Improving Education for Multilingual and English Learner Students

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Content and Language Instruction in Middle and High School:

Promoting Educational Equity and Achievement Through Access and Meaningful Engagement

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I am encouraging students to work together more in an organic learning environment so that they can teach each other, and I become the facilitator.
   –Ms. Herrera[1]

Ms. Herrera's sentiments reflect goals shared by California's secondary teachers to support all students in developing agency and autonomy, collaborating with peers, and achieving academically. This chapter begins with the premise that every secondary teacher wants all their students, including those who are learning English as an additional language, to be academically successful in, and feel connected to, school. However, many teachers may feel underprepared to achieve these goals for some of their multilingual learner (ML) students, particularly their English learner (EL) students. Some teachers may have questions about how to design and implement rigorous content learning that is relevant for students, supports their development of advanced academic language and literacy skills, and offers meaningful opportunities to apply their knowledge and skills. In short, how can a teacher design teaching and learning experiences that are inclusive, intellectually engaging, and supportive so that each student fulfills their own academic potential?

This chapter responds to these questions and offers concrete guidance. It focuses on instruction that promotes ML students' academic achievement, language development, multilingualism, social and emotional development, and positive identity formation. Sustaining this type of integrated instruction is not an easy feat and there is no one-size-fits-all approach. However, one thing is clear: while secondary ML and EL students benefit from having access to grade-level courses, this is not enough to ensure their academic success. They also benefit from well-designed instructional support across the content areas that includes culturally sustaining practices and integrated and designated English language development (hereafter referred to as ELD) (August 2018; National Academies of Science, Engineering, and Medicine [NASEM] 2017; Thompson 2017).

This chapter is intended to empower educators to make informed instructional decisions that can transform ML students' educational experiences and outcomes. Learning and integrating the recommendations in this chapter will take time, practice, reflection, and patience, but the work is well worth the effort. Moreover, evidence shows that with support, all teachers— the innovative and creative professionals they are—can achieve these transformations. The intent is to support teachers in their quest to ensure that each student feels connected to school, engages meaningfully in academic learning, and is well prepared for a bright future and a fulfilling life.

Who is this chapter for and how is it structured?

This chapter is especially useful for middle and high school teachers of ML and EL students in the disciplines of language arts, the sciences, history/ social science, mathematics, and ELD. Teachers of other subject matter, specialists, and support staff working in classrooms with these students will also find the chapter useful. It is an essential resource for professionals charged with preparing and supporting teachers and creating the conditions necessary for their success, including site and district administrators, instructional coaches, teacher educators, professional learning providers, teacher leaders, and department chairs. School board members may also find the chapter instructive as they make pivotal decisions regarding local educational policies and programs.

Effective, research-based instructional practices for promoting multilingual students' content and language learning, with an emphasis on comprehensive ELD for EL students, are described throughout the chapter. It begins by briefly describing secondary ML and EL students. It then outlines California's vision for these students in order to frame the instructional guidance offered and ground that guidance in a theory of action. Next is a section on creating the systems necessary for teachers to carry out the instructional recommendations in this chapter. The remainder of the chapter features six research-based instructional practices. The chapter provides brief descriptions about each practice and then shares classroom vignettes that illustrate how the practices have been carried out in real middle and high schools. These vignettes are intended to demonstrate what these practices can look like across disciplines when they are implemented together, as well as to promote dialogue around what is possible in one's own classroom.

Throughout the chapter there are Thought Bursts that ask readers to pause and reflect on their current practices. These stopping points are meant to encourage and support self-reflection and to help identify spaces and opportunities for enhancing existing practice. The chapter ends with suggestions for how to try out some of the recommended practices and learn more deeply about the concepts presented.

Who are California's multilingual learner and English learner students?

In this chapter the term "ML students" is used to refer to students who speak or understand, to varying degrees, more than one language: both English and a language (or more than one language) used in their homes or communities.[2] The term is used intentionally to emphasize the asset of students' home languages and not just their trajectory toward English language proficiency (ELP). EL students are a subgroup of ML students. They are legally entitled, through California and federal laws, to academic coursework with specialized support to help them reach thresholds for proficiency in English that will help them be successful. Much of this chapter focuses on how to provide such support in respectful and engaging ways that accelerate ELD progress.

It is important to remember that ML students are not a uniform group. All students have multilayered and intersecting identities—shaped by their histories, experiences, interests, cultures, and languages, among other factors—that need to be acknowledged, valued, and leveraged for school learning. In part because of their experiences as culturally and linguistically diverse individuals, many ML students have faced and overcome challenges in their schooling, demonstrating perseverance, determination, and creative problem-solving skills. These qualities in and of themselves should be seen as strengths and validated.

It is also important for educators to recognize and address specific challenges individual students may face. For example, a substantial number of secondary EL students have been identified as long-term English learners—students who have been designated as EL students for more than six years. Other EL students are newcomers—new to English and to US schools—and benefit from unique support to make transitions and integrate into their new environment. Because many ML students are also students of color, they and their families may experience racism and other forms of discrimination.

These are just some of the experiences that could affect ML students' school learning and academic achievement. Students and teachers alike benefit when all educators in the system recognize and address individual strengths and challenges of their ML students. To best support ML students, it is important that educators know their students' particular experiences and backgrounds.

What is California's vision for multilingual learner students?

California's overarching vision for all students is **educational equity**: each classroom is an equitable, inclusive, responsive, and supportive learning environment where all students thrive and develop the competencies that will allow them to pursue the greatest number of postsecondary options and live a fulfilling and rewarding adult life. This vision is emphasized in current policies and resources such as California's *English Learner Roadmap (CA EL Roadmap), English Language Development Standards (CA ELD Standards), English Language Arts/English Language Development Framework (ELA/ELD Framework),* and *the California Practitioners' Guide for Educating English Learners with Disabilities.*[3]

> **Educational equity** is when each and every student is provided the academic, social, emotional, cultural, linguistic, and other opportunities, resources, and supports they specifically need, when they need them, to experience belonging in school, achieve academic success, and attain self-actualization.

These policies and resources support **asset-based pedagogies**[4] and other critical practices exhibited in schools that recognize the learning strengths and respond to the specific learning needs of ML students, particularly those who are ethnically and/or racially diverse and/or from immigrant backgrounds. Schools seek to promote the educational structures that may increase these students' learning potential, such as equal access to quality resources, experienced teachers, and college track courses, as well as to promote institutionalized asset perspectives that define students by their strengths and their abilities to achieve in school. One way that California has committed to addressing educational equity is through statewide efforts to increase Ethnic Studies courses and curricula. **Ethnic Studies** is an important piece of a larger puzzle that involves asset-based pedagogies and culturally relevant instructional materials in all classrooms, enacted by critically conscious teachers who are responsive to the strengths and needs of their students.

Ethnic Studies in California's Secondary Schools[5]

Ethnic Studies encourages cultural understanding and asset-oriented practices in classrooms. It promotes deep understanding of how different groups have struggled and worked together toward equality, fairness, justice, and racial and ethnic pride. Over the course of history, both in California and nationally, specific ethnic groups have had unjust treatment, even from respected institutions of authority. The curriculum taught in our schools is most effective when it highlights and preserves the contributions of people of color and emphasizes the importance of their roles. Ethnic Studies provides a model of inclusion as it emphasizes the histories and contemporary experiences of people of color, including their important and varied roles in state and national history.

Ethnic Studies courses and curriculum in California acknowledge and honor four foundational groups of people: Black or African American, Asian American, Chicana/o/x and Latina/o/x, and American Indian/Alaska Native. Schools with Native Hawaiian or other Pacific Islander students may also focus Ethnic Studies courses on these groups. Since most ML and EL students in California are also people of color, Ethnic Studies is an essential part of their educational experience. It is also important for all students to learn about the historical and current contributions of people of color to American society and about the intersectionality of all people.

Ethnic Studies courses not only embody the asset-oriented vision California has for students, they also improve attendance and academic achievement (Dee and Penner 2017; Sleeter 2011). Though not all secondary teachers in California will teach an Ethnic Studies course, all educators can learn more about asset-based pedagogies and ways of honoring the human experience and integrate these into their courses.[6]

In your school or district, what asset-oriented practices and pedagogies are currently in place? What might be put into place for your particular students? What benefits would your students experience?

California's policies and resources clearly state that all secondary ML and EL students must have full and meaningful access to courses that are responsive to who they are, meet the state's A–G college entrance and graduation requirements, and prepare them to be successful in college, careers, and life. The policies and resources also call for increased attention to students' social and emotional development and mental well-being as integral to their academic progress. Further, the **State Seal of Biliteracy** program exemplifies California's goal for a multilingual state by recognizing high school graduates who have attained a high level of proficiency in speaking, reading, and writing one or more languages in addition to English. EL students must also have specialized support through integrated and designated ELD, which the next section addresses.

What is Integrated and Designated English Language Development?

According to state policy, all middle and high school EL students at all ELP levels (Emerging, Expanding, Bridging) should receive comprehensive ELD, which includes **both integrated and designated ELD**. Figure 6.1 provides an overview of frequently asked questions (FAQs) about integrated and designated ELD, and a description of both follows.[7]

Figure 6.1   FAQs about Integrated and Designated ELD in Middle and High School

FAQs	Integrated ELD	Designated ELD
When?	Occurs in all content areas throughout the day	A protected time during the regular school day
Who teaches?	All teachers with EL students, authorized and well trained in both content and ELD	Qualified teachers who are authorized and well trained in teaching ELD
Student grouping?	EL students are integrated with proficient English speakers	EL students are grouped, to the extent possible, by their ELP levels
Standards used?	*CA ELD Standards in tandem with* relevant content standards to scaffold learning	*CA ELD Standards* as the focal standards in ways that build *into and from content instruction*
Additional supports?	Multilingual paraprofessionals, collaborative support from EL and special education specialists	Multilingual paraprofessionals, collaborative support from content teachers and special education specialists
Why?	Promoting the development of grade-level content knowledge and increasingly advanced levels of English	Promoting the development of critical English language skills needed for successful learning in content courses

What is Integrated English Language Development?

Integrated ELD occurs in all content courses as teachers use the *CA ELD Standards* to guide their lesson planning, observe students during instruction, and evaluate student work. This means using specific *CA ELD Standards* to support EL students in using English purposefully, interacting in meaningful

ways, and understanding how English works in the context of academic content teaching and learning. The purpose is to ensure that EL students have support to fully participate in and be successful with core content learning. Many illustrations of rich and comprehensive ELD instruction across content areas through six interacting instructional practices appear later in the chapter.

Instructional materials—even new ones—should be reviewed from a critical stance and adapted to align with the *CA ELD Standards* and respond to EL students' needs. Regardless of how strong the materials are, it is good practice to identify areas in the design of any curriculum that may need to be enhanced to be fully responsive to the needs of individual students. Here, support from instructional coaches and other experts is critical: Their support in leveraging the *CA ELD Standards* in instructional planning, refining instructional approaches, and using assessment to inform instructional decision-making can make all the difference for teachers and their EL students.

> Take a moment to look at the *CA ELD Standards,* both part I and II, for your grade level. How might a focus on specific ELD standards during the instructional planning phase support your EL students during content instruction?

What is Designated English Language Development?

Designated ELD is a protected time when skilled teachers focus on the specific language learning needs of EL students, based on their ELP levels, in ways that are directly connected to students' specific content learning. It is not a time for isolated language instruction, remediation, or intervention. Designated ELD complements integrated ELD and does not replace it. It is part of EL students' core curriculum as it offers the specialized language development support to which EL students are legally entitled. Students benefit when they are grouped together by similar ELP levels for designated ELD (e.g., newcomer EL students at Emerging levels and long-term EL students at Expanding or Bridging levels) because it enhances the teachers' ability to differentiate instruction and focus on students' specific language learning needs. During this protected time, the *CA ELD Standards* are used as the focal standards in ways that build into and from specific content learning and goals.

As they progress toward full proficiency in English, EL students make their way through three broad stages of English language proficiency (ELP)—Emerging, Expanding, and Bridging. For detailed information on these stages, teachers can refer to their grade-level *CA ELD Standards,* available on the California Department of Education website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link1. Teachers can use the *CA ELD Standards* in tandem with the content standards when planning lessons and units in order to ensure students' academic success and steady progress toward full proficiency in English.

The populations and individual needs of EL students in each school vary, and California's model of designated ELD is not a one-size-fits-all approach. Schools may offer services and instruction in a variety of ways to ensure that students receive sufficient time for appropriate designated ELD instruction to meet their English development needs. To "do" designated ELD well, a systemic process that promotes school-level and cross-departmental coordination and careful examination of student data is essential. Detailed understanding of individual students' ELD needs is used to inform master scheduling and course content development. A systemic process ensures that EL students make accelerated progress with specialized instruction and do not waste time in courses that do not meet their linguistic development needs. Teachers are critical members of this process.

Because they are not a uniform group with the same language learning needs, it is likely that EL students in a school will require different approaches to designated ELD. For example, newcomer EL students at the Emerging level of ELP will likely require intentional designated ELD instruction for an extended duration based on their linguistic goals, yet they must also have full access to college-ready core content courses (see vignette 6.6 later in this chapter for an example). Other students, such as EL students at the early Expanding level of ELP, may need a daily designated ELD course (see vignette 6.2 for an example). Students at the late Expanding and Bridging levels of ELP may benefit from appropriate and individualized adjustment to the way they receive designated ELD instruction, based on their school district's design

for ELD. For example, students identified as long-term English learners may benefit from a structured course or from meeting with an ELD teacher several times a week to accelerate their academic language development. The key indicator in selecting the design is that students meet the exit criteria in a prescribed reasonable amount of time.

Whatever the approach to designated ELD, no EL student should be excluded from participating in a full academic, college-ready curriculum or prevented from participating in electives, sports, or other school activities. Designated ELD should not interfere with EL students' full access to a robust and comprehensive set of courses; it should be additive and should not make students feel stigmatized or punished.

What kinds of school and district systems are needed to support effective instruction?

While effectively designed, planned, and implemented instruction is the heart of quality schooling for all students, it does not occur magically, overnight, or in a vacuum. ML students can achieve educational equity when administrators create the conditions in which quality teaching and learning can happen. These conditions can be successfully created with high-functioning systems in place, including those that promote educator collaboration, ongoing professional learning, continuous self-reflection, and self-evaluation. These are the goals of the California Department of Education's *Quality Professional Learning Standards* (2014). **Teacher inquiry groups** (e.g., professional learning communities, communities of practice) can bring educators together across disciplines, grades, roles, specific courses, and specializations to collaborate on common goals and engage in continuous improvement. Administrators can create **protected time and structures for collaboration** in which all educators have opportunities to work together to learn about standards-aligned and research-based instructional approaches, share successful practices, plan or modify curriculum and lessons, develop or modify assessments, analyze student work and other data, reflect on their own practice, and adjust students' schedules, as needed.

Administrators can also re-envision **master schedules, instructional materials adoptions, and professional learning** to ensure that all EL students have access to A–G and advanced courses, all content courses include integrated ELD, and designated ELD is provided by the highest qualified teachers and directly connected to content coursework.[8] Vignette 6.1 provides an example of how one high school addressed EL student opportunity and achievement gaps using a systems approach, grounding decisions in evidence and shared leadership.

VIGNETTE

6.1

Addressing English Learners' Equity Issues in High School

Over the past five years, staff members at Rachel Carson High School, as part of a districtwide effort, have worked with their county office experts to address an urgent issue: EL students and African-American students were not performing well academically and had higher dropout rates than their peers in the broader student population. Their goal was to better understand this problem of practice in order to identify strategic solutions to improve students' academic learning outcomes and sense of connectedness to school.

Conducting an Equity Audit to Address the Problem of Practice

In the first year, administrators led small teams comprising teachers, counselors, instructional coaches, specialists, administrators, parents, and community members to conduct an "equity audit," which focused on gathering and understanding data related to the problem. Among the tools they used to conduct the audit were two English Learner Roadmap Toolkits: one for high school teachers, and one for administrators, coaches, and district leaders.[9] A critical part of the equity audit was shadowing. Each team shadowed an individual EL or African-American student, observing and gathering data on the student's experiences throughout the day (e.g., how many minutes the student talked, how often the student participated in academic discussions, the types of activities

they engaged in, how much time they spent in academic learning versus nonacademic activities).

Teams also worked on gathering a range of data in order to "triangulate" their findings and make sound decisions about solutions. Some teams interviewed students to gain their perspectives on their schooling experiences, solicit suggestions for improving teaching and learning experiences, and understand their postsecondary aspirations. Others interviewed parents to gain their perspectives and suggestions. Other teams examined students' attendance records and course completion records to identify who was on track to graduate and who was not and who would be college ready and who would not be. One team specifically examined the school's current and recently reclassified EL students' data, including state summative test scores, over multiple years to identify who their students were as individuals (e.g., home language, extracurricular activities, academic inclinations) and to better understand the progress students had made over the years in their ELD.

When the staff met to share, analyze, and discuss the data they had collected, they were dismayed to find that the school's EL students and African-American students were not experiencing the robust learning that staff thought they were providing. Specifically, many students

- spent less than 1 percent of their school day engaged in academic discussions;

- did not spend much time in rigorous academic learning;

- had poor attendance rates;

- did not meet annual growth targets for ELD or subject matter learning, based on standardized measures;

- were not on track to be eligible for admittance to a California State University (CSU) or University of California (UC); and

- expressed that they felt bored in or disconnected from school and did not feel that most of their teachers cared about their academic or personal success.

Schoolwide Agreements and Investment in Professional Learning

Many staff members were surprised by the results of the equity audit and felt a sense of urgency to act. The principal led the staff, working in collaboration with parent and student representatives, to craft a multiyear plan to improve. The plan included yearly equity audits, similar to, though less intensive than, what they had just engaged in, so that they could track progress, measure impact on student learning and perceptions, and make adjustments where needed to continuously improve. In addition, staff voted to commit to three multiyear schoolwide agreements: (1) increase the amount and quality of academic discussions, (2) use curriculum that is relevant and interesting to EL and African-American students, and (3) integrate activities to strengthen students' use of academic language in each content area (e.g., writing effective arguments).

Has your school ever engaged in an equity audit? What was discovered? What was successful about the process? What were some challenges or obstacles?

To support the school with these agreements, district and site administrators invested in a multiyear professional learning system which included five key elements:

1. **Summer Institutes:** Annual three-day summer institutes for teachers to learn new pedagogy and analyze student data aligned with the schoolwide agreements, differentiated by content areas and cofacilitated by district content area coaches and ELD coaches.

2. **Coaching:** Quarterly coaching sessions for each teacher, provided in a team-based format, including opportunities for teachers to visit each other's classrooms.

3. **Communities of Practice:** Allocated time for communities of practice, including subject matter departments collaborating with ELD and special education, focused on lesson planning and refinement, reflection on evidence of student learning, and working

> through common problems of practice (e.g., how to intervene in a timely manner when students experience academic, social, or emotional challenges).
>
> 4. **On-Boarding for New Teachers:** Extra support for novice teachers and teachers new to the school to bring them up to speed with the school's goals, culture, and practices.
>
> 5. **Support for Administrators:** Peer mentoring for administrators, using a cohort model, to help them understand what to look for during classroom observations and engage in continuous improvement cycles.

What are powerful instructional practices for multilingual learner students?

The remainder of this chapter presents six interacting and research-based instructional practices for teaching content and language simultaneously in ways that honor ML students' assets, with a particular emphasis on the educational success of EL students. The practices shared (see fig. 6.2) are most likely to occur when the school and district systems outlined in the previous section are in place. The practices were distilled from guidance offered in various state policies and resources, as well as from a wide body of current research across the content areas. All six recommended practices are grounded in research evidence and knowledge about the critical role meaningful social interaction plays in supporting cognitive, linguistic, and social development in children (Vygotsky 1978). While not explicitly called out in the six practices, assessment—especially formative assessment—is an integral part of instruction.

After figure 6.2, the chapter describes the six interacting practices and offers suggestions for how they might look across content areas. The vignettes included at the end of this chapter offer extended examples of how the practices can look when working together in each of the following content areas: ELA, mathematics, the sciences, and history.

Figure 6.2   Six Interacting Instructional Practices for ML and EL Students

Instructional Practice	Sample Activities
1. Engage students in discipline-specific practices to build their content knowledge.	• Examine content area standards to identify the grade-appropriate discipline-specific practices; plan lessons that actively engage students in them, using the *CA ELD Standards* in tandem. • Talk with students explicitly about discipline-specific practices (e.g., how to argue from evidence in a particular content area) and how these practices might be similar and/or different across the disciplines.
2. Anchor the learning in real-world experiences and phenomena that are relevant and meaningful to students.	• Identify a real-world experience (e.g., challenges or discrimination students face or observe in their everyday lives) or phenomenon (e.g., the biodiversity of the local region) to anchor an upcoming unit or set of lessons. • Determine whether a potential real-world experience or phenomenon will be instructionally valuable: Is it observable, conceptually rich, and relevant for all students?
3. Value, promote, and cultivate students' cultural and linguistic assets to further the classroom community's learning.	• Survey or interview students to get their perspectives on how best to make the curriculum more relevant and engaging for them. • Normalize the use of multiple languages in learning activities as an asset (e.g., by providing materials in students' home languages, encouraging students to use their home languages during activities, showing students how to use digital translation apps).

Instructional Practice	Sample Activities
4. Foster team-based learning and student-to-student discussions grounded in collaborative sensemaking.	• Plan for frequent paired and small-group interactions during whole-group instruction to give students opportunities to figure things out together. • Incorporate routines and protocols that encourage student-led activities and apprentice students into the habit of productive group work and discussions. • Use "right-there" questions as well as open-ended and higher-order questions that promote deep thinking, reflection, and extended discussion.
5. Explicitly teach discipline-specific language and literacy with the goal of supporting reading, writing, and discussion in the discipline.	• First identify the disciplinary knowledge and practices students are to develop. Then analyze the reading or viewing materials students will use in order to identify new terms, grammatical complexities, and organizational features that may present instructional opportunities challenges. • Plan interactive opportunities for students to analyze the language in authentic texts with the goals of comprehending the text better, understanding the rhetorical strategies the author used, and having a model for their own writing or oral presentations.
6. Use, and help students to use, multiple modalities to promote and enhance autonomy.	• Analyze the language in texts and tasks to determine what might make access to content meanings challenging and how multimodal support (e.g., videos, photos, charts) could enhance meaning making. • Prepare and provide materials that offer more support for newcomer EL students at the Emerging level of ELP (e.g., strategic questions that guide students through complex texts, bilingual glossaries, Google Translate, graphic organizers).

Instructional Practice #1: Engage students in discipline-specific practices to build their content knowledge.

Across the content areas, student learning standards promote engagement in discipline-specific practices during classroom instruction. Discipline-specific practices are the many different activities that individuals in particular disciplines do in the real world as they engage in their craft (e.g., the work of scientists, historians, poets, journalists, filmmakers, or mathematicians), as well as the necessary activities that students ought to engage in when learning the content of these disciplines in school. As implied by the phrase "discipline-specific," this recommended practice takes on different forms depending on the content area. For instance, in mathematics, students might make their thinking public by reasoning abstractly and quantitatively. Meanwhile, in the sciences, students might develop models in order to explain or predict scientific phenomena. While there is overlap in some discipline-specific practices, there are also distinct differences. For example, when students engage in argumentation across content areas, what counts as evidence differs: in an ELA class, students often use text to substantiate a claim, while in a science class, evidence tends to encompass observations or data about the natural world. For all of these reasons, it is important for teachers to have deep knowledge of their discipline, and to work alongside colleagues to learn from one another and figure out ways to send students complementary messages across subject areas.

What other similarities and/or differences can you think of regarding discipline-specific practices? To consider this question, you might find it helpful to review standards across different content areas, focusing on the discipline-specific practices that are emphasized, or speak with colleagues that teach other content areas.

When students engage in [intellectually demanding, discipline-specific] practices, they grapple with ideas, concepts, and practices of the discipline, transform what they learn into a different form or present it to a different audience, and move between concrete and abstract knowledge.

  –NASEM 2018, 99

Shifting instruction to include discipline-specific practices requires that teachers and students take on new roles in the classroom. This is because authentically participating in discipline-specific practices necessarily involves students driving their learning and interacting frequently with peers. Participating in rich discipline-specific practices offers EL students opportunities to develop their ELP while they co-construct disciplinary meaning with teachers and peers. This is because discipline-specific practices are inherently linguistically demanding. Partaking in them requires individuals to engage in rich interactions and use language in nuanced ways to accomplish particular tasks (Gotwals and Ezzo 2018; Lee, Quinn, and Valdés 2013). Thus, ML and EL students can benefit greatly from learning experiences where they authentically and meaningfully use discipline-specific practices to build content knowledge (August et al. 2014; González-Howard and McNeill 2016; Spycher and Spycher 2016). Because of the linguistic rigor of discipline-specific practices, content teachers are encouraged to collaborate with ELD teachers to make sure they are being attentive to ways they can integrate strategies to best support their ML and EL students.

Instructional Practice #2: Anchor the learning in real-world experiences and phenomena that are relevant and meaningful to students.

A phenomenon is something that students can observe, which occurs in either a natural or designed system (National Research Council 2012). Real-world experiences and phenomena tend to be of high interest to students, offering authentic reasons to engage with and make sense of the material being learned. Thus, grounding students' content learning in conceptually rich, relevant, and meaningful phenomena (1) offers students multiple points of entry for discussion and inquiry and (2) becomes an experience that is accessible and shared by all students, including ML and EL students (Lowell and McNeill 2019).

> *When a topic is too far removed from our direct experience, it seems unlikely to inspire us to action. In contrast, topics that affect us physically, socially, and emotionally may call us to action and result in the need for new knowledge and skills.*
>
> –Buxton 2010, 125

This recommended practice can take on many forms across content areas, such as students in history class engaging with text and other types of media (e.g., podcasts, videos of news coverage) covering current events. Another example is students making sense of a local science phenomenon that is of particular interest to them (e.g., the COVID-19 pandemic and its impact on the local community). This promotes students' abilities to access the content being taught, since it relates intimately with their lived experiences and allows them to bring in their cultural ways of knowing (Gotwals and Ezzo 2018).

> What are some ways you might involve students in identifying real-world experiences and phenomena they could explore in your class? How might you integrate students' suggestions into your instructional planning?

Instructional Practice #3: Value, promote, and cultivate students' cultural and linguistic assets to further the classroom community's learning.

Teachers who reflect on their beliefs about their ML students—and actively reject deficit-oriented views of all students of color and ML students—can successfully position students' culture and language as central to academic success and as assets that should be incorporated into classroom learning. Asset-based pedagogies, which include culturally and linguistically relevant, responsive, and sustaining pedagogies (Aronson and Laughter 2016; Paris and Alim 2017), offer "a bridge that connects the dominant school culture to students' home and heritage culture, thus promoting academic achievement for historically marginalized students" (López 2017, 9). They not only lead to ML students' academic achievement and personal empowerment, they also

enrich and democratize the entire classroom community as students learn to find their voice and acknowledge, appreciate, and understand perspectives and ways of being that may differ from their own.

A critical example of this instructional practice is prioritizing topics and texts that are directly connected to students' cultural, community, and lived experiences. For instance, a "Linguistic Autobiographies" project affords students the opportunity to critically examine their own multilingual or multidialectal experiences and histories, including how they use different types of language both inside and outside of school and how others respond to these uses of languages (Bucholtz et al. 2014). Students can learn how to research, write about, and share their perspectives related to the relationships between language, culture, and society through personal narratives, poems, arguments, multimedia presentations, and other ways. In so doing, they have an opportunity to reflect on their own linguistic journeys while also strengthening their language, literacy, and critical-thinking skills. They may choose to use their multiple languages in both the learning process and the oral or written products. This approach honors individual students' experiences and identities and expands the perspectives and empathy of all students in the class.
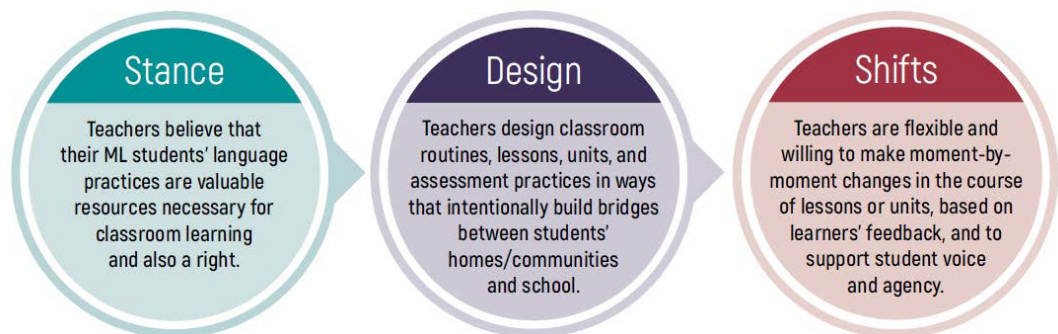
A broader example of this recommended instructional practice is translanguaging, which is when students combine and integrate their languages in learning activities. Examples include students using bilingual reading materials, discussing a topic in their home language before writing about it in English, using multiple languages during academic discussions, taking notes in their home language while watching a video in English, or using both (or all) of their languages in formal written, spoken, or multimodal assignments (for example, in multilingual poems or speeches). It also includes students asking questions about language use and exploring how language is used in different situations. This approach has been shown to increase secondary students' access to intellectually rich content learning, help them engage in deep and complex thinking, and support their positive identity formation as multilingual people (Ascenzi-Moreno and Espinosa 2018; Creese and Blackledge 2010; de los Ríos and Seltzer 2017).

Translanguaging helps us adopt orientations specific to multilinguals and appreciate their competence in their own terms.
   –Canagarajah 2011, 3

The term was first used by Cen Williams (1996) in Welsh (trawsieithu) to refer to the pedagogical practice of using both English and Welsh in classroom interaction, such as reading something in English and writing a response to it in Welsh (Lewis, Jones, and Baker 2012). The term has been expanded by many scholars around the world to refer to a dynamic process in which multilingual people use all language resources at their disposal—in an integrated and unitary system—to communicate and make meaning (Makoni and Pennycook 2007; Canagarajah 2011; García and Otheguy 2019). Translanguaging pedagogy views multilingual learners' language as complete at every stage of learning and positions the translanguaging that students do not only as the norm but also as an asset to be valued and expanded in classroom learning. To a growing number of researchers, translanguaging pedagogy is a tool for social justice; among other things, it affords ML students opportunities to consider their multilingualism from an asset-based orientation and have agency over their language use. García, Johnson, and Seltzer (2016) propose two dimensions of translanguaging—students' linguistic performances and teachers' pedagogy—that interact in a dynamic way to create a translanguaging classroom. As shown in figure 6.3, teachers' translanguaging pedagogy can be viewed as three interrelated strands: stance, design, and shifts.

Figure 6.3   Three Interrelated Strands of Translanguaging Pedagogy

Stance
Teachers believe that their ML students' language practices are valuable resources necessary for classroom learning and also a right.

Design
Teachers design classroom routines, lessons, units, and assessment practices in ways that intentionally build bridges between students' homes/communities and school.

Shifts
Teachers are flexible and willing to make moment-by-moment changes in the course of lessons or units, based on learners' feedback, and to support student voice and agency.

Long description of figure 6.3
Source: García, Johnson, and Seltzer 2017

One important thing to keep in mind regarding translanguaging is that context and specific learning goals matter. For example, in designated ELD classes with newcomer EL students, teachers' desire to make students feel safe and comfortable may result in students mostly communicating in their home language, which might slow down their ELD (Lang 2019). Rather than enforcing an English-only policy, teachers can be purposeful in their planning and moment-by-moment decision-making. At times, they may ask students to challenge themselves to use English exclusively during long stretches of class time in order to accelerate their progress in developing English.

Instructional Practice #4: Foster team-based learning and student-to-student discussions grounded in collaborative sensemaking.

Regular opportunities for students to talk and work together in pairs or teams is an important aspect of developing disciplinary knowledge and academic language (NASEM 2017). Teachers play an important role in supporting effective teaming and productive talk amongst students. Effective teachers develop lessons that intentionally incorporate authentic opportunities for students to work together, assign student pairs or groups strategically, support students in entering into and sustaining productive conversations, model productive conversations and are explicit about what they look and sound like, and are clear about expectations for productive discussions.

Student-to-student talk can be fostered during whole-class discussions as well as during partner or group work. There are a variety of methods for fostering student-to-student discussion to promote disciplinary learning, including Socratic seminars, Four Corners, Think-Write-Discuss, and Structured Academic Controversy.[10]

Team-based learning encourages students to engage in discussions and collective sensemaking with peers, think critically about content, consider multiple perspectives, and solve problems collaboratively in order to apply and extend new learning. Across the content areas, the key elements of team-based learning are the same, but the actual activities students engage in differ based on disciplinary learning goals and practices. Four key elements are essential: (a) heterogeneous teams of students, (b) a process

that incorporates individual and group accountability for content learning and that allows access to intellectually rich curriculum, (c) a process for students to self-evaluate the team's success, and (d) knowledge application activities, such as inquiry or problem-solving tasks, that motivate gaining new knowledge and are a basis for assessing team and individual success. In preparing lessons, effective teachers take measures to ensure that all students have the support they need in order to feel included and actively participate. Preparation could include the class developing and periodically reviewing classroom norms related to productive teamwork.

What types of team-based learning have you observed or supported that engage your students? What were some challenges and successes you noticed?

While students are grouped in heterogeneous pairs or teams, teachers leverage students' strengths and respond to their needs when they consider factors such as students' depth of content knowledge and skills, self-confidence, interests, and group dynamics. For example, newcomer EL students could be paired at specific times with ML students who speak the same language and can serve as "language brokers." Language brokers can be prepared by explaining to them what their role is and asking them how they think they can best help their peers to participate. In turn, their help and linguistic and interpersonal assets can be meaningfully recognized. Important to remember is that adolescents' growing awareness of their social status in peer groups needs to be considered when fostering peer-to-peer talk (Kim and Viesca 2016). Students may be hesitant to speak in front of peers, particularly if English is new to them, fearing derision from classmates. Preparation might include providing students with structured protocols and formulaic expressions (sometimes in the form of language frames) to help them engage in extended academic conversations with peers (see fig. 6.4).

Figure 6.4 Discussion Moves and Language Frames

To state your opinion:

From my perspective, ____ because _____.

One idea that we could/might/ should consider is ___.

In the part of the text where it says ___, this leads us to conclude that ___.

On page ___ it says ____, which suggests that ___.

To build on someone's ideas:

I'd like to add something to what ___ said. ___.

Another thing I noticed was that ___.

What you said about ____ made me think about ___.

What you said about ___ resonated with me because ___.

To ask for clarification:

Can you elaborate?

I'm not sure what you mean by ____.

Can you show me evidence in the text that ___?

So, what you're saying is ___. Do I have that right?

Could you say more about _____?

What do you mean by _____?

To disagree respectfully:

I agree with you, but ____.

You make a good point, but have you considered ____?

I can see your point. However, _____.

Have you considered this idea? ___.

While some people believe ___, I think ___.

Source: ELA/ELD Framework 2015

Such discussion moves using formulaic expressions or language frames will need to be adapted to particular content area lessons since the language used to engage in disciplinary practices varies by discipline. Also, in effective classrooms, students are aware that these types of supports are options, and not prescriptive. The idea is to help students expand their communicative skills, not restrict them.

Instructional Practice #5: Explicitly teach discipline-specific language and literacy with the goal of supporting reading, writing, and discussion in the discipline.

Many students may find that the language in their subject matter texts is challenging to navigate and interpret, which can discourage the kind of close and abundant reading that helps them build deep content knowledge and that fuels advanced language development. Other students may have difficulty

producing cohesive and coherent written assignments or oral presentations. The solution is not to avoid these challenging tasks or simplify them for students (though some newcomer EL students may need texts that have been amplified to respond to their needs). Instead, teachers can create opportunities for students to explore the language of the authentic, grade-level texts and support them in applying their growing language awareness to their own speaking and writing. An explicit focus on language raises students' awareness about how language works, and it helps them to both read and write more intentionally. Important to consider is that each discipline has its own norms and expectations for language and literacy. So while there are common approaches that support students in developing literacy across the disciplines, there are also important distinctions between each content area, such as what constitutes an argument in science versus in history (Spires et al. 2018).

Secondary teachers across the content areas have used "genre-based" pedagogy to help ML students, including EL students at all levels of ELP, learn about the structure and language features of a variety of different grade-level texts (Schleppegrell 2017; Spycher and Haynes 2019). In this context, "genre" refers to writing for different purposes such as narrating, reporting, explaining, or arguing. Different from seeing genres in literary terms (e.g., science fiction, biography, mysteries, etc.), a genre-based pedagogical approach means supporting students with information about how particular text types are organized and the language features that are most useful for writing for different purposes.

For example, Gebhard, Accurso, and Harris (2019) share a case study of a high school classroom of newcomer EL students at Emerging levels of ELP. Harris (the teacher) worked in collaboration with Gebhard and Accurso (university researchers) to develop four curricular units focused on genres in different content areas: autobiographies, poetry, scientific descriptions, math reports, and arguments in history/social science.

How have you used, or might you use, mentor texts in your classroom to explicitly teach discipline-specific language or literacy?

Students analyzed mentor texts to explore how the texts achieved their goals through their organization and specific language features (e.g., clause complexity, nominalization). Mentor texts are a powerful learning tool because they offer students a clear example of what is expected in their own writing and can be analyzed for a variety of learning goals. They can be professionally written texts, exemplar texts from previous years' students, or even teacher-written texts that draw students' attention to specific ideas or language.

[L]earning new ways of using language is learning new ways of thinking. Learning content means learning the language that construes that content as students participate in new contexts of learning.
  –Schleppegrell 2004, 18

Teachers in any subject matter can guide their ML students to explore how authors intentionally connect sections of text so the ideas flow together logically and how they choose specific language resources to achieve their goals. These two aspects of explicit language teaching—how authors organize their texts and the language features that enable them to meet their goals—are the core of genre-based pedagogy. Because they are aligned with genre-based pedagogy, the *CA ELD Standards* guide teachers in what to focus on while planning lessons, providing just-in-time scaffolding to students during instruction, and evaluating student work. As emphasized in the *CA ELD Standards* and *ELA/ELD Framework*, it is important to remember that explicit language instruction needs to happen in the context of intellectually rich subject matter learning and not in isolation or through grammar workbooks. Language work is a means toward disciplinary learning goals and not the goal itself.

Instructional Practice #6: Use, and help students to use, multiple modalities to promote and enhance autonomy.

Using, and helping students use, multiple modalities is critical for supporting the development of their receptive (listening and reading) and productive (speaking and writing) language. Multiple modalities are defined as visual and linguistic supports that help students engage with the complex language and

concepts of grade-level course content (NASEM 2017, 2018). This is important in all disciplines. For example, in mathematics, some EL students may experience difficulty in understanding teacher instructions and math problems written in English. This challenge may not reflect their math abilities and, if not addressed, may result in lower achievement (e.g., Henry, Nistor, and Baltes 2014). Conversely, effective teachers use multiple modalities strategically to increase students' access to intellectually and linguistically rich content. In Science, Technology, Engineering, Arts, and Mathematics (STEAM) education, visual aids might include figures, number lines, tables, graphs, and concept maps (i.e., graphical representations of relationships among key terms). In social studies and ELA, visual aids might include photographs, paintings and drawings, timelines, and video clips that provide relevant content information.

Multiple modalities may be especially useful for supporting ELs to engage in language-intensive science and engineering practices, such as arguing from evidence and constructing explanations … Specifically, they learn to consider how modalities help them communicate the increasing sophistication of their ideas.
    –NASEM 2018, 113

It should be noted that some visual aids—especially those that involve multimedia—need to be selected carefully and perhaps scaffolded with linguistic supports to ensure they are comprehensible to ELs at all levels of ELP. Linguistic supports may include explaining words and phrases in context (e.g., defining "lovely" as "very pretty" if that is its meaning in a particular context), as well as paraphrasing, and modeling the use of new, discipline-specific language (Irby et al. 2018). Linguistic supports may also include explanations broken down into incremental steps, and

> What visual and linguistic supports have you used to support EL students' comprehension and language production? Have certain supports worked better than others for students at different levels of ELP?

immediate and relevant feedback to students that supports language and content learning. Providing students with home language resources in the form of bilingual glossaries and translations (e.g., through Google Translate) is another form of linguistic support. For students whose home language(s) share cognate status with English, teachers can demonstrate how to apply cognate knowledge to discover the meaning of unknown words in English. "Anchor charts," co-constructed with students and then posted for ongoing reference, can also provide support. Such anchor charts might include key points from lessons, notes the class generated about the language features of a particular text type, or other useful information.

How do the six interacting instructional practices look in action?

The following five vignettes were inspired by real teachers and their students, with whom the authors have been fortunate to have worked. Four vignettes exemplify the six recommended practices in the context of a particular discipline (i.e., ELA, mathematics, history, and the sciences), and one vignette focuses on the practices in a newcomer EL program. Readers may choose to read only the vignette associated with a specific content area, or they may want to read all of them to explore how the practices might manifest differently in various content areas.

The chapter highlights when a specific practice is being exhibited in the vignette by noting it in bold italic font within parentheses (e.g., *Recommended Practice #3: Value, promote, and cultivate students' cultural and linguistic assets*). When a practice is highlighted in the text, take a moment to think about why and how certain aspects of the lesson or instruction represent this recommended practice. These are also productive conversations to have with colleagues when reading and discussing this text with others. Furthermore, these vignettes, which cut across secondary grade levels (i.e., middle school, high school), demonstrate what the recommended practices could look like in different school settings, such as environments where content teachers plan and teach alongside an ELD specialist, or schools where content teachers find themselves with less support.

All five vignettes have the same format and comprise the following sections: (1) a "Background" section that offers key information about the focal teacher(s), the grade level they teach, and their students; (2) the "Lesson Context" section that describes the content students were engaged with and learning about; (3) the "Lesson Excerpts" section, which includes snippets of classroom conversation, instruction, and some insight into teacher thinking; (4) the "Teacher Reflection" section that discusses the teacher's next steps, and what occurred in the classroom after the moments shared in the Lesson Excerpts section; and (5) the "To Learn More" section, which suggests additional resources, such as videos and readings, to continue learning about what the recommended practices look like in the context of a given discipline.

It is important to note that although all the recommended practices are illustrated in these vignettes, it is not expected that a teacher's instruction have all of them at the forefront all the time in every lesson they teach. In fact, it might be that two or three of these practices are central to enhancing a particular lesson on a given day. What is emphasized is the importance of content area teachers integrating these practices in their instruction as a way to better support the educational experiences of their ML and EL students, especially as it relates to these students' deep content learning and steady ELD. Moreover, while the vignettes describe teachers' instructional approaches in the context of a particular grade and discipline, and with students whose English is at a certain proficiency level, with the appropriate modifications these approaches could be used in all content area classes, across grade levels, and with a range of students.

As you read each vignette, consider specific support you (if you are a teacher) or teachers in your context (if you are an administrator) would need in order to develop high levels of competence with specific instructional practices. What systems would need to be established and/or strengthened in your context?

VIGNETTE 6.2

Citizen Youth: Aligned ELA and ELD in High School

Background

After completing an equity audit and committing to new schoolwide agreements for increasing engagement and achievement among its African-American and EL students (see vignette 6.1), site administrators and teachers at Rachel Carson High School invested in a multiyear improvement effort. Teachers in the ELA and ELD departments decided to collaborate on implementing a new ELA/ELD curriculum and measuring its impact on student learning (California State University 2019). The curriculum they chose focused on rhetoric, composition, inquiry, and ELD. It prioritized culturally relevant topics and topics of high interest to teens, such as hip-hop, immigration reform, feminism, climate change, and free speech. The curriculum materials also provided explicit guidance on how to increase student-led extended academic discussions and scaffold students' academic reading and writing.

The school's administrators agreed to change the master schedule so that EL students at the school, most of whom were at the Expanding level of ELP, could enroll in both an ELA course with their English-proficient peers and a companion designated ELD course that strategically focused on accelerating their academic language and literacy development.

Lesson Context

Ms. Herrera was one of the school's tenth-grade English teachers, and Mr. Mua taught the designated ELD classes for EL students at the Expanding level. One of the ELA/ELD units Ms. Herrera and Mr. Mua taught was called Citizen Youth. It addressed the topics of youth activism and collective leadership in historical and contemporary civil rights movements, including Black Lives Matter and Dreamers. The enduring questions for the unit were: "In what ways do youths engage in contemporary civil rights movements? To what degree does collective leadership help contemporary civil rights movements attain their stated goals?"

During the unit, students worked in small interest groups to select and research youth activism in a social justice movement. As they planned the unit together, Ms. Herrera and Mr. Mua discussed how to include students' interests, concerns, and experiences in the unit, and they added research options related to topics that students had brought up in the past, such as ending gun violence, climate justice, and youth criminal justice reform. (***Recommended Practice #2: Anchor the learning in real-world experiences and phenomena.***) Ms. Herrera and Mr. Mua generally followed the suggestions for activities in the curriculum unit but also modified, skipped, or added new activities, based on what they knew about their students, to make sure all students could successfully accomplish the culminating assignments.

How does this type of collaboration and coplanning compare to what happens at your school? In what ways would students benefit from content and ELD teachers collaborating?

The three culminating assignments for the unit were the following: (1) Each student wrote a concept paper (a written argument) responding to the question, "In what ways has the movement you researched been successful or unsuccessful in achieving its goals so far?" (2) Each small research group recorded a podcast for teens highlighting claims, evidence, and reasoning from their concept papers; and (3) Each student wrote a two-to-three paragraph reflection on an action they took during the unit to improve the lives of teens in their school or community.

In Ms. Herrera's English class, students worked together to identify and discuss the rhetorical moves and language resources the authors of the op-ed articles the students read used that helped make their essays clear, cohesive, and persuasive. (***Recommended Practice #1: Engage students in discipline-specific practices.***) They captured notes from their discussions in a notebook so they could refer to it when they went to write their own ideas. They also created multiple charts highlighting

important facts, quotes, phrases, and words they wanted to remember to use during their discussions and writing. Meanwhile, in Mr. Mua's College Prep ELD class, students used the same articles as mentor texts for deeper explorations into the language of written arguments and as models for their own speaking and writing. Students analyzed the structure of the texts and discussed what specific language made them flow and hang together well (cohesion). They also unpacked grammatically dense sentences from the articles to better understand grammatical boundaries (e.g., noun phrases, clauses) and how authors leverage their grammatical knowledge for rhetorical effect. (***Recommended Practice #5: Explicitly teach discipline-specific language and literacy.***)

Lesson Excerpts

Halfway through the six-week unit, Ms. Herrera prepared students to engage in an extended discussion—a Socratic seminar—about the articles they had read so that they could deepen their understanding of and synthesize critical concepts. In the days leading up to the Socratic seminar, students discussed the structured protocol they would use and the assigned roles they would assume:

- Discussants (students in the inner circle, actively discussing the questions)

- Coaches (students in the outer circle, taking notes and coaching the discussants at halftime)

- Class notetakers (two students charting themes and important ideas to return to)

Ms. Herrera explained that the roles would rotate halfway through the questions so that students would have a chance to be both a discussant and a coach. To provide a model of how the discussion might unfold, Ms. Herrera showed a video of her previous year's students engaging in a Socratic seminar and invited her students to identify effective behaviors they noticed and wanted to emulate. (***Recommended Practice #6: Use, and help students to use, multiple modalities.***)

Meanwhile, in his College Prep ELD class, Mr. Mua prepared students to fully participate in the seminar. First, he asked them to independently review the articles they had previously read. Then he posted the open-ended questions students would discuss during the Socratic seminar (e.g., "In what ways are the experiences of youth in social justice movements used to inform or influence these movements?"). He then asked students to work together in small groups to generate responses to the questions and to work on connecting their claims, evidence, and reasoning. About halfway through the lesson, he showed students an anchor chart (see fig. 6.5) and challenged them to use some of the language on it as they continued to craft their responses. He modeled how to do this by asking the students to craft the first statement with him, and he wrote it on the anchor chart so students would have an example to refer to. (***Recommended Practice #5: Explicitly teach discipline-specific language and literacy.***)

On the day of the Socratic seminar, Ms. Herrera gave students a note catcher with three columns. In the first column, eight open-ended questions students would discuss during the seminar were printed. The second and third columns were left blank. Ms. Herrera asked her students to first review their annotated articles and notes to write a claim in the second column about each of the questions with specific evidence from the articles. Then the students gathered in table groups to compare and discuss what they came up with and complete the third column together by explaining their reasoning. (***Recommended Practice #4: Foster team-based learning and student-to-student discussions.***)

Figure 6.5   Mr. Mua's Anchor Chart with Language for Connecting Ideas

Why do it?	Language Frame	Examples from Students
Explain the meaning of a piece of evidence	… demonstrating that … … and in this way … … revealing that …	*Youth consistently engage in conversations on important topics, demonstrating that they care.*
Tell why something is the way it is or reveal the cause of something	… due to the fact that … … because …	*Black Lives Matter is sustainable due to the fact that its members work on cultivating local organizers who understand the realities in local communities.*
Introduce or reference the topic	With regard to … Regarding … Concerning …	*With regard to expressing opinions on political issues, the First Amendment provides protection to do so.*
Provide an example or a specific quality or show how something is done	… (verb) … through … … in that … … by (verb)ing …	*The Dreamers showed how youth organizers can cause political change through their walkouts, hunger strikes, and marches.*

Ms. Herrera frequently regrouped the table groups so that students would both experience a supportive group and get to know more students. She had recently placed an EL student named Mariana at a table with a student named Hector. Mariana was at the late Emerging level of ELP and had recently transitioned into Ms. Herrera's class. Hector was a Mexican-American student identified as a long-term English learner and at the Bridging level of ELP. Ms. Herrera placed these students together so that Hector could model his excellent oral English skills for Mariana and support her emerging English, while also reinforcing his Spanish as Mariana communicated with him in Spanish when needed. Another student at the table was Inés, a multilingual Spanish-English speaker who had never been identified as an EL student and was comfortable in both English and Spanish. During the activity, these students used both Spanish and English as they prepared for the seminar. (***Recommended Practice #3: Value, promote, and cultivate students' cultural and linguistic assets.***)

During the Socratic seminar discussion, Ms. Herrera took observation notes on who was talking, how often, and what was said—including specific instances where students provided well-connected claims, evidence, and sound reasoning—as well as powerful rhetorical moves and discipline-specific language she heard. She also captured specific instances of students providing effective coaching to one another. The next day, she shared her observation notes with students in Google Docs format, which made students feel valued as discussion participants and gave them explicit guidance on the kind of powerful discussion moves expected of them in both speaking and writing. She frequently engaged in this feedback loop with students after such whole-class discussions so that students could see a clear pathway connecting speaking and writing.

Teacher Reflection

At the end of the unit, when Ms. Herrera and Mr. Mua met to analyze students' concept papers, podcasts, and reflections, they noticed that

most of their EL students' writing and speaking was progressing as expected in terms of specific ELA and ELD standards they had planned to prioritize at the beginning of the unit. They also noted patterns where they thought students would progress but did not and made a note to focus on these areas when they planned the next unit. For each student, they provided a feedback note with two to three specific strengths and one to two specific areas for growth for the next unit.

To Learn More

- This vignette was inspired by high school teachers in California's Central Valley who participated in a research project with the California State University, funded by a grant from the Office of English Language Acquisition at the US Department of Education.

- To learn more about how middle and high school ELA and ELD teachers can implement integrated and designated ELD, see the grades 6–12 vignettes in the ELA/ELD Framework, available on the California Department of Education website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link2.

VIGNETTE **6.3**	Developing Discipline-Specific Language, Knowledge, and Skills in Middle School Math

Background

It was October, fall weather had finally arrived and Ms. Soto's sixth-grade students at Valley Middle School had settled into classroom routines. Though students in her math class did not do very well on the previous year's state math test, she knew they were fully capable of achieving high standards if she provided them with sufficient support. Her goal was to support students in strengthening foundational mathematics skills and knowledge and developing new grade-level skills. Therefore, she sequenced instruction to ensure all students engaged meaningfully with standards-based mathematics and had the foundational knowledge to do so. Her class included native English speakers, ML students who were recently reclassified from EL status, and EL students at varying levels of ELP. Ms. Soto had deep content math knowledge and collaborated with the ELD teacher to ensure she was sufficiently supporting her EL students.

Lesson Context

In Ms. Soto's class, students participated in inquiry- and team-based lessons. She typically began lessons by asking students to answer a question, drawing on information they had learned in a previous lesson related to ratios, (for example: If Ashley uses six eggs to make an omelet for three family members, what is the ratio of eggs to people?). Ms. Soto also asked students to put this information into a ratio table. She invited students to work together in pairs or small groups to test out different ideas about the question and ratio table. She then brought the class back together to discuss what they learned in their groups and what it might mean about the question she had asked. (***Recommended Practice #4: Foster team-based learning and student-to-student discussions.***)

Among Ms. Soto's instructional materials was a presentation deck (PowerPoint slides) whose purpose was to illustrate the concepts she was teaching, model solutions, display problems for students to solve, and show correct solutions so students could compare and reflect on their responses. There was also a student guide with corresponding interactive activities for students, such as peer problem solving and discussion. A teacher guide explained the pedagogy designed to promote student thinking, interaction, and discussion. Ms. Soto often adapted the student and teacher guides to include topics of high interest to her students. Students also had glossaries of key mathematics and academic terms with definitions of the terms in English and Spanish with examples.

Because a number of students did not yet have computational automaticity, the class spent five minutes at the beginning of each lesson quickly completing and discussing sets of one- and two-digit multiplication and division problems they called "sprints." Ms. Soto observed that middle-grade students enjoyed competing with each other to see how many problems they could complete correctly in the five minutes allotted. As a result, students practiced at home and developed more mathematical fluency.

Lesson Excerpts

On this day, Ms. Soto was teaching a lesson on equivalent ratios that required students to use larger numbers than those in previous lessons. As students entered the class, they picked up their student guides. Ms. Soto began the lesson by grounding the day's learning in a real-world problem: figuring out how much of a specific ingredient is needed when cooking for large groups of people. (***Recommended Practice #2: Anchor the learning in real-world experiences and phenomena.***) For example, students might have baked a cake for their family with a parent or sibling, but what happens if they had to bake a cake for the whole class?

For this first cake problem, Ms. Soto guided the students as a class through the problem by asking them how many cups of flour it would take to bake a cake for 18 people if they had used two cups of flour to

bake a cake for six people. She displayed images of different-sized cakes and cups of flour.

She also created an anchor chart on chart paper by writing her "think aloud" problem-solving notes and drawing a ratio table to represent the ratio of cups of flour to cake size so that students could refer to it when they worked on similar problems later in the lesson.

Ms. Soto then explained the learning target for the lesson, so students were clear about her expectations. She explained that in this lesson, the numbers would become larger and larger, like the cake problem. Their goal for the lesson would be to use ratio tables and multiplication rather than repeated addition to solve problems with large numbers. She then posed another problem that used larger numbers and modeled the solution using ratio tables.

She then invited students to work in pairs to figure out how many cups of flour it would take to bake a cake for 24 people or 30 people, if they used two cups of flour for a cake for six people. She also asked students to be ready to explain how they figured out the answers.

Ms. Soto understood the importance of developing students' academic language in the context of math instruction. At the beginning of the year, she had created a word wall with the mathematics terms used during lessons. She added a few words for this lesson, including "multiplicative," and briefly explained the meaning of the new words, highlighted the Spanish cognates, and then challenged the students to try to use the words during the lesson. She reminded them that they would develop a deep understanding of the word meanings over time as they used the words meaningfully in context. (***Recommended Practice #5: Explicitly teach discipline–specific language and literacy.***)

After ensuring students were clear about the task, Ms. Soto invited them to work in pairs or teams of three on a set of similar problems. (***Recommended Practice #1: Engage students in discipline-specific***

practices.) She organized the groups so that students with stronger math abilities could support those with more emerging ones. She encouraged students to use both their home language and English to engage in the task so they could continue to develop their multilingual math skills. She also reminded her EL students at the Emerging level of ELP to use their bilingual glossaries and Google Translate, as needed. (***Recommended Practice #3: Value, promote, and cultivate students' cultural and linguistic assets.***)

As students worked together, they referred to the anchor chart with the examples modeled at the beginning of the lesson and to similar worked (solved) problems provided in their student guides. An excerpt of the student guide with two sample problems is provided below in figure 6.6.

Figure 6.6 Ms. Soto's Student Guide with Worked Examples

Student Guide
Instructions: Use ratio tables and multiplication to solve the problems. First, discuss the worked example with your team. Then work together to solve the other problems.

Worked Example

Model Question: Omar loves apples, so he decides to make applesauce for his grandma's birthday party. He knows that he gets 5 servings from every 2 apples. How many apples does Omar need to make 100 servings?

Problem-Solving Notes:
Set up a ratio table with known information. Think: How many groups of 5 are in 100? There are 20 groups of 5 in 100, so Omar needs 20 groups of 2 apples. 20 x 2 = 40.

apples	servings
2	5
40	100

Solution: Omar needs **40** apples to make 100 servings.

Question #1: Mark has a summer job painting houses. He has to mix blue and yellow paint to make green paint. The ratio of blue to yellow paint is 5 to 4. Mark has 32 ounces of yellow paint. How many ounces of blue paint does he need?

Problem-Solving Notes:

blue paint	5	
yellow paint		

Solution: Marco needs _____ ounces of blue paint.

Question #2: Ana has to figure out whether she has enough money to buy hamburgers for her whole soccer team. She can buy 3 hambugers for $5. She wants to buy 30 hamburgers, or one for each person on the team. How much will 30 hamburgers cost?

Problem-Solving Notes:

hamburgers		
dollars	5	

Solution: Thirty hamburgers will cost _____.

Ms. Soto observed her students carefully as they worked together and stepped in strategically to provide support related to the mathematics concepts and calculations. She also helped students to explain their thinking by, for example, asking them to elaborate on their explanations, clarify what they said, or add to what other students said. She modeled the use of mathematics language as she recast (rephrased) what students said and challenged them to use the new mathematics language in their responses and explanations. She did not overly focus on grammatical accuracy or vocabulary since her main goal was to extend and refine students' mathematical reasoning. (***Recommended Practice***

What are some challenges and successes you have experienced in supporting students in developing math content and math language simultaneously?

#1: Engage students in discipline-specific practices.) When there were misconceptions, she did not tell students the answer but instead asked them questions to guide their thinking.

At the end of the lesson, Ms. Soto reviewed the additional problems with students to make everyone's thinking public and clarify questions students had. She then asked them to use an "exit ticket" to write a sentence or two reflecting on their math learning that day and their experience working in a team. Later, she reviewed the exit tickets and student guides to assess students' learning progress and make decisions about how to structure upcoming lessons. She used a spreadsheet to keep track of students' performance so she could see growth over time and identify which students needed extra support.

After this review, she decided to begin the next class with a review of the problems that were challenging for the whole class by asking teams who were more successful to model the thinking required to solve those problems. She then had students work in their triadic teams on new problems of the same type. As they did, she pulled small groups of students who experienced more challenges with the task in order to provide them with more support.

For the students who were still developing foundational mathematical knowledge relevant to ratios, such as finding factors and multiples, Ms. Soto reinforced these precursor skills by having students practice finding common multiples and factors of numbers. For students who were still struggling, Ms. Soto used manipulatives to develop conceptual understanding. Students used manipulatives (e.g., red and black beans and egg cartons) to create tangible representations of equivalent ratios. They created equivalent ratios by adding equivalent numbers of red and black beans into each subsequent section of an egg carton. For example, the ratio 3 to 5 became 6 to 10, 9 to 15, and 12 to 20 as beans were added column by column. In this way, students used their foundation of repeated addition to develop knowledge about the multiplicative relationship of ratios. (***Recommended Practice #6: Use, and help students to use, multiple modalities.***)

Teacher Reflection

Once a week, Ms. Soto met with her math department colleagues and the school's ELD and special education teachers. As they planned lessons together, they referred to both the mathematics standards and the *CA ELD Standards* to ensure they were supporting students in developing content and language simultaneously. Over several months, the team created a guide for each math unit that included math problems along with high-leverage, standards-based instructional strategies and formative assessment processes to scaffold student learning. They also analyzed student data and discussed their observation notes so they could best determine how to circle back to individual students who needed additional support in a timely manner and pull together small groups as often as needed. Ms. Soto felt that this collaboration with her colleagues had strengthened her teaching practice and given her more confidence about supporting all students' success with grade-level, standards-based mathematics.

To Learn More

- This vignette was inspired by middle school teachers of ML and EL students with varying levels of English language and mathematics proficiency. To learn more about the teachers and student guides featured in this vignette, visit the American Institutes for Research (AIR) website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link3.

- The California Department of Education website has many mathematics resources that include online professional learning modules and resources for parents and families in a variety of languages, articles, and videos: https://www.cde.ca.gov/sp/el/er/ch6.asp#link4.

VIGNETTE 6.4

Creating Opportunities for Middle School Students to Collaboratively Figure Out Scientific Phenomena

Background

Ms. Beacon was a science teacher in a middle school that had a large population of ML and EL students. One of her seventh-grade science classes comprised many EL students, most at the Emerging and early Expanding levels of ELP. These students were all native Spanish speakers who immigrated from various countries in Central and South America within the past few years. The remainder of the students in Ms. Beacon's class included more proficient EL students (i.e., those identified as at the late Expanding and early Bridging levels of ELP) as well as students for whom English was their native language. Furthermore, because of the breakdown of Ms. Beacon's teaching load, some of the students in this class had experienced her instruction the previous year in sixth-grade science. Ms. Beacon often used the heterogeneous nature of her class makeup to strategically structure students for classroom tasks and activities. For instance, students sat in small groups of four, whose composition the teacher changed depending on the task at hand, their grade level, and where students were on the continuum of English proficiency.

Lesson Context

A few months after the start of the school year, Ms. Beacon and her students engaged in a life science unit called Microbiome (Regents of the University of California 2013). This unit's learning objectives include students developing understandings about bacteria and other microorganisms that live on and in the human body. However, instead of simply being taught about these phenomena through more traditional means, such as lectures and predetermined, heavily scripted labs, Ms. Beacon's students collaboratively engaged in numerous investigations and activities to figure out these ideas themselves. The following lesson

excerpts, which took place during the beginning of this unit, highlight some of the ways Ms. Beacon supported her EL students' science learning and ELD.

Lesson Excerpts

During the beginning of the Microbiome unit, students analyzed photographs to determine whether they could find evidence of microorganisms living on human bodies. One of the photographs they examined included an agar plate streak test, which enabled students to determine and make claims about the effect of antibiotics on certain bacteria. Before delving into the specifics of this particular photograph, Ms. Beacon thought to herself: "I want to first make sure all of my students relate to the topic we're exploring. This will help ensure the learning experience is meaningful to them and might also help my students who are less familiar with the English words used to explain this phenomenon." To help students see the relevancy of the topic, Ms. Beacon asked whether they had heard of antibiotics before and, if so, to explain what they knew about them. (*Recommended Practice #2: Anchor the learning in real-world experiences and phenomena.*) While waiting for students to respond, Ms. Beacon overheard Soledad, an EL student with Emerging ELP, whisper to Guadalupe, a more proficient EL student at her table, "No entiendo lo que la maestra quiere que hagamos" (I don't understand what the teacher wants us to do). Ms. Beacon then clarified to the class: "What do you know about antibiotics? ¿Qué saben sobre los antibióticos? This is what we are talking about now. Please speak with the students at your table about your ideas."

Because Ms. Beacon was bilingual in English and Spanish, she understood Soledad's comment about being confused. What are some ways you might notice when an EL student needs clarification if you do not speak their native language? How could you tap into the linguistic resources of your other students for help in these situations?

Ms. Beacon gave students a few minutes to discuss ideas with their table groups. Then she called the class back together for a whole group share out. Students enthusiastically recounted stories of themselves or other family members being sick and needing to take medicine, like antibiotics, to get better. During this discussion, some students mentioned other remedies their families used at home in addition to, or instead of, antibiotics. Ms. Beacon appreciated and encouraged connections between students' school and home experiences. (***Recommended Practice #3: Value, promote, and cultivate students' cultural and linguistic assets.***) This conversation increased students' interest in the unit's topic, evidenced by their excitement to start examining the photographs.

Ms. Beacon then briefly informed the class how the agar plate streak test had been conducted. Using a sample petri dish and a cotton swab, the teacher described—and gestured—how a scientist grazed the palm of her hand with a cotton swab and then rubbed this swab across the inside of a petri dish that contained agar, a polymer that supports the growth of microorganisms. ("Polymer is a substance, una sustancia que ayuda a los microorganismos a crecer," she explained after seeing confusion on a few students' faces.) Then the scientist in the example added a few discs of penicillin, a type of antibiotic, to the petri dish, sealed it shut, and let it sit undisturbed for a few days. The photograph students examined was of this particular petri dish and its contents. Ms. Beacon tasked students with analyzing the photograph with a partner, and discussing what they noticed and wondered about with their peer. During their partner discussion, the teacher prompted students to focus on ways to describe the visible colonies of bacteria on the petri dish (e.g., "What color are the bacteria?" "Where are the bacteria located on the dish?"). Afterward, Ms. Beacon asked students to individually write their observations in their science notebooks, which they had been using since the beginning of the school year. She reminded students to use any and all language—"Please write in English, en español, como quieran, however you would like!"—and urged them not to worry about using any particular type of words but instead focus on trying to

get their initial ideas out. She also encouraged students to use drawings to express their thinking. (**Recommended Practice #6: Use, and help students to use, multiple modalities.**)

After a few minutes, the teacher had students share their observations about the agar plate streak test, encouraging them to ask their peers for clarification if they did not understand something someone said. To support students' conversations, Ms. Beacon projected the agar plate streak test photograph onto the whiteboard and had students reference and point to the image when describing their observations. For instance, she asked Marco to use the projected photograph to explain what he meant by "bacteria around the dish." As students shared their ideas, the teacher wrote them onto the whiteboard. She encouraged the class to copy ideas and language they might not have into their science notebooks.

What practices do you use to encourage students to ask each other questions? How might you develop and foster a classroom environment in which students feel comfortable expressing their confusion and asking each other for help?

Ms. Beacon then thought to herself: "An an important practice in science is for students to engage in argument from evidence. I now need them to use and consider their observations as evidence around a particular claim." Subsequently, she asked students to consider whether the lesson's guiding claim—"antibiotics kill bacteria"—was supported by the evidence they had from the agar plate streak test photograph. (**Recommended Practice #1: Engage students in discipline-specific practices.**) Before discussing this question as a whole class, Ms. Beacon had students pair up with another peer to make sense of their observations and whether they felt these observations justified the focal claim. (**Recommended Practice #4: Foster team-based learning and student-to-student discussions.**) While students talked with their partners, the teacher circulated through the room, occasionally

stopping to work with particular groups of students. She then had student pairs share their ideas, which she again wrote onto the whiteboard. She used this opportunity to address and support students' writing. (***Recommended Practice #5: Explicitly teach discipline-specific language and literacy.***) For instance, during this portion of the lesson the following interaction took place:

Ms. Beacon: What claim can we make about how the penicillin affected the bacteria, and how do you know? What is your evidence?

Grace: They died.

Ms. Beacon: Who died? And how do you know?

Grace: The antibiotic killed them.

Fernando: Killed the bacteria.

Ms. Beacon: Okay, but remember that we want to express our argument as a complete idea that includes evidence, or how we know.

Grace: The antibiotic killed the bacteria and we know this umm …

Fernando: Because what Marco said.

Ms. Beacon: Yes, now we are making a claim and supporting it with evidence. And what is the evidence that Marco said?

Fernando: There was only bacteria around the dish. No bacteria by the antibiotic.

Ms. Beacon: Now let's put all these ideas together!

The teacher then helped Grace, Fernando, and Marco reiterate their ideas in the form of complete sentences, which she transcribed onto the whiteboard for the whole class to see. Using these students' written argument as a template, the teacher then asked other students to write complete claims, encouraging them to use their observations of the petri dish as evidence. After a few minutes, the teacher had student pairs write their arguments on paper, which they then taped around the room, and students engaged in a gallery walk—rotating around the room, reading each other's arguments, and giving feedback both on the content and on the writing itself. Student

pairs were then able to examine their peers' feedback, and the lesson wrapped up with a whole class conversation around students' answers to the guiding question and potential investigations and activities they could conduct in upcoming lessons to further explore the idea of microorganisms living on and in the human body.

Teacher Reflection

After the lesson, Ms. Beacon took time to reflect upon how things had gone and to consider the extent to which her students had engaged in rich sensemaking with their peers. She looked back at notes she had taken during class of the questions students had asked her, as well as those she had overheard them asking other students. In particular, she considered whether those questions pertained to the content students engaged with, the language they were using to make sense of the phenomena, or both. She also thought a lot about the discussion held at the end of class in which students articulated next steps they would like to take. For instance, Ms. Beacon noticed that many of her students questioned whether antibiotics had similar effects on all bacteria. Some students suggested that they carry out their own agar plate streak tests, with student groups testing the effect of antibiotics on swabs of bacteria taken from different locations on students' bodies, like their feet, mouth, or hands. Others wanted to learn more about ways antibiotics are quickly developed during new disease outbreaks. She decided to expand upon this student interest in the future and planned to have student groups design investigations and carry out research projects around their ideas. Ms. Beacon knew these were important things for her to reflect on and address in upcoming lessons in order to ensure that all of her students, especially her ML and EL students, partook in rigorous experiences that supported their content and ELD.

To Learn More

- This vignette was based on studies by González-Howard and McNeill (2016) and González-Howard et al. (2017).

- The Argumentation Toolkit (https://www.cde.ca.gov/sp/el/er/ch6.asp#link5) was designed to support teachers in integrating scientific argumentation into their instruction, and includes many sample activities (e.g., evidence card sorts, the reasoning tool) that have been particularly effective for supporting ML and EL students' engagement in argumentation.

Scaffolding Reading, Inquiry, and Writing in High School US History

Background

Ms. Flores taught eleventh-grade US history at Harvey Milk High School. Approximately half of her students were Latinx, a quarter were African American, and another quarter were Asian or white. Over 20 home languages were represented in the school. Most of Ms. Flores's ML students were at one time EL students who had reclassified as English proficient during elementary or middle school. Several students in each of her classes were currently EL students, mostly at the late Expanding or early Bridging levels.

For several years, Ms. Flores participated in professional learning provided by the local university that enhanced her understanding of the role of language in history learning and how to support her EL students in successfully reading, inquiring about, discussing, and writing history. Through this professional learning, she learned new approaches for supporting students in reading, thinking, and writing "like historians." She also learned how to draw students' attention to the language in history texts so they could see how language choices shape the presentation of history and how students themselves could make such informed language choices.

Lesson Context

Ms. Flores and the other eleventh-grade history teachers worked together to implement a new unit about the American Indian civil rights movement. The investigative question for the unit was "How successful was the Native American civil rights movement in fulfilling its goals?" Throughout the unit, students investigated how Native American activism during this period was situated in the context of the broader US civil rights movement but had unique goals based on history. They also learned how this activism led to the passage of important civil rights policies for Native Americans, including the 1968 Indian Civil Rights Act.

To begin the unit and help students make connections between the present and the past, the teachers had students watch a video and discuss a current event some students had been asking about. (***Recommended Practice #2: Anchor the learning in real-world experiences and phenomena.***) In 2016, Native American (Oceti Sakowin) youth and allies organized a traditional relay run from the Standing Rock Reservation to Washington, DC to deliver a petition with over 140,000 signatures protesting the Dakota Access Pipeline. This run inspired other youth groups to organize, and grew into the Standing Rock resistance encampment. The teachers explained that what the youth groups were protesting was part of a long history of struggle for power, authority, and self-governance, and that in this unit of study, they would be investigating one part of that history—the American Indian civil rights movement.

Lesson Excerpts

One multiday lesson within this unit that Ms. Flores taught was an analysis of a primary source, the Alcatraz Proclamation. (***Recommended Practice #1: Engage students in discipline-specific practices.***) Her goal was for students to understand historical Native American grievances, be able to explain why Native Americans occupied Alcatraz Island, and examine the effect of occupation on Native American pride and activism. She explained that the Alcatraz Proclamation was published by the 89 Native Americans, mostly students from colleges and universities in San Francisco and Los Angeles, who called themselves the Indians of All Tribes and occupied Alcatraz Island in 1969.

To review some important historical events referenced in the proclamation, she divided the class into small groups, and each group worked together to do research online on a different historical event, which included the purchase of Manhattan Island, the Indian Removal Act and the Trail of Tears, the Massacre at Wounded Knee, and Indian Boarding Schools. Afterward, each group created a short summary of their event, briefly presented it to the whole class, and placed it on a class

timeline posted on one wall. Ms. Flores and her colleagues designed a protocol for students to analyze and discuss the proclamation in their table groups (see fig. 6.7 below). (***Recommended Practice #4: Foster team-based learning and student-to-student discussions.***) Ms. Flores reviewed the steps in the protocol with students before they read the proclamation so that she could clarify the task and students felt prepared to lead the small-group discussions. To further support effective conversations, Ms. Flores asked each group to assign a discussion facilitator, a scribe, and a timekeeper.

Figure 6.7   Discussion Protocol: The Alcatraz Proclamation

Instructions: Read the Alcatraz Proclamation (1969) and then discuss it with your table group using the questions provided. This is a group discussion and not a test. Talking is necessary. Annotate the proclamation during your discussion with your team's ideas and questions.

Get the Gist:

- Who were the authors, and at whom was the proclamation directed?
- What were their grievances, and what were their demands?
- Why did the authors take Alcatraz Island? Where do they say this?
- What do you notice about the tone of the proclamation?
- Find where the authors used irony (when you use language that normally means the opposite to emphasize a point or be funny). Underline at least 10 examples, and discuss the history each example references.

Take a Deeper Dive:

- Were conditions of the Native American reservations described accurately in the Alcatraz Proclamation?
- Compared to the purchase of Manhattan Island, was the price the occupiers offered for Alcatraz Island fair? Why or why not?
- One goal of the Indians of All Tribes was to rebuild a cultural center and museum. Which three historical events should be highlighted in the museum? Why? Describe how each of the events you selected would affect the message of the museum.

The Alcatraz Proclamation, by the Indians of All Tribes, 1969

To the Great White Father and All His People:

We, the native Americans, reclaim the land known as Alcatraz Island in the name of all American Indians by right of discovery. We wish to be fair and honorable in our dealings with the Caucasian inhabitants of this land, and hereby offer the following treaty: We will purchase said Alcatraz Island for 24 dollars in glass beads and red cloth, a precedent set by the white man's purchase of a similar island about 300 years ago.

For the full proclamation, visit the FoundSF website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link6.

As students discussed the primary source document in their small groups, Ms. Flores circulated around the room, stepping in strategically to offer support. At one point, she stopped to listen in on a group's conversation as they discussed a third-read "deeper dive" question. This group included two ML students: Rafael, an EL student at the early Bridging level, and Jada, a student who had reclassified from EL status during middle school.

Jada: The question says, "What do you notice about the tone of the proclamation?"

Rafael: I think it's, like Ms. F said, I think it's using irony a lot.

Dmitri: Yeah, it sounds like they're trying to embarrass the government or shame it by saying we're gonna "reclaim" this land because we discovered it, just like the English "discovered" America, which they didn't really do.

Rafael: I agree. I think they're also, like, trying to shame them by showing that they can't trick them or take advantage of them anymore.

Sam: What do you mean?

Rafael: I mean (searches the text), here, where it says, "We wish to be fair and honorable in our dealings with the Caucasian inhabitants of this land." It's like they're making fun of them by doing the same thing the US did to them.

Sam: Oh, like they're mocking them.

Rafael: Yeah, they're mocking them when they use the same attitude. It's like they're holding a mirror to their faces.

Jada: Yeah, I think they're doing that a lot in the whole proclamation, so maybe we can write "tone: using irony, or maybe ironic, mocking, trying to embarrass or shame the government."

(The group annotates their copies of the proclamation.)

Later in the unit, to prepare students to write arguments about the central question, the class analyzed (in a variety of ways) a mentor text, a historical argument on the Alcatraz Proclamation. Their goal was to better understand how authors convey their historical interpretations using specific language resources and to gain ideas for using such language in their own writing. (***Recommended Practice #5: Explicitly teach discipline-specific language and literacy.***) One analysis activity was a "sentence unpacking protocol" (see fig. 6.8) where students analyzed grammatically dense sentences from the mentor text to identify language the author used and how this language affected meaning. After modeling the process, Ms. Flores invited the students to work in pairs to unpack sentences, first a few she had identified and then additional sentences they chose in the mentor text.

Figure 6.8   The Alcatraz Proclamation: Background Essay (Teaching Tolerance) Sentence Unpacking Protocol

Instructions: With your partner, use the process below to unpack the grammatically complex sentences provided. Then find at least three more sentences in the mentor text you want to unpack. Use your dictionary to look up unknown words, as needed.

Get the Gist:

- Discuss what the gist of the sentence is before you unpack it.

- Focus on Meaning: Identify the meaningful "chunks" in the sentence with slash marks (/). What does the chunk mean in your own words? Why did you "chunk" the sentence this way?

- Focus on Language: What language is used in each chunk? How did the author organize information within the chunks? How are the chunks put together? Why?

- Interpret: What are the most important meanings in the sentence, based on your analysis? How does the sentence connect to the claims, evidence, and reasoning in the whole text? What is the effect of this language on you, the reader?

Teacher Reflection

When Ms. Flores and her department met to discuss how the unit went, they brought samples of student writing and analyzed a few of them together. They were especially pleased to see that many students were expressing their conceptual knowledge much more effectively than in the previous writing assignment. They discussed reasons for this growth and determined that their focus on increasing the number of student-led discussions, with the support of clear protocols and questions that stretched students' thinking, was largely the reason. Ms. Flores pointed out that the use of mentor texts also helped because they gave students authentic models for writing and "pulled back the curtain" when it came to how authors used language effectively to achieve their purpose.

After reviewing the essays, the teachers felt that their students were becoming aware that writing a solid history essay is not just about content knowledge; it also involves making intentional language choices.

Ms. Flores was also excited to share with her colleagues that a few of her students had told her that they were from an indigenous community in Mexico and that their community had similar experiences to what they had just studied. Ms. Flores invited the students to do some research on these connections and create a short presentation for the class for extra credit. (***Recommended Practice #3: Value, promote, and cultivate students' cultural and linguistic assets.***)

To Learn More

- This vignette was inspired by California teachers and the curriculum provided by the University of California's California History–Social Science Project (available on the UC Davis website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link7) and Teaching Tolerance (available on the Teaching Tolerance website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link8).

- The website Read.Inquire.Write. (https://www.cde.ca.gov/sp/el/er/ch6.asp#link9) offers free, downloadable curriculum to support middle school students' argument writing, with a particular emphasis on supporting EL students.

VIGNETTE 6.6	Newcomer Program for High School English

Background

Dolores Huerta High School's newcomer EL program provided a robust academic curriculum and social–emotional support for EL students new to English and who were within their first few years in the US. The school staff understood that when newcomer EL students learn English rapidly, they are able to fully participate in content courses in English and can fill any educational gaps they may have. The program included a two-semester-long intensive program in students' first year in the US. However, students were able to exit after one semester if they were ready, or stay longer than two semesters (up to two years), if they needed to. This flexibility was beneficial for meeting the diverse needs of students, particularly students who needed more time adjusting to their new environment, such as adolescents with disrupted educational backgrounds or who experienced traumatic experiences before or while immigrating to the US. Collectively, staff at the school made a commitment to support students to do the following:

- Engage meaningfully with grade-level, intellectually rich academic content in English

- Develop foundational reading and writing skills in English, based on assessed needs

- Interact meaningfully with peers, both within and outside of the newcomer EL program

- Develop an academic identity and growth mindset

- Strengthen their primary language and literacy skills

- Understand the US high school system and postsecondary options

- Graduate from high school with the requisite academic preparation to be successful in college

Guidance counselors received specialized training for supporting students' adjustment to school life, class scheduling, and college and career planning. The school's family liaisons provided support to students and their families by acting as interpreters and translators and bringing in trained interpreters and translators for the languages in which they were not proficient. The family liaisons also referred parents to the appropriate services in the community, such as refugee assistance centers or cultural community organizations. In addition, the school provided intensive and ongoing professional learning for all teachers, including time to develop cultural competence and culturally competent/asset-oriented teaching approaches, collaborate with one another and with specialists on unit and lesson planning, and observe one another teaching. Teachers and administrators worked closely with the district's secondary content and ELD coaches to better meet the needs of their newcomer EL students.

Newcomer soft landing and peer mentoring

When students arrived, the school registrar reviewed their school records and worked to transfer the highest amount of credits aligned to grade level and A–G credits. Students were assessed in reading, writing, mathematics, and science in their primary language and in English in order to determine placement and how teachers would differentiate instruction. For students who spoke languages not widely spoken in the school (e.g., Mixtec, Arabic), the school district provided a newcomer program in which an interpreter was provided for the first six weeks. Each student had two hours per day, two days per week of interpretation focused on their content learning. The district also provided each student with bilingual core content dictionaries and glossaries, as well as smartphones and access to a conversational English learning app that they used for a limited time during the school day and as much as they wanted to on their own at home.

Recently, the school started a peer mentoring program in which any high school student with demonstrated leadership skills, preferably those who spoke the same home language as their newcomer EL peer, could receive elective credits for mentoring a newcomer student in key areas, including integrating into the US school system, successfully completing academic assignments, and making new friends. (***Recommended Practice #3: Value, promote, and cultivate students' cultural and linguistic assets.***) The mentors were also asked to take the stance of learners about their peer's home language(s) and culture(s), interests and talents, and future aspirations. The peer mentors met at lunchtime once weekly with other peer mentors and a designated teacher to receive guidance on being an effective peer mentor, discuss their experiences in the mentoring process, and share resources and ideas. New EL students reported that this newcomer support had helped them integrate into the school and given them tools to be more independent learners.

What kind of newcomer support does or could your school offer to newcomer EL students to make their transition smoother?

Sustaining home languages and cultural knowledge

The faculty and administration at the school viewed their newcomer EL students' abilities to navigate through multiple cultural worlds, speak more than one language, and collaborate with diverse groups of people, as assets. To help students continue to develop academic proficiency in their primary languages, the school partnered with local community groups and parent volunteers who offered after-school book clubs, where students read and discussed culturally relevant young adult novels in their primary languages and collaboratively wrote short reviews in their primary languages on the school's social media platforms. Additionally, the school focused on increasing the number of newcomer students who received the State Seal of Biliteracy on their high school diplomas. The first Mixtec speakers earned their seals last year.

Lesson Context

The intensive first-year program was taught by a team of three core content teachers. Each teacher taught one mixed ninth/tenth-grade and one mixed eleventh/twelfth-grade newcomer core content class. Newcomer students' course load was seven periods, which included three newcomer core content classes: a math class, a science class, and a double-period integrated ELA and social science class. Students also participated in physical education, an art class, and an elective class with the broader student population. The newcomer program teaching team had the same learning goals for their newcomer EL students as they did for students who were native English speakers. The newcomer EL students engaged in the same content and type of small-group work that students in content core classes in English did, but their teachers brought the added lens of the needs of high school students who were very new to the US and at the early stages of learning English as an additional language.

What was different about the intensive program were the types and levels of scaffolding the teachers provided. As they planned lessons and units (or made modifications to existing lessons) in their content departments and in their newcomer program community of practice, the teachers relied heavily on the *CA ELD Standards.* They focused on planning instruction to meet standards at the Emerging level of ELP and looked toward Expanding and Bridging levels for guidance since not all students progressed in a lockstep fashion and may have accelerated more rapidly in specific areas. All of the teachers incorporated project-based learning into their coursework with a heavy emphasis on collaboration and meaningful communication. The students engaged in rigorous hands-on projects and used English to work together and write about and orally present out to the entire class on their projects. There were many different primary languages in the classroom, but English was the common language used to communicate. However, the teachers encouraged the students who spoke the same language to use their primary language when they needed to.

Over the years, the teachers in the program had increased the amount of academic discussion students engaged in because they noticed that students learned the content better when they talked about the academic content. They also observed that the abundant oral language served as a bridge to students' academic writing. When students talked about the academic content first, using newly acquired terms and grammatical structures, they were more confident about expressing their knowledge in writing. The teachers did not insist that students use perfect English. Rather, they encouraged their students to take risks by promoting a supportive and safe learning environment and discussion protocols that gave every student a chance to participate.

Lesson Excerpts

Math

In her mixed ninth/tenth-grade algebra class, Ms. Romero used project-based learning to engage the students in understanding the essential question of how to measure length indirectly. (***Recommended Practice #1: Engage students in discipline-specific practices**.*) The project objective was to make a scale model of the school building. Ms. Romero first had the students work in groups to generate at least one question that could become a mathematical problem related to the essential question. Through much dialogue in small groups and with the whole class, she followed up with asking students which mathematical concept(s) their questions addressed. The students then went outside and measured the height of the school building and the things surrounding it, such as trees, using an inclinometer to measure indirectly, which would help them measure the angle of elevation. They used diagrams and charts Ms. Romero created to help them make sense of new concepts. (***Recommended Practice #6: Use, and help students to use, multiple modalities.***) Ultimately, they would provide oral presentations on their project and write about the concepts. As the students engaged in this hands-on project, they developed critical math knowledge, used precise math language, and explained their thinking to peers as they collaborated with them.

Science

In their ninth/tenth-grade biology class, the students learned about DNA. The science teacher, Mr. Lee, taught the same biology content to his newcomer English learners as he did to his content core classes, but he constantly focused on supporting his newcomer English learners' ELD. For example, Mr. Lee frequently amplified the domain-specific science vocabulary students could access in order to fully engage with the content (***Recommended Practice #5: Explicitly teach discipline-specific language and literacy***), as illustrated in the following example:

Mr. Lee: We need a good verb that means (using gestures to simulate the word "extract") going into a cell and taking out the DNA.

Suri: Extract!

Mr. Lee: Yes, extract! So, what can we say we did last week, using the word extract? Turn to your partner for 10 seconds and see if you can make a statement using the word. (Students turn and talk.)

Tomas: We extract the DNA last week.

Mr. Lee: Exactly! You extracted the DNA. (Writes the word "extracted" on the board.) We're gonna put an "-ed" on the end because it was last week, or in the past. So, last week, we extracted DNA. And this week we need to replicate, or copy, the DNA. Let's take three minutes to write these new science words down.

ELA—Social Science

In her ninth/tenth-grade ELA—Social Science class, Ms. Seng's students read Reyna Grande's memoir, *The Distance Between Us,* in which Grande provides a depiction of the struggles that accompany immigration as she recounts her childhood experiences in Mexico and her transition to California, from a child to a woman, and from a Mexican to a Mexican American. (***Recommended Practice #2: Anchor the learning in real-world experiences and phenomena.***) The final writing assignment for the unit of study was an argumentative essay in which students identified

and evaluated a key turning point in Grande's development as a character. Over the course of the unit, students discussed their interpretations of the novel using various discussion protocols (***Recommended Practice #4: Foster team-based learning and student-to-student discussions***) and analyzed mentor texts that apprenticed them into the type of writing needed for the final writing assignment. As a class, students also jointly constructed paragraphs that linked claims, textual evidence, and reasoning, with Ms. Seng acting as the scribe and facilitator in order to scaffold students' use of new terms and grammatical structures to link claims, evidence, and reasoning. Students also wrote daily reflections prompted by Grande's memoir but that related to their own immigration experiences. At the end of the unit, students combined their short daily reflections and illustrated them in order to produce a graphic novel they chose to share at the semester-end open house with parents. (***Recommended Practice #3: Value, promote, and cultivate students' cultural and linguistic assets.***)

Ms. Seng recognized that many newcomer students who had access to significant support focused on reading with sufficient accuracy and fluency in English will have improved their comprehension, but that not all students required the same type of support. Many students would be on or above grade level in their primary language reading and writing skills, while others may have had limited primary language literacy. Teaching all students the foundational literacy skills at the same pace would have been inefficient and wasted valuable instructional time. Before students entered her class, Ms. Seng reviewed their primary language and English literacy screening assessments so she could plan small-group specialized foundational reading instruction that met their needs. She worked with the district's ELD coach and reading specialist to select age-appropriate and engaging decodable texts and plan lessons for individuals and small groups so that students could accelerate in their literacy skills as quickly as possible. The double period of ELA and social science allowed Ms. Seng to have the time to work with small groups while other students worked independently on learning tasks that were differentiated to meet their ELD and content learning needs.

Teacher Reflection

When students were ready to transition to content classes with their peers in the school's broader population, the guidance counselor used a transition profile to ensure a smooth transition and to monitor students' progress through graduation. The students' transition into content core coursework was well thought out, and clusters of the students were placed in heterogeneous classes with native English-speaking peers as well as other EL students with more advanced ELP. The three newcomer program core content teachers also taught the core content courses to the broader population, which the newcomer EL students transitioned into, providing consistency and strong relationships with teachers throughout their high school years. These teachers also cosponsored an extracurricular International Club that met once a week at lunchtime and included a peer network of native English-speaking students and EL students, including the peer mentors and their newcomer mentees. The teachers found that intentionally finding ways for different groups of students to interact meaningfully created cross-cultural understanding in the school and close friendships that otherwise may not have developed.

What is the transition process like for newcomer EL students at your school? What improvements could be made?

The newcomer EL students received A–G credits and credits toward graduation for the courses they took in the intensive newcomer program, and students who entered in the ninth grade, as well as most students who entered in the tenth grade, graduated on time at the end of twelfth grade with sufficient A–G credits for CSU and UC admittance. Some students who entered as juniors and seniors, as well as a small number of students who entered as sophomores, stayed for a fifth year in order to complete their graduation and A–G credits.

To Learn More

- This vignette was inspired by current work taking place in Fresno Unified, Oakland Unified, and Santa Barbara Unified school districts.

- For guidance on how to make program choices when establishing or improving a newcomer EL program, see the US Department of Education's Newcomer Tool Kit (available on the US Department of Education website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link10).

What are the suggested next steps?

This chapter described six instructional practices that have shown to be particularly effective in helping secondary school-aged ML and EL students learn content and develop English proficiency. Moreover, the vignettes demonstrated what it might look like to integrate these recommended practices in various content areas, and with newcomer students. The goal for these vignettes is to both showcase how the suggested practices might play out in different content areas, and shed light on how these practices might be realized in different types of learning environments (e.g., middle schools, high schools) with ML and EL students across the continuum of ELD. This will always be ongoing work, and new resources will continue to be developed and provided to illustrate best practices in different content areas (e.g., the new Mathematics Framework revision in 2021).

The remainder of this chapter offers suggested next steps that individuals and groups can take to learn more deeply about the material discussed in this chapter, to try out and put into action the recommended practices, and to further explore ways to improve the educational experiences and outcomes of ML and EL students. These recommendations are grounded in the California Department of Education's *Quality Professional Learning Standards* (2014). When possible, readers are encouraged to do this work with others, since collaborations offer opportunities for additional support and ways to tap into expertise already present in schools. It is important to note that collaborating

and integrating the recommended practices takes time and much practice. Administrators can support teachers by ensuring they have the time to learn the new practices and time for planning how and when they will incorporate them. Students and teachers can greatly benefit from having time to get comfortable with the new practices. It may take time for complex teaching and pedagogical approaches to show results. Risk-taking is encouraged, and mistakes should be considered opportunities to learn and grow. There are multiple entry points into this work, and readers are encouraged to choose the paths which make the most sense to them and their contexts.

Entry Point #1: Try out one or more of the six recommended instructional practices.

- On your own: Try out one of the practices in your classroom, reflect on how it went, and make necessary refinements when trying it out again.

- With others: Get together with other teachers at school (e.g., a content teacher with an ELD teacher, a department team, a cross-departmental team, etc.). Identify one instructional practice all members of the group will try out. Plan together. Go try it out and collect evidence. Reconvene with colleagues, compare notes and evidence of student learning (e.g., writing samples), and discuss the impact of the practice on students and teaching practices. Reflecting on experiences with these recommended practices in a community of practice offers everyone the chance to learn from each other's challenges and successes.

Entry Point #2: Unpack some of the concepts or instructional practices in this chapter.

- Thought Bursts: Use the thought bursts throughout the chapter as discussion starters. Discuss one or two thought bursts when meeting with colleagues or discuss them all in one session, depending on meeting structure and logistics.

- Vignettes: Each person reads the same vignette or a different one. Analyze the vignettes through the lens of each of the six instructional practices. Consider these questions: How is each practice carried out, according to the description of each practice earlier in the chapter? What did the teacher(s) do to carry out each practice successfully? How do

the practices interact with one another? What is the impact on students? Where might teachers imagine integrating a different practice?

References

Aronson, B., and J. Laughter. 2016. "The Theory and Practice of Culturally Relevant Education: A Synthesis of Research Across Content Areas." *Review of Educational Research* 86 (1): 163–206.

Ascenzi-Moreno, L., and C. M. Espinosa. 2018. "Opening Up Spaces for Their Whole Selves: A Case Study Group's Exploration of Translanguaging Practices in Writing." *NYS TESOL Journal* 5 (1): 10–29.

August, D. 2018. "Educating English Language Learners: A Review of the Latest Research." *American Educator* 42 (3): 4–9, 38–39.

August, D., L. Branum-Martin, E. Cárdenas-Hagan, D. J. Francis, J. Powell, S. Moore, and E. Haynes. 2014. "Helping ELLs Meet the Common Core State Standards for Literacy in Science: The Impact of an Instructional Intervention Focused on Academic Language." *Journal of Research on Educational Effectiveness* 7 (1): 54–82.

Bucholtz, M., A. Lopez, A. Mojarro, E. Skapoulli, C. VanderStouwe, and S. Warner-Garcia. 2014. "Sociolinguistic Justice in the Schools: Student Researchers as Linguistic Experts." *Language and Linguistics Compass* 8 (4): 144–157.

Buxton, C. 2010. "Social Problem Solving Through Science: An Approach to Critical, Place-Based, Science Teaching and Learning." *Equity and Excellence in Education* 43 (1): 120–135.

California Department of Education. 2014. *The Superintendent's Quality Professional Learning Standards.* Sacramento: CDE Press.

California State University. 2019. *Expository Reading and Writing Course (ERWC).* California State University Office of the Chancellor. Accessed at https://www.cde.ca.gov/sp/el/er/ch6.asp#link11.

Canagarajah, S. 2011. "Translanguaging in the Classroom: Emerging Issues for Research and Pedagogy." *Applied Linguistics Review* 2: 1–28.

Creese, A., and A. Blackledge. 2010. "Translanguaging in the Bilingual Classroom: A Pedagogy for Learning and Teaching?" *The Modern Language Journal* 94 (1): 103–115.

de los Ríos, C. V., and K. Seltzer. 2017. "Translanguaging, Coloniality, and English Classrooms: An Exploration of Two Bicoastal Urban Classrooms." *Research in the Teaching of English* 52 (1): 55–76.

Dee, T. S., and E. K. Penner. 2017. "The Causal Effects of Cultural Relevance: Evidence from an Ethnic Studies Curriculum." *American Educational Research Journal* 54 (1): 127–166.

García, O., S. I. Johnson, and K. Seltzer. 2016. *The Translanguaging Classroom: Leveraging Student Bilingualism for Learning.* Philadelphia, PA: Caslon.

García, O., and R. Otheguy. 2019. "Plurilingualism and Translanguaging: Commonalities and Divergences." *International Journal of Bilingual Education and Bilingualism* 23 (1): 17–35.

Gebhard, M., K. Accurso, and G. Harris. 2019. "Putting It All Together: SFL in Action." In *Teaching and Researching ELLs' Disciplinary Literacies: Systemic Functional Linguistics in Action in the Context of U.S. School Reform*, edited by M. Gebhard. New York, NY: Routledge.

González-Howard, M., and K. L. McNeill. 2016. "Learning in a Community of Practice: Factors Impacting English-Learning Students' Engagement in Scientific Argumentation." *Journal of Research in Science Teaching* 53 (4): 527–553.

González-Howard, M., K. L. McNeill, L. M. Marco-Bujosa, and C. P. Proctor. 2017. "'Does It Answer the Question or Is It French Fries?': An Exploration of Language Supports for Scientific Argumentation." *International Journal of Science Education* 39 (5): 528–547.

Gotwals, A., and D. Ezzo. 2018. "Formative Assessment: Science and Language with English Learners." In *Language, Literacy, and Learning in the STEM Disciplines: How Language Counts for English Learners,* edited by A. L. Bailey, C. A. Maher, and L. C. Wilkinson. New York, NY: Routledge.

Henry, D. L., N. Nistor, and B. Baltes. 2014. "Examining the Relationship Between Math Scores and English Language Proficiency." *Journal of Educational Research and Practice* 4 (1): 11–29.

Irby, B. J., R. Lara-Alecio, F. Tong, C. Guerrero, K. L. Sutton-Jones, and N. Abdelrahman. 2018. "Implementation of Research-Based ESL Strategies with Lower Grade Middle School ELLs in the Science Classroom: Findings from an Experimental Study." *TESL-EJ: The Electronic Journal for English as a Second Language* 22 (1).

Kim, J. I., and K. M. Viesca. 2016. "Three Reading-Intervention Teachers' Identity Positioning and Practices to Motivate and Engage Emergent Bilinguals in an Urban Middle School." *Teaching and Teacher Education* 55: 122–132. https://www.cde.ca.gov/sp/el/er/ch6.asp#link12.

Lang, N. W. 2019. "Teachers' Translanguaging Practices and 'Safe Spaces' for Adolescent Newcomers: Toward Alternative Visions." *Bilingual Research Journal* 42 (1): 73–89.

Lee, O., H. Quinn, and G. Valdés. 2013. "Science and Language for English Language Learners in Relation to Next Generation Science Standards and with Implications for Common Core State Standards for English Language Arts and Mathematics." *Educational Researcher* 42 (4): 223–233.

Lewis, G., B. Jones, and C. Baker. 2012. "Translanguaging: Origins and Development from School to Street and Beyond." *Educational Research and Evaluation* 18 (7): 641–654. https://www.cde.ca.gov/sp/el/er/ch6.asp#link13.

López, F. A. 2017. *Asset Pedagogies in Latino Youth Identity and Achievement: Nurturing Confianza.* New York, NY: Routledge.

Lowell, B. R., and K. L. McNeill. 2019. "Keeping Critical Thinking Afloat: Shifting from Activity-Based to Phenomenon-Based Planning." *Science Scope* 43 (1): 64–69.

Makoni, S., and A. Pennycook. 2007. *Disinventing and Reconstituting Languages.* Clevedon, England: Multilingual Matters.

National Academies of Sciences, Engineering, and Medicine (NASEM). 2017. *Promoting the Educational Success of Children and Youth Learning English: Promising Futures.* Washington, DC: The National Academies Press.

National Academies of Sciences, Engineering, and Medicine (NASEM). 2018. *English Learners in STEM Subjects: Transforming Classrooms, Schools, and Lives.* Washington, DC: The National Academies Press.

National Research Council. 2012. *A Framework for K–12 Science Education: Practices, Crosscutting Concepts, and Core Ideas.* Washington, DC: National Academies Press.

Paris, D., and H. S. Alim, eds. 2017. *Culturally Sustaining Pedagogies: Teaching and Learning for Justice in a Changing World.* New York, NY: Teachers College Press.

Regents of the University of California. 2013. Microbiome. Final trial version of middle school science unit developed by the Learning Design group. The Lawrence Hall of Science.

Schleppegrell, M. J. 2004. *The Language of Schooling: A Functional Linguistics Perspective.* Mahwah, NJ: Lawrence Erlbaum Associates.

Schleppegrell, M. J. 2017. "Systemic Functional Grammar in the K–12 Classroom." In *Handbook of Research in Second Language Teaching and Learning (Vol. 3),* edited by Eli Hinkel. New York, NY: Routledge.

Sleeter, C. E. 2011. *The Academic and Social Value of Ethnic Studies: A Research Review.* Washington, DC: National Education Association Research Department.

Spires, H. A., S. N. Kerkhoff, A. C. K. Graham, I. Thompson, J. K. Lee. 2018. "Operationalizing and Validating Disciplinary Literacy in Secondary Education." *Reading and Writing: An Interdisciplinary Journal* 31 (6): 1401–1434.

Spycher, P., and E. F. Haynes, eds. 2019. *Culturally and Linguistically Diverse Learners and STEAM: Teachers and Researchers Working in Partnership to Build a Better Tomorrow.* Charlotte, NC: Information Age Publishing.

Spycher, P., and T. Spycher. 2016. "Writing Arguments in World Languages: Scaffolding Content and Language Learning Simultaneously." In *Common Core State Standards for Literacy in History/Social Studies, Science, and Technical Subjects for English Language Learners, Grades 6–12,* edited by Luciana C. de Oliveira. Alexandria, VA: TESOL Press.

Thompson, Karen D. 2017. "What Blocks the Gate? Exploring Current and Former English Learners' Math Course-Taking in Secondary School." *American Educational Research Journal* 54 (4): 757–798. https://www.cde.ca.gov/sp/el/er/ch6.asp#link14.

Vygotsky, Lev. 1978. "Interaction Between Learning and Development." *Readings on the Development of Children* 23 (3): 34–41.

Williams, C. 1996. "Secondary Education: Teaching in the Bilingual Situation." In *The Language Policy: Taking Stock,* edited by C. Williams, G. Lewis, and C. Baker. Llangefni, UK: CAI.

Endnotes

1 This quote is from a two-year study in California where in-service and pre-service teachers were learning how to implement a new ELA/ELD curriculum that included integrated and designated ELD.

2 For more detailed information on who California's ML and EL students are, see chapter 1 of this book.

3 These resources can be accessed on the California Department of Education website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link15.

4 To read more about how the California Department of Education defines asset-based pedagogies, see the following California Department of Education web page on the topic: https://www.cde.ca.gov/sp/el/er/ch6.asp#link16.

5 Adapted from the January 24, 2020, news release from California State Superintendent of Public Instruction Tony Thurmond, available on the California Department of Education website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link17.

6 For more information on Ethnic Studies curriculum and courses, see chapter 2 of this book.

7 For detailed information about integrated and designated ELD, refer to the California *ELA/ELD Framework* on the California Department of Education website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link18.

8 For additional guidance on creating the systems necessary for quality teaching and learning and student success, see chapter 7 of this book.

9 The English Learner Roadmap Toolkits are provided by Californians Together and can be accessed on the Californians Together website at https://www.cde.ca.gov/sp/el/er/ch6.asp#link19.

10 Examples of these types of activities can be found online for free at the ReadWriteThink website (https://www.cde.ca.gov/sp/el/er/ch6.asp#link20, sponsored by the National Council of Teachers of English and the International Literacy Association) and on the web page Pedagogy in Action: Connecting Theory to Classroom Practice (sponsored by the National Science Foundation, https://www.cde.ca.gov/sp/el/er/ch6.asp#link21).