Theory to Practice: Cultivating Academic Language Proficiency in Developmental Reading Classrooms

By Heather N. Neal

New insights about the nature of academic language present new possibilities for cultivating academic language proficiency in the developmental reading classroom.

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Abstract: Academic language plays a key role in reading comprehension, disciplinary thinking, and overall academic success. However, many approaches to teaching academic language, such as a focus on academic vocabulary, overlook other language features that can pose challenges for students. Systemic Functional Linguistics (SFL), arguably one of the three bodies of knowledge that have most substantially contributed to disciplinary literacy theory, sheds light on the nature and functional purpose of academic language. This article explores academic language through the lens of SFL and identifies viable strategies for academic language instruction within the developmental reading classroom.

Research on the role that academic language plays in reading comprehension (Kamil, 2004; Lesaux & Kieffer, 2010), disciplinary thinking (Fang & Schleppegrell, 2008; Shanahan & Shanahan, 2008), and overall academic success (Short & Fitzsimmons, 2007) has ushered in a wave of new educational reforms (NGA Center & CCSSO, 2010) designed to support academic language development across the disciplines. Academic language proficiency (Bailey, 2007; Nagy & Townsend, 2012) refers to the ability to understand and command the specialized language practices of the academic disciplines in order to learn, communicate, and participate in these disciplines. Academic language proficiency is especially vital at the postsecondary level since, as Francis and Simpson (2009) note, "if college students are to succeed, they need an extensive vocabulary and a variety of strategies for understanding the words and language of an academic discipline" (p. 97). This rationale is embedded in the College and Career Readiness Standards for Language (NGA Center & CCSSO, 2010), standards that some believe are equally important for developmental education students (Tepe, 2014).

Although it is recognized that academic language plays an important role in reading comprehension, disciplinary thinking, and overall academic success, all college students have not been immersed in meaningful experiences with academic language (Zwiers, 2008). This can result in an achievement gap that can disproportionately affect students who are English Language Learners and students who are socioeconomically disadvantaged (Snow & Ucceli, 2009). Historically, developmental reading instructors have engaged in efforts to build academic language through an emphasis on vocabulary (Francis & Simpson, 2009; Willingham & Price, 2009). This research corpus has made important contributions to understanding vocabulary as a dimension of academic language at the college level, but new insights about the nature of academic language (Fang & Schleppegrell, 2008) present new possibilities for cultivating academic language proficiency in the developmental reading classroom.

For example, it is often believed that disciplinary texts are difficult because of the technical vocabulary or *lexis*. Although technical vocabulary is certainly a complicating factor of disciplinary texts, Halliday (1994) sheds light on some of the other challenges that academic language poses. He uses the term *lexicogrammar* to underscore the interconnected nature of vocabulary and grammar. The complexity of disciplinary texts is also related to the grammatical features such as long noun phrases that can be difficult to break down and comprehend, such as "the unjust and problematic totalitarian regimes of the Axis powers." Indeed, when several long noun phrases are connected together, meaning making can become especially difficult.

If, as Halliday (1994) suggests, academic language involves both words and grammar, developmental reading students need a more holistic approach to academic language instruction. This will enable students to process, critique, and engage with the academic language they encounter while reading disciplinary texts.

The purpose of this article is to describe academic language through the lens of Systemic Functional Linguistics or SFL (Halliday, 1994), a theoretical framework and analytical toolkit for examining the relationship between language, text, and context. This article will also propose implications for developmental reading instructors. SFL has been utilized by educators worldwide since the 1980s (Martin & Rothery, 1986) when the Sydney

School of Genre began their pioneering efforts. SFL provides a *metalanguage*, or a language for talking about language, in order to "identify and explain differences between texts, and relate these to the contexts of culture and situation in which they seem to work" (New London Group, 1996, p. 80). A metalanguage can help developmental reading students gain an awareness of how academic language operates within disciplinary texts.

SFL offers a fresh and socially situated perspective on academic language learning that can be used at college level. In one study (Neal, 2012) a series of lessons on SFL were used to help developmental reading students analyze everyday and disciplinary texts. This approach supported students' academic language development and promoted engagement with disciplinary texts. Other research has indicated that SFL can be used to support reading comprehension (Hammond, 2006; Schleppegrell & de Oliveira, 2006). SFL-informed language analysis likely supports comprehension because it engages students in close readings and helps them to break down disciplinary texts. As Zwiers (2008) has argued, typical reading strategies such as utilizing graphic organizers and annotating main ideas will fall short if students cannot comprehend what they are reading. SFL presents educators with an additional option for scaffolding academic language and disciplinary reading tasks.

Through the theoretical framework and language analysis tools of SFL, developmental educators can improve their pedagogy by learning more about the features and functions of academic language and viable strategies for academic language instruction. As a result, developmental educators can support the academic success of their students by helping them to access powerful academic discourses so they can participate more fully in the academic disciplines and society.

Academic Language: Purpose and Features

This section will explore several subtopics related to academic language. These include the potential of Systemic Functional Linguistics, the functional purpose of academic language, and the *metafunctions* of SFL.

The Potential of Systemic Functional Linguistics

College students bring into their classrooms language or linguistic resources that have served them well in many of their social worlds such as past schooling experiences. However, many students are unlikely to have college-level academic language proficiency, particularly in light of the multitude of disciplines that might be new to freshmen such as sociology or political science. The comprehensive definition of academic language proficiency offered

earlier, "the ability to understand and command the specialized language practices of the academic disciplines to learn, communicate, and participate in these disciplines," marks a departure from conventional thinking. If academic language is a tool for helping students to engage with and make meaning in a discipline, a contextualized language approach is needed. This fits with current thinking about contextualization (Perin, 2011) as an approach to developmental education.

SFL has been used by educators, researchers, and students to explore and understand the various language features found in postsecondary academic texts (Achugar & Colombi, 2008; Coffin & Donahue, 2012; Gardener, 2012). SFL can also be used to support developmental reading students by exposing language challenges posed by disciplinary reading tasks and by engaging students in close readings of disciplinary texts so students can better understand and critique them.

Additionally, SFL can be a guide to instructors seeking to help students with the functional

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Individuals can use the tools of linguistics to inform their understanding of disciplinary practices.

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purposes of academic language features. The very language features that can make texts so difficult for students to navigate are often related to the values, traditions, and practices of the academic disciplines. Ivanic (1998) has argued that individuals can use the tools of linguistics to inform their understanding of disciplinary practices. In fact, SFL has been cited as one of the three major bodies of research that have informed the understanding of disciplinary literacies (Shanahan & Shanahan, 2014). Unlike content-area literacy instruction, which tends to emphasize generic strategies that can be used across the academic disciplines, disciplinary literacy instruction emphasizes the specific literacy practices and patterns of thinking found within each academic discipline (Holschuh, Scanlon, Shetron & Caverly, 2014; Shanahan & Shanahan, 2008). Therefore, although there are language features that are commonly found across the academic disciplines, which can be collectively referred to as "academic language," there are qualitative differences in how these features function to build and share knowledge within a single discipline.

The Functional Purpose of Academic Language

According to the principles of SFL (Halliday, 1999), language development consists of six steps: (a)

movement from an interpersonal orientation to an ideational orientation; (b) movement from a dialogic mode to a monologic mode; (c) movement from self-centered to other-centered focus; (d) movement from concrete experience to abstract experience; (e) movement from simple categories to complex taxonomies; and (f) movement from generalization to prediction, reasoning, and explanation. Halliday's theory of language development offers developmental educators insight into the academic language development process.

Language can evolve both in response to new experiences and as a means of reorganizing experience or what Halliday (1994) has termed a *progressive reconstruction*. Language development, then, occurs whenever new meaning-making resources are necessary or available. For instance, a child may know the simple category of animals and know a few items that fit into this category, such as dog or cat. Over time, this category may be expanded and refined based on experience. For instance, the child may have direct experience with robin before knowing its specific name or understanding that it is one type of bird. In learning these new terms, everyday experiences are reorganized through a new linguistic filter. New distinctions may be made, such as the distinction between vertebrate and invertebrate. Less familiar synonyms, such as a crayfish rather than a crawdad, may also be utilized. Furthermore, language can be developed to incorporate new experiences, such as the names of new animals like lemur or new animal categories such as mammals. These language-learning experiences create rich taxonomies or categories.

These taxonomies can also evolve as students engage with the language of a new discipline. For instance, in a college science lab, a student might encounter new types of equipment such as an Erlenmeyer flask or a boiling flask. As Nagy and Townsend (2012) argue, these words are tools that enable scientists to do science such as conducting an experiment or sharing research. Students can be encouraged to reflect upon the taxonomies they encounter in the academic disciplines.

Strategy Tip: Developing Rich Taxonomies

Have students identify taxonomies in textbooks or in real-world situations across disciplines. If possible, visit classroom labs (culinary arts, biology, automechanics) to identify concrete examples of these categories in action. Then, have students create a graphic organizer that pulls in these real-world examples (see Figure 1, p. 14).

Language learning involves discovering "the kinds of choices of meaning which will be highlighted or given prominence in different types of situations" (Halliday, 1978, p. 25-26). For example, a baker and a scientist make occupation-specific

distinctions with language even though the conceptual underpinnings may be similar. What a baker considers "bread dough rising" a chemist may consider "carbon dioxide buildup from yeast consuming sugar." The baker is likely to have some awareness that it is gas that enables the bread to rise but is focused on the task of baking bread; chemical processes may play a subordinate role to the end product.

Figure 1. Sample taxonomy of types of sauces from culinary arts graphic, including general specific terms.

As the previous example of the baker and the scientist illustrates, specialized language practices exist in a range of contexts, including within the academic disciplines. Academic language uses specialized lexica and patterns of arranging words that contribute to meaning and make the text recognizable as a specific *genre* such as a science textbook or a history article. In each genre, there are *obligatory* lexicogrammatical features such as poetry being arranged in stanzas or history textbooks sharing interpretations in chronological order. Conventions can be disrupted, and genres do evolve to meet the demands of new purposes, but genres generally follow stable conventions.

The relative stability of these genres makes it possible to make generalizations about academic language, such as that it involves specialized lexica or vocabulary, abstract language, nominalizations,

and distinctive grammatical patterns. Several linguists, educational theorists, and researchers (Halliday, 1994; Schleppegrell, 2004) have offered descriptions of the features of academic language. Nagy and Townsend (2012), for instance, identified six features that are abundant in academic language: Latin and Greek vocabulary; morphologically complex words; nouns, adjectives, and prepositions; grammatical metaphor, including nominalizations; information density; and abstractness. Many of these features of academic language will now be explored through the lens of the three metafunctions of SFL.

The Metafunctions of SFL and Associated Language Features in Academic Texts

From this broad picture of the possible language features of academic texts, it is important to understand how each component is realized through the word choices that an *interlocutor*—a speaker or writer—makes. SFL connects the three simultaneous meanings that language is designed to make, or three metafunctions, to their contexts. Halliday (1994) used the terms *ideational, interpersonal,* and *textual* to describe these three meanings. Ideational meaning is used to present ideas and is realized through *field*. Interpersonal meaning is used to create relationships and is realized through *tenor*. Textual meaning is used to define the role that the text is playing in the interaction and is realized through *mode*. Field, tenor, and mode work together to create what is called the *context of situation* or a specific language event. The context of situation is always connected to a global context referred to as the *context of culture.*

It is necessary to look more closely at the language resources that are utilized in each metafunction as they offer important insights about academic language. Since metafunctions overlap and interact, it is important not to view these metafunctions as categories. An overview of these three metafunctions is summarized in Table 1. This table summarizes the linguistic resources associated with each metafunction and a guiding question (Achugar, Schleppegrell, & Oteiza, 2007) that helps to identify the social purpose of each. The questions can be used to guide students through an analysis of academic language. In the next section, each metafunction will be expanded upon through concrete examples of how teachers or tutors could engage developmental reading students in analyses of academic texts.

Field and the ideational metafunction. The variable of field is concerned with who (participants) does what (processes) under what circumstances (circumstances). This dimension of field—the dimension of participants, processes, and circumstances—creates what is referred to as
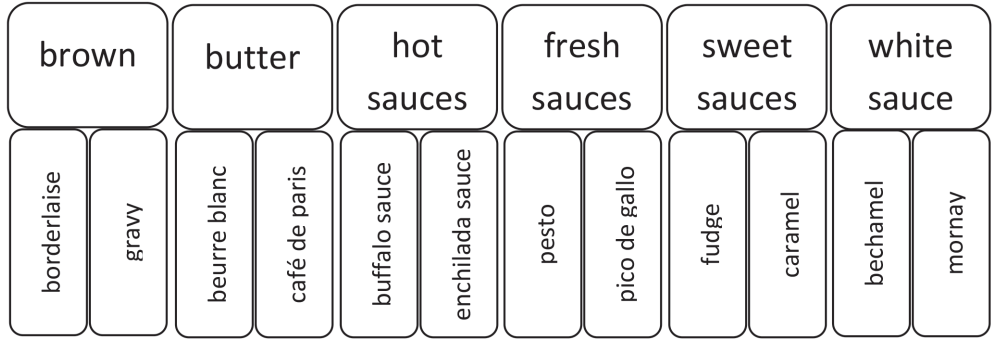
Table 1

The Three Metafunctions of SFL and Guiding Questions

Type of Metafunction	Linguistic Resources	Questions for Identifying Function/Social Purpose
Field (Ideational)	• Participants: agent, sensor, beneficiary, goal • Processes: action, saying, thinking, feeling, relating • Circumstances: time, place, cause, manner, reason	• What is going on in the text?
Tenor (Interpersonal)	• Mood: clause type (interrogative, declarative, exclamatory) • Modality: modal verbs and adjuncts to express degrees of obligation, certainty • Appraisal: words that convey attitudes, emotional, judgment, appreciation	• What is the orientation of the writer to the information? • What is the relationship between the reader and the writer?
Mode (Textual)	• Cohesive Devices: (reference, repetition, ellipsis) • Theme Sequencing • Cause Combining: hypotaxis or parataxis, embedded clauses	• How is the text organized?

Note: Adapted from Achugar, Schleppegrell, and Oteiza (2007).

the *transivity system*. Since one of the most significant shifts in language development is the shift from an interpersonal focus to an ideational focus (Halliday, 1999), this metafunction is especially important for supporting academic language proficiency. Many of the following activities stem from Schleppegrell and de Oliveira's (2006) work with teachers from the California History Project which was developed using SFL and enabled students to engage in historical thinking and acquire content knowledge. The act of identifying participants, processes, and circumstances in a text can help make the academic language of the related field more explicit and comprehensible.

Participants form the subject of the text and can take on a variety of different roles including those of agent, sensor, beneficiary, or goal. History texts offer an especially strong example of field. For instance, the roles that different participants can take on play a pivotal role in attributing agency to different actors. A participant can be an *agent* or a person who brings about an action or a *beneficiary* who is the recipient of an action. Consider, for instance, the following sentences:

The trains took the prisoners to prison camps.

The guards put the prisoners on trains which took them to prison camps.

In the first sentence, the agent or doer of action is "trains" which deemphasizes the role of the guards. Indeed, some applications of SFL ask students to identify participant roles in historical texts as a form of critical literacy that aids comprehension (Achugar, Schleppegrell, & Oteiza, 2007). This activity also helps students to understand the role that interpretation plays in history or helps them to think like historians (Shanahan & Shanahan, 2014).

Strategy Tip: Identifying Key Participants and Their Roles

Teach students about some of the roles that a participant can take on in a text, including that of *agent* (doer of action), *beneficiary* (receiver of action), sensor, and goal. Select a historical text. Have students highlight agents in one color and beneficiaries in another color. Then ask students to reflect on their findings..

Some participants do not begin as participants. Processes can become participants through a process called *nominalization* (Eggins, 2004). A nominalization is a form of language in which things that are not normally nouns—such as concrete processes—are turned into nouns. For example, the word *fabricate* could become the noun or participant *fabrication*. In disciplines like science and history, nominalization allows interlocutors to construct elaborate chains of meaning. Nominalization is one type of *grammatical metaphor* by which meaning is realized in a less typical or an incongruent language choice, such as a process becoming a noun or a noun becoming a process (see Table 2). It has been argued (Nagy & Townsend, 2012) that grammatical metaphors pose one of the biggest linguistic challenges for students.

There are meaning-based ramifications for using grammatical metaphors such as separating an action from an agent. For instance, if a village that was "destroyed" becomes a "destruction," it becomes an abstract thing that is no longer strongly

> *Grammatical metaphors pose one of the biggest linguistic challenges for students.*

associated with the individuals who contributed to the destruction. In history and science, these grammatical metaphors enable authors to develop elaborate theories and string together long chains of meaning. Nevertheless such metaphors can create barriers for students who are unable to identify the connections between sentences.

This excerpt, adapted from a biology textbook, illustrates the process of nominalization (graphics added):

When predators such as pike-cichlids prey mainly on reproductively mature adults, the chance that the guppy will survive to reproduce several times is relatively low. Hence, this selective predation means that guppies with the greatest reproductive success should then be the individuals that mature at a young

age and a small size and produce at least one brood before growing to a size preferred by the local predator. (Campbell & Reece, 2001, p. 19)

To follow the author's meaning, a reader must note that the process of preying has been nominalized as (selective) predation. The author has given an example of selective predation and uses this nominalization to extend the reader's understanding of the topic. Although nominalizations serve an important functional purpose in academic texts, some readers will need direct support in order to identify the linkages within the paragraphs that use them.

Strategy Tip: Identifying Nominalizations

Have students annotate (mark) their text by drawing arrows between processes and their nominalized forms. Students can underline the process the first time it appears and use arrows to link the process to any future references to that process, including nominalizations and other referents (e.g., this, that).

The next component of the transivity system (circumstance, process, particpants) is process. Process consists of the actions (saying, thinking, feeling, relating) that take place in a text. By analyzing process, readers can better understand the types of actions that an interlocutor finds the most significant. For instance, if an author describes a war using predominantly feeling processes (loved, hated, regretted, hoped) rather than action processes (obliterated, armed, fought), the reader is predisposed to think about feelings over actions. Similarly, if females are described using feeling processes whereas males are described using thinking processes, such description contributes to a rearticulation of gender stereotypes. Students can be encouraged to explore and critique the deeper meaning of texts by analyzing processes.

Strategy Tip: Identify Process Type

Have students work in groups to create a chart of the types of processes they find in various disciplinary texts. Next, have students draw conclusions about the types of processes they find. In history, for instance, they may notice that action processes are used to describe events whereas feeling processes are used to highlight debates within the field. In math, students may note that word problems use "if . . . then" constructions and verb phrases to signal the need for a calculation such as in the sentence, "If ice cream cones cost $4.00 and she is buying five cones, how much money will she need?"

Processes can also be used to make logical connections. In informal spoken language these

Table 2

Nominalizations and Grammatical Metaphors

Linguistic Form	Definition	Example
Nominalization	A type of grammatical metaphor in which parts of speech that are not typically nouns become nouns	abolish ⟹ abolition hate ⟹ hatred
Grammatical Metaphor	Meaning is realized in an incongruent language choice	task ⟹ tasked

connections are often made through conjunctions (e.g., because, so). In academic texts, however, processes can serve this same function. Consider the following two examples, one related to history and one related to science:

The bombing of the World Trade Center fueled concerns over national security.

Mutations in a gene's DNA sequence alter the amino acid sequence of the protein encoded by the gene.

In each sentence, the verb is used to show a cause-and-effect relationship between long noun phrases.

Strategy Tip: Identifying Relationships Through Paraphrasing
Students can paraphrase sentences using more traditional connectors and conjunctions or use a graphic organizer to map out cause-and-effect relationships.

The final component of the transivity system is circumstance. Circumstances give information about the time, place, and context. This variable helps the interlocutor to contextualize a situation for the audience. Schleppegrell and de Oliveira (2006) recommend using a table to have students analyze the participants (who), processes (does what), and circumstances (under what circumstances).

Tenor and the interpersonal metafunction. The variable of tenor is concerned with how the writer or speaker positions himself or herself in relationship to the audience and to the subject matter. These relationships are enacted through the elements of mood, modality, and appraisal. The mood of a text is conveyed through the clause type: declarative, interrogative, or exclamatory. For instance, asking a question (using an interrogative clause) can be used as a way to position the reader or speaker as an active participant in the conversation. Conversely, asking a question can be used to minimize the reader or speaker's role, such as in the sentence, "How could you possibly think that there is life on other planets?" Since the focus of SFL is on meaning and function, the clause type per se is not as important as the function of the clause type.

Generally speaking, textbook authors tend to position themselves as distant authority figures

through declarative statements and impersonal pronouns. Some textbook authors, however, use personal pronouns and interrogative sentences to engage the reader. These language features may appear in the margins or be embedded in the main body of the text.

Strategy Tip: Varying Interpersonal Features for Audience
Have students experiment with varying interpersonal features of language (e.g., sentence types, pronoun types) in order to adjust a message for various audiences by writing three versions of a paragraph for three different audiences. Have students reflect on the other language features that change as they adjust the sentence type and pronouns (e.g., vocabulary, sentence length).

Another way to create a particular tenor is to use modality. Modality, as realized through modal verbs and adjuncts, expresses degree of obligation and certainty. Modality can be expressed through words like "probably" or "certainly." Generally, when a speaker or writer is positioning himself or herself as an expert, he or she will avoid the use of words like "probably." For instance, notice the differences in modality in the sentences below:

Earthquakes are most likely caused by friction along tectonic plates.

Earthquakes are probably caused by friction along tectonic plates.

In these two sentences, the ideational (field) meaning remains the same. The difference is in tenor as expressed by the differences in modality. Indeed, the difference between "most likely" and "probably" is subtle; however, the second sentence seems more like an opinion than an expert opinion. When students do not attend to these subtle language markers, they can perform poorly on true-or-false test questions, which often use modality to turn true statements false.

Strategy Tip: Create a Word Spectrum
In order to help students better understand modality, instructors can use a word spectrum to have students arrange words according to varying degrees of probability (see Figure 2).

Tenor can also be conveyed through appraisal. Appraisal is the element of tenor that shows attitudes, judgment, emotion, and appreciation. When interlocutors make a particular word choice from a pool of potential words with similar meanings, the word choice can reveal attitudes. For instance, a label for a person in a leadership role may be chosen from a range of words including leader, commander, ruler, dictator, and facilitator. Selecting the word leader over the word dictator suggests a more neutral attitude toward the participant.

Caution must be used in attributing attitudes to an interlocutor. Word choices are often driven by the functional needs of the activity in which the interlocutor is engaged. These choices are often constrained by convention, purpose, and culture. For example, the phrases *head honcho* and *big cheese* as labels for a leader in a postsecondary textbook would convey a nuanced meaning that seems unexpected, playful, and inappropriately informal. Thus context, including the context of an academic discipline, can limit the range of words that an author uses. For example, readers can expect authors of chemistry textbooks to use the term *iron oxide* to describe the more familiar *rust*. When these parallels between students' background knowledge and new concepts are not made explicit by the textbook author, students will need to take note of them.

Strategy Tip: Setting the Mood Through Appraisal
Have students highlight examples of words that help to "set the mood" in a disciplinary text. Students can use a + or – sign to indicate words that have a positive or a negative connotation. Then have students reflect on how these words and phrases differ from those used in everyday language or other academic disciplines.

Mode and the textual metafunction. The variable of mode is concerned with how a text is structured and the role that the text plays in the activity. For instance, verbal interaction may be minimal when individuals are looking at a scenic landscape such as the Grand Canyon, whereas language may play a central role in a class lecture. Mode can also refer to differences in spoken or written language.

Mode is also used to consider the general structure of a text, such as how ideas are linked together through cohesive words such as *therefore, but,* or *however.* At first glance, these linking devices can seem insignificant. However, each time an interlocutor makes choices about whether to use *then* or *because* to link together events, she or he creates different interpretations. Interpretations are sometimes viewed as facts by students who
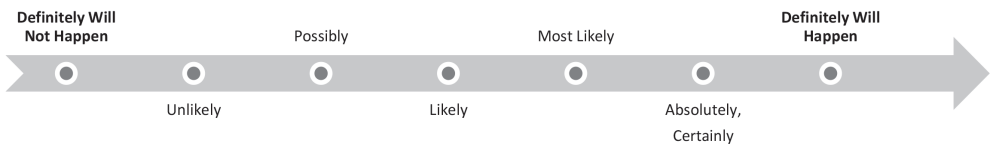
Figure 2. Sample Interactive word spectrum illustrating range of tenor as expressed in modality.

do not recognize them. For example, consider the following two sentences:

The young children were playing animatedly. Then father spilled his coffee.

The young children were playing animatedly. Consequently, the father spilled his coffee.

In the first sentence, the two events are organized chronologically. They are connected by their occurrence in time but are otherwise unrelated to one another. In the second sentence, the spilled coffee is attributed to the animated play of the children. The author enhances the children's agency and the author diminishes the father's agency by using the connector *consequently*. Such relationships are especially noteworthy from the perspective of critical literacy.

Strategy Tip: Signal Word Mash Up

Gather two different colors of index cards. On one color, write one sentence starter per card, such as "I won the lottery . . . ," "My significant other cheated on me . . . ," or "I got caught speeding. . . ." On the other set of index cards, write several connectors or conjunctions such as "*but,*" "*then,*" "*however,*" and "*so.*" Pass out the sentence starters to half of the class and the connectors to the other half. Have the students with sentence starters pick students with connectors. When students are paired up, have them finish the sentences together. Have students discuss how they decided which connector to choose to underscore the functional nature of language.

A final element of mode is how themes are structured. Writers and speakers can position words in a particular place in a sentence or text such as the starting place (the *theme*) or a later point in the text (the *rheme)* where new information is valid. In the previous example of nominalized noun phrases (i.e., selective predation), the nominalized form is the rheme. Therefore, theme/rheme plays a role in linking together ideas.

Theme/rheme can also predispose readers and listeners to focus on particular participants in a sentence or paragraph. Consider the difference between the two sentence arrangements:

The youthful puppy was responsible for the destruction of the entire house.

The destruction of the entire house was caused by the puppy.

Notice that in the first sentence the theme is "youthful puppy," whereas in the second sentence the theme is "the destruction of the entire house." By making choices about how to position words, the interlocutor is able to give prominence to some ideas over others. In addition, theme/rheme can affect text difficulty.

Strategy Tip: Backwards Sentences

Have students rewrite sentences to vary the theme/rheme. Then, have students generate examples of theme/rheme in their own writing. Discuss the meaning-based consequences of sequential order.

This section has explored Halliday's (1978) three metafunctions of language, examples of associated language features, and practical applications. The ideational metafunction is realized through field and is associated with participants, processes, and circumstances. The interpersonal metafunction is realized through tenor and is associated with mood (sentence type), modality (degree of probability), and appraisal (positive or negative language). Textual meaning is realized through mode and can involve theme/rheme, cohesive devices, and cause combining. By analyzing these three

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Strategy tips will be more powerful when paired with disciplinary literacy approaches.

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aspects of language in disciplinary texts, students develop metacognitive awareness of how language functions in academic disciplines in order to better understand, utilize, and critique it.

Implications for Practice

SFL exposes the language features that both complicate and give meaning to disciplinary texts. The strategy tips offered throughout this article could be used as minilessons in a developmental reading classroom or in a tutoring session. These tips could be used alongside practices that developmental reading teachers might already use. For instance, the strategy of using arrows to show nominalization could be taught alongside annotation or text marking, an active reading strategy. In addition, an analysis of appraisal could be included in a unit on purpose, tone, and point of view. Also, when developmental reading teachers teach students about signal or transition words, they can also talk about disciplinary-specific signals like the use of processes in historical texts to show causality. Zwiers (2008) recommends creating discipline-specific guides that help students to better understand and use the language patterns found within a discipline (i.e, examples of cause-and-effect language used in science). These guides would also work well in a developmental writing course, a composition course, or any course that might utilize writing. For instance, teachers could create a guide to writing in a psychology course. Educators who are already using academic writing templates such as those found in *They Say/I Say: The Moves that Matter in Academic Writing* (Graff & Birkenstein, 2010) could expand upon these templates to make disciplinary language patterns more explicit. Students could also use their SFL-informed understanding of complex disciplinary texts to rewrite them for a younger audience, possibly as picture books created for children as part of a Service Learning Project.

The promise of a functional and socially-situated theory of language like SFL will not be realized without deliberate attention to the academic disciplines that give language meaning and purpose. Consequently, these strategy tips will be more powerful when paired with disciplinary literacy approaches. A developmental reading instructor could either work directly with disciplinary instructors on campus or create a disciplinary literacy unit within the developmental reading classroom. For each unit, the developmental reading teacher could gather several texts from a particular field and apprentice students into the disciplinary literacy and language practices of that field.

There are two exemplars of disciplinary literacy at the college level that are well suited to this purpose: Hynd, Holscuh and Hubbard's (2004) investigation into college students' appropriation of history-specific literacy practices while reading multiple historical documents and Armstrong and Newman's (2011) use of intertextuality as a tool for building disciplinary literacies during a history unit within the developmental reading classroom. SFL-informed language analysis, such as analyzing participants and their roles, could be used as an additional strategy for students to use while reading, analyzing, and uncovering bias in these historical texts (Schleppegrell & de Oliveira, 2006). Ideally, students could also use their understanding of the language practices of a discipline to write texts that utilize those language features. For instance, students could use the language patterns used by historians (such as those that show causality) to make a historical interpretation.

Another watershed study (Greenleaf et al., 2011) used an instructional framework called Reading Apprenticeship to train biology teachers in disciplinary literacy strategies to improve students' achievement in both science and reading. This highly effective apprenticeship model could be used in conjunction with SFL to highlight language features like nominalizations in authentic science texts.

The language features of history, science, math, and language arts have been well described by linguists (Fang & Schleppegrell, 2008; Zwiers, 2008), but developmental reading instructors prepare students to read in many other disciplines and also in their careers. When resources are not

common in faculty training. This professional development approach sustains itself as each generation passes on knowledge and expertise, particularly if the SGF successfully assume the onus of teaching and training to a third generation. This basic generational model, embodying a reciprocal-interaction collaboration, became what Dimino, Salsburg Taylor, and Caverly have called a shared growth model, in this case, the "ripple effect."

Ripple Effect

As this structure continued over the course of an academic year, all three generations advanced in their professional understanding of the pedagogy and content surrounding IRW, resulting in shared growth. In fact, they modeled many of the practices also asked of students—collaboration, reflection, trust, flexibility—and turned their collaboration into a Community of Practice (Cambridge, Kaplan, & Suter, 2005), in which groups of people with shared concerns learned how to practice more effectively as the group interacted regularly. This deep, transformative, shared growth model mimicked recursive circles, such as one might see on water, resulting in a ripple effect. Indeed, this is a refreshing shift from the typically competitive academic culture to an environment where growth is shared and based on trust, autonomy, egalitarianism, and partnership. Simultaneously, faculty develop new understandings of educational theory and classroom practice. This is a model where the whole is greater than the sum of its parts, truly enabling faculty to build uplifting, supportive, and enjoyable relationships, so much so that those involved became further invested in professional development.

Key Elements

Faculty investment and commitment serve as the foundation for such a project. Particularly, community college faculty have enormous teaching loads and committee requirements, so the demands competing for their time are significant. Nevertheless, this partnership upholds their social responsibility to be the best teachers possible. In addition, faculty need to believe that their collaborations are valued within the local community and beyond. Another key element is the need for some kind of inherent, yet flexible, structure. Effective teachers adjust, allowing their practice to change based on theory they encounter and new understandings built from group discussions.

Conclusion

In summary, the on-going, shared growth professional development structure of this model, requiring a reciprocal-interaction environment at all stages, included bi-weekly meetings with FGF and SGF, discussion of IRW theory and exploration of implications for practice, immediate application of theory to practice, curricular design/redesign, implementation of curriculum, mentorship of colleagues, and constant collaborative reflection. Because the model is grounded in social constructivism, it provides an immediate connection

between research and practice as participants engage in ongoing discussions and pedagogical implementations. This long-term professional development model resulted in faculty becoming independent researchers, leaders, and decision-makers in their teaching while also supporting a broader professional development model resulting in informed, high-quality developmental educators. In the second part of this series, we will address specific theory to practice connections, approaches, and decisions this partnership used during their IRW course redesign.

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available for explicating the language demands of a discipline or career, developmental reading instructors can begin by selecting a short text (approximately one page) that addresses a topic or issue of great significance to that field. Local experts can be consulted to identify a suitable topic and share insights about the discipline or field. Then, the tools of SFL could be used to identify language features that make the text problematic and develop appropriate supports (i.e., by having students break a sentence down into participant/process/circumstances or using arrows to track nominalizations). Developmental reading instructors can play a crucial role in piloting and designing

> *The tools of SFL could be used to identify language features that make the text problematic.*

SFL-oriented approaches to disciplinary texts.

SFL-based language analysis also seems to work best when used as a strategy for promoting critical literacy within the academic disciplines (Neal, 2012; Schleppegrell & de Oliviera, 2006). Although the potential of SFL in developmental reading classrooms has not garnered the interest of many researchers, other research on critical literacy

in the developmental reading classroom (Lesley, 2001) suggests that critical literacy approaches can accelerate literacy development. Ideally, the language analysis tools of SFL shared in this article could be used to prompt meaningful discussion about the relationship between language choices and bias. As Sanchez and Paulson point out (2008), "reading and writing instruction should not be concerned only with basic skills, but rather it should focus on how students use reading and writing to analyze language—in various textual forms—in order to understand the ways in which texts, and the Discourse that makes up texts, may impose

certain ideas about the world onto readers" (p. 166). Further research is needed to clarify which elements of SFL, such as critical language analysis, are the most beneficial to students.

Conclusion

SFL offers timely insights about how language operates within the academic disciplines and in disciplinary texts. These insights can be used to help developmental reading students utilize academic language as a resource for learning rather than having it serve as a hindrance to learning (Francis & Simpson, 2009). Developmental reading instructors are especially well positioned to support the academic language development of students in order to help them to meaningfully participate in disciplinary work (Coffin & Donahue, 2012; Pawan & Honeyford, 2009). By foregrounding developmental literacy instruction in language-based pedagogies and the tools of SFL, postsecondary instructors can engage students in meaningful, inquiry-based explorations of language across the academic disciplines to build content knowledge and academic language. Someday, there may be consensus about how to best approach disciplinary literacy and language instruction at the postsecondary level. In the meantime, the strategies and research shared in this article offer new prospects for supporting the language and literacy needs of developmental learning students within the academy.

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