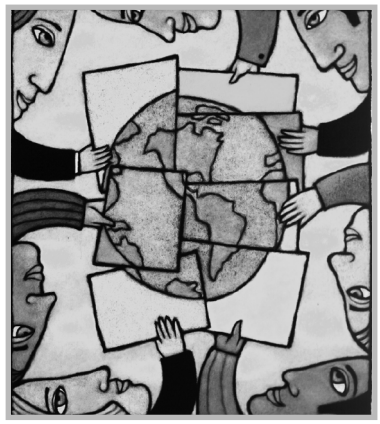

English Learners, Academic Literacy, and Thinking

LEARNING IN THE CHALLENGE ZONE

PAULINE GIBBONS

FOREWORD BY JIM CUMMINS

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This book is dedicated to my sister, Jean Ann Lines,
a great teacher who was committed to social justice in schools,
and who saw the best in all her students.

Contents

Foreword

As I read through Pauline Gibbons' inspirational book, a number of ideas jumped off the pages. These ideas express insights about teaching English learners (EL) with striking clarity and force. For example, Gibbons emphasizes the centrality of planning for *intellectual quality* in designing curriculum and instruction for EL students. Drawing on the research of Newmann and Associates (1996), she highlights the finding that "students from all backgrounds are more engaged when classroom work is cognitively challenging than when it consists solely of conventional low-level work" (p. 1). Intellectually challenging curricula, according to this research, also raise the achievement of all students and reduce equity gaps associated with income and ethnicity. Unfortunately, as she points out, many programs for EL students "have traditionally been more defined by low-level drill and practice activities and a focus on basic grammatical forms excised from authentic contexts of language use" (p. 2)

Gibbons introduces the notion of *learning in the challenge zone* to highlight the centrality of curriculum and instruction that simultaneously provide "*high challenge* (tasks we cannot do unaided) accompanied by *high support* (the scaffolding that enables us to complete these tasks successfully" (p. 16). The book provides a wealth of classroom examples of what learning in the challenge zone looks like in practice and how teachers can engage even beginner EL students in rigorous and intellectually challenging subject-based tasks.

A related and central theme of the book is the need for all teachers to develop students' knowledge of the academic, subject-related literacy of their own curriculum area. The book offers a clear explanation of the challenges that academic literacy may pose for EL students, and suggests numerous literacy-based activities that can be used across all curriculum areas.

Linked to these ideas is the concept of *rich tasks*. These are tasks that focus on central ideas of a topic or issue and require students to demonstrate deep knowledge of the field, rather than simply knowledge of isolated facts. One example, presented in Chapter 2, involves students presenting their learning about Antarctica in the format of a popular television current events show where they take on adultlike roles as presenters, directors, studio managers, scriptwriters, interviewers, and members of an "expert panel." Gibbons points out that in the process of presenting the program, "students need to manipulate the information and ideas that they have previously developed, and combine facts and ideas in order to synthesize, generalize, explain, and interpret"

(p. 22). She points out that "if you watch students involved in such tasks, what strikes you most is the enthusiasm and excitement with which the tasks are tackled, perhaps because they are engaged in tasks over which they have some ownership and investment" (pp. 34–35). Rich tasks also result in an end product (e.g., text and visuals, performance, multimedia) that has relevance beyond the classroom and is presented to an audience broader than the teacher. In our research, we have used the term *identity texts* to refer to these end products. Students invest their identities in creating the product or performance, and once produced and shared it holds a mirror up to students in which their identities are reflected back in a positive light (Cummins, Brown, and Sayers 2007).

These ideas about learning challenge the more typical assumption that EL students need to acquire a considerable amount of English before they can engage in this kind of intellectually challenging curriculum. How can EL students generate new knowledge, create literature and art, and act on social realities before they have acquired English? Answers to these questions are woven into the fabric of this book. Gibbons' central point is that EL students will acquire the kind of academic English they need to succeed in school only in the process of engaging in activities that simultaneously challenge and support them, and which foster the development of what Patrick Manyak (2004) has termed *identities of competence*. Furthermore, these high-challenge, high-support tasks must be implemented in subject areas across the entire curriculum if optimal development of students' academic literacy is to occur.

Although many of these ideas may seem radical when applied to beginner EL students in the regular subject-matter classroom, the pedagogical principles advocated by Gibbons are, in fact, in the mainstream of cognitive science research. We are simply talking about *apprenticeship learning* involving collaboration between experts (teachers) and novices (students). This collaboration builds on students' prior knowledge and stretches their expertise within the challenge zone (or in Vygotskian terms, the zone of proximal development). School learning is linked to the real world thereby enabling students to demonstrate their deep understanding of a topic. A central aspect of this approach to learning involves positioning students as the people they might become. The instructional focus is on their "*potential* achievement through explicit support rather than on their current levels of achievement in English and so allows for teaching to be at an appropriate cognitive level" (p. 39). Gibbons points out that when EL students are treated as the people they might become, they are given a new identity—they are defined by their current and future accomplishments rather than by their present limitations in English.

This book is full of insights such as these, and related classroom applications, that illustrate how feasible it is to engage EL students in rigorous and challenging tasks that position them as intelligent, imaginative, and linguistically talented. In the United States context, the book is particularly timely in view of the increase in high-stakes standardized testing that has been ushered in by the No Child Left Behind Act. Historically, education in the United States and in many other countries has been characterized by a pedagogical divide whereby low-income students typically receive

instruction based on drill and practice while more affluent students are much more likely to be encouraged to use the full range of their cognitive abilities. However, the increase in standardized testing mandated by the No Child Left Behind Act has dramatically increased the pedagogical divide in the United States as a result of the punitive sanctions imposed on schools that fail to demonstrate "adequate yearly progress" (Cummins 2007).

Thus, the principles highlighted by Pauline Gibbons are diametrically opposed to the pedagogical realities experienced by a large number of EL and low-income students within the context of the initial phase (2002–2009) of the No Child Left Behind legislation. Because EL students were expected to achieve grade expectations on standardized tests after a year of exposure to English (despite the fact that extensive research shows that a minimum of five years is typically required for students to catch up academically), teachers in many states spent an inordinate amount of time on test preparation. Instruction during this period drew primarily on drill and practice activities, mandated scripts allowed minimal time for instructional conversations, and superficial facts and skills substituted for inquiry and deep understanding.

This instructional approach has been a dismal failure for both EL students and low-income students generally. For example, the *Reading First Impact Study*, published in November 2008 by the U.S. Department of Education, reported that "Reading First did not produce a statistically significant impact on student reading comprehension test scores in grades one, two, or three" (2008, xv). The lack of improvement in reading comprehension among low-income students, despite the $6 billion allocated to the Reading First initiative, can be attributed largely to the drill and practice pedagogical prescriptions that were virtually mandated by Reading First (Cummins, Brown, and Sayers 2007).

In a rational universe, the upcoming reauthorization of No Child Left Behind would acknowledge the failure of previous policies and pedagogical prescriptions and strive for educational equity among low-income students on the basis of the scientific knowledge base regarding effective instruction. As outlined clearly in this book, this knowledge base highlights the importance of

- positioning students as competent rather than deficient;
- supporting them in completing cognitively challenging tasks and projects; and
- encouraging them to invest their identities in learning as a means of developing academic expertise.

As I write this in January 2009, newly inaugurated President Obama's two children have begun to attend the Sidwell Friends School in Washington, DC. This is the same school that Chelsea Clinton attended in the 1990s during President Clinton's term in office. Perhaps the education deemed appropriate for the children of presidents might have some relevance to the development of educational policies for the masses. The website of the Friends School expresses succinctly its educational philosophy, and not surprisingly, it is entirely consistent with what we know about learning and also the

pedagogical principles outlined in this book. The Middle School educational philosophy is expressed as follows:

> The rigorous curriculum focuses on basic skills, a disciplined manner of inquiry, individual creativity, and good study habits. Students are encouraged to cooperate rather than to compete and to share their special gifts and talents. (www.sidwell.edu/lower_school/academics.asp)

The School also emphasizes the "frequent discussions of issues of equality, peace, and social justice in our classrooms" (www.sidwell.edu/middle_school/lifeinms.asp).

This emphasis on inquiry, creativity, cooperation, and identification of student talents, together with a focus on equality, peace, and social justice are totally absent from the No Child Left Behind pedagogical prescriptions. Let us hope that leaders within the new administration will extend their understanding of educational quality (as applied to their own children) to all children as they rethink and reauthorize the No Child Left Behind legislation. However, regardless of whether policy makers acknowledge the right of *all* children to an education characterized by intellectual quality, educators retain considerable degrees of freedom in the pedagogical choices they make. For educators individually and collectively who aspire to implement a curriculum based on intellectual quality, and who recognize the importance of infusing the teaching of academic literacy across the curriculum, Pauline Gibbons' book provides inspiration and guidance. The wealth of classroom examples based on actual practice convincingly refutes the argument, reflected in much current practice, that EL and low-income students are incapable of benefiting from an intellectually challenging inquiry-based curriculum. The Obama mantra, "Yes We Can," is implicit in every page of this wonderful book.

Jim Cummins
Toronto

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1 English Learners, Academic Literacy, and Thinking

Defining the Issues

The integration of language and content should relate language learning, content learning, and the development of thinking, and should aim to find systematic connections among them.

—Bernard Mohan, "LEP Students and the Integration of Language and Content"

What This Book Is About: Raising Expectations

The title of the book draws together a number of related dimensions critical to the education of English language learners (henceforth EL learners or ELLs) in the years spanning upper elementary, middle, and early secondary school. The book aims to raise expectations about what is possible for these learners. It is primarily concerned with the notion of literacy engagement and development in an intellectually challenging curriculum where *thinking* is valued: that is, a curriculum where all students, including EL learners, are afforded the opportunities to think creatively, transform information, engage in inquiry-oriented activity, and construct their own understandings through participating in substantive conversations and, critically, are given the scaffolding and support to be successful.

Much previous research has suggested the significance of such high-challenge classrooms for successful educational outcomes for all learners. Newmann et al. (1996) have presented three significant findings in relation to raising levels of academic achievement and intellectual quality: first, that students from all backgrounds are more engaged when classroom work is cognitively challenging than when it consists solely of conventional low-level work; second, that all students, regardless of social or ethnic background, achieve at higher levels when they participate in an intellectually challenging curriculum; and third, that equity gaps diminish as a result of engagement in

such curricula. Yet the development of curriculum distinguished by intellectual quality and the development of higher-order thinking has in reality rarely been a major focus of program planning for EL learners. Rather, many programs have traditionally been more defined by low-level drill-and-practice activities and a focus on basic grammatical forms excised from authentic contexts of language use. As one group of writers has put it, "ELLs' lack of oral language proficiency has often hindered their opportunity to receive cognitively stimulating and content-level appropriate instruction in school" (Carrasquillo et al. 2004, 30).

This book offers suggestions about planning for "intellectual quality" in a curriculum that at the same time is *also* concerned with integrating second language learning with the development of subject content. For EL learners, this high-challenge classroom must be one where they are given the kinds of scaffolding and linguistic support that will enable them to engage in learning and be successful learners, in terms of both their English language development and the development of their subject knowledge. A major premise of the book is that this dual notion of "high challenge" and "high support" (Mariani 1997) is critical for EL learners: while teachers make what Newmann et al. (1996) refer to as "relentless demands for students' best efforts" (214), students are set up for success through a range of explicit instructional supports. As later chapters will suggest, these supports are embodied in the way that teaching and learning activities are planned and in the nature of classroom interactions. You will find more about what constructs a high-challenge, high-support classroom later in this chapter.

The development of intellectually challenging programs requires us all, as educators, to monitor our own assumptions of students and perhaps to challenge and rethink our own expectations of what learners are able to achieve. While the book is about ways of providing students with intellectual challenge, it also takes the view that this can only occur when teachers also challenge their own expectations of what students are capable of. As Cummins (2000) has pointed out, the way in which teachers talk with and about students grows out of how they construct their students as learners and how they see their own identities as educators.

Educators have long been aware that low expectations by teachers are a self-fulfilling prophecy: the less that is expected of students, the less they will achieve (see, for example, the seminal work by Rosenthal and Jacobsen 1968). Studies of streaming and tracking (Gamoran et al. 1995; Mehan 1992; Oakes 1985) show that one of the main reasons some students do not achieve high academic performance is that schools do not require them to perform work of high intellectual quality. Conversely, high expectations by teachers correlate with higher achievements by students (Darling-Hammond and Schon 1996; Carrasquillo and London 1993; Brophy and Good 1986). Carasquillo and Rodríguez (2002) illustrate how these high expectations seem to be a characteristic of exemplary teachers. Freeman and Freeman (1998) describe a teacher who worked with a student who had been previously deemed as having a learning disability and who had a reputation for being disruptive in class but who eventually achieved "beyond her wildest dreams." They comment that "the most important lesson we can learn as teachers is that our students have unlimited potential" (256).

And so this book also challenges teachers to reflect on their own expectations of students and on the kind of learning environment they create in their classrooms. But effective teaching requires more than using the ideas and resources found in a book, and more than a set of one-size-fits-all teaching "gimmicks." Through the ways they design and implement the teaching and learning activities of their classroom, and in the classroom environment they create, teachers are critical in making good ideas context responsive—that is, making them relevant to their own unique situations and to the needs of their students. For this reason the list of questions at the end of each chapter is intended to make the ideas in the book relevant to your own context, by identifying ways in which your particular students may be supported in developing the language and thinking skills associated with intellectually challenging work. If you are using this book with other teachers, then the questions should stimulate some useful conversations.

This chapter introduces the key ideas suggested in the title of the book: literacy in the middle years of schooling and the implications for EL learners, and the notion of "intellectual quality" and an intellectually challenging curriculum. It also introduces the sociocultural approach to learning that underpins the ideas in the book. At the end of this chapter you will find a brief summary of what each chapter contains.

Literacy in the "Middle Years"

There is a large amount of research that shows how access to high educational outcomes in secondary school is primarily dependent on the socioeconomic background of students, their ethnicity, and their gender. Parents in middle-class families are likely to have themselves completed secondary school or tertiary education and to be employed in jobs that require considerable reading and writing. Children from these families, regardless of their ethnic background, are likely to come to school with an orientation to language use that mirrors that of the school. They come to school with a ready-made orientation to the kind of language that serves as a bridge into the reading and writing of secondary school, and so they are more likely to succeed when faced with the challenges of increased literacy in high school. However, children who come from lower socioeconomic backgrounds, or children who come to school speaking another language or a nonstandard dialect of English, are less likely to be familiar with the language and literacy of school. To have real equality in life choices, these children need to be able to control the academic language of school as well as the language or dialects of their families and communities. In reality, the economic roles that students go on to occupy depend largely on how successfully they engage with the reading and writing demands of secondary education. No matter what educational philosophy dominates, schools remain a successful device for providing a stratified workforce, where students whose families are more oriented to reading and writing are more likely to succeed at school and to go on to professional positions. Yet it is probably fair to say that literacy across the curriculum is rarely taught explicitly in secondary schools, the assumption perhaps

being that students will have already learned literacy skills at their elementary school. This book aims to help teachers in the middle years to address this gap.

As students progress through school, there are a number of periods of transition when the literacy demands placed on students increase and where gaps in literacy in the second language may constitute a major barrier to further engagement and success in learning. Three such critical periods are:

- The transition from early to late elementary: by around the second or third year of school there is an increase in literacy-related tasks and some use of "academic" and subject-related English.
- The transition from upper elementary to middle school: in the middle grades (that is, around grades 5–8) there is an (often rapid) increase in subject-specific literacy and academic language, as literacy becomes a primary mode for learning new knowledge.
- The transition from upper middle school to the final years of high school: at this time students need to control high levels of discipline-related language and increasingly abstract concepts in all subjects.

The second of these periods is the focus of this book. At this time in their school life, in the "middle years" between the upper levels of elementary school and the lower levels of secondary school, all students are faced with the study of what are often new subjects and are learning to think, read, and write in subject-specific ways. Students must also learn to access, critique, and synthesize increasing amounts of information from both traditional and electronic sources. In terms of reading, there is a shift from "learning to read" to "reading to learn." Without an adequate control of the language of instruction in this increasingly language-dense environment, some EL learners may hit a language wall: the abstraction of the language and its subject-specific nature create a barrier that denies students' access to full understanding of the subject-related concepts, and ways of learning and thinking, on which learning in the final years of schooling is founded. In the United States, partly as a result of the adequate yearly progress (AYP) expectations of No Child Left Behind (U.S. Department of Education 2001), external pressure to support EL learners' academic progress has also increased (Crawford 2004). Research suggests that instruction that is focused simultaneously on language, literacy, and content development is critical in addressing these students' needs (Meltzer and Hamman 2005; Berman et al. 2000; Carrasquillo and Rodríguez 2002).

What Is "Academic Literacy"?

In this book, discussion about literacy and language refers to EL learners' development of English. While mention is made of mother tongue use in a number of the activities described throughout the book, it is outside the scope and focus of this book to discuss bilingual approaches to learning in detail. However, this omission is not intended to detract from the value of these approaches for learning and participation. This book

should be read in that light, and readers will find many possibilities for mother tongue use in the overall pedagogical approach suggested.

Academic literacy is about far more than reading comprehension and decoding, because the language associated with academic learning traditionally "codes" knowledge in ways that are different from everyday ways of expressing what we know. This new coding is linguistically unfamiliar to many students, not only ELLs. A young child, for example, will talk about a refrigerator magnet as "sticking to" a refrigerator but note that it doesn't stick to a wooden table. Coded more scientifically, we may express this context-specific way of knowing as a generalization: *magnets attract certain kinds of metal* or *some metal is attracted by a magnet*. Increasing the degree of abstraction, the fridge experience could then be recoded as: *magnetic attraction only occurs between ferrous metals*. The disciplinary language of science also makes it possible to express more complex concepts such as a *magnetic force field*. As Martin (1990) points out in relation to science discourse, "it codes an alternative perspective on reality to commonsense [knowledge], a perspective accumulated over centuries of scientific enquiry" (86).

Similarly, the development of literacy within *any* subject in the school curriculum involves learning to control new language. Here is a further example of how language changes according to context. At the time of writing this we have had some extremely heavy rain over a period of several days. I commented to a friend that the rain had washed away most of the soil in a section of my garden. Of course this is a perfectly appropriate piece of language in the context in which I used it, but if I wanted to think and talk about the "big ideas" around soil erosion, the notion of rain washing away soil would not get me very far! For example, I would need to know and understand the verb *erode* rather than *wash away* and be able to nominalize it (turn it into a noun) in order to talk about the concept of *erosion*.

So it is important to recognize that the kinds of technical language we find in academic contexts is not simply "jargon," although it is often dismissed as this. Rather, using the appropriate terminology is integral to the concepts being learned: understanding the term *photosynthesis* is not separate from biology content knowledge. But neither is it simply a question of learning new vocabulary, although this is certainly a significant part of subject-related literacy. Disciplinary literacy also means being able to express more concisely and precisely the complex ideas and concepts that are embedded in the content of a subject and that are essential for learning in that subject.

To illustrate this further, consider this sentence and imagine how you would explain it to a young child:

> *The extended drought caused the crops to fail, resulting in a widespread famine and many deaths, especially among the children and the elderly.*

You would need to say something like this:

> *There was no rain for a very long time. The farmers had planted crops like maize and wheat and corn, but because it didn't rain, all the crops died. Because there were no crops there*

> *was nothing for the people to eat, and they became very hungry. Because they didn't have enough to eat, many of them died, especially the children and old people.*

You can see that although the two texts have similar meanings, it takes more than double the words to express them in the second text—sixty-four compared with twenty-three in text 1. This is because there is much assumed knowledge in the first text that is made explicit in the second. A further difference is in the grammar of the two texts; for example, causality is expressed by *because* in the second and by *caused* and *resulting in* in the first. But more importantly, the language of the second text provides no way of talking about the broader concepts—the big ideas—of *drought* and *famine*, and no way of *relating* these two concepts in order, for example, to talk about *the causes of famine*, or to talk about *drought-related famine* in a new and different context.

In addition to the more obvious specialist vocabulary and grammatical patterns that are evident in the examples above, academic literacy also needs to take account of the different kinds of genres or text types and generic structures particular to specific subjects. A written discussion is constructed differently in science or social studies or English: each discipline has its own conventions and patterns of thinking that make it distinct from others. Or, to put it another way, it "packages" knowledge differently. As Mary Schleppegrell (2002) has suggested:

> The language of each discipline has evolved in ways that enable the construal of the kinds of meanings that the discipline *requires*. . . . [B]y analyzing the ways of using language that are *valued in different disciplines*, we can illuminate the key issues that face teacher and students in gaining disciplinary knowledge. (120, italics added)

Thus different disciplines require very different literacy skills, including the reading of different types of texts and the use of different text structures, different presentation formats, different ways of organizing language, and different standards of evidence (Meltzer and Hamann 2005). These differences extend into spoken language too: how teachers talk about science is different from how they talk about English or mathematics, and how we write poetry is different from how we write history or science or mathematics. Content standards now widely used in U.S. schools, and syllabus statements in Australia and the U.K., in fact require that students know how to think, read, write, and talk like a historian or a scientist or a mathematician. Being subject literate means understanding how the "big ideas" of the discipline are organized and evaluated and is thus clearly related to being able to think and reason in subject-specific ways: think, for example, of the differences between carrying out an inquiry in science or in history or in social studies. Using critical thinking as an example, Langer (1992) suggests subject-specific differences in how this skill is used:

> Although critical thinking behaviors such as questioning and analyzing are involved in science and in English classes, the reasons for involving them, the ends to which they are put, and the ways they are engaged in, differ in marked and identifiable ways. For example, in biology and physics classes, questions seem to be asked primarily for

> clarification of the unknown (for explication), while in English, questions are often asked to explore possible interpretations (for investigation). (2, cited in Meltzer and Hamann 2005)

Since so much academic language is subject related, it is really more accurate to talk about *academic literacies* rather than *academic literacy*. Developing the spoken and written literacy of a particular subject is not only a key to performing well on standardized tests in content area learning; it is also, as later chapters make clear, the key to being an effective learner in intellectually challenging work.

Of course there are some similarities across the academic language of different subjects. In general all academic language tends to be more "written like," less personal, more abstract, more explicit, more lexically dense, and more structured than the face-to-face everyday language with which students are familiar. Some literacy teaching strategies are generic in that they can be applied across the curriculum, and this book contains many examples of these generic strategies. But this should not mask the fact that much literacy teaching—the teaching of vocabulary development, for example, or the teaching of specific text types—is only meaningful and relevant when it is taught within the context of a particular subject. You will find more about these issues in Chapters 3 and 4, together with a range of examples of teaching strategies that focus on literacy.

Implications for Teaching Subject Literacy

One of the implications for discussing literacy in this way is that it is about much more than reading and writing. In order to read and write effectively students need also to be able to use what Chang and Wells (1988) refer to as "literate talk." In their talk they need to make their reasoning explicit, use language precisely, question and critique others' ideas, and be prepared to rethink their own ideas. While not all classroom talk needs to be of this type, later chapters will show how being able to use language in these ways has positive benefits for the development of reading, writing, and thinking. Conversely, the development of reading and writing likewise supports the development of oral language. Most definitions of literacy now include attributes such as critical thinking and the ability to use language appropriately in a range of contexts. The definition used for the International Year of Literacy in Australia (which drew on the definition developed by the United Nations), for example, stated that literacy involves the integration of listening, speaking, reading, writing, and critical thinking and includes the cultural knowledge that enables a speaker, writer, or reader to recognize and use language appropriate to different social situations. It also suggests that the aim of literacy teaching is to develop an active literacy that allows people to use language to enhance their capacity to think, create, and question and that helps them to participate more effectively in society.

Clearly a major implication of recognizing that literacy is subject related is that in order to support students in their development of academic literacy, subject teachers

must themselves understand the language demands of their own subject and be able to explicitly teach subject literacy to students. Without this explicit and planned teaching of literacy, the development of EL learners' academic literacy skills is unlikely to occur in a mainstream class; it cannot be assumed that they will simply "pick up" what they need to know. Unfortunately, as EL specialists are aware, many subject or content teachers are reluctant to devote time to students' literacy development, seeing it instead as the domain of the English teachers (Langer and Applebee 1988). This book takes the stance that in English-medium education, all teachers are teachers of English, and so the book is intended not only for EL specialists but also for content teachers who have EL learners in their classes. (It is worth remembering that making mainstream classrooms responsive to EL learners by incorporating academic language and literacy learning is an adaptation that will benefit *all* learners.)

The Learners

Who Are "EL" Learners?

There is a wide variety of terms for the group of learners that are the focus of this book. In North America, Australia, and the U.K. they are described variously as limited English proficient (LEP); language minority; English as a second language (ESL); English as a new language (ENL); non-English-speaking background (NESB); bilingual; language background other than English (LBOTE); and English as an additional language (EAL). Students who are described in any of these ways are a very diverse group. Some may be highly literate in their mother tongue, others may have little or no literacy in any language. Some may have come from war-torn countries as refugees, others may come from families who have chosen to immigrate to improve their lives economically or to offer their children more life choices. Some may be fluent in the conversational aspects of English, others may have some English literacy but little experience in using spoken English. Some may be newly arrived in the country, others may be second-generation migrants who have not had an opportunity to develop the more complex aspects of literacy. Some may come from families who have had experience of tertiary education, others may be the first in their family to attend high school, or school of any kind. And within these diverse groups there will be diversity too in their social and economic situations and in their expectations of schools.

In this book I have used the term *EL learners* or *ELLs* because this term focuses on what all the students in an otherwise very diverse linguistic, cultural, and socioeconomic group have in common (Freeman and Freeman 1998). For the purposes of this book I also borrow from the inclusive description by Meltzer and Hamman (2005), who describe them as "students who come to school with a first language other than English and whose opportunities to fully develop English literacy to grade level have not yet been fully realized" (4). Finally, the use of this term more clearly distinguishes the learners from the learning program itself.

But while there is a range of terms in use, most writers in the area agree that unmediated instruction for EL learners is not equitable: indeed treating all students equally, and thus ignoring differing starting points, is virtually guaranteed to produce unequal outcomes at the end of schooling. Among the potentially most educationally disadvantaged students are those for whom English is not their first language but who, having been born in the host country, have not developed literacy skills or high-level language skills in their first language either (Harklau et al. 1999). Other EL learners may end up spending a lot of their school life in lower-track/lower-stream classrooms, and even those who do receive some English language support may have been exited from EL or bilingual programs at a point when they are still not as proficient in academic language as English native speakers at the same grade level. And increasingly, students entering the work force require higher levels of literacy than ever before, well-developed communication skills, and the ability to solve problems, think creatively, and make informed decisions. Measured in terms of factors such as secondary school completion rates, participation in advanced classes, and postsecondary pursuits, it has been suggested that the million-plus young ELLs in the United States are less successful than their native-English-speaking peers (Abedi 2005). Similarly in the U.K. and Australia, certain groups of learners traditionally fare less well in the school system.

EL Learners in Content Classrooms

Content or subject teachers should not be the only educators of EL learners, and systematic bilingual and specific second language teaching should also be part of a school's overall response to EL learners. Separate or some kind of "sheltered" instruction may also be the best option for more recently arrived EL learners (see, for example, Carrasquillo and Rodríguez 2002). But as a result of the impacts of policies that pressure schools to "mainstream" EL learners, ELLs often end up in unsupported, English-only content classes, or conversely, in withdrawal or segregated classes where they have little access to authentic meaning-based interactions. In Australia, North America, and the U.K., the majority of second language learners will, in reality, spend most of their time in the mainstream classroom, and may or may not receive extra support from specialist EL teachers after the initial stages of learning English. Rarely is sufficient specialist support available beyond this, and so for most of the time subject and mainstream teachers carry the dual responsibility of content and language teaching, including, as discussed above, supporting their students in developing specific subject literacy. It is to these teachers, as well as to specialist EL teachers, that this book is addressed.

Content classrooms, however, are not intrinsically inappropriate for ELLs—indeed, this book rests on the premise that content classrooms have the *potential* to be the best contexts for developing a second language in school. What makes mainstream contexts inappropriate is that most curricula fail to take the needs of EL learners into account, particularly their language and literacy needs. But when subject teachers are aware of the place of language in learning, recognize the demands placed on students who are

negotiating complex levels of academic language, and are able to draw on suitable strategies that will support the development of academic language and the forms of literacy that are intrinsic to a particular subject, there are convincing arguments for integrating EL learners as far as possible within the context of mainstream teaching. Here are some of these arguments:

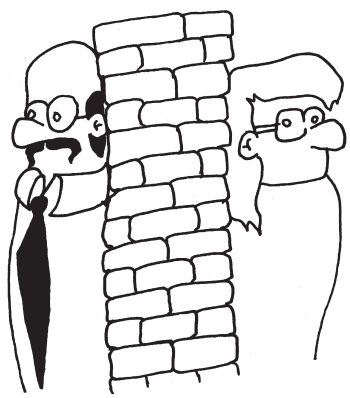
- We know that using a new language to learn about other things is an effective way of developing a second language (see, for example, Mohan et al. 2001). The subjects of the curriculum provide authentic contexts for meaningful language use and authentic purposes for using written and spoken language. A program that integrates subject content and language takes a functional approach to language teaching and learning, in that it focuses on the subject-specific language needed for learning rather than aspects of language taught in isolation and taken out of a meaningful context.
- We know, as much research has made clear, that the development of academic language takes far longer than the development of the typically informal language of everyday contexts, and despite an often rapid growth in their conversational fluency it may take around five years for EL learners to develop the more academic and subject-related registers of school (Cummins 2000; McKay et al. 1997; Collier and Thomas 1997; Collier 1995). We need to remember that this time lag is also a function of the fact that EL learners are in reality "catching up" in English with a moving target: English native speakers are also continuing to develop their academic language skills, especially in the middle years of school. Concurrent teaching and learning of both subject content and language responds to this time lag and allows EL learners to go on learning subject content as they develop their English.
- Nonintegrated approaches—that is, instruction in language alone—cannot usually address the subject-specific nature of academic language, because language-only classrooms are isolated from the very contexts that provide meaningful situations for subject-specific language use. Neither can we expect English language specialist teachers to have the specialist disciplinary knowledge of the various curriculum subjects. In language-only classes, there may be little relationship between the language being presented in the class and the language required for participation in mainstream contexts. As suggested earlier, there remains a place for specialist EL classes and for sheltered learning of various types at some times, especially for recently arrived students (see Echevarria and Graves 1998). But for most of their school lives, mainstream classes remain the major context in which students will have regular access to learning subject-specific academic language in a meaningful and immediately relevant context.
- Language and content cannot be separated: concepts and knowledge on the one hand, and subject-specific language, literacy, and vocabulary on the

other, are interdependent. (Think, for example, of the examples given earlier referring to *drought*, *erosion*, and *magnetic attraction*, and of how the language constructs the concept.) In an integrated program, language learning and subject learning can therefore be mutually supportive of each other and provide for the natural "recycling" of language and concepts so important for EL learners. For example, language-based tasks in a curriculum area can recycle concepts and knowledge through a focus on relevant academic language and genres; and developing subject knowledge and concepts in activity-based group work is facilitated through interaction, as students ask questions, clarify what they have said for others, or solve problems collaboratively. And in these kinds of learning processes abstract subject concepts themselves are more easily clarified and understood, and new language is most meaningfully developed.

- Integrating language and content also allows for EL support to be offered in an ongoing way through school. Support for EL learners is usually offered when a student first enters school, when the need for language support is most evident, but is then gradually withdrawn as a student moves through school. The assumption here is that the critical factor for deciding on whether support is needed is the length of time a learner has spent in school. While this is certainly a factor, it is also important to ensure adequate support at the critical periods identified earlier, even for EL learners who appear to be "fluent" in spoken English. Thus it may be that a more appropriate way to conceive of EL support is to tie it more closely to the critical points of schooling identified earlier. And since the need for English language support extends far beyond the initial years of an EL learner's commencement of school, an integrated program at a whole-school level allows for more extensive and long-term support, especially at critical times.

Below is one woman's story of her experiences as a young elementary English language learner in Australia. Julia is now a successful teacher, but her words are a strong plea for the kinds of integration that this book argues for:

> I remember when I first arrived in Australia I would go for special English classes. We used to have the classes after recess in this demountable [portable classroom] that was next to the bathrooms. I used to wait in the bathrooms until the bell went and then once I knew that everyone was in class I would dart into the special English room. I remember understanding everything in my special English class but once I got back to my normal class I didn't know what was happening. It seemed like they were two



"I don't think the two teachers ever really spoke to each other."

different worlds. I don't think the two teachers ever really spoke to each other, and I think that my classroom teacher thought it was the job of the ESL teacher to do English with me. I remember her saying things like: "You should have done this with Mrs P."

I don't remember what I learned but I do remember how I felt: I was constantly embarrassed and I would try and draw as little attention to myself as possible, and sometimes just sit and pretend to be doing what the other children were doing. What I learned from my own experiences as an ESL learner is that classroom teachers need to teach English for ESL learners through regular classroom subjects, and not see language learning for ESL students as something separate.

Some Current Perspectives on "Intellectual Quality"

Recently in the United States, the U.K., and Australia there has been, in various forms, ongoing work in school reform (for example, see Walqui 1999 and Newmann and Wehlage 1995), all of which is underpinned by the recognition that for *all* students the content and quality of the curriculum must be of high quality and designed to develop higher-order thinking skills. As discussed briefly at the beginning of this chapter, Newmann et al. (1996) have concluded that raising levels of academic achievement leads to all students achieving at higher levels and to equity gaps being diminished. Similar arguments have been put forward by August and Hakuta (1997), and Walqui (1999). Referring to the dual impact of increasing school diversity in the United States and the calls for reform that have as their goal the attainment of higher standards for all students, Walqui (1999), citing August, Hakuta, and Pompa (1994), argues: "Language-minority students must be provided with an equal opportunity to learn the same challenging content and high-level skills that school reform movements advocate for all students" (6).

However, deciding on criteria for establishing such a curriculum involves revisiting a number of old controversies. These include the extent of teacher control versus student control over learning activities; the extent to which learning should be connected to students' lives; the extent to which all students should learn the same things; and the degree of emphasis given to the mastery of discrete facts, definitions, and skills versus problem solving and thinking that require integration and depth of understanding (Calderon 1999). This book presents the view that, far from ignoring the skills and knowledge of the traditional curriculum and the language and literacy learning essential for EL learners, an intellectually challenging and real-life-oriented curriculum presents many *more* opportunities for language learning (and for explicit teaching) precisely because such skills and knowledge are presented within meaningful contexts, are used in the service of broader educational goals and integrated authentic tasks, and involve students in language-based collaborative work.

A number of researchers and educators have identified criteria for classrooms where such authentic intellectual work occurs. Newmann et al. (1996) have identified

three criteria that together constitute their definition for high-quality intellectual accomplishment: the construction of knowledge, disciplined inquiry, and the value of learning beyond school. These three criteria are reflected throughout much of this book and are briefly discussed below:

- *Construction of knowledge*. Student achievement must be *based* on a foundation of prior knowledge; that is, the kind of knowledge that others have produced. But mere reproduction of knowledge does not in itself constitute intellectual quality. The conventional curriculum typically asks students to reproduce definitions or texts that others have produced. A more intellectually challenging curriculum would require students not only to be familiar with such traditional knowledge but would, for example, require students to summarize and synthesize information from a range of sources and then use it in a new context or in a different mode to construct something original.
- *Disciplined inquiry*. This consists of three features:
  1. The use of a prior knowledge base; that is, the traditional knowledge of the field.
  2. The development of in-depth understanding rather than a superficial awareness of often unrelated items of knowledge.
  3. The expression of one's ideas and findings through elaborated and extended communication—for example, through extended dialogues, expositions, narratives, explanations, and increasingly, a range of electronic forms. This is in contrast to much traditional pedagogy, which asks students to display only a superficial awareness of a large number of topics and often requires only brief one-word or one-sentence answers.
- *Value beyond school*. Increasingly, in a number of countries, standards documents, curriculum frameworks, and syllabuses are challenging educators to make school learning both relevant to and related to the real world.

Most traditional school achievement criteria document the individual competence of the learner through various forms of decontextualized demonstration such as examinations, quizzes, or exercises. In contrast, adult achievements in the real world—for example, the writing of a letter to a newspaper or the design of a house or the discovery of new ways to treat serious illnesses—have impact on others and an authentic purpose that goes far beyond the demonstration of their personal competence. In authentic work in school, students also make connections between what they are learning and the real world, and their achievements actually influence others. A recent example of this comes from New Zealand. As a science project, two secondary-age students analyzed a well-known blackcurrant drink made by an international company that promoted the product as a healthy drink for children, claiming it contained high levels of Vitamin C. The students showed conclusively that this was not the case, leading to the company having to change its advertising and being fined.

In Australia similar frameworks for thinking about intellectual quality have also been developed. Drawing on the work of Newmann, the *Queensland School Reform Longitudinal Study* (2001) includes the following indicators for intellectual quality:

- *Higher-order thinking*. Higher-order thinking requires students to manipulate information and ideas in ways that transform their meaning—for example, when students combine facts and ideas in order to synthesize, generalize, explain, hypothesize, or develop a conclusion or interpretation. Higher-order thinking is concerned with students' constructing knowledge, not simply reproducing it.
- *Deep knowledge and deep understanding*. Knowledge is said to be "deep" when students are able to name, define, explain, and make use of the crucial "big ideas" or central concepts of a topic or of the discipline. Deep knowledge therefore involves more than knowledge of isolated "facts," and would be evident, for example, when students construct and sustain a coherent line of argument, when they are able to make use of key ideas and concepts in a new context, or when they are able to relate ideas across disciplinary areas. Deep understanding involves students in publicly demonstrating this deep knowledge.
- *Substantive conversation*. In classes where there is substantive conversation there is considerable extended teacher-student and student-student interaction around the "big ideas" of the topic and, in this extended talk, evidence of deep knowledge and understanding. Such conversations are very different in form and content from traditional classroom talk. In substantive conversation students have the opportunity to offer extended responses both to the teacher and to other students and to initiate ideas and questions for discussion. Features of substantive conversation include intellectual substance, equality of dialogue involving the sharing of ideas, coherent exploration of content where students build on one another's ideas, and sustained interactions.

An Approach to Teaching and Learning: High-Challenge and High-Support Classrooms

Many teaching approaches are now based broadly on the work of Vygotsky (1978, 1986), who offers a very different view of teaching and learning from two other major approaches still in evidence in school. The latter can broadly be described as teacher-dominated "transmission" approaches (where teachers are seen to transmit skills and knowledge into the "empty minds" of their students) and "progressive" approaches (where learners are seen to construct their own knowledge and where the role of the teacher is to "facilitate" this learning through the stage management of appropriate learning experiences).

Both of these approaches can be critiqued from the standpoint of EL learners. Transmission-based approaches work against the central principles of language development, namely that using the language in interaction with others is an essential process for both first and second language learning (see Chapter 7). Transmission-based approaches, coupled with low expectations of what students are capable, unfortunately often dominate the teaching of English language learners and other students seen as "disadvantaged," and many compensatory programs focus heavily on low-level literacy and numeracy skills that offer no intellectual richness or opportunities for high-level literacy development. Although progressive pedagogy offers a welcome focus on the learner and on learner-centered activity, it too has been critiqued in the past because of its lack of explicit teaching, especially in relation to language. While these common ideologies appear to be very different, they are alike in that they both view learning as essentially an individualistic activity and the learner as independent of others and self-contained.

In contrast, a Vygotskian view of learning sees it as essentially a collaborative activity, occurring within a particular sociocultural setting. An individual's intellectual and linguistic development is seen, to a significant extent, as the product of his or her education, not a prerequisite for it to occur. Thus, for example, while we are all biologically programmed to learn language, how well we learn it and the purposes for which we are able to use it successfully are a matter of the social contexts and situations we participate in. As Wells (2007) has suggested, "who we become depends on the company we keep and on what we do and say together" (100).

This sociocultural approach to learning recognizes that with assistance, learners can reach beyond what they can reach unaided, participate in new situations, and take on new roles. People learning to drive, for example, are initially very reliant on their instructor for support, but as they gain in skills and confidence the instructor's support gradually diminishes until they are able to drive alone. This assisted performance is encapsulated in Vygotsky's notion of the zone of proximal development, or ZPD, which describes the "gap" between what learners can do alone and what they can do with help from someone more skilled. This situated help is often known as "scaffolding" (Gibbons 2002).

Scaffolding, in the way it is used here, has three major characteristics:

- It is *temporary* help that assists a learner to move toward new concepts, levels of understanding, and new language.
- It enables a learner to know *how to do something* (not just what to do), so that they will be better able to complete similar tasks alone.
- It is *future oriented:* in Vygotsky's words, what a learner can do with support today, he or she will be able to do alone tomorrow.

Scaffolding is therefore teacher support in action, and is at the core of learning and teaching for autonomy (Mariani 1997).

Vygotsky also drew a clear relationship between the dialogues we participate in as children (and as adults) and the development of thinking, arguing that the development

of cognition is also the result of participation with others in goal-oriented activities. Most people, for example, can remember situations where they have been helped to find solutions or understand difficult concepts by talking with others. We learn and develop new ideas through this collaborative talk. Vygotsky argues that this external dialogue with others is gradually internalized and becomes "inner speech," creating our personal resources for thinking. It follows, then, that the conversations learners have at school impact on how well they develop the kind of high-quality thinking described earlier.

Implicit in these ideas is the idea of *high challenge* (tasks we cannot do unaided) accompanied by *high support* (the scaffolding that enables us to complete these tasks successfully). One notion of what constitutes a high-challenge, high-support classroom has been developed by Mariani (1997), who suggests that the quality and quantity of the challenge and support we provide, and the way the dimensions of challenge and support intersect, construct four kinds of classroom environments. These are summarized in Figure 1.1.

From the perspective of the learner, a high-challenge classroom with low levels of support creates frustration and anxiety and may lead to learners giving up and ulti-

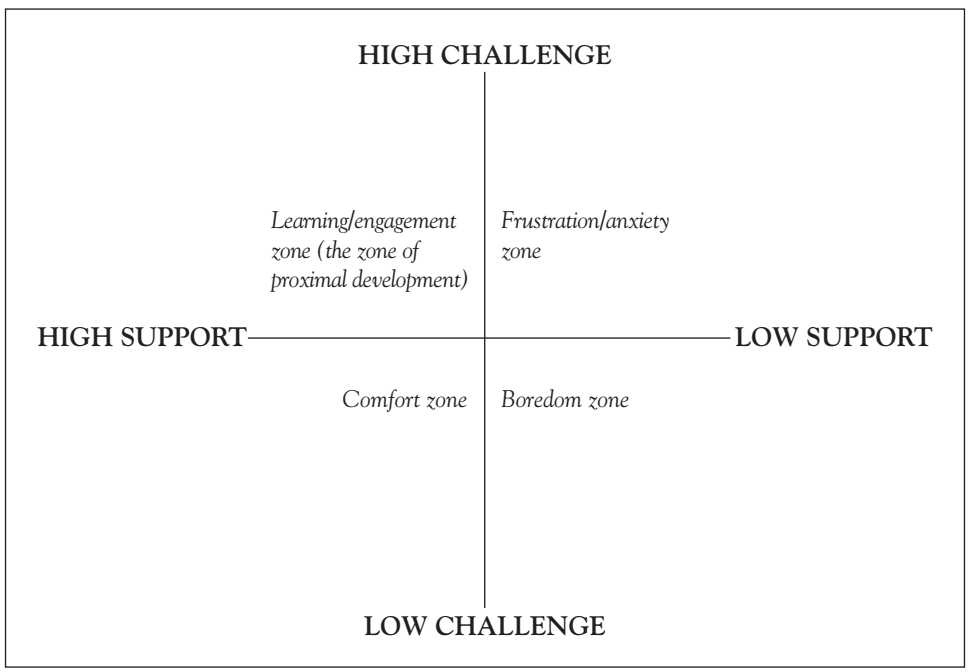


Figure 1.1. Four Zones of Teaching and Learning (adapted from Mariani 1997)

mately opting out of school. Low challenge and low support is likely to lead to boredom, with similar resistance to school. Low challenge and high support allows learners to work in their "comfort zone," but not a lot of learning will take place, and neither will learners develop autonomy and independence in their learning. In the fourth quadrant, the combination of high challenge and high support allows learners to be stretched to reach their potential and to successfully engage with new learning: here they learn in their zone of proximal development. This central idea of "learning in the challenge zone" is the backdrop against which the remainder of the book should be read.

Subsequent Chapters

The themes introduced in this chapter are taken up again in subsequent chapters. While these major themes recur throughout the book, each chapter focuses on a more detailed exemplification of key issues:

- Chapter 2 takes up in more detail the ideas about intellectual quality presented earlier. It describes some classrooms and programs where this approach has been put into practice with EL learners and identifies seven key intellectual practices.
- Chapter 3 focuses on literacy across the curriculum. It describes some of the differences between everyday spoken language and academic language and highlights some of the specific linguistic issues in academic language that can create barriers to comprehension for EL learners.
- Chapter 4 describes a range of teaching and learning activities that teachers can use across the curriculum to support learners in the development of literacy and academic language.
- Chapter 5 focuses on reading. It describes a range of reading activities by which teachers can support learners in accessing the meaning of complex written texts and becoming more autonomous readers.
- Chapter 6 describes a teaching and learning process whereby teachers can support learners' writing development across the curriculum using a range of genres or text types.
- Chapter 7 looks at the role of spoken language in the development of academic language and literacy. It describes how talk between teacher and learners, and between learners, can create "learning-rich" contexts for language development and subject learning.
- Chapter 8 focuses on key issues of planning and programming. It discusses two kinds of scaffolding, and a process for planning an integrated unit, and includes a framework of questions for reflecting on the integration of language and content.

Summary

This chapter foreshadows the major purposes and themes of the book:

- The notion of academic literacy and the barriers to learning it may create.
- The significance of language and literacy development in the middle years for EL learners.
- The importance of an intellectually challenging classroom for all learners, together with high levels of language and literacy support that will enable learners to engage in learning in such classrooms.
- Some criteria for describing intellectually challenging work.
- A pedagogical approach incorporating high challenge and high support.

To Think About . . .

1. How are students in your school supported in their development of subject-specific literacy? Could they be better supported?
2. There are many ways to think about "intellectual quality." What does the term mean to you? Is there anything you would add to the descriptions of intellectual quality given in this chapter?
3. If you are a classroom teacher, think of one teaching and learning task you have recently given to your students that fits your definition of intellectual quality. What were students required to do? What support was given to EL learners to help them complete this task?

Suggestions for Further Reading

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