Linguistic Features of Writing Development: A Functional Perspective

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This chapter describes how children's meaning-making capacities with written language emerge over the school years. Our account of the developmental progression is informed by systemic functional linguistics (SFL), Halliday's theory of language as social semiotic (Halliday, 1978, 2014). This linguistic theory proposes that we see language as a fundamental resource for making meaning, recognizing the social and cultural situatedness of language use. Every language offers a vast potential for acts of meaning, with its lexicogrammar[1] presenting a range of resources for sharing experience, enacting social relationships, and shaping meaningful messages. SFL sees *grammar* as a social resource that speakers/writers draw on for meaning making, rather than something internal to the individual, distinguishing it from other traditions of linguistic inquiry. The theory offers grammatical descriptions that can recognize linguistic progression in writing in at least two senses: first, in the sense that we can track developmental growth in children's writing as they move from childhood into adolescence and beyond; and second in the sense that we can explain how meanings unfold across a text. In both senses, we take account of the contexts, purposes, and genres of writing. From this broad perspective, development is recognized in the new meanings and ways of meaning that emerge as writers

participate in new contexts of learning and text production. The notion of *choice* is fundamental to SFL, as writers have a range of options for meaning in different ways. Typically, the acts of meaning of writers and speakers differ, because writing and speech generally serve different purposes. The grammatical choices writers make therefore differ from those of speakers.

To illustrate the ways writers draw on language resources in new ways as they learn across the years of schooling, we present examples of texts from our own research and that of others. Christie and her colleagues in Australia describe trajectories of writing development differentiated by discipline and genre, based on their analysis of thousands of texts written by children in classroom contexts (see Christie, 1998, 2002b, 2010, 2012; Christie & Derewianka, 2008; Christie & Macken-Horarik, 2007, 2011; Rose & Martin, 2012). They identified new forms of expression that emerged in children's writing as they moved through the years of schooling, relating these developments to achievement of new purposes in writing to respond to the demands of different subject areas. Inspired by that work, Schleppegrell and her colleagues have promoted SFL-informed pedagogies for second language learners in K–12 classrooms. They have offered teachers linguistic metalanguage that describes the meanings writers present, enabling teachers both to support writing in different subject areas and to respond to children's texts with feedback that goes beyond a focus on errors (see Schleppegrell 1998, 2004b, 2006; Schleppegrell & Go, 2007; Schleppegrell et al., 2014). Many others have also used SFL tools to describe pathways of writing development in K–12 classrooms and beyond (e.g., Brisk, 2012, 2015; Byrnes, 2013; Coffin & Donohue, 2014; de Oliveira & Iddings, 2014; Derewianka, 2007; Gebhard, Chen, & Britton, 2014; Harman, 2013; Macken-Horarik, 2006).

The chapter characterizes the linguistic resources that enable the emergence of meaning making in the written mode in texts written by children in K–12 classrooms in the United States, Australia, and other countries. With learners from diverse backgrounds, the classrooms are typical of contemporary English-speaking contexts around the world, including children who speak English as a mother tongue and children who are learners of English. We thus recognize meaning making in the developing

texts of L2 as well as L1 writers. We describe a developmental trajectory through which learners move as they grow in control of written English, with different individual pathways shaped by life experiences, including experiences of other languages, family background, and social positioning. We illustrate how learners develop along three dimensions: growing capacity to elaborate on their experience in writing; growth in ability to present their own views and perspectives; and control of the discourse patterns of written language as they learn to shape the flow of information in the texts they write. We then relate this trajectory to findings from research from other linguistic traditions to highlight the particular contributions of the SFL perspective. Finally, we suggest some implications of this understanding of writing development for research and instruction.

A Functional Approach to Writing Development across the School Years

All children initially encounter language as speech or signing, learned in intimate interaction with others, and used for the achievement of immediate goals as well as the expression of daily experience. Written language develops out of this foundation in oral/signed language,[2] and is another dimension of overall growth in meaning-making ability. Even when the language through which writing is learned is not the same language as the oral/signed language developed in early childhood, the experience of speaking/signing, of "languaging," is the basis on which the learning of writing can be negotiated.

By the time children come to school, they have good control of oral/signed registers[3] that they can build on as they learn to write, but still have more to learn about the lexicogrammatical choices they can draw on in written registers.[4] Spoken/signed language develops in interaction in the contexts of living. In contrast, writing calls for focused attention and effortful learning. Written language development typically occurs in contexts of schooling, where deliberate choices are made about the genres, topics, time commitments, and pedagogical activities through which writing is taught and learned. That makes the study of written language

development inextricably linked with the ways learners' writing is shaped by those pedagogical contexts.

Learning to write K to 12 involves movement in control of language in increasingly abstract ways. In the early years, children develop an understanding that language can be represented on the page, with all the associated learning tasks to do with mastering spelling and writing systems, as well as the grammatical organization of written language. From the point of view of the young learner, a written passage is itself an abstraction, already a little removed from the immediacy of talk. All subsequent development takes the learner into further abstraction, for writing opens up many possibilities in creating, storing, and transmitting knowledge, information, and ideas across space and time. At the same time, writing also enables learners to express attitudes and judgments about experience in new ways that position them to participate in expanding social or disciplinary communities.

Entering these new contexts necessarily involves learning more abstract and technical knowledge, and children move from expressing "commonsense" experiences in early writing toward writing about increasingly abstract and "uncommonsense" experiences and knowledge in adolescence and adult life. The developmental shift should be understood in two senses. In the first and older sense, it reflects a movement from the oral to the written mode, where the grammatical shifts involved are a consequence of the history of written language as it evolved over the centuries to enable new ways of expression. In the second sense, the shift represents a developmental progression in control of written language from early childhood to adulthood, experienced by all successful students as they move up the years of schooling.

Figure 4.1 depicts the developmental progression we describe here in terms of movement from the spoken to the written mode. Reading from the bottom, a learner starts with the spoken mode, developed through experience with the immediate or "commonsense" world of much daily life. The grammar of early speech, characterized from the SFL perspective, is *congruent;* that is, it draws on grammatical forms for the functions those forms evolved to serve, and makes meaning in direct or overt ways. Thus, nouns express entities, things or persons (*the boys*), verbs express actions (*ran*), adverbs suggest how (*happily*), prepositional phrases create

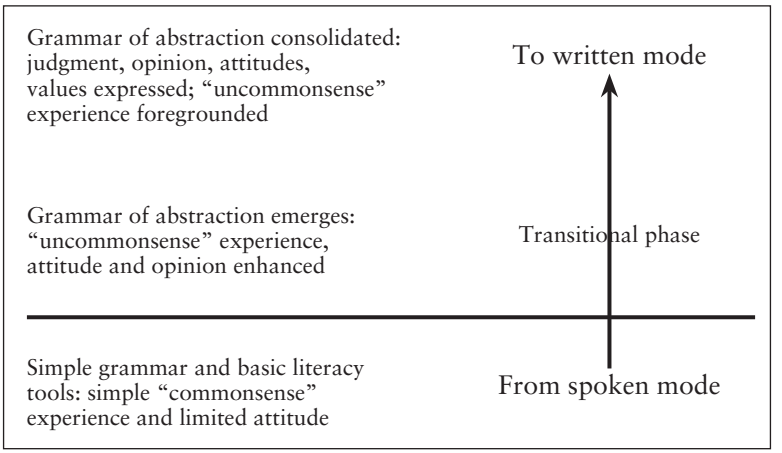


Figure 4.1. *From the spoken to the written mode.*

relevant contextual information (*in the park*), and these are all employed in patterned ways to make the message of a clause (*the boys ran happily in the park*). In addition, logical links between the messages of clauses are made with conjunctions (*and, then, but, when*) to create longer messages (*the boys ran happily in the park and then they went home for their dinner*).

Development of maturity in writing, expressed in mastery of the written mode, emerges by late childhood and early adolescence as writers gain control of the grammar of abstraction through which the "uncommonsense" experience learned through school subjects is most successfully presented. The grammar becomes *noncongruent* when the forms are used in grammatically metaphorical ways to shape meanings rather differently than do the congruent expressions. For example, actions are expressed as nouns, or more often noun groups, while the links between the meanings of separate clauses are buried in different verbal groups, as in *the boys' happy running in the park* (noun group) *was followed* (verbal group) by *their going home for their dinner* (noun group). The resulting expression is termed grammatically noncongruent, mainly because the actions of immediate experience (*ran, went*) have been turned into phenomena, things named by creating noun groups.

In addition, writers take up new relationships with the reader in the ways they appraise, evaluate, and judge, often expressing their perspectives in grammatical formulations that enable less subjective expression of those meanings. By late adolescence the successful writer controls discourses of the various subject areas with their different ways of expressing abstraction, interpretation, and evaluation, depending on the field and knowledge involved.

SFL's metalanguage of grammatical description offers constructs that enable us to characterize the ways meanings made in texts show progression across the school years.[5] The examples we use show writers responding to curricular contexts, writing genres that include recounts of experience, responses to and analyses of literature, science reports, historical explanations, and arguments. Writing a range of genres offers opportunities to engage in written expression for different purposes, calling on linguistic choices that are functional for achieving those purposes (Christie, 2012; Christie & Derewianka, 2008). For each example we present, we identify the genre being written and the age and country of the writer. As in most instances we are able only to excerpt these texts, we cite publications where more of the text and additional information about the context can be found. All of the texts were written in classrooms with diverse learners and several show evidence of second language backgrounds. As we are interested in characterizing development of meaning making in the written mode as learners engage with subject area learning, it is the texts and the language choices that are in focus, rather than the individual writers. We are not concerned here with grammatical accuracy, nor do we consider correctness as necessary evidence of development. We occasionally comment on word choice in the examples we offer, but generally treat vocabulary as an aspect of written language development that is integrated with the grammatical developments we describe. This intertwined relationship reveals itself most obviously in discussion of nominalization, grammatical metaphor, and the presentation of attitude and perspective, where choice of individual words and grammatical patterns are not separate.

While our descriptions often focus on the grammar of the clause and sentence, we show how the writer's choices are in service of crafting texts that serve their disciplinary and social

purposes. The texts, mainly written in authentic instructional contexts, often call for the writers to draw on meanings in texts they have read, displaying new knowledge learned from reading. Overall, we offer a picture of typical development in instructed settings in a broad range of English-language classrooms in different parts of the world.

Into the Written Mode

In their early writing, children use simple vocabulary and grammar, typically write about "commonsense" experience, and express little attitude. They write clauses linked by additive or temporal conjunctions (e.g., *and, then*), as in this text (spelling corrected) from an Australian writer age 6:[6]

> Text 1:
> We went to see the lost dog's home // and I saw a cat // and I saw a dog.
> (Christie, 2012, p. 56)

An 11-year-old speaker of Chinese who had been in a US classroom for a little over a year, and who had had limited schooling before his immigration, also used clauses linked by additive conjunctions to write about a performance by a visitor to his classroom:

> Text 2:
> Mr. Lau relly like to play top // and he very good of this game // and he know how to origami.
> (Schleppegrell & Go, 2007, p. 532)

As these examples show, children can be in the same phase of writing development even at different ages; this older child, learning English as an additional language, is still developing an understanding of the ways ideas are linked together in writing.

In their early writing, children express attitude mainly in verbs that realize processes of affect[7] (e.g., *he liked it*); or through simple attributive processes (e.g., *he was very good*). Writers' comments and critique are often expressed in explicit reference

to the cognitive processes involved (e.g., *I think…*), as in Text 3, the opening sentence in an American 7-year-old's written response to a question posed by the teacher about a character in a story (Was Jamaica happier receiving a gift or giving a gift?):

> Text 3:
> I think // Jamaica is happier giving // because the Mayor put her name on the plaque.
> (Schleppegrell, unpublished ms.)

In later years the reference to one's own *thinking* falls away as successful writers learn to represent their opinions and perspectives in other ways; for example, by writing, as a 14-year-old Australian girl did, "'To Kill a Mockingbird'" by Harper Lee contains believable characters which we can relate to and characters who hold our interest" (Christie & Derewianka 2008, p. 72). Below we illustrate development of the ability to infuse attitudinal meanings into texts in ways that respond to disciplinary expectations.

As writers develop, their written language is extended and elaborated, and they take up new discourse patterns that enable them to texture their writing, for example through flexible use of word order to present and develop information. One evidence of this is the writer's facility with *Theme*,[8] a construct of the SFL grammatical description that points to the different options writers choose to initiate the next clause as they develop a text.[9] Halliday refers to Theme as "the element (in the clause) that serves as the point of departure of the message; it is that which locates and orients the clause within its context" (2014, p. 89). A regular or unmarked Theme occurs when the Theme is conflated with the Subject of the clause (e.g., *We saw a lizard* or *The group of children climbed up the mountain*). A Theme is *marked* when it is something other than the Subject.

For example, Text 4, about a class trip, shows some developing facility in control of Theme by its 6-year-old Australian author. She understood, for example, the need to orient her readers to the details of her recount by using a marked Theme expressed in a prepositional phrase of time (*On Wednesday*) to open the text. Control of Theme is critical to emergent control of the grammar of written registers, for it helps shape the directions a text takes,

sometimes foregrounding new information, sometimes pursuing and developing further aspects of established information.

In Text 4, the writer demonstrated how she could take information introduced in her first clause: *On Wednesday we went to Anakie Gorge,* and reintroduce it in Theme position in an *enclosed clause,* a clause that interrupts another clause without being a part of (embedded in) it:

> and <<when we went >>we went past Fairy Park.

Here *when we went* is a *marked Theme*. Such a marked Theme is a useful device, enabling the writer to compress the information introduced in the first clause (*we went to Anakie Gorge*) and make it the point of departure for the next clause.

The writer made considerable use of this device, helping to create a coherent, sustained written text, even though the consistent repetition of the additive conjunction (*and*) reveals that the text is like speech in other ways (spelling corrected; enclosed clauses are shown << >>).

Text 4:

> On Wednesday we went to Anakie Gorge
> and <<when we went >> we went past Fairy Park
> and <<when we got there>> we walked down the path
> . . .
> and <<when everyone was down>> we had lunch
> and then we went for a walk to the creek
> . . .
> and <<when we were coming back >> Jeffrey fell in the creek
> and <<before we went>> we made fairy chains. The End.
>
> (Christie, 1998, p. 55)

Emergent control of Theme is one of the most important marks of overall developmental control of writing. Effective use of Theme is also related to control of *Reference,*[10] as we see in Text 5 by an Australian child, age 8, who was reviewing a novel she had read in class. In her introduction she identified the novel and went on, referring back to the book with the pronoun *it* to place the book in Theme position in her next sentences. We rep-

resent the thematic progression here, revealing the way in which the language choices help to build a coherent text, progressing it forward:

Text 5:

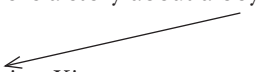
I read the book "Sister of the South" by Emily Rodda.

It is a chapter book.

It is a scary book about a boy king [[who is on a quest]].[11]

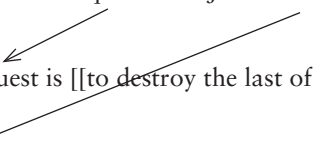
The writer then develops a description of the novel, where three main Themes (*He,* referring to the boy; *the quest;* and *They,* referring to Lief, Jasmine, and Barda) carry the discourse forward:

This is a story about a boy [[called Lief]].



He is a King.

He went on a quest with Jasmine and Barda.



The quest is [[to destroy the last of the four sisters]].

They succeed.

(Christie, 2012, p. 60)

In fact, the last Theme choice (*they*) is confusing, since it would seem to refer to *the last of the four sisters,* though it was intended to refer to *Lief, Jasmine, and Barda.* Achieving control of Theme and Reference can be quite demanding for many students and takes some years.

Expanding Capacity

Another dimension of developing control of written language is movement into the capacity to expand noun-group structures in

order to compress a great deal of information. In Text 6, a girl age 9, in an American classroom, showed emergent control of Theme, as well as a developing facility to compress information in expanded noun groups, as she retold and commented on a story read in class. She wrote in her opening paragraph:

Text 6:

> On the days [[that Tomás is with Papa Grande in Iowa]], Papa Grande says some things [[that inspire him to become a storyteller]]. Tomás does some things [[that inspire him too]].

Here the writer compacted information in the noun groups by embedding clauses. In the first sentence, this contributes to a marked Theme as she expands *the days* to tell us which days (*that Tomás is with Papa Grande in Iowa*), orienting the reader to the timeframe of the events. The embedded clauses are also important for drawing on the abstractions necessary for interpreting literary texts, as in the first sentence of her second paragraph:

> One of the most important events in the story [[that show how Tomás felt and relates to him becoming a storyteller]] is Tomás with Papa Grande under a tree.
>
> (Schleppegrell et al., 2014, p. 32)

This sentence, with one "ranking" clause (*One of the most important events in the story is Tomás with Papa Grande under a tree*) and one "downranked" (embedded) clause, created an opening statement that presented a generalization about the story and its characters which the writer then went on to develop. The sentence was built using an *identifying process* (expressed in the verb *is*), and though the opening large noun group (*One of the most important events in the story,* occupying Theme position) is a little clumsy, it demonstrates that the writer was developing that capacity to express abstract experience that marks the transitional phase (see Figure 4.1). A sentence like this enabled her to write authoritatively about the story, presenting a thesis that was developed through analysis of Tomás's feelings to support her claims about how the events related to Tomás becoming a storyteller, the goal of the task. By identifying the events as *important,* she

also engaged in early forms of the critique of literature that will be the focus of language arts development over the school years.

In the critical years of transition from late childhood to early adolescence, students need to write and read often dense written language, as they engage with more challenging subject matter and are expected to write in response to and bring evidence from texts they read. The greater density is marked by such things as elaborate noun groups, sometimes frequent use of prepositional phrases building circumstantial information of many kinds, and closely interwoven clauses, their thematic choices building information and interpretation of events, phenomena, or persons, depending on the disciplinary field at issue.

We see an early manifestation of this line of development in Text 7 below from an Australian girl, age 10, who wrote a science report showing density and a good sense of how to progress the information forward in an ordered way characteristic of much science writing. She opened with a general statement, and her Theme choices (underlined) developed the text while she also used technical language to build the field of knowledge:

Text 7:

> Almost life in Antarctica is in the sea
> and in the deep blue there is a food web.

She went on, signaling order in her next Theme, while the clause unfolded to introduce a range of technical terms:

> First off there is plankton, phyto-plankton (two types of small microscopic life forms) and diatoms at the bottom of the food chain.

She characterized the creatures she has identified with a Theme that referred back to them as a group and introduced the technical term that categorizes them as a whole:

> These small life forms are part of the class "Primary Producers."
>
> (Christie & Derewianka, 2008, p.188)

The Theme of this final sentence enabled the writer to classify the technical terms she has introduced and develop a scientific taxonomy. This use of Reference and thematic progression shows the writer's emerging ability to write about "uncommonsense" knowledge in authoritative ways.

Comparison of the science report and the book review indicate some ways grammatical development will proceed differently in different subjects. For writing in science, the ability to pack information into the noun group will be crucial for presenting technicality and explanation, with little expression of affect or attitude (Halliday & Martin, 1993), while analysis of literary texts will call for elaboration through a range of clause types that enable the presentation of interpretation and perspective.

Developing Abstraction

By late childhood, successful writers are learning to present the knowledge they are developing in more abstract language. One resource for doing this is *nominalization,* representing in a noun group what might otherwise be expressed in a full clause. An example from an Australian boy, age 9, appeared in his story opening, in Text 8:

> Text 8:
>
> After an hour of trudging through the dark and depressing forest . . .
>
> (Christie & Derewianka, 2008, p. 35)

[A]n hour of trudging is a nominalization, representing a noncongruent expression; *trudging* is not functioning as a verb but as a noun, creating a phenomenon or thing. Presented as a process, the *trudging* would be expressed in a verb and a full clause with an actor:

> "After they had *trudged* through the dark and depressing forest for an hour . . . "

The ability to represent the meaning of the full clause in the noun-group form *an hour of trudging* shows emergent control

of noncongruent expression. This contrasts with the entirely congruent expression of meaning by younger writers, such as in Text 4 above, about a class visit. The emergence of the ability to represent meaning in such noncongruent ways is an important development.

We see its value in Text 9, an excerpt from a character analysis written by an American girl, age 9. She created a series of interconnected clauses that provided information about the character, using a series of Themes, unmarked and marked, to progress the text, while going on in the final clause to use an instance of nominalization (*speaking two languges)* to express evaluation of the character. A marked Theme introduced the text by naming the story:

Text 9:

> In the story, "Pepita Talks Twice," Pepita was a girl [[who spoke two languages, English and Spanish]].

The writer then placed the character's name in Theme position to proceed:

> Pepita would help traslate for everyone,

while the next clause provided some important information about the character, with another marked Theme (*At first*) identifying this as early in the story:

> At first Pepita felt not very happy about speaking two lagages,

The next clause, introduced with a contrastive conjunction (*but*) used another marked Theme (*toward the end*), marking the passage of time:

> but toward the end Pepita felt relieved and glad,

while in the final clause, one of reason, the writer offered evaluation:

> because speaking two languges saved her dog's life.
> (Schleppegrell & Moore, 2018)

Expressed in congruent terms, she might have written:

> Pepita felt relieved and glad // because she could speak two languages // and that helped her save her dog's life.

The nominalization *speaking two languges* allowed the writer to create an abstraction, contributing to the overall force of her evaluation of the character, and adding to the sense of judgment.

While several of the writers whose work we have looked at above are multilingual or bilingual writers, we can get a clearer sense of the challenges for those learning English as an additional language from O'Dowd (2012). She used SFL to analyze the writing of middle school L2 learners (ages 11 to 13) in American classrooms who had been assessed as writing at different levels of English-language proficiency: *Beginning, Expanding,* and *Reaching.*[12] O'Dowd offered examples that involved interpretation of characters, and these show the learners moving from expansion of information through clause linking, as we saw in Texts 1 to 4, toward the nominalization we saw in Texts 8 to 9.

A learner O'Dowd characterized as at an intermediate or Expanding level wrote Text 10:

> Text 10:
> Marisa thinks // if she starts drawing horses like Euphemia // she would get respect.
> (O'Dowd, 2012, p. 12)

O'Dowd notes that the writer's use of clauses with an *if-then* relationship is evidence of capacity expanding beyond the beginning level. This adolescent writer is not just linking clauses with additive or temporal conjunctions, but has constructed a conditional relationship that is projected through the character's *thinking*.

O'Dowd also identified students who are more advanced, Reaching toward proficiency, as they attempted to use abstraction through nominalization, as in Text 11:

Text 11:

> So not able to draw a horse like Euphemia it really bothers her.
>
> (O'Dowd, 2012, p. 13)

O'Dowd pointed out that the writer is reaching toward structure along these lines:

> So [[not being able to draw a horse like Euphemia]] really bothers her.

Here, *not able to draw a horse like Euphemia* presents an abstraction that shows movement toward development of the written grammar, rather than drawing on the clause chaining of Text 10. O'Dowd pointed out that the writer of Text 11 has attempted something more advanced, creating a clause that both presents how Marisa felt and why she felt that way, with the grammar of abstraction emerging.

The expression of attitude and evaluation is often seen in children writing book reviews and other literary discussions in the childhood to adolescence years. In Text 12, by an Australian boy, age 12, the book being written about is thematized in a sentence with two ranking clauses:

Text 12:

> "Sally's Story" by Sally Morgan is an autobiography about the life of an Aboriginal girl and her poor family, the Milroys,
> living in Perth in a suburb [[called Manning]] during the 50's and 60's.

This is a dense opening sentence, compressing a great deal of relevant information about the novel and its characters. It sets the writer up to go on to introduce interpretation of characters and events, below, where the opening Theme (*This*) refers back to what has been said while signaling a progress forward in unfolding details and interpretation, accomplished through a series of embedded clauses that also create density in written expression:

> This is the story of Sally [[growing up in a close-knit family [[and discovering her Aboriginal heritage [[and being proud of her background //while living in a community with racist attitudes.]]
>
> (Christie & Derewianka, 2008, p. 68)

Here the student shows willingness to do much more than retell the story, working toward attitudinal expression and interpretation (*close-knit family; proud of her heritage; racist attitudes*). This ability to infuse attitudinal meanings into presentation of events enables the expression of values in ways that are expected in literary commentary.

Writing Authoritatively across School Subjects

Nominalization is one example of how, as successful children move up the years of schooling, they learn to express understanding of more "uncommonsense" knowledge while they engage with a range of school subjects. They learn to handle new registers, requiring a grasp of changing disciplinary fields, often involving technical language and often requiring an expanding range of attitudinal and evaluative expression. By high school or mid-adolescence, writers need to develop more specialized and technical language for learning across school subjects, and meanings, ideas, attitudes, and values are often presented in dense language. This phase in writing development is marked by further control of noncongruent ways of expressing abstraction, involving, among other things, an emergent control of grammatical metaphor. As indicated above, an expression is said to be an example of grammatical metaphor when the most congruent grammatical form is re-expressed in a less congruent way. We saw examples of emerging grammatical metaphor in Text 9's *speaking two languages* and Text 11's *not able to draw a horse like Euphemia*. In each case, the writer took a notion that is congruently expressed in a full clause and presented it in a noun group, where it then served as an abstraction that could be evaluated (e.g., *speaking two languages saved her life*).

Grammatical metaphor often works in such a way that normally independent clauses are collapsed to re-express meaning

in different ways than would typically be used in speech. For example, a 14-year-old Australian boy studying history wrote Text 13, constituting one dense clause, characteristic of written language:

Text 13:

> The Japanese surrender in August 1945 led to the declaration of independence of Indonesia and the appointment of Sukarno as the first president.
>
> (Christie, 2012, p. 111)

Expressed more congruently as speech, this would read, set out to show the number of clauses:

> After Japan surrendered in August 1945
> the leaders of Indonesia declared
> that Indonesia was independent
> and Sukarno was appointed president.

The congruent version presents events in their chronological order, while the noncongruent version enables the writer to fuse time and cause in ways characteristic of history discourse (Coffin, 2006). This shows that terms such as *surrender, declaration,* and *appointment* are not just advanced vocabulary items, but indicate capacity to draw on lexicogrammatical resources to put abstract concepts in relationship to each other in service of historical explanation. Control of grammatical metaphor and the expression of meanings in these grammatically noncongruent ways becomes increasingly important as writers engage with knowledge in secondary school subjects.

Whittaker (2010) (pp. 34–35) illustrated the development of grammatical metaphor in a classroom in Spain where students were learning history in English in a Content and Language Integrated Learning (CLIL) context. In texts written by the same student over three years, she showed how control of the written mode developed. In the first year of secondary schooling (age 11–12), the student wrote Text 14:

Text 14:

> The civilizations were so important
> because the most powerful people stood there
> and because they were the main sources of work and culture.

This is a congruent way of presenting causes, linking clauses with the conjunction *because*. Two years later the same student, now age 13–14, wrote Text 15:

Text 15:

> At that time poor people didn't have resources [[to develop]]
> and rich people became richer with the rise of taxes and prices during the Inflation after mercantilism.

Here the student presented cause in the prepositional phrase *with the rise of taxes and prices during the Inflation after mercantilism,* fusing time and cause. Presenting the same ideas in clauses linked with *because* as in Text 14 (e.g., *rich people became richer // because taxes and prices rose // when there was Inflation after mercantilism*) would not be wrong, but using *with* enabled the writer to present the more authoritative stance and style valued in academic written language. The following year the writer (now age 15–16) wrote Text 16:

Text 16:

> Another important cause was the differences of costums, languages and traditions in the balcans (Balkans) [[that led to many crisis]].

Here, the student presents the notion of *cause* in a noun group (*another important cause*) that is the point of departure (Theme) for a sentence that identifies *differences* of various sorts as *leading to* crises. This developmental progression indicates that the writer learned that causality is not just presented through *because*. In fact, as students become more adept at the written mode, *cause, condition, purpose,* etc. are more often infused into a clause rather than coming between clauses. Here, these lexical and grammatical developments show the writer's increasing control of the

grammar of the genres of history. Sentence structure may become simpler as conjunctive meanings are expressed within rather than between clauses (as in Texts 13 and 16), and nominalization enables expression within a noun group of information that would otherwise be presented in a whole clause.

In writing science, along with the technical information the writer of Text 7 needed to handle, writers of more advanced texts need to explain complex processes and take an authoritative perspective. This calls for measured presentation using conditional, concessive, and causal expression in dense and complex clauses. In Text 17, an Australian boy, age 15, has written a report on hemophilia. This is a long report, and we excerpt here the final element:

> Text 17:
>
> Treatment and control
>
> So far, there is no *cure* for Hemophilia, though there are many treatments available. Gene replacement therapy is thought to one day be the cure, but at present, it is only being trialed. People [[who have tried gene replacement therapy]] have had promising results although some have had side effects, though for most, the occurrence of bleeds have dropped considerably. Injections of certain blood products are usually needed to prevent cases of internal bleeding; these infusions or injections can cure the clotting defect for a short period of time, though << if the same treatment is used over a long period>> the subject can develop an immunity to it. People with mild cases of hemophilia sometimes use desmopressin (also called DDAVP), which is a synthetic hormone [[that forces the production and release of certain factors in the blood // to aid clotting for a short period of time]].
>
> (Christie, 2012, p. 143)

The writer began with a marked Theme of time/extent (*So far*) that introduced the point developed in the rest of the paragraph. He used one other marked Theme to foreground some relevant information in an enclosed clause, showing some adeptness with resources for text structuring:

> though << if the same treatment is used over a long period>>
> the subject can develop an immunity

The text has many dense noun-group structures, some of which the student took from the sources he consulted, and many created using grammatical metaphor (e.g., *occurrence of bleeds, injections of certain blood products, the production and release of certain factors in the blood*). The writer uses objective forms of modality (e.g., *is thought to one day be the cure*) to present a distanced perspective on gene therapy, and the evaluative language that appears expresses judgments about features of the disease, its appearance, or its treatment (e.g., *promising results*). Achieving this voice in writing science is a challenge for many writers.

The challenges are apparent in Text 18, written by an undergraduate writer, age 19, to report on the results of a science experiment. In writing science, the ability to assess the merits of results from experimentation in authoritative yet measured ways is valued (e.g., Pollack, 2003). When a student does not control the language resources needed to accomplish this, the writing can seem tentative or uncertain, as Text 18 illustrates:

> Text 18:
>
> There were a lot of assumptions [[associated with this experiment]]
> which *could* cause some discrepancy in the final results.
> It was assumed [[that the temperature at the interface was the temperature of the liquid]]
> and this *may* not be the case.
> This assumption *could* have some effect on the final result because <<as stated earlier,>> the diffusion coefficient is a function of the temperature.
>
> (Schleppegrell, 2004b, p. 185)

In discussing results and commenting on the extent to which they can be trusted, the writer uses modal verbs (*could*, *may*) to suggest alternative possibilities operating in the experiment that might have affected her particular results. This presents these conclusions with a great deal of tentativeness, as conditions that she was not certain about. Other writers completing the same assignment drew on more distanced and objective forms of modality to accomplish the same discursive moves; for example, by presenting the uncertainty in nominalizations (e.g., *A great degree of uncertainty is attached to these results*).

Consider the different effect, for example, of presenting discrepancies in the results in this way, as another student in the class did:

> Perhaps the discrepancies in the final results were due to unexpected variations in temperature at the interface or in the air mixture.

Along with control of grammatical metaphor (e.g., *unexpected variations*), use of *perhaps* enables the writer to project the impersonal voice typical of science reporting.

Writing beyond the Classroom

As writers move into older adolescence and adulthood, their writing takes on value that goes beyond the classroom, as they engage with civic life and enter into public dialogue. At this time the ways they evaluate and show their perspectives develop as they learn to remove their personal selves and present their opinions as more general views. Text 19, from an excerpt to a letter to the editor of an Australian newspaper, was written by an Australian girl, age 16, to express concern about heavy advertising for a weight-loss program. After laying out the issues she wrote:

Text 19:

> The pressure on many Australian teenagers, especially girls, due to this type of advertising is disturbing.
> It is of great concern [[that a reputable company such as Gloria Marshall is encouraging young women to conform to society's unreasonable and blatantly incorrect expectations]].
>
> (Christie, 2002b, p. 63)

Note the abstraction in identifying the problem as *the pressure due to this type of advertising*. This dense noun group with grammatical metaphor expressing cause in the phrase *due to* enables the writer to characterize the *pressure* as *disturbing*. Her opinion is further expressed in the generalized and impersonal *It is of great concern,* with her evaluation presented in the adjectives and

adverbs *disturbing, unreasonable,* and *blatantly incorrect*. This is far beyond the simple expression of opinion of early childhood.

Summary

We have presented writing development as progressing in at least three dimensions: (1) in an emergent control of the discourse patterns of written language, (2) in the associated emergent capacity to elaborate on and expand experience in writing, and (3) in the growth in ability to express attitudes and judgments in nuanced ways. The trajectory identifies linguistic realizations of the increasing demands of knowledge development and presentation in school subjects across the years of schooling, including:

- the emergence of *marked Themes* and control of Reference and thematic progression that enables a writer to shape the flow of information in a text
- expansion of the noun group with embedded clauses and other resources for elaboration that enable a writer to compress information
- nominalization and other forms of grammatical metaphor that enable a writer to present abstractions and move beyond a clause-chaining style for writing in a range of disciplinary contexts
- attitudinally rich language to interpret and evaluate
- abstract processes of interpretation and relative absence of reference to self in expressing evaluation

Figure 4.2 offers another way of representing this trajectory, mapping growth in writing onto stages of development from early childhood to the late stages of adolescence, when, among successful students, the grammar of written registers is mastered and the abstract meanings characteristic of secondary school subjects and postsecondary learning are foregrounded.

The processes of learning bring significant challenges at all stages. The initial entry to literacy, with all the tasks involved in learning to spell, write, and construct even simple written language, takes some time in its mastery. Next comes movement

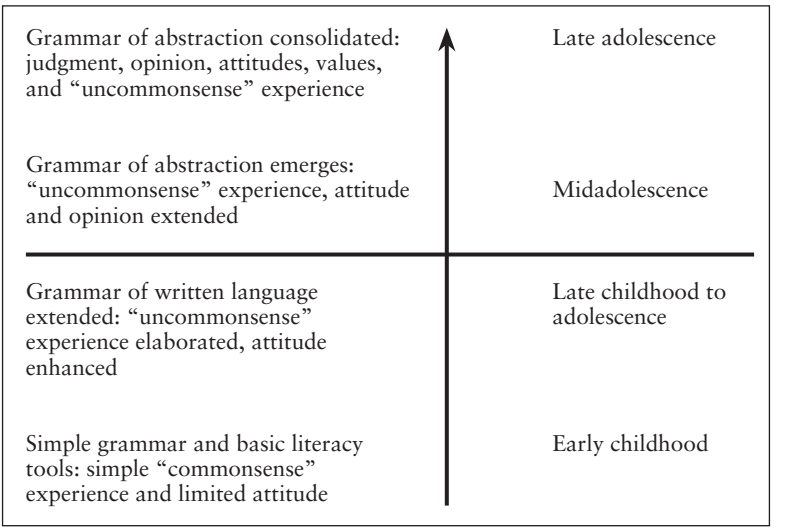


Figure 4.2. *Growth in writing from early childhood to late adolescence.*

toward an emergent control of the denser lexicogrammatical patterns of written language that allow the writer to elaborate on and expand experience in writing. As the writer matures, capacity to express generalization and abstract ideas in written language further develops, along with growing confidence in expressing attitude and evaluation. A major challenge comes in the movement from the elementary to the middle and secondary school and from late childhood into adolescence, where the curriculum becomes more firmly differentiated into subject areas that bring their own disciplinary expectations. This is the point at which many children begin to fall behind in their school performance, as they fail to come to grips with the necessary discourse patterns in which increasingly abstract information and measured opinions and attitudes are expressed. Learners are challenged to infuse attitudinal expression into the texts they write in different ways according to disciplinary demands: for example, offering evaluation, judgment, and interpretation in the humanities and expressing likelihood, assessing significance, and acknowledging limitations in scientific fields. Looking at this developmental

trajectory from both perspectives: as corresponding to the curriculum expectations of schooling, as in Figure 4.2, and as movement from speech to writing, as in Figure 4.1, describes writing development as progression in control of the discourse patterns of written language, in the capacity to elaborate on and expand experience in writing, and in ability to express attitudes and judgments in nuanced ways, offering a way of thinking about the linguistic challenges in relation to the social experiences children are having as they grow and participate in classroom learning.

Understanding written language development as movement from the oral to the written mode also helps us recognize various developmental trajectories of learners. L2 learners who have already learned to write in their mother tongues have experienced the transition to written language and may move quickly to adopt features of the written mode in the L2.[13] On the other hand, older second language learners who come to school without literacy skills in their mother tongues may find the transition into written language more challenging, but may proceed more rapidly than younger students, once they control the basic literacy tools, as they will bring greater social experience and maturity to the task. The same is likely the case for older learners of writing in their mother tongue.

Relating the Trajectory to Findings from Other Linguistic Traditions

Like us, other writing researchers have also characterized development as movement from patterns of speech into patterns of written language (e.g., Beers & Nagy, 2009; Bulté & Housen, 2014; Crossley & McNamara, 2014; Norris & Ortega, 2009; Ravid & Tolchinsky, 2002), many citing Halliday's (1987, 1998; Halliday & Martin, 1993) discussion of clause structuring differences in the two modes and describing the increasing complexity of the noun group (e.g., Ravid & Berman, 2010). Halliday (1987, p. 66) points out that "the categories of 'written' and 'spoken' are themselves highly indeterminate," but serve as convenient labels on a "continuum from most spontaneous to most self-monitored language: spontaneous discourse is usually spoken, self-monitored

discourse is usually written" (p. 69). But his main point is that "[s]poken and written language do not differ in their systematicity: each is equally highly organized, regular, and productive of coherent discourse" (pp. 69–70). In other words, both speech and writing are complex, but in different ways: spoken language is grammatically intricate, with clause-chaining and interrupted constituents, but lexically sparse; while written language is lexically dense but grammatically more simple. As we have seen above, this is a result of the development of grammatical metaphor, which offers the possibility of distilling meaning, expressing what takes a whole clause in speech as a noun group or embedded clause in writing. This noncongruent expression enables writers to infuse evaluation into texts in authoritative ways that meet the demands and expectations of the disciplinary discourses they are learning to participate in.

Research on children's writing development agrees that they move from the clause-chaining patterns of oral language toward the more lexically dense patterns of written language as they progress through the years of schooling. However, the SFL perspective presented here clarifies some issues consistently raised by other studies. These contributions come from the functional, meaning-oriented constructs SFL offers to analyze texts in context. A text is not just a collection of clauses and sentences, but a larger unit of meaning that unfolds clause by clause and sentence by sentence, and so requires analysis of the text-forming resources of the language that enable that accumulation of meaning. In particular, the SFL constructs of grammatical metaphor and Theme put the focus on the ways writers build meaning from sentence to sentence and across a whole text. In addition, the way SFL identifies clauses of different types focuses on their functional roles in shaping meaning in a text. Here we show how the SFL constructs enable us to reinterpret findings from other research in ways that offer comprehensive explanations of accumulated research on writing development.

It is typical for research on writing development to characterize the trajectory as growth in lexical density and syntactic complexity (see Schleppegrell, 2008, for a review). While the pathway we have outlined demonstrates growth in lexical density, growth in *syntactic complexity* is less clear. As noted above, Halliday

(1987) does not characterize written language as more syntactically complex than spoken language; in fact, quite the opposite, as he recognizes the tremendous complexity of the grammar of informal spoken language. In the texts we present above, it is hard to argue that Text 14, with its several clauses, is less complex than Text 16, with its grammatical metaphor but simpler structure. SFL offers a means of recognizing different kinds of complexity and explaining some overall findings of research on writing development that are otherwise perplexing.

For example, research consistently shows that sentences become longer as learners move through the early years of schooling, but then become shorter. However, it has always been apparent that writing quality does not correlate with sentence length. Consider, for example, Text 20, a sentence written by an eleventh-grade writer who is developing an argument about a recall election in California in his history class (Schleppegrell, 2006). Here the student writes a sentence with five ranking clauses and three embeddings:

Text 20:

When people voted "yes" on the recall,
I think
they knew [[what they were doing,]]
and since Governor Davis was recalled,
that means [[that many people were not satisfied with the way [[he governed their state]]]].

(Schleppegrell, 2006, p. 140)

For comparison, a representation of the same ideas, in a more "written-like" mode, might be something like Text 21:

Text 21:

People's *yes* votes in the recall election demonstrated their real dissatisfaction with Governor Davis's leadership of California.

Here the meanings are presented in one dense clause rather than in multiple clause structures. The structure is simpler, with two noun groups (*People's* yes *votes in the recall election; their real dissatisfaction with Governor Davis's leadership of California*)

connected by the verb *demonstrated*. Verbs such as *demonstrate, show, indicate,* or *reveal* offer the writer resources for presenting and evaluating experience in abstractions. Here the sentence presents an interpretation of the voters' actions in a noun group (*their real dissatisfaction with Governor Davis's leadership of California)* that distills the meanings in *that means that many people were not satisfied with the way he governed their state.* Being able to reconstrue meanings presented in full clauses into noun groups, and to draw on a *showing* process to signify the meaning of one noun group in another is an important step in representing the symbolic meanings of school subjects (Christie & Cléirigh, 2008). This facility with grammatical metaphor is needed to engage in analysis and argumentation across disciplinary discourses. It is not just a matter of learning new vocabulary, although the word *demonstrated* is a useful resource for this sentence revision. Writing in this way calls for knowing and drawing on new patterns in constructing sentences that build theoretical knowledge and evaluation.

Researchers often measure the number of clauses in a sentence, using the construct *T-unit,* and compare results across age groups and text types (Schleppegrell, 2008). A T-unit analysis of Texts 20 and 21 shows that Text 20 has eight clauses in two T-units (separated by the *and*), compared to the one clause of Text 21. Recognizing the role of grammatical metaphor helps explain why Text 21 is a more sophisticated rendering of the same meaning as presented in Text 20. In her study of the development of adolescent writers, Myhill (2008) noted that subordination and clause complexity (thus, the number of clauses per T-unit) decreased as the writers used more sentence variety and expanded ideas within the clause—again, a result of developing grammatical metaphor. Ortega (2015, p. 86) called grammatical metaphor "[a] key lexico-grammatical resource, and a staple of mature and abstract linguistic expression." In studying second language writing development, Norris and Ortega (2009) called for indices of writing complexity that can account for trajectories in L2 writing development that move initially from additive conjunction to subordination, but then to clauses made dense in information through grammatical metaphor (see also Lambert & Kormos, 2014).

Beers and Nagy's (2009) exploration of the relationship between length of clause, length of T-unit, differences in genre, and writing quality in grade 7 and 8 students' narrative and persuasive writing also offers a useful example of findings that can be understood in new ways from the functional linguistics perspective. They found that writing quality was correlated with *clauses per T-unit* for narratives, but with *words per clause* in persuasive essays. These findings resonate with the trajectory described above, as narrative writing relies more on the use of a variety of clause types to set events in relation to one another and to present characters' actions, saying, and feelings (thus, more clauses per T-unit), while expository writing calls for nominalization and other means of packing information into a clause to enable the necessary explanation and evaluation (thus, more words per clause). Beers and Nagy reported that higher-rated persuasive essays had more clause-internal elaboration through prepositional phrases, conjoined phrases, attributive adjectives, and embedded infinitive clauses, all features that extend and develop meaning within a clause. On the other hand, they found that the use of multiple-clause T-units led to higher ratings in narratives as they represented "variation from the repetitive 'and then . . . and then . . . and then' found in less sophisticated stories" (p. 197).

Beers and Nagy also reported that the lower-quality persuasive texts often had sentences "of the form 'I think X because Y,'" (Beers & Nagy, 2009, p. 197). They refer to the *I think X because Y* sentence as "awkward use of embedded clauses." As noted above, the SFL approach reserves the term *embedded* for those clauses that are down-ranked and functioning within other clauses, contributing to clause density rather than discourse structure. Distinguishing embedded clauses from other subordinate clauses helps better identify the language resources that contribute to density of clause structure and differentiate them from those used for creating intricate clause complexes. From the SFL perspective, the clause *I think* "projects" another clause; these are not in a relationship of embedding, for the clause that projects is said to "throw out" the projected clause. We saw above that the writers of Texts 3, 10, and 20 used *I think* to introduce their perspectives, and identified this as a less sophisticated way of presenting views that in more developed writers are typically

presented in other language choices (and in fact writing teachers often caution secondary school students not to use *I think* or *I believe*).

SFL could also inform other writing research in its analysis of Theme. As we saw above, the sentence constituent identified as Theme offers writers opportunities to structure their texts, linking back to something said previously, reorienting the text with information about time, place, cause, purpose, and other meanings, or continuing a previous focus of the text. Analysis of Theme helps researchers recognize how control of this texturing function contributes to progress in writing. Other studies approximate analysis of Theme by recognizing that variation in the ways sentences begin is consequential for achieving quality in writing. For example, McNamara, Crossley, and McCarthy (2010) use "mean number of words before the main verb" as one measure of "syntactic complexity" and Myhill (2008) uses a measure of "sentence variety" that is operationalized as the number of words that precede a finite verb. In the texts we have presented we can see that having more words before the main/finite verb indicates one of two possibilities: that the writer has used a marked Theme to shape the text and move it in a new direction, or that the writer has used a complex noun group as sentence subject. Both of these choices demonstrate increased control of the grammar of written language.

We have described how use of marked Theme and complex noun structures emerge in the transition years from late childhood to early adolescence. Typically, marked Themes first appear as prepositional phrases of time and place (as in Text 4), and later also function to take up material already presented and make it the point of departure for moving forward (as in Texts 5 and 7). We have also illustrated how compacting information in dense noun groups can result in long sentence subjects (as in Text 6). Myhill (2008) reported that the more effective young adolescent writers she studied used more varied sentence openings, drawing on a greater repertoire of options. Recognizing complex and marked Themes can contribute to a better understanding of dimensions of sentence variety. In addition, taking account of thematic structuring across a text can reveal the method of development a writer uses and the differences in thematic structure

that are typical of different genres (see, e.g., Christie, 2012; North, 2005; Schleppegrell, 2004a). This makes Theme a relevant and important construct for studying writing development.

Finally, the study of interpersonal meaning and the development of the ability to infuse one's judgments and perspectives into texts in ways that vary by genre and discipline calls for much more attention from writing development researchers. Interpersonal meaning is a neglected area of research on writing development, and teachers often work with a reductionist perspective on *voice* that does not recognize the different language resources students need to achieve different goals (O'Hallaron & Schleppegrell, 2016). SFL offers an elaborated set of tools for analyzing interpersonal meaning through the Appraisal framework (Martin & White, 2005), and more research is needed to better understand how interpersonal meaning is presented in different genres and disciplinary discourses, and how resources for interpersonal meaning develop to enable judgment and evaluation.

Discussion and Implications

We have described writing development as expansion of meaning-making potential in the written mode, and as growth in capacity to participate in written discourses across disciplines. Detailed presentation of the increasing range of grammatical resources that writers draw on across the school years has provided evidence of the ways they are learning to respond to the demands of different subject areas. The development of the text and the development of the writer go hand in hand. This means that analysis of writing development is to a great extent a linguistic analysis.

Systemic functional linguistics offers a theory of language that is well-suited for describing growth in capacity to use written language for meaning making. Its conception of language as social semiotic brings focus on the rhetorical goals of writers, and its grammatical descriptions and constructs recognize the different ways writers present information, structure texts, and infuse those texts with their perspectives and attitudes. For research on writing development across the lifespan, SFL offers tools to describe the ways language choices enable writers to achieve their

rhetorical goals, even while those goals shift as they engage in different discursive contexts and social experiences.

In the context of more challenging standards and high-stakes testing, SFL offers curriculum designers, teachers, and assessors descriptions of written language development that have theoretical grounding and validity. It details a developmental dimension for writing instruction with explicit criteria for shaping and assessing progress that are attuned to the different rhetorical purposes and goals of different subject areas. As the texts we have presented demonstrate, the developmental pathways available to individual learners are influenced by the curriculum offered. An effective writing curriculum will orient learners to features of the texts they read as models of written language attuned to disciplinary goals and genres (see, e.g., Christie, 2012; Fang & Schleppegrell, 2008). Through appropriate pedagogies and writing contexts, teachers can foster use of patterns of written language that enable growth toward elaboration and expansion of meaning as well as the abstraction, generalization, and evaluation that characterizes more advanced writing capacity. Writers can be oriented to the purposes and language features of new genres and learn how to draw on language resources that enable them to express ideas in ways that others will find interesting and provocative. In taking a lifespan perspective, such an approach means that instruction can develop writers' capacity in particular contexts of use, focused on the writer's goals and exploring the patterns of language that enable achievement of those goals. In this view, progress can be assessed in terms of the learners' expansion of language resources and accomplishment of the rhetorical purposes. In fact, it is important that assessment of writing development include authentic contexts and not only measure development in texts written to prompts that have no context and that expect students to write based only on prior knowledge and experience.

Writing does not occur in isolation from other activities, and emergence of writing along the trajectories we have described calls for development of disciplinary knowledge writers can draw on in meaningful ways. This means reading stimulating literature, engaging in scientific exploration, exploring historical artifacts, explaining mathematical phenomena, and learning across a range

of fields. In addition, writers need to be positioned to have the authority to present their perspectives and express their attitudes. Achieving these goals calls for teachers who address the rhetorical demands of their disciplines, support students in drawing on the language resources that enable them to meet those demands, and respond to writers with respect for the perspectives they share. An effective writing curriculum will recognize the ways children's maturation enables them to adopt new ways of using language and will engage them in new disciplinary tasks that call for meaningful use of new language resources to meet new discursive demands.

An understanding of *genre* plays an important role in realizing this goal. The students whose writing we analyzed here were engaged in meaningful expression for particular discipline-related purposes, writing genres that their teachers presented as ways to get things done in the classroom. They learned to review the books they had read, report on the science they had learned, and argue for the points of view they had developed about historical events, among other things. Learning that different language choices are functional for achieving different goals supports students to write in ways that activate their own voices and creativity, drawing on ways of making meaning that they choose deliberately to achieve their own rhetorical purposes.

Written language has evolved over centuries in social contexts in which new meanings were developed through science, technology, historical inquiry, literary creativity, and philosophy. Knowledge and language develop together both historically and for each individual, and the years of schooling are opportunities for children to engage with a broad range of cultural knowledge, whether or not they will continue to engage with all of those areas as they move into adulthood. The schooling years are a period for exploring and developing flexibility in writing, so that as students move on into adulthood, they can participate in social life in the ways they choose. We have shown how language continues to develop into the years of older adolescence, recognizing the linguistic aspects of writing development. These linguistic aspects are central to understanding, supporting, and assessing children's growth in written expression across the years of schooling.

Notes

1. SFL theory treats grammar and vocabulary as two aspects of the same system of "lexicogrammar," with vocabulary realizing grammatical choice at the most "delicate" level (Halliday, 2014, pp. 58–90).

2. Our claim is that a foundation of meaning making in spoken/signed language is needed to negotiate the development of written language practices; we do not suggest that learners move from speech to writing in each language they use. Many children around the world learn to write in school in a language that is not their mother tongue, and learners in bi-/multilingual contexts may learn the written grammatical patterns of a language prior to or without learning the spoken. For those whose L1 is a signed language, learning to write always involves learning a new linguistic system.

3. Halliday, McIntosh, and Strevens (1964) originally proposed a notion of register to provide a principled way to describe shifts in language as speakers move from context to context. SFL register analysis identifies variation in language according to *field* (social activity), *tenor* (the relationship of participants), and *mode* (the manner of organizing the text; e.g., whether spoken or written), recognizing the range of linguistic repertoires all speakers/writers draw on as they engage in social life. The term has been reworked and developed (e.g., Halliday, 1991/2007), while more than one formulation has been proposed (e.g., Martin, 1985; Martin & Rose, 2003). Register remains a powerful tool for analysis of language, widely used in discussions of pedagogy and education more generally (e.g., Brisk, 2015; Christie, 2002a; Gibbons, 2006; Schleppegrell, 2004a.)

4. Some young children are better prepared than others, through literacy practices in the home, for their first experiences of learning to write. Those who do not have these experiences will need particular assistance in engaging with the grammar of written registers.

5. The SFL grammatical metalanguage sometimes differs from that of other linguistic descriptions because the focus is functional rather than formal, calling for additional terminology to identify key concepts.

6. Double slashes mark boundaries between ranking clauses (independent, paratactic, or hypotactic, but not embedded). As discussed below, SFL does not consider clauses projected through verbs of thinking or feeling to be "embedded."

7. SFL theory identifies a range of process types realized in verb choice (Halliday, 2014).

8. SFL uses capital letters for all functional terms (e.g., Subject, Theme).

9. Theme is a feature of all languages, and while it is realized in first position in the English clause, it is realized differently in other languages.

10. *Reference* is the technical term used to identify referring items such as pronouns or demonstratives, as well as synonyms and other items that create chains of reference in a text. Reference combines with Theme to help build texture and cohesion.

11. The squared brackets [[ ]] indicate an embedded or "downranked" clause, one that expands and is part of a noun group or other constituent. The emergence of embedded clauses is one measure of students' growth as writers.

12. These terms come from the WIDA proficiency standards: https://www.wida.us/

13. In their study of short-term growth in university L2 writers, Bulté and Housen (2014, p. 53) offered support for this, showing that the development writers experienced in an intensive ESL course relied on "mechanisms such as grammatical metaphor through nominalizations" and was "characterized by higher lexical density, longer NPs through the use of multiple modifiers, as well as by a reduced number of combined clauses."

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