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Appendix C:

Theoretical Foundations and Research Base for California's English Language Development Standards

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Overview

California's 2012 English Language Development Standards (the CA ELD Standards) reflect an extensive review of established and emerging theories, research, and other relevant resources pertaining to the education of K–12 English learners (EL). This wide body of scholarship and guidance was used to inform the development of the CA ELD Standards. They were also used to ensure that the CA ELD Standards highlight and amplify those language demands found in California's Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science and Technical Subjects (the Common Core State Standards, or CCSS-ELA) that are necessary for the development of advanced English and academic success across the disciplines. The Common Core State Standards served as the core foundation for developing the CA ELD Standards, which are intended to guide teachers to support ELs' English language development as they simultaneously learn rigorous academic content.

Theoretical Foundations and Research Base

The development of the CA ELD Standards was informed by multiple theories and a large body of research pertaining to the linguistic and academic education of English learners. Sociolinguistic, sociocultural, and sociocognitive theories emphasize how learning is a social activity and how language is both a form of social action and a resource for accomplishing things in the world. Among other things, these theories highlight the importance of recognizing and leveraging students' prior knowledge in order to make connections to and foster new learning, helping them to build conceptual networks, and supporting them to think about their thinking (metacognitive knowledge) and language use (metalinguistic knowledge) in order to consciously apply particular cognitive strategies (e.g., inferring what the text means by examining textual evidence) and linguistic practices (e.g., intentionally selecting specific words or phrases to persuade others). These metacognitive and metalinguistic abilities support students' self-regulation, self-monitoring, intentional learning, and strategic use of language (Christie, 2012; Duke, Pearson, Strachan, and Billman, 2011; Halliday, 1994; Hess, Carlock, Jones, and Walkup, 2009; Palinscar and Brown, 1984; Pearson, 2011; Schleppegrell, 2004). From this perspective, language and interaction play a central role in mediating both linguistic and cognitive development, and learning occurs through social interaction that is carefully structured to intellectually and linguistically challenge learners while also providing appropriate levels of support (Bruner, 1983; Cazden, 1986; Vygotsky, 1978; Walquí and van Lier, 2010).

Multiple reviews of the research, individual studies, and teacher practice guides synthesizing the research for classroom application demonstrate the effectiveness of enacting the theories outlined above when teaching ELs (see, for example, Anstrom, Di Cerbo, Butler, Katz, Millet, and Rivera, 2010; August and Shanahan, 2006; Francis, Rivera, Lesaux, Kieffer, and Rivera, 2006; Genesee, Lindholm-Leary, K., Saunders and Christian, 2006; Short and Fitzsimmons, 2007). Among the key findings from this research is that effective instructional experiences for ELs

- a) are interactive and engaging, meaningful and relevant, and intellectually rich and challenging;
- b) are appropriately scaffolded in order to provide strategic support that moves the learner toward independence;
- c) value and build on home language and culture and other forms of prior knowledge; and
- d) build both academic English and content knowledge.

Interacting in Meaningful and Intellectually Challenging Ways

The importance of providing opportunities for English learners to interact in meaningful ways around intellectually challenging content has been demonstrated in multiple studies. Meaningful interaction in K–12 settings includes, among other tasks, engaging in collaborative oral discussions with a peer or a small group of peers about texts or content topics. Not all students come to school knowing how to engage in these interactive processes with other students. However, research in classrooms with ELs has demonstrated that teachers can successfully “apprentice” their students into engaging in more academic ways of interacting with one another, using the language of the specific content in question, acquiring the language of academic discourse, and developing content knowledge (Gibbons, 2009; Walquí and van Lier, 2010).

For example, teachers can carefully structure collaborative learning practices that promote small group discussion among students about the science and history texts they’re reading in order to simultaneously foster comprehension of the texts, the acquisition of vocabulary and grammatical structures associated with the texts, and more academic ways of engaging in conversations about the texts (Heller and Greenleaf, 2007; Klingner, Vaughn, Arguelles, Hughes, and Leftwich, 2004; Kosanovich, Reed, and Miller, 2010; Short, Echevarría, and Richards-Tutor, 2011; Vaughn, Klingner, Swanson, Boardman, Roberts, Mohammed, and Stillman-Spisak, 2011).

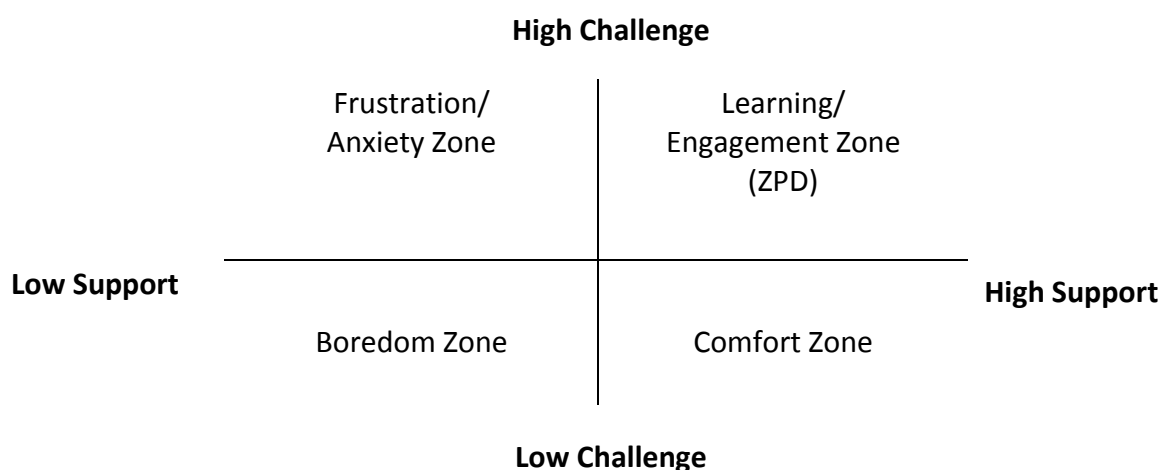
Teachers can provide structured and strategically supportive opportunities for students to develop more academic ways of interacting meaningfully. For example, the kinds of discourse skills expected in academic conversations can be fostered when teachers a) establish routines and expectations for equitable and accountable conversations (e.g., specific roles in a conversation, such as “facilitator”); b) carefully construct questions that promote extended discussions about academic content (e.g., questions that require students to infer or explain something for which they have sufficient background knowledge); and c) provide appropriate linguistic support (e.g., a sentence stem, such as “I agree with ____ that _____. However, _____.”). With strategic scaffolding, students can learn to adopt particular ways of organizing their discourse during group work and “practicing” particular aspects of academic English that approach the more “literate” ways of communicating that are highly valued in school (Dutro and Kinsella, 2010; Gibbons, 2009; Merino and Scarcella, 2005; Schleppegrell, 2010).

Scaffolding

Teachers play a central role in providing *temporary* supportive frameworks, adjusted to students' particular developmental needs, in order to improve their access to meaning and on-going linguistic and cognitive development. The metaphorical term "scaffolding" (Bruner, 1983; Cazden, 1986; Celce-Murcia, 2001; Mariani, 1997) refers to ways in which these temporary supportive frameworks can be applied. The term draws from Vygotsky's (1978) notion of the "zone of proximal development (ZPD)," the instructional space that exists between what the learner can do independently and that which is too difficult for the learner to do without strategic support, or scaffolding. Scaffolding is temporary help that is future-oriented. In other words, scaffolding supports students on how to do something with support today that they will be able to do independently in the future.

As Hammond (2006) has emphasized, scaffolding "does not just spontaneously occur" (p. 271), but is, rather, intentionally designed for a learner's particular needs, and then systematically and strategically carried out. The level of scaffolding a student needs depends on a variety of factors, including the nature of the task and the learner's background knowledge of relevant content, as well as the learner's proficiency with the language required to engage in and complete the task. Scaffolding does not change the intellectual challenge of the task, but instead allows learners to successfully participate in or complete the task in order to build the knowledge and skills to be able to perform the task independently at some future point.

Scaffolding practices are intentionally selected based on the standards-based goals of the lesson, the identified learner needs, and the anticipated challenge of the task. Gibbons (2009) has offered a way of conceptualizing the dual goal of engaging ELs in intellectually challenging instructional activities, while also providing them with the appropriate level of support:



(Gibbons, 2009, adapted from Mariani, 1997)

In the CA ELD Standards, the three overall levels of scaffolding that teachers provide to ELs during instruction are *substantial*, *moderate*, and *light*. ELs at the emerging level of English language proficiency will *generally* require more substantial support to develop capacity for

many academic tasks than will students at the bridging level. This does not mean that these students always will require substantial/moderate/light scaffolding for every task. EL students at every level of English language proficiency will engage in some academic tasks that require *light* or *no* scaffolding because they have already mastered the requisite skills for the given tasks, and students will engage in some academic tasks that require *moderate* or *substantial* scaffolding because they have not yet acquired the cognitive or linguistic skills required by the task. For example, when a challenging academic task requires students to extend their thinking and stretch their language, students at expanding and bridging levels of English language proficiency may also require *substantial* support. Teachers need to provide the level of scaffolding appropriate for specific tasks and learners' cognitive and linguistic needs, and students will need more or less support depending on these and other variables.

Examples of *planned scaffolding*¹ that teachers prepare in advance during their lesson and curriculum planning in order to support access to academic content and linguistic development include, but are not limited to, the following:

- Taking into account what students already know, including primary language and culture, and relating it to what they are to learn;
- Selecting and sequencing tasks, such as modeling and explaining, and providing guided practice, in a logical order;
- Frequently checking for understanding during instruction, as well as gauging progress at appropriate intervals throughout the year;
- Choosing texts carefully for specific purposes (e.g., motivational, linguistic, content);
- Providing a variety of collaborative grouping processes;
- Constructing good questions that promote critical thinking and extended discourse;
- Using a range of information systems, such as graphic organizers, diagrams, photographs, videos, or other multimedia to enhance access to content; and
- Providing students with language models, such as sentence frames/starters, academic vocabulary walls, language frame charts, exemplary writing samples, or teacher language modeling (e.g., using academic vocabulary or phrasing).

This planned scaffolding in turn allows teachers to provide *just-in-time* scaffolding during instruction, which flexibly attends to students' needs as they interact with content and language. Examples of this type of scaffolding include:

- Prompting a student to elaborate on a response to extend his or her language use and thinking;

¹ There are many ways to categorize scaffolding. The terms used here are adapted from Hammond and Gibbons (2005) who refer to "designed-in" and "interactional" scaffolding. Designed-in (or planned) scaffolding refers to the support teachers consciously plan in advance. Interactional scaffolding refers to the support teachers provide contingently through dialogue during instruction or other interaction.

- Paraphrasing a student’s response and including target academic language as a model while, at the same time, accepting the student’s response using everyday or “flawed” language; and
- Adjusting instruction on the spot based on frequent checking for understanding;
- Linking what a student is saying to prior knowledge or to learning to come (previewing).

For ELs, instruction and/or strategic support in the student’s primary language can also serve as a powerful scaffold to English literacy (August and Shanahan, 2006; CDE, 2010; Genesee, Lindholm-Leary, Saunders and Christian, 2006; Goldenberg, 2008). This research evidence indicates that EL students in programs where biliteracy is the goal and where bilingual instruction is sustained demonstrate stronger literacy performance in English, with the added metalinguistic and metacognitive benefits of bilingualism.

Developing Academic English

For K–12 settings, academic English broadly refers to the language used in school to help students develop content knowledge and the language students are expected to use to convey their understanding of this knowledge. Interpreting, discussing, analyzing, evaluating, and writing academic texts are complex literacy processes that involve the integration of multiple linguistic and cognitive skills, including word-level processing, such as decoding and spelling. But these advanced English literacy tasks especially involve higher order cognitive and linguistic processes, including applying prior knowledge, making inferences, recognizing the grammatical structures and linguistic features of texts, resolving ambiguities (e.g., semantic, syntactic), and selecting appropriate language resources for specific purposes, not to mention stamina and motivation.

The CA ELD Standards position English as a meaning-making resource with different language choices available based on discipline, topic, audience, task, and purpose. This notion of English as a meaning-making resource necessitates an expanded notion of *academic language* from simplistic definitions (e.g., academic vocabulary or syntax) to a broader conceptualization that encompasses discourse practices, text structures, grammatical structures, and vocabulary, and views these as inseparable from meaning (Bailey and Huang, 2011; Wong-Fillmore and Fillmore, 2012; Snow and Uccelli, 2009). Academic English shares characteristics across disciplines (it is densely packed with meaning, authoritatively presented, and highly structured²) but is also highly dependent upon disciplinary content (Christie and Derewianka, 2008; Moje, 2010; Quinn, Lee, and Valdes, 2012; Schleppegrell, 2004). The Common Core State Standards emphasize the need for all students to be able to comprehend and produce complex texts in a variety of disciplines so that they are college and career ready. Research suggests that teachers can foster, and even accelerate, the development of academic English for EL students through multilayered and multi-component approaches that incorporate attention to the way English works in different contexts.

² For more on the characteristics of academic English, see Appendix B of the CA ELD Standards: Part II, Learning About How English Works.

The Importance of Vocabulary

Over the past several decades, research has repeatedly identified vocabulary knowledge as a critical and powerful factor underlying language and literacy proficiency, including disciplinary literacy (e.g., Graves, 1986; Chall, Jacobs, and Baldwin, 1990; Beck and McKeown, 1991; Hart and Risley, 1995; Blachowicz and Fisher, 2000; Baumann, Kaméenui, and Ash, 2003; Bowers and Kirby, 2009; Carlisle, 2010; McCutchen and Logan, 2011). Comprehensive and multifaceted approaches to vocabulary instruction include a combination of several critical components: rich and varied language experiences (e.g., wide reading, teacher read-alouds), teaching individual academic words (both general academic and domain specific), teaching word-learning strategies (including cognate awareness and morphology), and fostering word consciousness and language play (Graves, 2000, 2006, 2009). The Common Core Standards draw particular attention to domain-specific and general academic vocabulary knowledge and usage due to the prevalence of these types of vocabulary in academic contexts. Research conducted over the past decade, in particular, has demonstrated the positive effects of focusing on domain-specific and general academic vocabulary with K–12 EL students (August, Carlo, Dressler, and Snow, 2005; Calderon, August, Slavin, Duran, Madden, and Cheung, 2005; Carlo et al., 2004; Collins, 2005; Kieffer and Lesaux, 2008, 2010; Silverman, 2007; Snow, Lawrence, and White, 2009; Spycher, 2009; Townsend and Collins, 2009).

The Importance of Grammatical and Discourse-Level Understandings

While academic vocabulary is a critical aspect of academic English, it is only one part. The CA ELD Standards were further informed by genre- and meaning-based theories of language, which view language as a social process and a meaning-making system and seek to understand how language choices construe meaning in oral and written texts. These theories have identified how networks of interrelated language resources—including grammatical, lexical, and discourse features—interact to form registers that vary depending upon context and situation (Halliday and Matthiessen, 2004). Advanced English proficiency hinges on the mastery of a set of academic registers used in academic settings and texts that “construe multiple and complex meanings at all levels and in all subjects of schooling” (Schleppegrell, 2009, p. 1).

“Register” refers to the ways in which grammatical and lexical resources are combined to meet the expectations of the context (i.e., the content area, topic, audience, and mode in which the message is conveyed). In this sense, “register variation” (Schleppegrell, 2012) depends on what’s happening (the content), who the communicators are and what their relationship is (e.g., peer-to-peer, expert-to-peer), and how the message is conveyed (e.g., written, spoken, multi-semiotic format). More informal, or “spoken-like” registers might include chatting with a friend about a movie or texting a relative. More formal, or “written-like” registers might include writing an essay for history class, participating in a debate about a scientific topic, or making a formal presentation about a work of literature. The characteristics of these academic registers, which are critical for school success, include specialized and technical vocabulary, sentences and clauses that are densely packed with meaning and combined in purposeful ways, and whole texts that are highly structured and cohesive in ways dependent upon the disciplinary

area and social purpose (Christie and Derewianka, 2008; Halliday and Matthiessen, 2004; O'Dowd, 2010; Schleppegrell, 2004).

Language is the medium in which teaching and learning take place in schools; the medium through which we transform and develop our thinking about concepts; and in this way, language and content are inextricably linked (Halliday, 1993). For this and other reasons, language has been referred to as the “hidden curriculum” of schooling and why school success can be seen as largely a language matter (Christie, 1999). EL students often find it challenging to move from more everyday or informal registers of English, to more formal academic registers. Understanding and gaining proficiency with academic registers and the language resources that build them opens up possibilities for expressing ideas and understanding the world. From this perspective, teachers who understand the lexical, grammatical, and discourse features of academic English and how to make these features explicit to their students in purposeful ways that build both linguistic and content knowledge are in a better position to help their students fulfill their linguistic and academic potential.

Teaching about the grammatical patterns found in specific disciplines has been shown to help ELs' reading comprehension and writing proficiency. The main pedagogical aims of this research are to help students become more conscious of how language is used to construct meaning in different contexts and to provide them with a wider range of linguistic resources, enabling them to make appropriate language choices that they can comprehend and construct meaning within oral and written texts. Accordingly, the instructional interventions studied in the applied research in this area have focused on identifying the language features of the academic texts students read and are expected to write in school (e.g., narratives, explanations, arguments) and on developing their awareness of and proficiency in using the language features of these academic registers (e.g., how ideas are condensed in science texts through nominalization, how arguments are constructed by connecting clauses in particular ways, or how agency is hidden in history texts by using the passive voice) so that they can better comprehend and create academic texts (Brisk, 2012; Gebhard, Willett, Jimenez, and Piedra, 2010; Fang and Schleppegrell, 2010; Gibbons, 2008; Hammond, 2006; Rose and Acevedo, 2006; Schleppegrell and de Oliveira, 2006).

Research on genre- and meaning-based approaches to literacy education with EL students in the United States and internationally has demonstrated the effectiveness of teaching EL students about how language works to achieve different purposes in a variety of contexts and disciplines (Achugar, Schleppegrell, and Oteíza, 2007; Aguirre-Muñoz, Park, Amabisca, and Boscardin, 2008; Gebhard and Martin, 2010; Schleppegrell, Achugar, and Oteíza, 2004; Spycher, 2007). This research has stressed the importance of positioning ELs as competent and capable of achieving academic literacies, providing them with an intellectually challenging curriculum with appropriate levels of support, apprenticing them into successfully using disciplinary language, and making the features of academic language transparent in order to build proficiency with and critical awareness of the features of academic language (Christie, 2012; Derewianka, 2011; Gibbons, 2009; Halliday, 1993; Hyland, 2004; Schleppegrell, 2004).

The extensive body of theories and research drawn upon to inform and guide the development of the CA ELD Standards demonstrate that effective instruction for ELs focuses on critical principles for developing language and cognition in academic contexts. These principles emphasize both interaction in meaningful ways and the development of metalinguistic awareness in contexts that are intellectually rich and challenging, focused on content, strategically scaffolded, respectful of, and resourceful about the cultural and linguistic knowledge students bring to school.

Other Relevant Guidance Documents Consulted

Additional state, national, and international documents designed to inform and guide policy and practice for the education of ELs were consulted. These documents include the following:

- Understanding Language: Language, Literacy, and Learning in the Content Areas—Commissioned Papers on Language and Literacy Issues in the Common Core State Standards and Next Generation Science Standards (Stanford University);
- The Framework for English Language Proficiency/Development Standards Corresponding to the Common Core State Standards and the Next Generation Science Standards (Council of Chief State School Officers);
- Improving Education for English Learners: Research-Based Approaches (California Department of Education);
- The Common European Framework of Reference for Languages;
- The National Standards for Learning Languages (American Council on the Teaching of Foreign Languages);
- The Framework for High-Quality English Language Proficiency Standards and Assessments (Assessment and Accountability Comprehensive Center);
- The ELD/ELP Standards from multiple states; and
- The Australian National Curriculum.

Conclusion

The solid theoretical base and wide body of research and resources that were consulted for the development of the California ELD Standards were complemented by the writing team’s deep and varied knowledge working in schools across California with both EL students (as teachers) and teachers of EL students (as professional developers, research partners, and consultants in various capacities). At every stage of the development and review process, this practical knowledge about what goes on in classrooms paired with the extensive knowledge of the theories and research pertaining to the education of EL students contributed to the development of a rigorous and balanced set of ELD Standards.

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