidelity and quality of their implementation on an ongoing basis. Notably,

however, the SIOP rubric evaluates the implementation of a specific model, not of an entire comprehensive program in a school or school district. In addition, Howard et al. (2007) published the *Guide for Principles for Dual Language Education*. This document has been designed for practitioners who use models under the bilingual approach. It is a tool for planning, self-reflection and growth. The guiding principles are based largely on Dual Language Standards developed by Dual Language Education of New Mexico.

For large-scale evaluations, reviewers found seven articles that either proposed research-based frameworks for self-evaluation or external monitoring, or that listed common observed traits across programs that were known to be effective according to outcome-related measures (Lucas 1993; Berman et al. 2000; Collier and Thomas 1997; Necochea and Cline 2000; Ochoa and Cadiero-Kaplan 2004; Smith, Coggins, and Cardoso 2008; Williams, Hakuta, and Haertel 2007). Across these different pieces, reviewers observed a number of repeated, common themes about indicators of success; Exhibit 13 arrays these according to general thematic trends: curriculum and instructional goals; resources, training or professional development; accountability or assessment; family, school or community support; and other.

Exhibit 13. Indicators of success by relevant literature review articles and by theme

Program design or approaches	Curriculum and instructional goals	Resources, training or professional development	Accountability or assessment	Family, school or community support	Other
Collier and Thomas (1997)					
Interactive, discovery learning and other current approaches to teaching	Integration with the mainstream			Sociocultural support	
Necochea and Cline (2000)					
Incorporation of primary language and culture	Curriculum alignment	Ongoing staff development; Allocation of resources and materials	Accountability	Leadership; Incorporation of primary language and culture	Validation of current practices
Ochoa and Cadiero-Kaplan (2004)					
Program approaches	Value for learners; Expectations for learners; Instructional goals	Resources	Accountability and assessment	Parent involvement or engagement	
Williams, Hakuta and Hartel (2007)					
Prioritizing student achievement, using measurable and monitored objectives	Implementing a coherent, standards-based curriculum and instructional program	Ensuring availability of instructional resources	Using assessment data to improve student achievement and instruction		

Program design or approaches	Curriculum and instructional goals	Resources, training or professional development	Accountability or assessment	Family, school or community support	Other
Smith, Coggins, and Cardoso (2008)					
Multiple program offerings; Flexibility in structure and format of classes; Tiered reclassification process		Use of training, resources and PD		Positive teacher attitudes toward immigrants; Support for ELs beyond the classroom	
Lucas (1993)					
Use and development of students' L1	High expectations; Curriculum design to account for the various needs of language-minority students (LMs)	Development for teachers and staff Staff features: • Knowledgeable; • Prioritize language-minority education; • Support programs and services for LMs; • Committed to empowering LMs through education		Value of students' languages and cultures; Families encouraged to become involved in schooling; Counselors give attention to LMs; Support services and extracurricular activities are designed to serve and include LMs	Longevity: Elements of effective schooling are present throughout time in school; Pervasiveness: Elements of effective schooling are present across all educational experiences

Program design or approaches	Curriculum and instructional goals	Resources, training or professional development	Accountability or assessment	Family, school or community support	Other
Berman et al. (2000)					
	Curriculum and instruction; Language development			School vision; School structure; Organizational culture; Community relations	

Readers may note that some of the thematic indicators identified in Exhibit 13 are relatively generic (e.g., accountability, leadership), whereas others may be more specific to the needs and challenges of serving ELs (e.g., sociocultural support, incorporation of primary language and culture). To this point, it is worth noting that Williams, Hakuta, and Haertel (2007), in their survey of teachers and principals at 237 California schools that ranked between the 25th and 35th percentiles on the EL academic performance index (EL-API), found four indicators that correlated most highly with EL performance. These were all generic indicators that the authors had previously used to identify indicators of success in general education programs. Thus, the four characteristics that correlated most highly with higher performing schools in the sample were not strictly EL-specific. Within the third indicator, however (implementing a coherent, standards-based curriculum), the authors did find correlations between higher EL-API scores and schools with certain characteristic: the schools had implemented new EL programs in the past 4 years, used pull-out programs with resource teachers and delivered math instruction using ESL or SDAIE.

One critical way in which the evaluation articles differed was the degree to which the authors included tools or a framework for operationalizing their indicators, over and above simply proposing them. For example, Necochea and Cline (2000) provided research-based arguments for using a conceptual systemic evaluation model based on the components identified in Exhibit 13, but did not propose a framework or method for operationalizing their model. Lucas (1993), by contrast, provided an evaluation tool based on research-based findings about effective instruction and service for ELs, with a checklist that probes users to reflect on program elements in the areas of school context, curriculum and staff features, noting the degree to which the elements are present, and providing space for users to document evidence and ideas for improvement. Berman et al. (2000) also provided a set of rubrics to evaluate programs in six domains, and these authors suggested an "action-inquiry cycle" for evaluation—a reiterative process of identifying priorities for action and setting specific reform goals, creating an action plan, adapting plans during implementation and evaluating change.

Tasked with the project of evaluating middle and high school programs in a California school district, Ochoa and Cadiero-Kaplan (2004) devised a framework of eight research-based indicators, then also devised a scale and cut scores for satisfactory and unsatisfactory program performance. During team-based school visits and classroom observations, evaluators used a Likert-scaled (1 to 5) rubric to capture performance for each dimension; subscores for each indicator were tallied to devise an overall score, which was measured against the scale to determine whether the program implementation was satisfactory or not. Although they collected descriptive data only, Rivera et al. (2010) surveyed principals at 49 promising schools in California, Florida, Massachusetts, New Mexico and Texas and found that student demographics, school size, teacher credentialing and PD were common factors that effective programs in different states at all grade levels (elementary, middle and high school) shared.

The role of different approaches in evaluation frameworks is worth noting. The metrics for certain indicators, particularly in the realm of curriculum, will likely need to vary depending on a program's approach. Because bilingualism is not a program goal for ESL models, for example, evaluation tools for ESL models should reflect this and not necessarily seek to evaluate a program based on the amount of L1 instruction it offers to ELs. However, the majority of indicators in these tools and studies transcend curriculum, and thus may transcend approach as well. A culturally welcoming atmosphere, for example, might be a strong trait for any school district, regardless of the actual curricular model it follows. Ultimately, this reduces to the more general point that a critical component of evaluation is the clear articulation of program goals prior to commencing the evaluation process.

Exhibit 14. Key articles for indicators and evaluation of success

Author(s)	Year	Title	Type of study
Berman, Aburto, Nelson, Minicucci, and Burkart	2000	Going schoolwide: Comprehensive school reform inclusive of limited English proficient students: A resource guide	Expert opinion based on research
Collier and Thomas	1997	School effectiveness for language minority students	Expert opinion based on research
Echevarria, Powers, and Short	2006	School reform and standards-based education: A model for English language learners	Quasi-experimental study
Echevarria, Vogt, and Short	2004	Making content comprehensible for English learners	Expert opinion based on research
Howard, Sugarman, Christian, Lindholm-Leary, and Rogers	2007	Guiding principles for dual language education	Expert opinion based on research
Lucas	1993	Applying elements of effective secondary schooling for language minority students: A tool for reflection and stimulus to change	Expert opinion based on research
Necochea and Cline	2000	Effective educational practices for English language learners within mainstream settings	Expert opinion based on research
Ochoa and Cadiero-Kaplan	2004	Towards promoting biliteracy and academic achievement: Educational programs for high school Latino English language learners	Expert opinion based on research
Rivera, Francis, Fernandez, Moughamiam, and Jergensen	2010	Effective practices for English language learners: Principals from five states speak	Descriptive study
Smith, Coggins, and Cardoso	2008	Best practices for ELLs in Massachusetts: Five years after the question 2 mandate	Expert opinion based on research
Williams, Hakuta, and Haertel	2007	Similar English learner students, different results: Why do some schools do better? A follow-up analysis based on a large-scale survey of California elementary schools serving low-income and EL students	Descriptive study

Synthesis

General Emergent Themes

The following themes about language instruction educational program (LIEP) design, implementation and evaluation emerged from the literature that was examined for this review:

1. High Standards and Challenging Content Are Good for ELs

Based on research, various authors (Henze and Lucas 1993; Collier and Thomas 1997; Minaya-Rowe 2004; August and Pease-Alvarez 1996; Ray 2009) found that English learners (ELs) benefit from being held to high expectations and challenging content and achievement standards. Callahan (2005), for example, found that the classes into which an EL is placed are a greater predictor of the child's ultimate academic outcomes than linguistic proficiency, which suggests that reducing the rigor or substance of content instruction does not help, and may ultimately hurt, ELs' academic achievement. While it is important that ELs receive instruction that is tailored to their language-based needs, this finding suggests that it is equally important that ELs not be held to lower academic standards as they build their linguistic proficiency. This finding also suggests in combination with theme 7 ("ELs need instruction that is specifically cognizant of their needs as second-language learners") that teachers who provide ELs with content instruction should be equally prepared to deliver challenging content instruction *and* to address ELs' linguistic needs as they do so.

2. Having a LIEP Is Important

One descriptive study and three research reviews found that providing any kind of special program or instruction for ELs is better for these students than not providing any special services (Goldenberg 2008; Saunders and Goldenberg 2010; Thomas and Collier 2002; Lindholm-Leary and Borsato 2006). Simply placing ELs in the general program and treating them like English speakers is not likely to help these students overcome the barriers they face.

3. No One Approach or Model Is Appropriate for All ELs

Reviewers found examples in the literature of high-quality programs (usually defined by students' performance on academic content assessments) based on all the reviewed models, at all grade levels and all over the United States (Williams, Hakuta, and Haertel 2007; Parrish et al. 2006; Boyson and Short 2003; Spaulding, Carolino, and Amen 2004; Howard and Christian 2002; August and Pease-Alvarez 1996; Genesee 1999). Factors such as state law, population characteristics and availability of funding or resources may be the more immediate factors that drive a school district's choice of program, and it may be the case that certain models are more or less practical for different EL subgroups based on factors such as age, formal education background or native language (L1) literacy.

4. Instructional Practices Are Important Variables in LIEP Design and Implementation

Increasingly, researchers and experts have been finding that the quality and consistency of instructional practices used within a LIEP may be more important than the model itself. Echevarria and Short (2010) have found that teachers who follow their Sheltered Instruction Observation Protocol (SIOP) model, a particular version of sheltered instruction (SI) with structured protocols for lesson planning and delivery, produce better lessons (according to validated rubrics) and potentially better outcomes (according thus far to quasi-experimental research; experimental research is under way at the time of publication) than teachers who implement SI in an ad hoc or less structured way. Irby et al. (2010) found via a large-scale

quasi-experimental study that students who participated in enhanced transitional bilingual education (TBE) or sheltered English immersion (SEI) programs (so-called due to the use of specific professional development [PD], class structure and instructional practices) performed better on reading measures than students who participated in typical programs following either model. And Slavin et al. (2011) found via large-scale experimental research that students enrolled in programs using the same instructional practices and reading curriculum in English (through an SEI program) or Spanish (through a TBE program) reached comparable levels of performance on English reading measures, which suggests that the instructional practices mattered more than the model. From an implementation standpoint, these findings suggest that, while the choice of model is important, practitioners may be better served by focusing their energies on identifying and implementing effective instructional practices within that model, as these may play a more important role in a LIEP's quality than the model itself.

5. Literacy and Oral Language Development in English Are Critical Instructional Components for Any LIEP

Native language literacy and English oral language were emphasized repeatedly as important in the literature reviewed, and these elements transcended any particular approach or model. Two large-scale research syntheses (August and Shanahan 2008; Genesee et al. 2006) found that oral language proficiency in L2 appears to facilitate literacy in L2, and multiple research studies argued or studied the effects of instruction designed to develop proficiency in these areas (Dalton 1998; Echevarria, Vogt, and Short 2004; August and Pease-Alvarez 1996; Garcia 1991; Gersten et al. 2007; Knight and Wiseman 2006; Rubinstein-Avila 2003; Saunders et al. 1999; Saunders and Goldenberg 2010; Young 1996). Experts recommended, based on extensive research reviews, that incorporating oral language practice and development into the structure of any LIEP seems likely to help ELs develop second-language (L2) literacy (Saunders and O'Brien 2006; Saunders and Goldenberg 2010); oral language was also found to play a potentially important role in the development of academic language specifically (Anstrom et al. 2010) (see theme 11).

6. Academic Language Seems To Be Important in EL Instruction

Many experts have argued or found evidence for a conceptually distinct linguistic register that is specific to the school setting (Cummins 1979a; Cummins 1980; Belcher 2006; Scarcella 2003a; Bailey 2007). This register, most commonly referred to as academic language, academic English or academic English language, is distinct enough from social language that ELs may need special instruction to ensure that they acquire it. Preliminary descriptive research suggests that, like their non-EL counterparts, English learners must be proficient in this kind of language in order to meet grade-level standards in content areas and on assessments (Bailey, Butler, and Sato 2007; Bailey et al. 2007; Stevens, Butler, and Castellon-Wellington 2000; Butler and Castellon-Wellington 2000).

7. ELs Need Instruction That Is Specifically Cognizant of Their Needs as Second-Language Learners

In addition to using high-quality general instructional practices, teachers may serve ELs better if they understand and adopt instructional practices that are more cognizant of these students' specific needs (Goldenberg 2008). Preliminary research on such practices suggests benefits for ELs, as well as increased confidence and competency for teachers (Aguirre-Munoz et al. 2001; Echevarria, Powers, and Short 2006; Linan-Thompson et al. 2003; Vaughn et al. 2006; Young 1996). While some studies have found that general instructional practices show promise for improving outcomes for all students, ELs and non-ELs alike (D'Angiulli, Siegel, and Maggi 2004; Lee et al. 2008; Williams, Hakuta, and Haertel 2007), these practices, while promising, do not pledge to close the extant gaps between ELs and their English-

speaking peers. At least one study also found that the effects of such "high-quality practices" may be smaller for ELs than for non-ELs (O'Day 2009).

8. Teachers Need To Be Prepared to Teach ELs

Multiple authors found or argued that EL-specific practices and preparation may be more promising for improving ELs' achievement than general best practices for all students (Short and Echevarria 1999; Graves, Gersten, and Haager 2004; Garcia 1991; Ray 2009). In today's academic world, any teacher in any state at any grade level in any subject may have one or more ELs in his or her classroom. Therefore, all teachers should be prepared with a basic understanding of who ELs are, how second-language acquisition (SLA) may work and what practices will help these students to succeed academically. This knowledge may make a nontrivial difference in these students' chances at success. Multiple experts argued that this preparation should begin in preservice training and carry through teachers' careers as an ongoing professional development process (Zetlin, MacLeod, and Michener 1998; González and Darling-Hammond 1997; Minaya-Rowe 2004).

9. Newcomer Models Are a Programmatic Option That School Districts May Use to Meet the Needs of Newly Identified ELs at the Secondary Level

ELs who are recent immigrants and who enter the American school system at the secondary level with limited literacy in their native language and with interrupted formal education face unique challenges, based on the fact that the language demands of secondary classrooms are likely to be significantly greater than those for lower grade levels (Anstrom et al. 2010). When executed as actual programs, newcomer models are designed to help orient and prepare newcomer ELs by providing targeted or intensive instruction to build foundational skills before ELs are ready to enter into a district's or schools's regular LIEP. As of a 2003 study by Boyson and Short, the most common configuration for a newcomer program was for it to last one school year and operate at students' home school as a full-day program. There are, however, many variations on this model, as well as variations in how newcomer students are defined and identified. It should be noted that implementation of this model typically does not include instructional goals that meet the legislative definition of a LIEP. Nonetheless, the model is often part of a crucial pathway for entering recently immigrated students into a district's or school's regular LIEP. As such, this model has been included in this study to ensure a holistic depiction of how districts serve ELs.

10. ELs' Scores on Academic Content Assessments Should Be Interpreted With Great Care

The reviewed literature suggests that ELs' scores on academic content assessments may not always be representative of these students' actual content skills and knowledge. Research on accommodations for ELs suggests that, at best, many commonly used accommodations may be minimally effective for ELs. At worst, research suggests that these accommodations are inappropriate for ELs and may even hinder their performance (Rivera and Stansfield 2001; Rivera and Collum 2004; Willner, Rivera, and Acosta 2008; Willner, Rivera, and Acosta 2009). While English language proficiency assessments (ELPAs) are improving in terms of their ability to measure the academic language used in content classrooms, early studies found that these assessments did not always measure the kind of language necessary to fully engage with content assessments or provide adequate responses (Abedi 2004; Abedi 2001; Butler and Castellon-Wellington 2000; Stevens, Butler, and Castellon-Wellington 2000). In states where this is true, this could mean that former ELs may continue to face barriers to showing their knowledge on academic content assessments in English. Based on these uncertainties, practitioners and policy makers should interpret ELs' content assessment scores with care, particularly when making placement or redesignation decisions (Ragan and Lesaux 2006; Linquanti 2001; Stevens, Butler, and Castellon-Wellington 2000).

Practitioners should also ensure that the cut scores on their ELPAs are set appropriately, such that students who earn a proficient score truly have the necessary language skills to participate in and engage with academic content assessments in English.

11. Current Assessments May Not Be Sufficient Measures of the Linguistic Proficiency Necessary to Support Success in Mainstream Content Classrooms

Although efforts are currently under way to develop a new generation of ELPAs that focus more closely on academic language skills, research suggests that at least some ELPAs in current use do not use or measure language that is sufficiently complex to be representative of grade-level demands (Butler and Castellon-Wellington 2000; Stevens, Butler, and Castellon-Wellington 2000; Bailey, Butler, and Sato 2007; Abedi 2001). Although a 2006 survey found that eight of the 10 states that enroll more than 80 percent of the nation's ELs[17] use additional measures to determine whether ELs who score proficient on the ELPA will also exit the limited-English-proficient (LEP) subgroup and stop receiving services (Ragan and Lesaux 2006), it is important that ELPAs measure the kinds of language skills that students will need to succeed unsupported in classes where instruction is delivered in English. This concern is greater in states that use ELPA performance as the sole criterion for exit from the LEP subgroup under Title I. Such students may languish in mainstream classes without the language support they still need, and may never reach grade-level standards due to continuing language struggles that are no longer being addressed (Linquanti 2001; Bailey, Butler, Stevens et al. 2007; Bailey and Butler 2007; Gandara and Merino 1993; Parrish et al. 2006).

12. Culture and Community Matter

Although empirical research has not proven a relationship between culture and student outcomes (August and Shanahan 2006), literature reviewed about programs from across the country have found repeatedly that they share the common characteristic of a strong and intentional community of respect and acceptance, both within and beyond the school (Berman et al. 2000; Lucas 1993; Necochea and Cline 2000; Ochoa and Cadiero-Kaplan 2004; Williams, Hakuta, and Haertel 2007). Descriptive studies suggest that cultural atmosphere can make a difference in student outcomes (Collier and Thomas 1997). As such, it appears that a school's attitude about ELs, their languages and their cultures are important considerations in program design, implementation and evaluation. School districts that view other languages and cultures as valuable assets, rather than as problematic obstacles, create positive environments in which ELs may thrive and achieve. In particular, parent involvement was frequently named as an important feature of program design, particularly for ELs who are recent immigrants (Genesee 1999; Boyson and Short 2003; August and Pease-Alvarez 1996).

In addition to addressing these 12 cross-cutting themes, the literature reviewed says specific things about each approach to language learning and EL education:

What Research Says About the English as a Second Language Approach

Exhibit 15 lists the key articles from this review that provided information about the English as a second language (ESL) approach. Based on the findings and conclusions of these articles, the following statements can be made about the ESL approach.

[17] As of 2006: Arizona, California, Colorado, Florida, Georgia, Illinois, New Jersey, New Mexico, New York and Texas (Ragan and Lesaux 2006).

The ESL approach focuses on developing English and teaching in English; it makes minimal use, if any, of students' L1. Models under this approach may focus on language instruction in itself, they may integrate language and content instruction together or they may focus on providing content instruction using specialized methods to accommodate ELs. Multiple authors found or argued that the strongest programs incorporate both dedicated language instruction and specialized content instruction (Saunders and Goldenberg 2010; Genesee 1999; Williams, Hakuta, and Haertel 2007; Harper and de Jong 2004).

The Cognitive Academic Language Learning Approach (CALLA) is one model under the ESL approach. It is an example of a content-based model because it integrates language and content learning; its general approach is not to modify instruction based on language needs; rather, it is to equip learners with strategies that will help them decode and access content even as they are learning English (Chamot and O'Malley 1994; Chamot and O'Malley 1986; Chamot and O'Malley 1996).

Specially designed academic instruction in English (SDAIE) and SI are two specialized content delivery models under the ESL approach that, like English language development (ELD) instruction, are thought by some to be two ways of naming the same model (Echevarria and Short 2010). Both models focus on delivering content instruction using specific instructional practices and techniques that are designed to accommodate ELs' needs as language learners. Unless a school or school district provides specific implementation guidance, neither SDAIE nor SI is strict or specific about how or which practices should be applied, meaning that their exact form or implementation may vary from classroom to classroom or from school to school (Echevarria and Short 2010).

In the literature reviewed, ESL instruction and ELD instruction were discussed as language-based models under the ESL approach; reviewers found that variations in the use of these two names was dictated more by geography than by substantive differences in the models themselves, with the term "ELD" being used more commonly in California than elsewhere. The models under this approach focus on teaching and learning the English language in or for itself, and the two most common configurations for this kind of instruction are self-contained ESL classes that take place during the school day and during pull-out sessions, wherein language specialists work with ELs during other class periods to provide intensive language instruction and support (Diaz-Rico and Weed 2002). Saunders and Goldenberg (2010) suggested emphasizing oral language development, particularly during ELD instruction.

ESL programs can and should support and value the native languages and cultures of ELs, even if they do not include L1 instruction. Research suggests that schools whose ELs perform strongly on academic measures often have positive, accepting cultural atmospheres (Berman et al. 2000; Lucas 1993; Necochea and Cline 2000; Ochoa and Cadiero-Kaplan 2004; Williams, Hakuta, and Haertel 2007; Collier and Thomas 1997; Thomas and Collier 2002); parent and community involvement are also commonly cited features of high-quality programs (Genesee 1999; Boyson and Short 2003; August and Pease-Alvarez 1996).

Exhibit 15. Key articles on the English as a second language approach

Author(s)	Year	Title	Type of Study
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Instruction and Professional Development. In *Developing Reading and Writing in Second-Language Learners*	Literature review and synthesis
August and Hakuta	1998	Educating language-minority children	Literature review and synthesis
Belcher	2006	English for specific purposes: Teaching to perceived needs and imagined futures in worlds of work, study, and everyday life	Expert opinion based on research
Chamot and Beard El-Dinary	1999	Children's learning strategies in language immersion classrooms	Descriptive study
Chamot and O'Malley	1986	A Cognitive Academic Language Learning Approach: An ESL content-based curriculum	Expert opinion based on research
Chamot and O'Malley	1994	The CALLA handbook: Implementing the Cognitive Academic Language Learning Approach	Expert opinion based on research
Chamot and O'Malley	1996	The Cognitive Academic Language Learning Approach: A model for linguistically diverse classrooms	Expert opinion based on research
Cline and Necochea	2003	Specially designed academic instruction in English (SDAIE): More than just good instruction	Expert opinion based on research
Collier and Thomas	1997	School effectiveness for language minority students	Expert opinion based on research
D'Angiulli, Siegel, and Maggi	2004	Literacy instruction, SES, and word-reading achievement in English-language learners and children with English as a first language: A longitudinal study	Quasi-experimental study
Diaz-Rico and Weed	2002	The cross-cultural, language, and academic development	Expert opinion based on research
Echevarria and Short	2010	Programs and practices for effective sheltered content instruction. In *Improving Education for English Learners: Research-Based Approaches*	Expert opinion based on research
Echevarria, Powers, and Short	2006	School reform and standards-based education: A model for English language learners	Quasi-experimental study
Echevarria, Vogt, and Short	2004	Making content comprehensible for English learners	Expert opinion based on research

Author(s)	Year	Title	Type of Study
Genesee	1999	Program alternatives for linguistically diverse students	Literature review and synthesis
Genesee, Lindholm-Leary, Saunders, and Christian	2006	Educating English language learners: A synthesis of research evidence	Literature review and synthesis
Harklau	1994	ESL versus mainstream classes: Contrasting L2 learning environments	Descriptive study
Irby, Fuhui Tong, Lara-Alecio, Mathes, Acosta, and Guerrero	2010	Quality of instruction, language of instruction, and Spanish-speaking English language learners' performance on a state reading achievement test	Quasi-experimental study
Harper and de Jong	2004	Misconceptions about teaching English-language learners	Expert opinion based on research
Lucas and Katz	1994	Reframing the debate: The roles of native languages in English-only programs for language minority students	Descriptive study
Merickel, Linquanti, Parrish, Perez, Eaton, and Esra	2003	Effects of the implementation of Proposition 227 on the education of English learners, K-12: Year 3 report	Descriptive study
Padrón, Waxman, Brown, and Powers	2000	Improving classroom instruction and student learning for resilient and non-resilient English language learners	Quasi-experimental study
Parrish, Merickel, Perez, Linquanti, Socias, and Spain	2006	Effects of the implementation of Proposition 227 on the education of English learners, K-12	Descriptive study
Ramirez, Yuen, and Ramey	1991	Final report: Longitudinal study of structured English Immersion strategy, early-exit and late-exit transitional bilingual education programs for language-minority children (Executive summary)	Quasi-experimental study
Reeves	2004	"Like everybody else": Equalizing educational opportunity for English language learners	Descriptive study
Reeves	2006	Secondary teacher attitudes toward including English-language learners in mainstream classrooms	Descriptive study
Saunders and O'Brien	2006	Oral Language. In *Educating English Language Learners: A Synthesis of Research Evidence*	Literature review and synthesis

Author(s)	Year	Title	Type of Study
Saunders and Goldenberg	2010	Research to guide English language development instruction. In *Improving Education for English Learners: Research-Based Approaches*	Literature review and synthesis
Short and Echevarria	1999	The Sheltered Instruction Observation Protocol: A tool for teacher researcher collaboration and professional development	Expert opinion based on research
Slavin, Madden, Calderon, Chamberlain, and Hennessy	2011	Reading and language outcomes of a multi-year randomized evaluation of transitional bilingual education	Experimental study
Sobul	1995	Specially designed academic instruction in English	Expert opinion based on research
Thomas and Collier	2002	A national study of school effectiveness for language minority students' long-term academic achievement	Descriptive study
Williams, Hakuta, and Haertel	2007	Similar English learner students, different results: Why do some schools do better? A follow-up analysis based on a large-scale survey of California elementary schools serving low-income and EL students	Descriptive study
Zehler, Fleischman, Hopstock, Stephenson, Pendzick, and Sapru	2003	Descriptive study of services to LEP students and LEP students with disabilities	Descriptive study

What Research Says About the Bilingual Approach

Exhibit 16 lists the key articles from this review that provided information about bilingual models. The findings and conclusions of these articles suggest several characteristics of the bilingual approach:

Overall, research suggests that the bilingual approach may yield more positive outcomes for ELs than the ESL approach (August and Shanahan; 2006; Lindholm-Leary and Borsato, 2006; Rolstad et al. 2005). This difference (bilingual versus ESL approaches) may be attributable to underlying linguistic interdependences between students' L1 and L2, and to transfer processes that occur between languages. Proficiency in students' L1, and particularly literacy in L1, appears to be a predictor and correlate of higher L2 outcomes (Genesee et al. 2006). There is also evidence that students' amount of prior schooling in L1 is a strong predictor of their L2 outcomes (Goldenberg 2008).

Models under the bilingual approach vary primarily according to two factors: the role of the primary language and the balance between the languages of instruction. TBE, which stands at the threshold between the ESL approach and the bilingual approach, uses L1 instruction as a means to transition students into ESL classrooms, usually by mid-elementary school. TBE models usually begin entirely or primarily with L1 instruction, then transition to ESL over the course of 2 to 3 years. The DBE and TWI models, by contrast, set bilingualism and biliteracy as explicit targets, and ultimately aim for a 50-50 split between the two languages (though some may begin with a 90-10 distribution, favoring the non-English language). The primary difference between DBE and TWI is that the latter also enrolls English speakers and attempts to keep a 50-50 balance between the two populations.

As far as instruction, research about specific practices for bilingual classrooms is relatively scarce. There is evidence that some effective practices for literacy instruction in English also work in other languages (Slavin et al. 2011), and that effective instructional practices for ESL classrooms are also useful for the non-L1 instruction in bilingual approaches (Proctor et al. 2009; Fung, Wilkinson, and Moore 2003; Vaughn et al. 2006; Linan-Thompson et al. 2003). For instruction delivered in English in bilingual programs, the findings about effective instructional practices for the ESL approach apply.

Bilingual programs that are discussed in the literature are generally intended for elementary school ELs; literature on all three models described them as designed to begin in kindergarten or first grade and provide bilingual education through, on average, third or fourth grade (TBE), fifth or sixth grade (DBE) or as high as eighth grade, or even high school (for TWI programs).

Exhibit 16. Key articles on the bilingual approach

Author(s)	Year	Title	Type of study
August and Shanahan	2008	Developing reading and writing in second-language learners	Literature review and synthesis
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Instruction and professional development. In *Developing Reading and Writing in Second-Language Learners*	Literature review and synthesis
August and Hakuta	1998	Educating language-minority children	Literature review and synthesis
Bahamonde and Friend	1999	Teaching English language learners: A proposal for effective service delivery through collaboration and co-teaching	Expert opinion based on research
Bearse and de Jong	2008	Cultural and linguistic investment: Adolescents in a secondary two-way immersion program	Descriptive study
Cazabon, Nicoladis, and Lambert	1998	Becoming bilingual in the Amigos two-way immersion program	Descriptive study
Christian, Montone, Lindholm, and Carranza	1997	Profiles in two-way immersion education	Descriptive study
Collier and Thomas	1997	School effectiveness for language minority students	Descriptive study
DeJesus	2008	An astounding treasure: Dual language education in a public school setting	Descriptive study
Freeman	2000	Contextual challenges to dual-language education: A case study of a developing middle school program	Descriptive study
Genesee	1999	Program alternatives for linguistically diverse students	Literature review and synthesis
Genesee, Lindholm-Leary, Saunders, and Christian	2006	Educating English language learners: A synthesis of research evidence	Literature review and synthesis
Gersten and Woodward	1995	A longitudinal study of transitional and immersion bilingual education programs in one district	Quasi-experimental study
Greene	1997	A meta-analysis of the Rossell and Baker review of bilingual education research	Literature review and synthesis

Author(s)	Year	Title	Type of study
Goldenberg	2008	Teaching English language learners: What the research does—and does not—say	Expert opinion based on research
Howard and Christian	2002	Two-way immersion 101: Designing and implementing a two-way immersion education program at the elementary level	Expert opinion based on research
Howard, Christian, and Genesee	2004	The development of bilingualism and biliteracy from grade 3 to 5: A summary of findings from the CAL/CREDE study of two-way immersion education	Descriptive
Lindholm-Leary	2005	The rich promise of two-way immersion	Expert opinion based on research
Lindholm-Leary and Borsato	2001	Impact of two-way bilingual elementary programs on students' attitudes toward school and college	Quasi-experimental study
Medina	1991	Native and Spanish language proficiency in a bilingual education program	Quasi-experimental study
Menken and Kleyn	2010	The long-term impact of subtractive schooling in the educational experiences of secondary English language learners	Expert opinion based on research
Montone and Loeb	2000	Implementing two-way immersion programs in secondary schools	Expert opinion based on research
Potowski	2004	Student Spanish use and investment in a dual immersion classroom: implications for second language acquisition and heritage language maintenance	Descriptive study
Rivera, Francis, Fernandez, Moughamiam, and Jergensen	2010	Effective practices for English language learners: Principals from five states speak	Descriptive study
Ramirez, Yuen, and Ramey	1991	Final report: Longitudinal study of structured English Immersion strategy, early-exit and late-exit transitional bilingual education programs for language-minority children (Executive summary)	Quasi-experimental study
Rolstad, Mahoney, and Glass	2005	The big picture: A meta-analysis of program effectiveness research on English language learners	Literature review and synthesis
Saunders	1999	Improving literacy achievement for English learners in transitional bilingual programs	Experimental study

Author(s)	Year	Title	Type of study
Slavin and Cheung	2005	A synthesis of research on language of reading instruction for English language learners	Literature review and synthesis
Slavin, Madden, Calderon, Chamberlain, and Hennessy	2011	Reading and language outcomes of a multiyear randomized evaluation of transitional bilingual education	Experimental study
Thomas and Collier	2002	A national study of school effectiveness for language minority students' long-term academic achievement	Descriptive study
Valdes	1997	Dual-language immersion programs: A cautionary note concerning the education of language-minority students	Expert opinion based on research

What Research Says About Newcomer Models

Exhibit 17 lists the key articles from this review that provided information about newcomer models. The findings and conclusions of these articles suggest several characteristics of the newcomer model:

Students identified as newcomers are generally defined as recent immigrants who are secondary students (grades 6 to 12) with limited formal education, low literacy or low linguistic proficiency in their L1 (Boyson and Short 2003). These students often enter school with shortfalls in their academic backgrounds and may require targeted or intensive instruction to build foundational skills before they are ready to enter into a district's or school's regular LIEP. Newcomer models can help to address these needs and prepare such students for participation in regular content or ESL classes. The most common configuration of a newcomer model is a full-time design that lasts for one school year and provides students with literacy and language instruction, sheltered content instruction, and orientation and acculturation to the customs of the American school environment (Boyson and Short 2003). Specific programs designed as newcomer models may vary, based on the specific needs and resources in a school district or school. Because of its specialized nature, the newcomer model should not be a school district's only LIEP offering. There is very little research available about literacy instruction for students in this age range, particularly in an L2.

It appears, moreover, that the majority of the secondary newcomer programs in the United States are funded exclusively or primarily by district-level funds or special funding for refugee programs (Boyson and Short 2003), suggesting that school districts with smaller operating budgets may struggle to implement such programs even if they have a need.

Exhibit 17. Key articles on the newcomer model

Author(s)	Year	Title	Type of study
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Developing reading and writing in second-language learners	Literature review and synthesis
Boyson and Short	2003	Secondary school newcomer programs in the United States	Descriptive study
Genesee	1999	Program alternatives for linguistically diverse students	Literature review and synthesis
Rivera, Francis, Fernandez, Moughamiam, and Jergensen	2010	Effective practices for English language learners. Principals from five states speak	Descriptive study
Spaulding, Carolino, and Amen	2004	Immigrant students and secondary school reform: Compendium of best practices	Expert opinion based on research
Thomas and Collier	2002	A national study of school effectiveness for language minority students' long-term academic achievement	Descriptive study

Gaps in the Literature and Need for Further Research

Although many helpful findings emerged from this and other reviews of literature and research, that which is unknown still generally predominates in the field of EL education. The current review suggests that the field would benefit significantly from further inquiry in the following areas, either because they are severely underexplored at this point, or because findings thus far are inconclusive:

Construct Framework and Instructional Practices for Academic English

Although the evidence is building that academic English is critical to EL success and requires special instruction, information is still lacking about how best to define and operationalize academic English, let alone to ensure that ELs acquire it. It would also be helpful to know more about how to make texts, assessment and instruction more accessible to ELs who have not yet mastered the academic register. An important aspect of this operational definition would be insight into how to determine (by what criteria, and by what metric) that a student is proficient enough in academic English to exit services.

Better Data Collection and Use, Particularly Data That Differentiate Among Populations Within the EL Subgroup

The EL population is highly heterogeneous in terms of students' L1s, educational backgrounds, cultural backgrounds, L1 proficiency and age (Editorial Projects in Education 2009). In light of this, it seems logical to conclude that what works best for a given EL student may vary depending on any one of these variables. At present, however, most state and school district data systems are not set up to capture information at this level of detail, and most research does not differentiate EL students according to these dimensions in treatment groups (with the exception of studies that may focus on recent immigrant students with limited L1 literacy and formal education, referred to as newcomer students). More fine-grained information about ELs by subgroup would be helpful both to practitioners and to researchers, to help them determine practices and assessments that may provide more effective support that targets the specific needs of different EL subpopulations.

EL-Specific Instructional Practices

Given that instructional practices may be more critical to a LIEP than its model or overarching approach, the field needs more and better research about the efficacy of different instructional practices for ELs. At present, little is known about how to support the literacy and content learning of ELs specifically, despite the fact that much research has been conducted in these areas for the general population. General studies could contribute information simply by tracking and reporting how the interventions they test affect ELs. Because there is evidence to suggest that EL-specific interventions often serve ELs better than do general best practices, more research into practices designed for this population would be helpful and appropriate (August and Shanahan 2008).

Effective Professional Development Programs or Strategies for Teachers of ELs

More research may be needed about how to design and deliver effective PD in general. For the purposes of EL instruction, however, information specifically about how to help teachers—both language specialists and general educators—adopt and implement classroom practices that will support ELs would be useful. As mentioned previously, nearly all teachers today have or will have ELs in their classrooms, meaning every teacher should know how to serve these students. More and better information about how to help teachers do this—both in terms of their preservice training and by way of in-service and

ongoing PD, would help to ensure that more teachers feel competent and prepared to serve their EL students.

Information About Program Implementation

There are significant challenges involved in taking a conceptual model and turning it into a real-life school district program, and these may be difficult for practitioners to anticipate. In addition, researchers and experts might benefit from knowing what real-life challenges practitioners do face and how they deal with these. To benefit everyone in the field—researchers and practitioners alike—more ethnographic studies and program reviews, with detailed information about real programs and how they have evolved to their current forms, would provide information that, currently, is virtually absent. The forthcoming Lessons from the Field guide, to be produced as part of this study, is one such effort to fill this void.

Evaluation Tools for the NCLB Era and Beyond

NCLB introduced significantly more, and significantly more detailed, requirements about serving ELs that did previous legislation. States and school districts are required to evaluate their programs on a regular basis to ensure that their programs continue to be both compliant and effective. Little information exists, however, about how best to do this, particularly in the current policy era. Howard et al. (2007) developed a toolkit that provides guiding principles for dual-language instruction. However, more is needed for other programs. Valid indicators, rubrics or practices to support the implementation progress would support practitioners in this way.

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Appendix A. Literature Review Search Terms and Research Questions

After compiling a list of articles, expert panelists, Department personnel and project contractors submitted additional pieces for the initial review list. These individuals' additions tended to fall into one or more of three categories, including (1) seminal articles or research studies that are critically important to the field (often, these fell outside of the 20-year cut-off); (2) additional texts for review categories (see above) that had not yielded a large pool of hits during the initial search; and (3) very recent works that may not be widely known yet, but are considered important or promising by experts in the field. For all of these recommendations, reviewers waived the 20-year publication cut-off for initial inclusion. Exhibit 18 shows the search terms according to the research question to which they were theorized to pertain, and Exhibit 19 shows search hits by keywords.

As discussed above, articles published in the past 15 to 20 years that fell into one of the five format categories were chosen for initial inclusion:

- Literature reviews and syntheses;
- Expert opinion based on research;
- Descriptive studies;
- Quasi-experimental studies; and
- Experimental studies.

In addition, reviewers searched the report databases for major independent or federally funded research centers in pertinent areas, including the following:

- The National Center for Research on Evaluation, Standards, & Student Testing (CRESST);
- The Center for Research on the Education of Students Placed at Risk (CRESPAR);
- The Center for Research on Education, Diversity & Excellence (CREDE);
- The Center for Research on the Educational Achievement and Teaching of English Language Learners (CREATE);
- The National Clearinghouse for Bilingual Education (NCBE); and
- The Institute of Education Sciences (IES).

Exhibit 18. Location of references in literature review

Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Abedi	2001	Assessment and accommodations for English language learners: Issues and recommendations		✓						
Abedi	2004	The *No Child Left Behind Act* and English language learners: Assessment and accountability issues		✓						
Aguirre-Munoz, Park, Amabisca, and Boscardin	2001	Developing teacher capacity for serving English language learners' writing instructional needs: A case for systemic functional linguistics		✓				✓		
Anstrom, DiCerbo, Katz, Millet, and Rivera	2010	A review of the literature on academic English: Implications for K-12 English language learners		✓						
Arellano-Houchin, Flamenco, Merlos, and Segura	2001	Has California's passage of Proposition 227 made a difference in the way we teach?						✓		
August	2003	Supporting the development of English literacy in English language learners						✓		
August, Beck, Calderon, Francis, Lesaux, and Shanahan	2008	Instruction and Professional Development. In *Developing Reading and Writing in Second-Language Learners*	✓	✓	✓	✓	✓	✓		
August, Branum-Martin, Cardenas-Hagan, and Francis	2009	The impact of an instructional intervention on the science and language learning of middle grade English language learners						✓		

Note: 1 = Theories of second language acquisition; 2 = The construct of academic language; 3 = Models and considerations for LIEP design; 4 = Instructional practices and PD; 5 = District, school and community culture; 6 = Indicators and evaluation of success. ESL = English as a second language model, B = bilingual model, N = newcomer model

Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
August, Carlo, Dressler, and Snow	2005	The critical role of vocabulary development for English language learners						✓		
August and Hakuta	1998	Educating language-minority children			✓	✓		✓		
August and Pease-Alvarez	1996	Attributes of effective programs and classrooms serving English language learners			✓	✓		✓	✓	
August and Shanahan	2006	Developing literacy in second-language learners: Report of the national literacy panel on language-minority children and youth (Executive summary)	✓					✓		
August and Shanahan	2008	Developing reading and writing in second-language learners	✓			✓		✓		
Bahamonde and Friend	1999	Teaching English language learners: A proposal for effective service delivery through collaboration and co-teaching				✓				
Bailey	2007	The language demands of school: Putting academic English to the test		✓						
Bailey and Butler	2007	A conceptual framework for academic English language for broad application to education. In *The Language Demands of School: Putting Academic English to the Test*		✓		✓				
Bailey, Butler, and Sato	2007	Standards-to-standards linkage under title III: Exploring common language demands in ELD and science standards. In *The Language Demands of School: Putting Academic English to the Test*		✓						

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Bailey, Butler, Stevens, and Lord	2007	Further specifying the language demands of school. In *The Language Demands of School: Putting Academic English to the Test*		✓						
Bearse and de Jong	2008	Cultural and linguistic investment: Adolescents in a secondary two-way immersion program				✓				
Belcher	2006	English for specific purposes: Teaching to perceived needs and imagined futures in worlds of work, study, and everyday life		✓	✓					
Berman, McLeod, Nelson, McLaughlin, Minicucci, and Woodworth	1995	School reform and student diversity, volume I: Findings and conclusions. Studies of education reform							✓	
Berman, Aburto, Nelson, Minicucci, and Burkart	2000	Going schoolwide: Comprehensive school reform inclusive of limited English proficient students: A resource guide							✓	✓
Boyson and Short	2003	Secondary school newcomer programs in the United States					✓			
Buysse, Castro, and Peisner-Feinberg	2010	Effects of a professional development program on classroom practices and outcomes for Latino dual language learners						✓		
Butler and Castellon-Wellington	2000	Students' concurrent performance on tests of English language proficiency and academic achievement		✓						

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Callahan	2005	Tracking and high school English learners: Limiting opportunity to learn						✓		
Carrier and Tatum	2006	Creating sentence walls to help English-language learners develop content literacy						✓		
Case	2002	The intersection of language, education, and content: Science instruction for ESL students		✓				✓		
Cazabon, Nicoladis, and Lambert	1998	Becoming bilingual in the Amigos two-way immersion program				✓				
Chamot and Beard El-Dinary	1999	Children's learning strategies in language immersion classrooms		✓	✓					
Chamot and O'Malley	1986	A Cognitive Academic Language Learning Approach: An ESL content-based curriculum	✓	✓	✓					
Chamot and O'Malley	1994	The CALLA handbook: Implementing the Cognitive Academic Language Learning Approach		✓	✓					
Chamot and O'Malley	1996	The Cognitive Academic Language Learning Approach: A Model for Linguistically Diverse Classrooms	✓	✓	✓			✓		
Christian, Montone, Lindhom, and Cananza	1997	Profiles in two-way immersion education				✓				
Cline and Necochea	2003	Specially designed academic instruction in English (SDAIE): More than just good instruction			✓			✓		

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Collier and Thomas	1997	School effectiveness for language minority students	✓		✓	✓		✓	✓	✓
Coxhead	2000	A new academic word list		✓						
Cummins	1979a	Cognitive or academic language proficiency, linguistic interdependence, the optimum age question, and some other matters	✓			✓				
Cummins	1979b	Linguistic interdependence and the educational development of bilingual children	✓			✓				
Cummins	1980	The construct of proficiency in bilingual education	✓							
Curran	2003	Linguistic diversity and classroom management							✓	
Dalton	1998	Pedagogy matters: Standards for effective teaching practice						✓		
D'Angiulli, Siegel, and Maggi	2004	Literacy instruction, SES, and word-reading achievement in English-language learners and children with English as a first language: A longitudinal study	✓		✓			✓		
Darling-Hammond	1997	Doing what matters most: Investing in quality teaching						✓		
Darling-Hammond, Berry, and Thoreson	2001	Does teacher certification matter?: Evaluating the evidence						✓		
DeJesus	2008	An astounding treasure: Dual language education in a public school setting				✓				

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Diaz-Rico and Weed	2002	The crosscultural, language, and academic development handbook: A complete K-12 reference guide.			✓					
Dryfoos	1996	Full-service schools							✓	
Dutro and Kinsella	2010	English language development: Issues and implementation at grades six through twelve. In *Improving Education for English Learners: Research-Based Approaches*						✓		
Echevarria and Short	2010	Programs and practices for effective sheltered content instruction. In *Improving Education for English Learners: Research-Based Approaches*			✓			✓		
Echevarria, Powers, and Short	2006	School reform and standards-based education: A model for English language learners			✓			✓		✓
Echevarria, Vogt, and Short	2004	Making content comprehensible for English learners			✓			✓		✓
Ernst-Slavit, Moore, and Maloney	2002	Changing lives: Teaching English and literature to ESL students						✓		
Faltis and Arias	1993	Speakers of languages other than English in the secondary school: Accomplishments and struggles	✓							
Francis, August, Carlo, and Vaughn	2011	Optimizing educational outcomes for English language learners	✓							
Freeman	2000	Contextual challenges to dual-language education: A case study of a developing middle school program				✓				

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Freeman and Freeman	2001	Between worlds: Access to second language acquisition							✓	
Fung, Wilkinson, and Moore	2003	L1-assisted reciprocal teaching to improve ESL students' comprehension of English expository text						✓		
Gandara and Merino	1993	Measuring the outcomes of LEP programs: Test scores, exit rates, and other mythological data		✓						
Garcia	1991	Education of linguistically and culturally diverse students: Effective instructional practices						✓		
Genesee	1999	Program alternatives for linguistically diverse students			✓	✓	✓		✓	
Genesee, Lindholm-Leary, Saunders, and Christian	2005	English language learners in U.S. schools: An overview of research findings			✓			✓		
Genesee, Lindholm-Leary, Saunders, and Christian	2006	Educating English language learners: a synthesis of research evidence	✓		✓	✓	✓	✓		✓
Gersten	1996	Literacy instruction for language-minority students: The transition years						✓		
Gersten	1999	Lost opportunities: challenges confronting four teachers of English-language learners						✓		

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Gersten, Baker, Shanahan, Linan-Thompson, Collins, and Scarcella	2007	Effective literacy and English language instruction for English learners in the elementary grades: A practice guide		✓				✓		
Gersten and Woodward	1995	A longitudinal study of transitional and immersion bilingual education programs in one district	✓			✓				
Giambo and McKinney	2004	The effects of a phonological awareness intervention on the oral English proficiency of Spanish-speaking kindergarten children						✓		
Goe and Stickler	2008	Teacher quality and student achievement: Making the most of recent research						✓		
Goldenberg	2008	Teaching English language learners: What the research does—and does not—say	✓		✓	✓				
González and Darling-Hammond	1997	New concepts for new challenges: Professional development for teachers of immigrant youth						✓		
Graves, Gersten, and Haager	2004	Literacy instruction in multiple-language first-grade classrooms: Linking student outcomes to observed instructional practice						✓		
Harklau	1994	ESL versus mainstream classes: Contrasting L2 learning environments			✓					
Harper and de Jong	2004	Misconceptions about teaching English-language learners	✓	✓	✓			✓	✓	

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Henze and Lucas	1993	Shaping instruction to promote the success of language minority students: An analysis of four high school classes						✓		
Heritage, Silva, and Pierce	2007	Academic English: A view from the classroom. In *The Language Demands of School: Putting Academic English to the Test*		✓						
Howard and Christian	2002	Two way immersion 101: Designing and implementing a two-way immersion education program at the elementary level				✓				
Howard, Christian, and Genesee	2004	The development of bilingualism and biliteracy from grade 3 to 5: A summary of findings from the CAL/CREDE study of two-way immersion education				✓				
Irby, Fuhui Tong, Lara-Alecio, Mathes, Acosta, and Guerrero	2010	Quality of instruction, language of instruction, and Spanish-speaking English language learners' performance on a state reading achievement test			✓			✓		✓
Kaplan	2009	The impact of English-only legislation on teacher professional development: Shifting perspectives in Arizona						✓		
Knight and Wiseman	2006	Lessons learned from a research synthesis on the effects of teachers' professional development on culturally diverse students						✓		
Krashen	1982	Principles and practices in second language acquisition	✓							

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Laija-Rodriguez, Ochoa, and Parker	2006	The crosslinguistic role of cognitive academic language proficiency on reading growth in Spanish and English	✓			✓				
Lara-Alecio, Irby, and Mathes	2011	Project ELLA (English language or literacy acquisition)	✓							
Lee, Maerten-Rivera, Penfield, LeRoy, and Secada	2008	Science achievement of ELLs in urban elementary schools: Results of a first-year professional development intervention		✓				✓		
Lesaux and Geva	2008	Development of literacy. In *Developing Reading and Writing in Second Language Learners*	✓							
Linan-Thompson, Cirino, and Vaughn	2007	Determining English language learners' response to intervention: Questions and some answers						✓		
Linan-Thompson, Vaughn, Hickman-Davis, and Kouzekanani	2003	Effectiveness of supplemental reading instruction for second-grade English language learners with reading difficulties						✓		
Lindholm-Leary	2005	The rich promise of two-way immersion				✓				
Lindholm-Leary and Borsato	2001	Impact of two-way bilingual elementary programs on students' attitudes toward school and college				✓				
Lindholm-Leary and Borsato	2006	Academic achievement. In *Educating English Language Learners: A Synthesis of Research Evidence*	✓			✓		✓		

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Linquanti	2001	The redesignation dilemma: Challenges and choices in fostering meaningful accountability for English learners		✓						
Lucas	1993	Applying elements of effective secondary schooling for language minority students: A tool for reflection and stimulus to change							✓	✓
Lucas and Katz	1994	Reframing the debate: The roles of native languages in English-only programs for language minority students			✓					
Lyster	2004a	Research on form-focused instruction in immersion classrooms	✓	✓				✓		
Lyster	2004b	Differential effects of prompts and recasts in form-focused instruction	✓	✓				✓		
Manyak	2007	English learners: A framework for robust literacy instruction for English learners						✓		
Manyak and Bouchereau Bauer	2009	English learners: English vocabulary instruction for English learners						✓		
Medina	1991	Native and Spanish language proficiency in a bilingual education program				✓				
Menken and Kleyn	2010	The long-term impact of subtractive schooling in the educational experiences of secondary English language learners				✓		✓		
Merickel, Linquanti, Parrish, Perez, Eaton, and Esra	2003	Effects of the implementation of Proposition 227 on the education of English learners, K-12: Year 3 report	✓		✓					

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Michael, Andrade, and Bartlett	2007	Figuring "success" in a bilingual high school							✓	
Miller and Endo	2004	Understanding and meeting the needs of ESL students							✓	
Minaya-Rowe	2004	Training teachers of English language learners using their students' first language						✓		
Montone and Loeb	2000	Implementing two-way immersion programs in secondary schools				✓				
Necochea and Cline	2000	Effective educational practices for English language learners within mainstream settings							✓	✓
Nelson, Vadasy, and Sanders	2011	Efficacy of a Tier 2 supplemental root word vocabulary and decoding intervention with kindergarten Spanish-speaking English learners						✓		
Ochoa and Cadiero-Kaplan	2004	Towards promoting biliteracy and academic achievement: Educational programs for high school Latino English language learners							✓	✓
O'Day	2009	Good instruction is good for everyone—or is it? English language learners in a balanced literacy approach						✓		
Padrón, Waxman, Brown, and Powers	2000	Improving classroom instruction and student learning for resilient and non-resilient English language learners			✓					

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Pappamihiel	2002	English as a second language students and English language anxiety: Issues in the mainstream classroom						✓	✓	
Parrish, Merickel, Perez, Linquanti, Socias, and Spain	2006	Effects of the implementation of Proposition 227 on the education of English learners, K-12	✓	✓	✓					
Pica	1983	Adult acquisition of English as a second language under different conditions of exposure	✓							
Potowski	2004	Student Spanish use and investment in a dual immersion classroom: implications for second language acquisition and heritage language maintenance				✓				
Proctor, Dalton, Uccelli, Biancarosa, Mo, Snow, and Neugebauer	2009	Improving comprehension online: Effects of deep vocabulary with bilingual and monolingual fifth graders						✓		
Ragan and Lesaux	2006	Federal, state, and district level English language learner program entry and exit requirements: Effects on the education of language minority learners		✓						
Ramirez, Yuen, and Ramey	1991	Final report: Longitudinal study of structured English Immersion strategy, early-exit and late-exit transitional bilingual education programs for language-minority children	✓		✓	✓				

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Ray	2009	A template analysis of teacher agency at an academically successful dual language school						✓		
Reeves	2004	"Like everybody else": Equalizing educational opportunity for English language learners			✓			✓	✓	
Reeves	2006	Secondary teacher attitudes toward including English-language learners in mainstream classrooms			✓			✓	✓	
Reyes	2002	Professional development in a bilingual adult learning community						✓		
Rivera and Collum	2004	An analysis of state assessment policies addressing the accommodation of English language learners						✓		
Rivera and Stansfield	2001	The effects of linguistic simplification of science test items on performance of limited English proficient and monolingual English-speaking students						✓		
Rivera, Francis, Fernandez, Moughamiam, and Jergensen	2010	Effective practices for English language learners: Principals from five states speak	✓			✓	✓			✓
Rossell and Baker	1996	The educational effectiveness of bilingual education	✓							
Royer and Carlo	1991a	Assessing the language acquisition progress of limited English proficient students: Problems and a new alternative		✓						

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Royer and Carlo	1991b	Transfer of comprehension skills from native to second language		✓						
Rubinstein-Avila	2003	Facing reality: English language learners in middle school classes						✓		
Sanders and Rivers	1996	Cumulative and residual effects of teachers on future student academic achievement						✓		
Saunders	1999	Improving literacy achievement for English learners in transitional bilingual programs				✓		✓		
Saunders and Goldenberg	1999	Effects of instructional conversations and literature logs on limited- and fluent-English-proficient students' story comprehension and thematic understanding						✓		
Saunders and Goldenberg	2010	Research to guide English language development instruction. In *Improving Education for English Learners: Research-Based Approaches*	✓		✓			✓		
Saunders and O'Brien	2006	Oral language. In *Educating English Language Learners: A Synthesis of Research Evidence*			✓					
Saunders, O'Brien, Lennon, and McLean	1999	Successful transition into mainstream English: Effective strategies for studying literature						✓		
Scarcella	2003a	Academic English: A conceptual framework		✓		✓				

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Scarcella	2003b	Accelerating academic English: A focus on the English learner		✓						
Schleppegrell, Achugar, and Oteíza	2004	The grammar of history: Enhancing content-based instruction through a functional focus on language		✓				✓		
Shih	1992	Beyond comprehension exercises in the ESL academic reading class						✓		
Short and Echevarria	1999	The Sheltered Instruction Observation Protocol: A tool for teacher researcher collaboration and professional development			✓			✓		
Slavin and Cheung	2005	A synthesis of research on language of reading instruction for English language learners	✓			✓				
Slavin, Madden, Calderon, Chamberlain, and Hennessy	2011	Reading and language outcomes of a multiyear randomized evaluation of transitional bilingual education			✓	✓		✓		✓
Smith, Coggins, and Cardoso	2008	Best practices for ELLs in Massachusetts: Five years after the question 2 mandate	✓		✓					✓
Snow	2008	Cross-cutting themes and future research directions. In *Developing Reading and Writing in Second-Language Learners: Lessons From the Report of the National Literacy Panel on Language-Minority Children and Youth*	✓			✓		✓		

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Snow, Lawrence, and White	2009	Generating knowledge of academic language among urban middle school students						✓		
Sobul	1995	Specially designed academic instruction in English			✓					
Spaulding, Carolino, and Amen	2004	Immigrant students and secondary school reform: Compendium of best practices		✓			✓	✓	✓	
Stevens, Butler, and Castellon-Wellington	2000	Academic language and content assessment: Measuring the progress of ELLs		✓		✓				
Swain and Lapkin	1995	Problems in output and the cognitive processes they generate: A step towards second language learning	✓						✓	
Teale	2009	Students learning English and their literacy instruction in urban schools						✓		
Thomas and Collier	2002	A national study of school effectiveness for language minority students' long-term academic achievement	✓		✓	✓	✓	✓		
Valdes	1997	Dual-language immersion programs: A cautionary note concerning the education of language-minority students				✓				
Valdez-Pierce and O'Malley	1992	Performance and portfolio assessment for language minority students		✓						

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Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Vaughn, Fletcher, Francis, Denton, Wanzek, Wexler, Cirino, Barth, and Romain	2008	Response to intervention with older students with reading difficulties						✓		
Vaughn, Linan-Thompson, Mathes, Cirino, Carlson, Pollard-Durodola, Cardenas-Hagan, and Francis	2006	Effectiveness of Spanish intervention for first-grade English language learners at risk for reading difficulties						✓		
Vaughn, Martinez, Linan-Thompson, Reutebuch, Carlson, and Francis	2009	Enhancing social studies vocabulary and comprehension for seventh-grade English language learners: Findings from two experimental studies						✓		
Walqui	2002	Scaffolding instruction for English language learners: A conceptual framework						✓		
Weisberg, Sexton, Mulhern, and Keeling	2009	The widget effect: Our national failure to acknowledge and act on differences in teacher effectiveness						✓		
Williams, Hakuta, and Haertel	2007	Similar English learner students, different results: Why do some schools do better? A follow-up analysis based on a large-scale survey of California elementary schools serving low-income and EL students	✓		✓				✓	✓

Note: 1 = Theories of second language acquisition; 2 = The construct of academic language; 3 = Models and considerations for LIEP design; 4 = Instructional practices and PD; 5 = District, school and community culture; 6 = Indicators and evaluation of success. ESL = English as a second language model, B = bilingual model, N = newcomer model

Author(s)	Year	Title	Research Question							
			1	2	3			4	5	6
					ESL	B	N			
Willner, Rivera, and Acosta	2008	Descriptive study of state assessment policies for accommodating English language learners						✓		
Willner, Rivera, and Acosta	2009	Ensuring accommodations used in content assessments are responsive to English language learners						✓		
Wright, Horn, and Sanders	1997	Teacher and classroom context effects on student achievement: Implications for teacher evaluation						✓		
York-Barr, Ghere, and Sommerness	2007	Collaborative teaching to increase ELL student learning: A three-year urban elementary case study						✓		
Young	1996	English (as a second) language arts teachers: The key to mainstreamed ESL student success						✓		
Zehler, Fleischman, Hopstock, Stephenson, Pendzick, and Sapru	2003	Descriptive study of services to LEP students and LEP students with disabilities			✓					
Zetlin, MacLeod, and Michener	1998	Professional development of teachers of language minority students through university-school partnership						✓		

Note: 1 = Theories of second language acquisition; 2 = The construct of academic language; 3 = Models and considerations for LIEP design; 4 = Instructional practices and PD; 5 = District, school and community culture; 6 = Indicators and evaluation of success. ESL = English as a second language model, B = bilingual model, N = newcomer model

Exhibit 19. Search hits by research question and database

Search Terms	Database Hits (#) PsycINFO	ProQuest	EBSCO	JSTOR
Research question topics				
Language Instruction Educational Programs	276	32	0	36
Newcomer and English Learner	4	1	3	31
Immersion and English and English Learner	13	2	4	740
Bilingual and Program and English Learner	29	3	6	816
Sheltered Instruction and English Learner	1	0	6	113
CALLA and English Learner	0	0	0	23
Related terms				
Professional Development and English Learner	12	0	18	2,596
Professional Development and English Language Acquisition	0	0	0	963
English Language Acquisition and Language Instruction Educational Programs and Certification	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Language Specialists	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Classroom Teacher	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Curriculum	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Instruction	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Alignment with Content Standards and Expectations	0	0	0	0
English Language Development	29	0	12	0
English Language Acquisition and Instruction	2	0	3	0
English Language Acquisition and Classroom Management	0	0	0	0

Search Terms	Database Hits (#)			
	PsycINFO	ProQuest	EBSCO	JSTOR
English Language Acquisition and Language Instruction Educational Programs and Isolation	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Pull-out	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Push-in	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Schedule	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Population	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Student Demographics or Characteristics	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Resources or Resource Allocation	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Community	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Migrant or Immigrant	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Identification or Placement	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Initiation	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Scaling	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Monitoring or Evaluation	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Indicators of Effectiveness	0	0	0	0

Search Terms	Database Hits (#)			
	PsycINFO	ProQuest	EBSCO	JSTOR
English Language Acquisition and Language Instruction Educational Programs and SIFE	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs and Native Language Proficiency	0	0	0	0
English Language Acquisition and Language Instruction Educational Programs	0	0	0	0

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