16 Paradigm Shifts in the Teaching of Grammar in K-12 ESL/EFL Contexts

A Case for a Social-Semiotic Perspective

MEG GEBHARD, KATHRYN ACCURSO, AND I AN CHEN

Despite many national school reforms aimed at improving students' English proficiency, learners¹ worldwide continue to graduate from high school with only the most rudimentary levels of English proficiency—proficiency that is limited to comprehending short passages in textbooks; translating isolated sentences; and carrying out simple oral exchanges about everyday topics such as the time, seasons, shopping, and household activities (e.g., Hu & McKay, 2012; Slama, 2011). Clearly, this level of proficiency will not support learners as they enter global communities where varieties of world Englishes are increasingly used to achieve vital social, academic, professional, and political goals. Yet despite advances in second language acquisition (SLA) research, grammar instruction "remains traditional for the most part...centered on accuracy of form and rule learning, and with mechanical exercises seen as the way to bring about the learning of grammar" (Larsen-Freeman, 2015, p. 263).

To address this issue, we call for a critical reconceptualization of grammar and grammar teaching in K-12 contexts. Specifically, we argue for a *critical social-semiotic* approach informed by Halliday's (1993) theory of systemic functional linguistics (SFL). Our argument is based on a growing body of evidence that suggests SFL can support educators and students in responding to demands of globalization, such as economic and demographic changes, new means of communication, and school reforms. A critical social-semiotic approach to English teaching and learning focuses on social interactions in complex modern institutions such as schools. It attends to how gestures, oral, written, visual, and computer mediated means of interacting construct meaning in specific cultural contexts such as classrooms. Further, it explores how educators can attempt to disrupt inequitable practices in schools based on issues of race, class, gender, language background, and national origin.

Overview of Issues and Approaches

Behaviorist Approaches to Teaching Grammar

Behaviorist approaches to language teaching, grounded in the work of B.F. Skinner, have dominated the field since the 1960s (Ellis, 2015). These approaches evolved from structural theories of language and behaviorist theories of learning. Structural linguistics defines language as a set of forms that contain pre-established phonological, morphological, and syntactic elements. Behaviorism defines language learning as learning rules for combining these formal elements through the conditioning of new verbal habits. From this perspective, formal accuracy is the goal of language instruction and the criteria for measuring learning outcomes. The method for achieving this goal is drilling and practicing language forms, sentence patterns, and rhetorical structures. Teachers are expected to correct learners' errors and use reward systems such as praise, grades, and other tokens to reinforce the use of accurate forms.

While developing control over grammatical forms and rhetorical structures is an important instructional goal, behaviorist approaches to language teaching have been strongly critiqued. Researchers, practitioners, and students question the assumption that the mastery of grammatical and rhetorical forms will necessarily result in learners being able to communicate effectively (e.g., Ellis, 2015). In addition, sociocultural theorists contend that behaviorist approaches do not acknowledge the role language plays in the construction of a learner's identity and cultural ways of knowing, being, and doing (e.g., Norton, 1997).

Psycholinguistic Approaches to Teaching Grammar

Noam Chomsky rejected Skinner's behaviorist conception of language and language learning, arguing that acquiring a language cannot be reduced to learning new verbal habits based on rote memorization. As evidence, he highlighted examples of young children producing utterances that are not mere imitations of adult speech (e.g., "I eated an apple"). Based on such observations, Chomsky argued that the mind is not a blank slate as behaviorists suggested. Rather, he proposed that humans have evolutionarily developed a distinctive form of cognition to process language in ways that are akin to the way computers process data. This form of cognition enables humans to process linguistic input, formulate linguistic output, and tacitly generate the rules for a specific language following generative rules governing all human languages. Chomsky called these parameters "universal grammar" and described this cognitive capacity using the metaphor of a "language acquisition device" (1986, p. 3).

Strongly influenced by Chomskyan linguistics, SLA researchers shifted their focus from studying how students learn new linguistic habits to how they acquire additional languages through activities that provide ample comprehensible input, practice, and feedback (Ellis, 2015). For example, Stephen Krashen's influential "natural approach" encouraged teachers to design lessons to support students in "acquiring" language naturally through playing games, singing songs, reading for pleasure, and free writing, rather than consciously "learning" grammatical rules (1982, p. 10). Krashen argued that focusing too much on grammar may interfere with students' innate ability to develop linguistic competence because it increases learners' anxieties, and thereby prevents them from processing language in the ways children do when acquiring their home language (1982, p. 30).

Krashen's natural approach provided a needed corrective to behaviorist "drill and kill" approaches and has had an enormous impact on ESOL teachers' professional development, especially in the United States where Krashen's ideas became part of the canonized knowledge base on which ESOL teachers are assessed. However, many researchers have

critiqued this approach, contending that Krashen's hypotheses cannot be tested and his prescriptions for classroom practice lack empirical evidence (Liu, 2015). Based on these critiques, other SLA scholars have pursued more robust research agendas, such as those investigating task-based instruction. A number of studies have shown that by implementing empirically-tested tasks in L2 classrooms, teachers can support learners in negotiating meaning through conversational modifications such as repetitions, recasts, and confirmation checks (Ortega, 2009). These modifications generate comprehensible input, yield comprehensible output, and provide students with feedback to support the acquisition of grammatical competence. Teachers can also provide explicit instruction regarding targeted grammatical forms to support students in acquiring grammatical competence following the order in which such competence is thought to develop. Moreover, teachers can attend to important individual and cultural differences to better enable students to participate in classroom activities.

However, SLA studies to date have not adequately addressed the highly challenging leap students must make from acquiring oral language to negotiate "here-and-now" meanings to being able to read, write, and discuss dense disciplinary texts (e.g., Schleppegrell & Colombi, 2005). Additionally, research focused on mentalistic aspects of language acquisition has done little to address how issues of race, class, gender, and national origin shape K-12 students' access and support for disciplinary literacy development in modern educational systems (e.g., tracking practices; Harklau, 1994).

Social-Semiotic Approaches to Teaching Grammar

In response to the limitations of behavioral and psycholinguistic explanations of grammar, SFL scholars argued that grammar could be better understood as a culturally sensitive meaning-making resource (Halliday, 1993; Hasan, 1996). This perspective, first developed in Australia, has since gained some traction in TESOL programs internationally (e.g., de Oliveira & Iddings, 2014; Moore & Hart, 2007; Whittaker & Acevedo, 2016). Unlike traditional grammar, SFL does not attend to isolated categories of words or decontextualized rules regarding the assembly of these words into sentences. Nor does it conceive of grammar as a cognitive capacity that unfolds naturally. Instead, SFL describes three interrelated types of meaning made in every communicative act—ideational, interpersonal, and textual—and the semiotic resources that realize these meanings (Table 16.1). Ideational meanings construct ideas and experiences, including disciplinary knowledge, understandings, and concepts. Interpersonal meanings construct social identities, relationships, power dynamics, attitudes, and feelings. Recognizing how interpersonal meanings are made in a variety of texts can support students in learning not just English, but also how to "read between the lines" and shift from literal, to inferential, and more interpretive analyses of texts in different cultural contexts. Textual meanings relate to the flow of ideas across extended discourse, including ways of weaving given and new information and using specific cohesive devices suited to the purpose and audience of a text (e.g., using first, second, and third in giving instructions, see de Oliveira & Schleppegrell, 2015).

From this SFL perspective, students' available semiotic resources expand as they grow up and expand the range of functions they perform in different contexts—at home, in their communities, in different school content areas, and at work. As students participate in expanding social networks, they are apprenticed to different genres of communication and to a hierarchy of knowledge and participation in specialized activities that push on the nature of the semiotic resources available to them (Martin, 2009). Thus, as students' grammatical repertoire expands, explicit grammatical knowledge can act as a social, cognitive, and political tool that can be used consciously to construct new ideas and experiences, enact a greater variety of social roles and relationships, and manage the coherent flow of communication in

Table 16.1 Grammatical Resources for Making Meaning (Halliday, 1993; Schleppegrell, 2004)

Ideational Meanings

Field resources are used to construct ideas and experiences in a text

Interpersonal Meanings

Tenor resources are used to construct voice; relationship between readers/ writers or speakers/hearers; social distance; power dynamics

Textual Meanings

Mode resources are used to manage the flow of information across extended texts

Processes or different kinds of verbs (e.g., action, verbal, mental, relational, and existential verbs) Participants or nouns/noun groups (e.g., single, every day, concrete nouns versus more abstract, technical nouns and noun groups; use of generalized nouns)

Circumstances or prepositional phrases and adverbial groups that provide information regarding time, place, and manner

Mood: The difference between choosing to ask, state, and command (interrogative, declarative, or imperative mood)

Modality: The use of modal verbs, adverbs, and adjectives to express degrees of truth, probability, or obligation

Appraisal: The use of evaluative language to construct feelings, judgments, or evaluations of ideas or actions (e.g., attitudinal adjectives, adverbs, verbs, and nouns)

Theme-rheme patterns: Ways of weaving given and new information

Cohesive devices: Words and phrases that construct connections between ideas (e.g., therefore, as a result, in sum, in addition, furthermore)

Lexical chains: The use of repetition, pronouns, synonyms, and near synonyms to maintain the focus and build on the main idea of a text

different kinds of oral, written, and multimodal texts. However, as students transition from primary to secondary school, access to robust forms of academic apprenticeship becomes increasingly limited as schools offer a differentiated curriculum that breaks down along race, class, and gender lines. This differentiation recreates inequitable class structures and economic realities, particularly for students whose home and community language practices differ greatly from the language of schooling (Martin & Rose, 2008).

As a way of responding to inequities produced and reproduced in schools, SFL scholars collaborated with teachers beginning in the 1980s to develop an approach to curriculum and instruction known as the Teaching and Learning Cycle (TLC; Rose & Martin, 2012). This approach includes four phases that apprentice students to reading and writing the types of genres and meanings they are likely to encounter across grade levels and in specific subject areas: (a) building students' background knowledge through hands-on, dialogic experiences to prepare for specific disciplinary reading and/or writing tasks; (b) deconstructing model texts using functional metalanguage to name genre moves and semiotic choices; (c) jointly constructing a text with students to make semiotic know-how highly visible and the nature of linguistic choices available to students open to critical discussion; and (d) gradually reducing scaffolding as students become more proficient readers, writers, and analysts of disciplinary discourses over time.

In the primary grades, the TLC builds on students' uses of everyday genres realized through a congruent grammar (e.g., recounting events using subject-verb-object grammatical structures and concrete, everyday lexis). In secondary grades, the focus shifts to disciplinary genres that realize meaning through an increasingly dense grammar by simultaneously building students' abstract content knowledge and knowledge of genres used within specific fields (e.g., historical arguments, mathematical explanations, scientific descriptions). The goal of social-semiotic grammar instruction is to apprentice all students to a critical understanding of disciplinary bodies of knowledge and the literacy practices that construct them.

Main Findings from Current Research

Recent empirical studies suggest a social-semiotic approach to grammar instruction has the potential to: (a) support students in simultaneously developing English proficiency and disciplinary knowledge; (b) promote teachers' professional development; and (c) foster teachers' and students' critical awareness of the relationship between disciplinary literacy practices and ideologies. These findings, which we detail in the sections that follow, are based on a review of publications from different countries and policy contexts, including Australia. Canada, Denmark, Malaysia, Portugal, Spain, Scotland, South Africa, Sweden, and the United States. We reviewed studies that used a variety of research methods to explore the utility of a social-semiotic approach to teaching multilingual K-12 students to read, write, and discuss content in English in school (e.g., bilingual, ESL, EFL, English medium, sheltered immersion, and mainstream classrooms).

SFL Pedagogies Support Students' English Literacy Development

Across grade levels, content areas, geographic regions, and types of investigations, studies indicated that SFL pedagogies supported multilingual students in moving along a mode continuum, or shifting from using English in highly contextualized ways toward using denser grammatical structures to read, write, and discuss more abstract disciplinary concepts. These studies documented students' construction of content knowledge, more authoritative academic voices, and longer, more developed and coherent academic texts such as recounts, narratives, descriptions, explanations, and arguments in the disciplines of English language arts, social studies, math, and science. However, students moved along this continuum at different rates based on their previous schooling experiences and the degree of support they received for making sense of dense oral, written, and multimodal texts. (e.g., lectures, textbooks, graphs).

At the elementary level, Gibbons (2003) demonstrated how two elementary science teachers in Australia used the TLC to design a unit of study on magnetism to support multilingual students in shifting from everyday conversational ways of talking about magnets to more discipline-specific and abstract ones (e.g., It sticks together → The north pole and the south pole attract, p. 265). Findings suggested that the TLC provided a framework for these teachers to mediate between students' everyday experiences with magnetism and more generalized knowledge of this topic in the science curriculum. As a result, students simultaneously developed new ways of using English and constructing disciplinary knowledge. Aguirre-Muñoz, Chang, and Sanders (2015) showed similar findings from their mixed methods analysis of U.S. fourth-grade students' science writing. These authors reported that students made statistically significant gains in clause complexity over four months of SFL pedagogy (e.g., increased use of embedded clauses, relative clause structures, adjectivals, expanded noun and verb groups). This language development trend among elementary learners is further documented in a number of qualitative case studies showing students' abilities to

use nominalizations, build the field, and construct coherence in writing different types of reports and explanations (e.g., Accurso, Gebhard, & Selden, 2016; Brisk, Hodgson-Drysdale, & O'Connor, 2010; Gebhard, Chen, & Britton, 2014).

At the secondary level, Humphrey and Macnaught (2016a) used mixed methods to analyze persuasive writing in Australia. Over 18 months, both L1 and L2 ninth-graders showed growth in the logical development of ideas within paragraphs, the use of expanded noun groups to package key ideas, and the management of multiple points of view (e.g., use of although to show awareness of and rebut an alternative view, p. 808). Further, quantitative analysis of these students' performance on writing assessments showed average growth more than twice that of other public school students in the region with similar demographic characteristics. Likewise, Achugar and Carpenter (2014) used mixed methods to show how students in five Texas history classrooms developed an ability to construct more authoritative academic voices in arguments about slavery and immigration. Cullip (2009) presented similar qualitative findings regarding logical development in persuasive writing from an 11th-grade ESL (English as a Second Language) classroom in Malaysia. Over the course of five weeks, students in this study developed an ability to construct more logical arguments using nominalization (e.g., Smoking should not be totally banned -> Imposing a total ban on smoking may result in..., p. 207) and conjunction (e.g., firstly, secondly, besides, so).

Findings regarding these benefits of SFL pedagogies have also been substantiated by large-scale quantitative analyses of student outcomes following SFL-based interventions. In Australia, Rose (2015) reported findings from a quasi-experimental study of literacy gains in students in grades 5-9. Writing samples and reading test scores from a target group of 310 struggling readers and writers, including English learners, were analyzed alongside data from a comparison group of 377 middle and high performing students. Rose reported an accelerated rate of literacy gains in the target group; gains were consistently more than one grade level over the course of the intervention (double the expected rate of literacy development) and 20% of students made gains of two or more grade levels (Cullican, 2006). Schleppegrell and her colleagues presented equally compelling evidence from the California History Project (e.g., Schleppegrell & de Oliveira, 2006; Schleppegrell, Greer, & Taylor, 2008). In a randomized experiment, over 5,000 secondary students from treatment and control groups were asked to write an argument essay about a history curriculum topic. Students essays were scored on a scaled writing rubric with six criteria: thesis, claims, historical evidence, analysis, essay structure, and conventions. Students in the treatment group scored higher on all rubric elements, indicating that students whose teachers studied SFL pedagogies learned more history and were able to present their knowledge more effectively in essays.

Using SFL Pedagogies Supports Teachers' Professional Development

In addition to students' language and literacy gains, a review of existing studies suggest SFL theory and practice may support teachers' professional development in two important ways. First, teachers who participate in SFL professional development appear to develop increased language awareness. For example, Whittaker and Acevedo (2016) found that teachers in five European countries developed a heightened awareness of school texts they routinely assigned (e.g., historical recounts, expositions); the linguistic features of these texts; and the difficulties students encounter when learning to read and write such texts (in U.S. contexts, see de Oliveira, 2016). These findings are promising in light of claims that instruction in traditional grammar is insufficient for building teachers' confidence and ability to explicitly and systematically teach English in ways that support students' disciplinary literacies (e.g., Borg, 2006). Teachers can benefit from a more explicit awareness of how language choices function to make discipline-specific meanings, and SFL may provide a useful foundation for developing this type of awareness (e.g., Aguirre-Muñoz, Park, Amabisca, & Boscardin, 2008; Macken-Horarik, 2008; O'Hallaron, Palincsar, & Schleppegrell, 2015).

Second, teachers show an increased ability to design more effective language-focused curriculum, instruction, and assessments in specific content areas. This trend is best illustrated by a collection of case studies that emerged from a school-university partnership in the United States called the Access to Critical Content and English Language Acquisition (ACCELA) Alliance. In collaboration with university faculty and doctoral students, 61 practicing teachers earned their master's degree in Education and a state license to teach English as an additional language by learning to use the TLC and analyzing changes in the students' literacy practices. Representative case studies of ACCELA teachers' curricular learning include a fifth-grade teacher's persuasive letter writing unit to support students in arguing for the reinstatement of recess at their school (Gebhard, Harman, & Seger, 2007); another fifth-grade teacher's narrative unit designed to prepare students to mentor a class of second-grade students (Harman, 2013); and a second-grade teacher's use of blogging across units to effectively share work with family and community members and invite their responses (Shin, 2014). These teachers coupled locally-responsive goals for language learning with genres well-suited to accomplishing those goals. Then, they practiced analyzing the salient linguistic features of the target genre with respect to their meaning-making function and planned and implemented lessons that explicitly addressed the use of these features using model texts (e.g., textbook passages, published literature, teacher- or student-written models) and text deconstruction activities.

Regarding changes in instructional practices, a predominant theme in the literature was teachers' use of SFL metalanguage, or a language for talking about language, to guide students' development along the mode continuum (e.g., Macken-Horarik, 2008; Schleppegrell, 2013). This focus reflects the assumption that providing students with a metalanguage for analyzing how disciplinary English differs from everyday English might give learners greater purchase on how language constructs meaning within specific content domains. While many teachers found SFL metalanguage challenging (e.g., Fang, Sun, Chiu, & Trutschel, 2014), those who incorporated it into their practice demonstrated an increased ability to lead in-depth class discussions (e.g., Moore & Schleppegrell, 2014). Moreover, even inconsistent use of SFL metalanguage supported some teachers in developing a more critical stance toward disciplinary texts, which in turn influenced their teaching of such texts (e.g., Carpenter, Achugar, Walter, & Earhart, 2015).

Regarding assessment, a small number of promising qualitative and mixed methods studies suggest teachers who participate in SFL professional development make gains in their ability to provide focused feedback on student writing (e.g., Accurso, Gebhard, & Purington, 2017; Humphrey & Macnaught, 2016b; Macken-Horarik, Sandiford, Love, & Unsworth, 2015). These studies, conducted in Australia and the United States, showed positive changes in teachers' abilities to identify students' strengths and weaknesses; diagnose learner needs beyond spelling, punctuation, and vocabulary problems; and give purpose-oriented feedback related to genre and register expectations. These findings are relevant as teachers are increasingly required to evaluate how students attempt to make disciplinary meaning through their text organization and wording (e.g., Mohan, Leung, & Slater, 2010).

SFL Pedagogies Foster Critical Language Awareness

A third trend regarding the affordances of a social-semiotic approach to grammar instruction is the way teachers and students in a small but growing number of studies learned to use SFL to analyze how semiotic choices construct subjectivities and ideologies. This line of research supported students, even very young ones, in taking up the role of critical discourse analyst

as they learn to read, write, and discuss disciplinary texts in school (e.g., Achugar, Schleppegrell, & Oteiza, 2007). Harman's (2018) edited volume exemplifies this trend, providing examples of researchers, teacher educators, teachers, and students using SFL tools to address unproductive power dynamics that constrain the construction of knowledge and the development of disciplinary literacies in K-12 schools-places where English learners are often constructed as passive receivers of language and culture or as defective communicators (e.g., Achugar & Carpenter, 2018; de Oliveira & Avalos, 2018). These authors placed the work of multilingual English learners, their teachers, and teacher educators at the center of the complex semiotic mediation that takes place in modernist institutions such as public schools to promote a social justice agenda in local classroom practices. As their findings demonstrate, this process of institutional mediation is enhanced when students and teachers develop a critical language awareness by learning to use a functional metalanguage that allows them to explicitly identify and critique text/context dynamics.

For example, Schleppegrell and Moore (2018) described a U.S. professional development initiative that supported elementary learners in developing an awareness of themselves as readers who are in dialog with authors and are positioned in particular ways by what they learn to read, write, and discuss in school. Central to this ability was students' and teachers' use of metalanguage to analyze the attitudes of characters in children's literature and the construction of authority in informational texts. Humphrey (2018) pursued a related line of inquiry in the context of a multilingual high school, providing teachers and students with a metalanguage to take up active and critical roles as readers and writers as they shifted back and forth from using every day, to more specialized, and then reflexive literacy practices in school (e.g., language that "opens up" or "slams the door" on debate).

In addition, the chapters in Harman's volume highlighted the importance of conceptualizing classrooms as multilingual discursive spaces and denaturalizing false binaries regarding national languages and essentialized identities. Such binaries fail to hold as students and teachers shift between their home languages and varieties of English to accomplish meaningful academic work. For example, Brisk and Ossa Parra (2018) analyzed "hybrid discourse and translanguaging practices in an English medium class" (p. 130) to describe how monolingual teachers in one U.S. elementary school used the TLC to facilitate multilingual students' participation in text deconstruction and construction activities using both English and Spanish. Also drawing on the concept of translanguaging, Khote (2018) described how Latinx students attending a rural U.S. high school participated in the TLC to analyze immigration policies and media pieces using their home language and the language of schooling.

Finally, studies in Harman's (2018) volume capture the changing nature of literacy practices in 21st-century schools. For example, Potts (2018) analyzed multiliteracies in an urban elementary school in Canada, demonstrating how students engaged in multimodal lessons to achieve "sanctioned curricular goals," but also for "purposes they charted independently" (p. 220). Similarly, Shin (2018) explored how an 11-year old Laotian student engaged with multimodal digital literacies in the context of the TLC. This student drew on text, image, color, and sound to produce a multimodal ensemble appropriate for his purposes and audiences while meeting the demands of national curriculum standards. In sum, Harman's book makes clear that discriminating, de-professionalizing, and alienating institutional discourses circulating in schools are not totalizing. Rather, collaboratively, multilingual students, teachers, and researchers can enact counterdiscourses using a critical social-semiotic perspective of language and learning.

Issues and Challenges in Implementing SFL Pedagogy

The promise of a social-semiotic approach to grammar instruction is in tension with two main issues: its potential to reproduce dominating language ideologies in schools, and the demands it places on the knowledge base of teachers and teacher educators. Some studies

provided evidence of teachers taking up SFL pedagogies relatively quickly, sometime with great enthusiasm (e.g., Brisk, 2014). In contrast, other studies demonstrated the degree to which teachers struggled to implement SFL practices in ways that were commensurate with a social-semiotic perspective of grammar and disciplinary literacy development (e.g., Brisk et al., 2010; Fang et al., 2014). These studies suggest that without sustained professional development and institutional support, teachers may revert to drilling and practicing prescribed genre structures and grammatical features without attending to crucial aspects of purpose, audience, and power that always shape text production and interpretation. These form-focused misuses of SFL pedagogies have been sharply critiqued by scholars who maintain that drilling, practicing, and testing school-based genres will likely result in the reproduction of dominant discursive practices and dominating language ideologies, thus playing a role in further legitimating inequities rooted in race, class, gender, and ethnic differences (e.g., Luke, 1996).

However, this drift toward behaviorism is no surprise as many language educators have been socialized to think of grammar as formal bits and pieces of language and learning as the memorization of sentence-level grammatical rules (Borg, 2006). This drift is further exacerbated by school reforms that favor behavioral approaches for the purpose of achieving efficiency goals rather than furthering an equity agenda in public schools serving diverse learners (e.g., Gebhard, 2004). Worldwide, efficiency models have intensified teachers' work through standardization and accountability systems that track teachers' ability to improve students' test scores; the adoption of neoliberal policies that work to underfund public education; and persistent weak investments in professional development that limit teachers' access to expertise and meaningful forms of sustained collaboration (e.g., Adamson, Astrand, & Darling-Hammond, 2016). Therefore, it is not surprising that some teachers introduced to SFL pedagogies "pour old wine in new bottles," or re-inscribe behavioral ideologies into their uses of this new approach, though some do so deliberately and with regret because of time pressures they feel related to high-stakes exams (Gebhard, Chen, Graham, & Gunawan, 2013).

Finally, we consider the critique that SFL may be too theoretical to inform the knowledge base of teaching (e.g., Ferris, 2011). This critique is important given that many monolingual English-speaking teachers have had limited opportunities to formally study language (e.g., Jones, Myhill, & Bailey, 2013). As a result, many teachers lack an awareness of how language and other semiotic systems work, especially in disciplinary texts (e.g., Turkan, de Oliveira, Lee, & Phelps, 2014). However, SFL offers teachers this kind of perspective. Our review suggests that, with support, many teachers were able to develop declarative grammatical knowledge and effectively integrate it into their pedagogy, demonstrating that SFL theory and practices are not too complex for teachers or for K-12 multilingual learners (e.g., Humphrey, 2018; Schall-Leckrone & Barron, 2018). In light of this finding, we argue that problems related to implementing SFL pedagogies may have more to do with weak commitments to authentic forms of professional development in the context of global educational reform movement than the rigors of re-contextualizing SFL theory for the purposes of teaching and learning.

Practical Applications of TESOL in K-12

Teachers around the world, working in collaboration with other teachers, community members, and university faculty, have used a social-semiotic approach to plan, implement, assess, and collectively reflect on changes in their students' literacy practices in promising ways. Based on findings from current research, we offer the following recommendations for educators interested in applying this approach to curricular units in their classrooms (e.g., Gebhard & Willett, 2008).

Planning

Identify an encompassing project for your unit with an authentic purpose and audience. This unit should draw on students' linguistic and cultural resources; make students' interests an integral part of the curriculum; and target specific language and content standards (e.g., students will research immigration patterns in their communities and prepare multimodal historical explanations for an audience of community members using PowerPoint slides as part of meeting specific language, technology, and history standards).

Select a target genre well-suited to achieving the goal of the unit (e.g., reading and writing historical explanations regarding immigration). Students' production of this genre at the end of the unit can serve as an assessment of the unit's language, content, and social justice goals. Choose a genre aligned with state standards to ensure students are being prepared for the demands of high-stakes exams, while also participating in linguistically and culturally responsive classroom practices. Meeting state standards and drawing on students' linguistic and cultural resources are not mutually exclusive, but highly interdependent.

Analyze the key semiotic features of your target genre to plan instructional goals and design scaffolding activities. Develop an explicit understanding of the content knowledge and literacies students need to develop to be successful in meeting unit goals (e.g., knowledge of content terms and concepts; awareness of author/audience dynamics in producing a text for a specific purpose and audience; expected genre stages of the text type; specific linguistic features and/or graphics required to construct disciplinary meanings in the target genre).

Implementation

Build students' shared background knowledge to support all students in moving along the mode continuum. Explore disciplinary topics through images, multimedia, hands-on tasks, and talk in students' home language and English before students are required to read and write more challenging decontextualized texts about content that is new to them.

Deconstruct model texts with students by drawing attention to key features of disciplinary genres. Make semiotic know-how highly visible and open to critical discussion. Analyze texts with students to discover how a text is structured; how authors use disciplinary language to construct ideas, position themselves and their readers, and manage the flow of ideas and attitudes over an extended text. Have students read authentic texts as they prepare to write for authentic audiences. In addition, make explicit links between how grammar works in these texts and how that influences the meanings made in the texts (e.g., ways of packing information into long noun groups, reasons for selecting particular tenses, ways of selecting words and phrases to stay on topic and make causal claims).

Develop a shared metalanguage, whether technical or colloquial, and use it systematically to analyze texts with students. This metalanguage can support students' critical language awareness by giving them tools for naming how knowledge is constructed in a specific disciplinary domain through language; how variations in language patterns relate to specific genres; and how to appropriate linguistic resources to accomplish their own academic, social, and political goals. Develop this metalanguage by providing students with short grammatical explanations and focused exercises anchored to the authentic texts students are reading and writing (e.g., analyze lexical chains to track a main idea and notice ideological shifts in how specific immigrant groups are referred to in disciplinary texts).

Scaffold disciplinary literacy practices by providing students with annotated model texts, graphic organizers, and examples of revised student work to highlight target disciplinary literacy goals (e.g., text structure, paragraphing strategies, clause level grammar features, word choices, use of graphics). Scaffold tasks by providing opportunities for students to work in pairs, small groups, and as a whole class to expand the range of linguistic options available to them when reading and writing disciplinary texts. Center discussion on how all writers, including students, make specific kinds of linguistic choices for specific purposes and audiences (e.g., varieties of peer language, registers associated with specific sports and professions, disciplinary registers).

Support students in constructing texts drawing on aspects of the writing process. Work on the final unit project should take place during instructional time when students have social supports for writing in challenging disciplinary ways (e.g., guide students in planning, drafting, receiving feedback, revising, editing, and self-assessing their final written products using SFL scaffolds). Establish norms for participating in a writing conference, as well as giving and receiving peer feedback. Socially construct SFL-informed feedback guides with students to make criteria for evaluation highly visible and open to discussion.

Assessment

Assess students' development of disciplinary knowledge and literacy practices in light of the unit's essential language and content goals (Wiggins & McTighe, 1998). Use a variety of assessments (e.g., SFL-informed rubrics that evaluate students' disciplinary knowledge and literacy practices as demonstrated in final unit projects, exams with open response questions). All assessments should provide information to inform the design of future curricular units (e.g., what disciplinary concepts and literacy practices may need to be re-taught).

Critical Reflection

Develop methods for tracking changes in students' literacy practice with students and colleagues to reflect on curriculum, instruction, and assessment practices. Notice patterns of improvement (e.g., student engagement; use of target semiotic resources in producing extended disciplinary texts; aspects of parent/community involvement) and identify patterns and specific issues that need to be addressed in the future curriculum (e.g., lack of change in a student's disciplinary literacy development; differences in the rates of change in students' literacy gains). Analyzing students' disciplinary literacy practices should inform school reforms at the local level whenever possible (e.g., aspects of scheduling and grouping practices, mapping curriculum across grade levels and disciplines, access to technology, recruiting community/stakeholder support in addressing problems identified through classroom data analysis). Focus on data generated in your classroom as a result of curricular units you designed as opposed to high-stakes test data.

Collaboration

Work collaboratively with other teachers, teacher educators, community members, and university faculty to support critical reflection, collective local action, sustained professional development opportunities, and engaged scholarship. This is essential for sustaining robust professional practices in the context of weak institutional supports for critical approaches to disciplinary literacy development, teacher education, classroom-based research, and school change. Start small by forming a reading group, inviting guest speakers, or attending conferences. These activities can grow into grant writing to fund your efforts, presenting at conferences, and authoring practitioner-oriented research with other stakeholders.

Future Directions for TESOL in K-12

In concluding this chapter, we focus briefly on three topics for future work: how TESOL professionals conceptualize grammar, the use of metalanguage in classroom instruction, and how to foster collaboration in teacher education. First, there is a need for much greater clarity in how TESOL scholars, teacher educators, and practitioners use the term "grammar" and describe "grammar teaching" given paradigmatic shifts in conceptions of grammar in the field. While there has been a clear shift in the field toward conceptualizing language development from a sociocultural perspective, there has been much less engagement with sociocultural conceptions of grammar as articulated by Halliday and his colleagues. Given that Halliday's theory was designed, in part, to address pressing issues in education, there is a need for the TESOL field to expand conceptions of grammar to include a social-semiotic perspective, especially in the domain of teacher education.

Second, there is the issue of metalanguage and what kind of metalanguage will best serve students in developing language and disciplinary literacies. Over a decade ago, Macken-Horarik (2008) argued that SFL metalanguage could provide teachers and students with "a powerful navigational toolkit" for talking about language and reflecting on how different semiotic resources function in school contexts. According to Macken-Horarik, SFL metalanguage could enable teachers "to engage with complex socialsemiotic practices, to diagnose strengths and weaknesses in students' texts, relating them in a principled way to the relevant meaning potentials on which they draw" (2008, p. 46). While a growing number of studies have supported Macken-Horarik's assertion, there is little research regarding the scope and sequence of specific uses of metalanguage and what kind of metalanguage is most useful for classroom practice. A beneficial line of inquiry would help determine what kind of metalanguage is apt to be most useful to teachers in designing curriculum, instruction, assessments. For example, Humphrey and Macnaught (2016a) have suggested the use of a "bridging metalanguage [that links] technical terminology (SFL-based or otherwise) with instances of language patterns in texts and acknowledges the value of everyday terminology for explaining how structures and functions of language relate to their context of use" (p. 799). Others advocate creating more student-oriented metalinguistic terms for use in classroom discussions with very young learners (e.g., use of appraisal resources to turn up or turn down the force of an emotion, evaluation, or judgment, Schleppegrell & Moore, 2018). To those who pursue this work, we suggest the design of more large-scale, mixed methods analyses using corpus tools to more fully test the potential of these approaches over time. Work of this nature could inform the development of policies, teacher education practices, and curricular materials for use in a wide variety of K-12 classrooms.

Last, there is the issue of collaboration. Despite advances in conceptualizing teachers' work from a sociocultural perspective and a wealth of research demonstrating the social nature of professional development, many teachers continue to work in isolation from other professionals, have very little access to expertise, and have few opportunities for meaningful collaboration focused on student learning. For many teachers, "'front loading' persists as the dominant format in teacher education so that a single, sustained professional input early on in teachers' careers is assumed to equip recipients for a lifetime of professional work" (Freeman, 1994, p. 3). However, our review of current research suggests that SFL scholarship is attempting to address this long-standing problem. For example, SFL scholars have designed studies using research methods that include students, teachers, and teacher educators in analyses of language use in classrooms over time, develop and test conceptual models of disciplinary literacy development, and contribute to teachers' professional development (e.g., design-based research, action research; see Moore & Schleppegrell, 2014). Likewise, other scholars have engaged in youth participatory action research as a way of using SFL tools to support a strong social justice agenda (e.g., Khote, 2018). This groundswell of scholarship that engages with the day-to-day lives of students, teachers, and teacher educators is a promising trend that speaks to the benefits of establishing lines of inquiry that necessitate collaborative engagement in K-12 TESOL classrooms to support grammar instruction and the development of disciplinary literacies.

NOTE

Given the diversity of students learning English as an additional language in a wide variety of programmatic contexts, as well as the ideological entailments of labels, it is difficult to settle on terms to capture who students are and name the programs designed to meet their needs. In this chapter, we use "English learner" and "student."

REFERENCES

- Accurso, K., Gebhard, M., & Selden, C. (2016). Supporting L2 elementary science writing with SFL in an age of school reform. In L. C. de Oliveira, & T. Silva (Eds.), Second language writing in elementary classrooms (pp. 126-150). London: Palgrave Macmillan.
- Accurso, K., Gebhard, M., & Purington, S. (2017). Analyzing diverse learners' writing in mathematics. International Journal of Mathematics Teaching & Learning, 18(1), 84-108.
- Achugar, M., & Carpenter, B. D. (2014). Tracking movement toward academic language in multilingual classrooms. Journal of English for Academic Purposes, 14, 60-71.
- Achugar, M., & Carpenter, B. D. (2018). Critical SFL praxis principles in English education. In R. Harman (Ed.), Bilingual learners and social equity (pp. 91-108). New York, NY: Springer.
- Achugar, M., Schleppegrell, M., & Oteiza, T. (2007). Engaging teachers in language analysis. English Teaching: Practice and Critique, 6(2), 8-24.
- Adamson, F., Astrand, B., & Darling-Hammond, L. (Eds.) (2016). Global education reform. New York, NY: Routledge.
- Aguirre-Muñoz, Z., Chang, R., & Sanders, J. (2015). Functional grammar instruction impact on writing quality. Educational Policies and Current Practices, 1(2), 71-85.
- Aguirre-Muñoz, Z., Park, J., Amabisca, A., & Boscardin, C. (2008). Developing teacher. capacity for serving ELLs' writing instructional needs. Bilingual Research Journal, 31, 295-323.

- Borg, S. (2006). Teacher cognition and language education. London, UK: Continuum.
- Brisk, M. E. (2014). Engaging students in academic literacies: Genre-based pedagogy for K-5 classrooms. New York, NY: Routledge.
- Brisk, M. E., Hodgson-Drysdale, T., & O'Connor, C. (2010). A study of a collaborative instructional project informed by SFL theory. Journal of Education, 191(1), 1-12.
- Brisk, M. E., & Ossa Parra, M. (2018). Mainstream classrooms as engaging spaces for emergent bilinguals: SFL theory, catalyst for change. In R. Harman (Ed.), Bilingual learners and social equity (pp. 127-151). New York, NY: Springer.
- Carpenter, B. D., Achugar, M., Walter, D., & Earhart, M. (2015). Developing teachers' critical language awareness. Linguistics and Education, 32, 82-97.
- Chomsky, N. (1986). Knowledge of language: Its nature, origin and use. New York, NY: Praeger.
- Cullican, S. (2006). Learning to read, reading to learn: A middle years literacy intervention research project, final report 2003-4. Melbourne: Catholic Education Office.
- Cullip, P. (2009). A tale of two texts: Tracking development in learner writing. RELC Journal, 10(2), 192-210.
- de Oliveira, L. C. (2016). A language-based approach to content instruction (LACI) for English language learners. International Multilingual Research Journal, 10(3), 217-231.

- de Oliveira, L. C., & Avalos, M. A. (2018). Critical SFL praxis among teacher candidates. In R. Harman (Ed.), Bilingual learners and social equity (pp. 109-123). New York, NY: Springer.
- de Oliveira, L. C., & Iddings, J. (2014). Genre pedagogy across the curriculum: Theory and application in U.S. classrooms and contexts. London: Equinox.
- de Oliveira, L. C., & Schleppegrell, M. J. (2015). Focus on grammar and meaning. Oxford: Oxford University Press.
- Ellis, R. (2015). Understanding second language acquisition. Oxford: Oxford University
- Fang, Z., Sun, Y., Chiu, C. C., & Trutschel, B. K. (2014). Inservice teachers' perception of a language-based approach to content area reading. Australian Journal of Language & Literacy, 37(1), 55-66.
- Ferris, D. (2011). Written discourse analysis and school language teaching. In E. Hinkel (Ed.), Handbook of research in second language teaching and learning (Vol. 2) (pp. 645-662). New York, NY: Routledge.
- Freeman, D. (1994). Knowing into doing: Teacher education and the problem of transfer. In D. C. S. Li, D. Mahoney, & J. Richards (Eds.), Exploring second language teacher development (pp. 1-21). Hong Kong: City Polytechnic of Hong Kong.
- Gebhard, M. (2004). Fast capitalism, school reform, and second language literacy practices. Modern Language Journal, 88(2), 245-265.
- Gebhard, M., Chen, I., & Britton, L. (2014). "Miss, nominalization is a nominalization": ELLs' use of SFL metalanguage and literacy practices. Linguistics and Education, 26, 106-125.
- Gebhard, M., Chen, I., Graham, H., & Gunawan, W. (2013). Teaching to mean, writing to mean. Journal of Second Language Writing, 22, 107-124.
- Gebhard, M., Harman, R., & Seger, W. (2007). Reclaiming recess in urban schools: The potential of SFL for ELLs and their teachers. Language Arts, 84(5), 419-430.
- Gebhard, M., & Willett, J. (2008). Social to academic: University-school district partnership helps teachers broaden students' language skills. The Journal of Staff Development, 29(1), 41-45.
- Gibbons, P. (2003). Mediating language learning: Teacher interactions with ESL students in a content-based classroom. TESOL Quarterly, 37(2), 247-273.
- Halliday, M. A. K. (1993). Toward a languagebased theory of learning. Linguistics and Education, 5, 93-116.

- Harklau, L. (1994). Tracking and linguistic minority students: Consequences of ability grouping for second language learners. Linguistics and Education, 6(3), 217-244.
- Harman, R. (2013). Literary intertextuality in genre-based pedagogies: Building lexical cohesion in fifth-grade L2 writing. Journal of Second Language Writing, 22(2), 125-140.
- Harman, R. (Ed.) (2018). Bilingual learners and social equity. New York, NY: Springer.
- Hasan, R. (1996). Literacy, everyday talk and society. In R. Hasan, & G. Williams (Eds.), Literacy in society (pp. 169-206). London: Longman.
- Hu, G., & McKay, S. L. (2012). English language education in East Asia: Some recent developments. Journal of Multilingual and Multicultural Development, 33(4), 345-362.
- Humphrey, S. (2018). "We can speak to the world": Applying metalinguistic knowledge for specialized and reflexive literacies. In R. Harman (Ed.), Bilingual learners and social equity (pp. 45-69). New York, NY: Springer.
- Humphrey, S., & Macnaught, L. (2016a). Functional language instruction and the writing growth of English language learners in the middle years. TESOL Quarterly, 50(4),
- Humphrey, S., & Macnaught, L. (2016b). Developing teachers' professional knowledge of language for discipline literacy instruction. In H. de Silva Joyce (Ed.), Language at work in social contexts (pp. 68-87). Newcastle upon Tyne: Cambridge Scholars Publishing.
- Jones, S. S., Myhill, D. A., & Bailey, T. C. (2013). Grammar for writing? An investigation into the effect of contextualised grammar teaching on student writing. Reading and Writing Ouarterly, 26(8), 1241-1263.
- Khote, N. (2018). Translanguaging in systemic functional linguistics. In R. Harman (Ed.), Bilingual learners and social equity (pp. 153-178). New York, NY: Springer.
- Krashen, S. D. (1982). Principles and practice in SLA. Oxford: Pergamon.
- Larsen-Freeman, D. (2015). Research into practice: Grammar learning and teaching. Language Teaching, 48(2), 263-280.
- Liu, D. (2015). A critical review of Krashen's input hypothesis: Three major arguments. Journal of Education and Human Development, 4(4), 139-146.
- Luke, A. (1996). Genres of power? Literacy education and the production of capital.

- In R. Hasan, & G. Williams (Eds.), Literacy in society (pp. 308-338). London: Longman.
- Macken-Horarik, M. (2008). A "good enough" grammatics. In C. Wu, C. Matthiessen, & M. Herke (Eds.), Proceedings of ISFC 35 (pp. 43-48). Sydney: ISFC Organizing Committee.
- Macken-Horarik, M., Sandiford, C., Love, K., & Unsworth, L. (2015). New ways of working "with grammar in mind" in school English. Linguistics and Education, 31, 145-158.
- Martin, J. R. (2009). Genre and language learning. Linguistics and Education, 20(1), 10-21.
- Martin, J. R., & Rose, D. (2008). Genre relations: Mapping culture. London: Equinox.
- Mohan, B., Leung, C., & Slater, T. (2010). Assessing language and content: A functional perspective. English Publications, 71, 217-240.
- Moore, J. M., & Hart, M. (2007). Access to literacy: Scaffolded reading strategies in the South African context. Journal for Language Teaching, 41(1), 15-30.
- Moore, J., & Schleppegrell, M. J. (2014). Using a functional linguistics metalanguage to support academic language development in the English language arts. Linguistics and Education, 26, 92-105.
- Norton, B. (1997). Language, identity, and the ownership of English. TESOL Quarterly, 31(3), 409-429.
- O'Hallaron, C. L., Palincsar, A. S., & Schleppegrell, M. J. (2015). Reading science: Using SFL to support critical language awareness. Linguistics and Education, 32, 55-67.
- Ortega, L. (2009). Understanding second language acquisition. London: Hodder Education.
- Potts, D. (2018). Critical praxis, design and reflection literacy: A lesson in multimodality. In R. Harman (Ed.), Bilingual learners and social equity (pp. 201-223). New York, NY: Springer.
- Rose, D. (2015). New developments in genrebased literacy pedagogy. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), Handbook of writing research (2nd ed.) (pp. 227-242). New York, NY: Guilford.
- Rose, D., & Martin, J. R. (2012). Learning to write, reading to learn. Sheffield: Equinox.
- Slama, R. B. (2011). A longitudinal analysis of academic English proficiency outcomes for adolescent ELLs in the U.S. Journal of Educational Psychology, 104(2), 265-285.

- Schall-Leckrone, L., & Barron, D. (2018). Apprenticing students and teachers into historical content, language, and thinking. In L. C. de Oliveira, & K. M. Obenchain (Eds.), Teaching history and social studies to ELLs (pp. 205-231). Basingstoke: Palgrave Macmillan.
- Schleppegrell, M. (2004). The language of schooling: A functional linguistics perspective. Mahwah, NI: Erlbaum.
- Schleppegrell, M. J. (2013). The role of metalanguage in supporting academic language development. Language Learning. 63(S1), 153-170.
- Schleppegrell, M. J., & Colombi, M. C. (2005). Developing advanced literacy in first and second languages: Meaning with power. Mahwah, NI: Erlbaum.
- Schleppegrell, M. J., & de Oliveira, L. (2006). An integrated language and content approach for history teachers. Journal of English for Academic Purposes, 5(4), 254-268.
- Schleppegrell, M. J., Greer, S., & Taylor, S. (2008). Literacy in history: Language and meaning. Australian Journal of Language and Literacy, 31(2), 174-187.
- Schleppegrell, M. J., & Moore, J. (2018). Linguistic tools for supporting emergent critical language awareness in the elementary school. In R. Harman (Ed.), Bilingual learners and social equity (pp. 23-43). New York, NY: Springer.
- Shin, D. S. (2014). Web 2.0 tools and academic literacy development in a U.S. urban school: A case study of a second-grade ELL. Language and Education, 28(1), 68-85.
- Shin, D. S. (2018). Multimodal mediation and argumentative writing. In R. Harman (Ed.), Bilingual learners and social equity (pp. 225-242). New York, NY: Springer.
- Turkan, S., de Oliveira, L. C., Lee, O., & Phelps, G. (2014). Proposing a knowledge base for teaching academic content to ELLs. Teachers College Record, 116(4), 1-30.
- Whittaker, R., & Acevedo, C. (2016). Working on literacy in CLIL/bilingual contexts: Reading to learn and teacher development. Estudios Sobre Educación, 31, 37-55.
- Wiggins, G., & McTighe, J. (1998). Understanding by design. Alexandria, VA: ASCD.