Education is not the filling of a pail, but the lighting of a fire.

William Butler Yeats

Stimulating the imagination is not an alternative educational activity to be argued for in competition with other claims; it is a prerequisite to making any activity educational.

Kieran Egan & Dan Nadaner
Imagination and Education (1988, p. ix)
In this chapter, we review research on both learning and teaching in order to provide a foundation for planning educational change. For decades, educational debates have been characterized by a set of “either-or” dichotomies (e.g., child centered versus teacher centered, phonics versus whole language, etc.) that have frequently degenerated into ideologically loaded slogans. This is not surprising, as education is fundamentally ideological. Whether one examines inequities in the way schools are funded or analyzes disparities in the kinds of instruction received by different social groups, it is clear that education is never neutral with respect to societal power structures.

Schools are intended to shape the next generation, and images of students, teachers, and society are inevitably embedded in this process. In planning curriculum and instruction, we ask ourselves what kinds of skills, knowledge, values, and literate competencies students will need when they graduate from school to participate as adults in their societies. What kinds of contributions do we want these students to be able to make to their societies? What kind of society do we want these students to form? How do teachers define their role as educators who shape student identities in the context of societal needs and expectations? What pedagogical choices do teachers make and how do these pedagogical choices reflect their own identities?

We acknowledge that transmission of information and skills is an important component of education. However, if students are to participate effectively in a democratic society and an Information Age economy, they must also be enabled to generate knowledge and to think critically about social issues. Thus, pedagogy entails not only the promotion of learning in a narrow sense but it also entails a process of negotiating identities between teachers and students. An image of the society that students will graduate into and the kind of contributions they can make to that society is embedded implicitly in the interactions between educators and students. Pedagogy opens up (or closes down) identity options for students.

Starting from the perspective that a global society needs all the intelligence, creativity, and multilingual talent it can get, we argue that pedagogy will certainly involve “filling pails,” but it must also ignite curiosity, imagination, and social commitment.

Introduction

Educational debates on the topic of pedagogy have tended to revolve around dueling dichotomies—alternative approaches that are constructed...
as antagonistic and mutually irreconcilable. Urszula Clark (2001), for example, points to the polarized debate in many countries between “traditionalists” and “progressivists,” the former portrayed as “representing order in the classroom with a defined sense of what was right and wrong, whilst ‘progressivists’ were represented as child-centered, relativist and presiding over chaotic classrooms” (p. 149). Traditionalists have tended to argue for greater instructional rigor and the need for elevated standards; they emphasize the importance of direct instruction and deride what they see as the absence of rigor and accountability in child-centered approaches to teaching and learning. In reading, phonics is prioritized over pursuit of meaning. By contrast, those who espouse more progressive principles have been influenced by American philosopher John Dewey’s (1916) emphasis on the importance of relating instructional content to students’ experience and, more recently, by Soviet-era psychologist Lev Vygotsky’s (1978) theories on the construction of knowledge through social interaction. Student inquiry and the social construction of knowledge are seen as more pertinent to effective learning than simply the transmission of information and skills.

These orientations to pedagogy do not have to be framed in opposition to each other. We argue that they are more usefully seen as nested within each other. A transmission or traditional pedagogical orientation incorporates a considerably narrower, but still legitimate, focus with respect to means and goals than does a social constructivist orientation. Typically, the goal of transmitting information and skills is pursued by requiring students to engage primarily in memorization and practice. By contrast, the social constructivist goal of enabling students to build knowledge and develop deeper levels of understanding frequently requires dialogue and collaborative inquiry rather than just memorization and practice.

The research on literacy development reviewed in this chapter suggests that although it may be feasible to develop students’ knowledge of the rule-based aspects of language (e.g., phonics, spelling, grammar, etc.) by means of a transmission approach, this orientation is ineffective in promoting reading comprehension beyond the early grades of schooling. The nature of reading comprehension, and of academic language proficiency more generally, demands higher-order cognitive processes than simply memorization and practice. These higher-order processes include analysis, synthesis, and evaluation of alternatives.

However, neither transmission nor social constructivist orientations provide an adequate blueprint for pedagogy insofar as they fail to address explicitly the content of the curriculum and the social goals of education. Both orientations are silent on the ways in which power intersects with
knowledge. They plead innocence with respect to the sanitization of the curriculum and the erasure of voices other than those of the dominant group. Virtually no country encourages its textbook developers to disturb the glorious myths upon which national identity is founded. The heroic tales of *How the West Was Won* are rarely presented from the perspective of Native Americans who might regard the process as one of ethnic cleansing. Few schools in the United States encourage their students to read Howard Zinn’s (1995) *A People’s History of the United States* as a fundamental reference work. Canadian history textbooks are silent about the widespread sexual abuse of First Nation’s children in residential schools funded by the federal government and operated by religious orders. Similarly, Japanese textbook writers gloss over the atrocities committed by Japanese troops in China in the 1930s and 1940s, just as Chinese textbooks present a very one-sided perspective on the Chinese invasion of Tibet in 1950 and the subsequent repression of Tibetan culture and aspirations.

We argue that education for participation within a democratic society requires that schools explicitly aim to develop critical literacy—the ability to read between the lines rather than just skim over the surface structure of texts. Democracy requires the exercise of informed choice with the goal of promoting the common good. Clearly, the ability to critically analyze social issues is a prerequisite for making informed choices. Pedagogy oriented toward the development of critical literacy can be termed a *transformative* orientation because its goal is to enable students both to understand how power is exercised within society and to use their democratic rights to change aspects of their society that they consider unjust or discriminatory.

Before examining these orientations in more detail and relating them to the research on learning and literacy development, we describe the rapidly changing societal contexts within which schools are operating. If, as we have suggested, an implicit image of society and its future needs is embedded in all teacher–student interactions, then it is important to articulate how our societies are changing and what social realities students who enter kindergarten in 2007 will be expected to face when they graduate in 2020.

### The Changing Context of Education

Two trends are particularly relevant in considering the demands being placed on education systems around the world: *globalization* and *technological change*.
Globalization and Diversity

Cultural and linguistic diversity has become the norm in major urban school systems across both North America and Europe. In California, for example, 25 percent of the school population is considered “limited English proficient” and approximately 85 percent of teachers have children in their classes who are in the process of learning English. In Amsterdam, 40 percent of the school population was born outside the Netherlands. More than 50 percent of the school population in the Canadian cities of Toronto and Vancouver come from non–English-speaking backgrounds.

The new global economy is similarly characterized by a plethora of languages and cultures despite the current dominance of English in many cultural, scientific, and economic spheres. Thus, any pedagogical framework that aspires to promote literacy and prepare students for a globalized Information Age economy must address issues of linguistic and cultural diversity.

The increase of cultural and linguistic diversity in schools has created pedagogical challenges and opportunities. Specifically, is it feasible or reasonable to expect a one-size-fits-all homogenized curriculum to meet the needs of an increasingly diverse student body? What might a more differentiated curriculum look like and how should it be evaluated? To what extent should the education system acknowledge and promote the linguistic and cultural resources that students bring to school? If educators see it as educationally desirable to promote students’ multilingual and multicultural potential in schools, then what kinds of curricula and pedagogy are likely to achieve this goal?

Technological change

Recent educational reform initiatives in countries around the world have been inspired by the transformation of the global economy during the late twentieth century from an Industrial Age economy to an Information Age economy, or what is increasingly called the Knowledge Society. Schools are now expected to develop twenty-first-century literacy skills, which are what the economy supposedly requires to thrive in an increasingly competitive global marketplace. These twenty-first-century literacy skills are heavily dependent on mastery of new technologies. The European Commission (2004), for example, in a report on its e-learning initiative, notes:

Information and communication technologies (ICT) are opening up access to education, training and learning resources, while also establishing avenues of self learning. This is why the European Union believes the
proper use of such technologies may contribute to Europe’s shift to a knowledge-based society. (p. 6)

This report makes explicit the belief that technology is fundamental to economic competitiveness in a knowledge-based society, arguing that “Europe should become, by 2010, the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth, with more and better jobs.” The new mandate for schools, in Europe and elsewhere, therefore, includes producing increasing numbers of graduates who are capable of working collaboratively with others to analyze and critically interpret information, thereby participating in the generation of knowledge that fuels the new economy.1

This rhetoric, which is replicated in many countries around the world, appears at first sight to represent a radical departure from the ways in which schools have traditionally defined their roles. Unlike education for societal elites, education for the masses has never aspired to develop deep understanding or promote knowledge generation and critical literacy. Instead, more modest goals have been pursued. Historically, schools have aspired to develop sufficient literacy among students to enable them (1) to read and analyze sacred texts such as the Qur’an or the Bible as a means of saving their eternal souls and (2) to participate productively in the economic life of the society. Not surprisingly, major expansions of and investments in schooling have occurred at times of significant economic change and upheaval (e.g., from agrarian to industrial means of production in the 1800s). As noted earlier, the current preoccupation with educational reform has been a response to the shift from an Industrial Age to an Information Age economy. As John Guthrie (2004) notes, “Literacy has evolved . . . from a tool for religious education, to a skill for economic productivity, to a symbolic indicator of information management” (p. 7).

Despite the fact that the societal commitment to knowledge-based educational reform may be superficial and selectively applied to upper-income rather than to lower-income students, the current discourse provides a unique opportunity for educators to explore forms of critical pedagogy that potentially can exert a transformative impact on students and society. At this historical juncture, the rhetoric of the knowledge-based society urges educators to apprentice all students to the cause of higher-order thinking and deep understanding. Educators whose role definitions include promoting critical literacy among their students can use this rhetoric to implement transformative approaches to pedagogy in their classrooms.
In responding to societal expectations that they simultaneously transmit standards-based information and skills and prepare students for participation in a knowledge-based economy, educators not only make pedagogical choices but they also make identity choices with respect to where they position themselves in relation to the power structure of the society. These intersecting pedagogical and identity choices can be discussed in the context of four frameworks that attempt to articulate the relationships between learning and pedagogy. The first of these frameworks derives from cognitive psychology and synthesizes the empirical research on how people learn. The second outlines three broad orientations to pedagogy labeled transmission, social constructivist, and transformative. The third framework focuses on the construct of multiliteracies as a means of highlighting how schools might respond to rapidly changing global social realities. Finally, John Guthrie's literacy engagement framework emphasizes that engagement is a crucial component of all learning and highlights its specific relevance for sustaining literacy development throughout schooling. Each of these four frameworks contributes important insights to understanding the nature of effective literacy instruction in a globalized Information Age society. We briefly sketch these frameworks and then analyze their relevance to the pedagogical and identity choices faced by educators who aspire to develop strong literacy skills among all their students.

**How People Learn**

The volume written by Bransford, Brown, and Cocking (2000) entitled How People Learn and published by the National Research Council synthesized the research evidence regarding how learning occurs and the optimal conditions to foster learning. A follow-up volume edited by Donovan and Bransford (2005) examined the application of these learning principles to the teaching of history, mathematics, and science. The relevance in the present context is that instructional interventions should reflect these basic principles of learning if they are to be scientifically credible. Bransford and colleagues emphasize three conditions for effective learning: engaging prior understandings, integrating factual knowledge with conceptual frameworks, and taking active control over the learning process.

**Engaging Prior Understandings**

Donovan and Bransford (2005) point out that “new understandings are constructed on a foundation of existing understandings and experiences” (p. 4,
emphasis in original). Prior knowledge, skills, beliefs, and concepts significantly influence what learners notice about their environment and how they organize and interpret it. Prior knowledge refers not just to information or skills previously acquired in a transmission-oriented learning sequence but also to the totality of the experiences that have shaped the learner's identity and cognitive functioning. This principle implies that in classrooms with students from linguistically and culturally diverse backgrounds, instruction must explicitly activate students' prior knowledge and build relevant background knowledge as necessary.

**Integrating Factual Knowledge with Conceptual Frameworks**

Bransford and colleagues (2000) point out that to develop competence in an area of inquiry, “knowledge of a large set of disconnected facts is not sufficient.” Students must be provided with opportunities to learn with understanding because “deep understanding of subject matter transforms factual information into usable knowledge” (p. 16). Thus, knowledge is more than just the ability to remember; deeper levels of understanding are required to transfer knowledge from one context to another. This implies that instruction for deep understanding involves the development of critical literacy rather than simply literal comprehension of text. Literal comprehension involves understanding the content of the text (broadly defined) with respect to what the author is trying to communicate. Critical literacy, on the other hand, involves a deeper inquiry into the text with respect to the perspectives represented, the purposes of the text, the means by which these purposes are pursued (e.g., language, images, intonation, etc.), and the evidence supporting the views expressed.

**Taking Active Control over the Learning Process**

Learners should be supported in taking control of and self-regulating their own learning. Donovan and Bransford (2005) point out that “a ‘metacognitive’ or self-monitoring approach can help students develop the ability to take control of their own learning, consciously define learning goals, and monitor their progress in achieving them” (p. 10). When students take ownership of the learning process and invest their identities in the outcomes of learning, the resulting understanding will be deeper than when learning is passive.
Bransford and colleagues (2000) also emphasize the importance of support within the community of learners. Learning takes place in a social context, and a supportive learning community encourages dialogue, apprenticeship, and mentoring. Learning is not simply a cognitive process that takes place inside the heads of individual students; it also involves socialization into particular communities of practice.

Within these learning communities, or what Gee (2001) terms affinity groups, novices are enabled to participate in the practices of the community from the very beginning of their involvement. Lave and Wenger (1991) describe this process as legitimate peripheral participation. The learning community can include the classroom, the school, the family, the broader community, and virtual communities enabled through electronic communication.

This account specifies some minimal requirements for effective learning. It also brings into immediate focus the lack of scientific credibility of approaches that rely primarily on simple transmission of knowledge and skills from teachers to learners. Exclusive reliance on transmission pedagogy is likely to entail memorization rather than learning for deep understanding, minimal activation of students’ prior knowledge, and passive rather than active self-regulated learning. A narrow transmission approach would also view active and creative use of language by students as “off task” and thus, within this approach, there is minimal opportunity to establish a genuine community of learners. It is important to reiterate that transmission of information and skills is an important component of effective pedagogy. Transmission of information and skills becomes problematic only when it constitutes the predominant instructional focus.

Pedagogical Orientations

As illustrated in Figure 2.1, transmission, social constructivist, and transformative orientations to pedagogy are nested within each other rather than being distinct and isolated from each other. Transmission-oriented pedagogy is represented in the inner circle with the narrowest focus. The goal is to transmit information and skills articulated in the curriculum directly to students. Social constructivist pedagogy, occupying the middle pedagogical space, incorporates the curriculum focus of transmitting information and skills but broadens it to include the development among students of higher-order thinking abilities based on teachers and students co-constructing knowledge and understanding. Finally, transformative
approaches to pedagogy broaden the focus still further by emphasizing the relevance not only of transmitting the curriculum and constructing knowledge but also of enabling students to gain insight into how knowledge intersects with power. The goal is to promote critical literacy among students.²

Obviously, these three broad orientations incorporate considerable variation in emphasis and implementation. For example, it is possible to acknowledge the importance of clearly and explicitly transmitting information and skills (as we do) without endorsing one-size-fits-all scripted instructional approaches that reduce students to passive roles within the teaching–learning process. Similarly, social constructivist approaches may vary in the emphasis they place on the constructivist aspects (Piaget, 1929) as compared to the social aspects (Vygotsky, 1978). Au (1998) points out that “the social is seen to encompass a wide range of phenomena, from historical, political and cultural trends to face-to-face interactions, reflecting group processes both explicit and implicit with intended and unintended consequences” (p. 299). The common thread, according to
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Critical literacy is particularly relevant in an era of global propaganda.

Au, is that “social constructivists are interested in the collective generation of meaning among people” (p. 299).

The development of critical literacy is particularly relevant in an era of global propaganda where skillfully crafted multimedia messages broadcast by media conglomerates dramatically influence public perceptions and attitudes. Witness the fact that throughout the 2004 U.S. presidential campaign, more than 40 percent of the U.S. population continued to believe that Saddam Hussein was instrumental in the 9/11 attacks despite the universal acknowledgment (including the Bush administration) that this was not the case. Thus, there is an urgent necessity to teach for deep understanding and critical literacy, not so much because the economy demands it, but because the survival of democratic institutions in our societies may depend on it.

These pedagogical orientations intersect with the themes articulated in the New London Group’s (1996) multiliteracies framework, which is discussed next.

Multiliteracies

The concept of multiliteracies was advanced by a group of international scholars who labeled themselves “The New London Group” as a means of conceptualizing the implications of recent societal changes for how literacy is taught in schools. Literacy is no longer simply reading and writing. Outside the school, students are engaged in literacy practices that may involve languages other than the school languages and technologies that have moved far beyond paper and pencil. The essence of a multiliteracies pedagogical approach is that schools in the twenty-first-century need to focus on a broader range of literacies than simply traditional reading and writing skills in the dominant language (Cope & Kalantzis, 2000; Pahl & Rowsell, 2005).

The New London Group (1996) highlighted the relevance of new forms of literacy associated with information, communication, multimedia technologies, and, equally important, the wide variety of culturally specific forms of literacy evident in complex pluralistic societies. From the perspective of multiliteracies, the exclusive focus within schools on linear text-based literacy in the dominant language of the society represents a very limited conception that fails to address the realities of a globalized, technologically sophisticated, knowledge-based society. In urban contexts across North America and Europe, the stu-
dent population is multilingual and students are exposed to, and engage in, many different literacy practices outside the school. Within schools, however, the teaching of literacy remains narrowly focused on literacy in the dominant language and typically fails to acknowledge or build on the multilingual literacies or the technologically mediated literacies that form a significant part of students’ cultural and linguistic capital.

The New London Group proposed a pedagogical framework that identified situated practice, overt instruction, critical framing, and transformed practice as central components. The essence of this framework is that students should be given opportunities to engage in meaningful experiences and practice within a learning community, and the development of concepts and understanding should be supported by explicit instruction as required. Students should also have opportunities to step back from what they have learned and examine concepts and ideas critically in relation to their social relevance. Finally, they should be given opportunities to take the knowledge they have gained—to put it into play in the world of ideas—and come to understand how their insights can exert an impact on people and issues in the real world.

Thus, as in the nested pedagogical orientations framework (Figure 2.1), a legitimate role is assigned to overt instruction (transmission pedagogy) but only as one component of a more inclusive and comprehensive framework for learning. In a similar way, the cognitive psychology research on learning synthesized by Bransford and colleagues highlights the limitations of an exclusive reliance on teacher–student transmission of information and skills. This research suggests that cognitive engagement and deep understanding are more likely to be generated in contexts where instruction builds on students’ prior knowledge and learning is supported by active collaboration within a community of learners.

The fourth framework is focused specifically on literacy and highlights perhaps the major immediate goal of effective pedagogy: literacy engagement.

**Literacy Engagement**

Guthrie (2004) draws attention to the centrality of literacy engagement for reading achievement. Drawing on both the 1998 NAEP data from the United States and the results of the PISA study of reading achievement in international contexts, he notes that students
whose family background was characterized by low income and low education, but who were highly engaged readers, substantially outscored students who came from backgrounds with higher education and higher income, but who themselves were less engaged readers. Based on a massive sample, this finding suggests the stunning conclusion that engaged reading can overcome traditional barriers to reading achievement, including gender, parental education, and income. (p. 5)

Guthrie notes that the term *engagement* incorporates notions of *time on task* (reading extensively), *affect* (enthusiasm and enjoyment of literacy), *depth of cognitive processing* (strategies to deepen comprehension), and *active pursuit of literacy activities* (amount and diversity of literacy practices in and out of school). He believes that engaged readers are active and energized in reading and use their minds with an emphasis on either cognitive strategies or conceptual knowledge. Furthermore, he asserts that engaged reading is often socially interactive insofar as engaged students are capable of discussion or sharing with friends despite the fact that much of their reading may be solitary.

Guthrie’s (2004) classroom-based research has shown a direct relationship between increasing literacy engagement and higher achievement. He notes that the relationship is reciprocal:

Locked in a spiral, they grow together. . . . Young students who gain a modicum of skill in reading are enabled to read more stories and books, assuming they are available. With increased amounts of reading, students’ fluency and knowledge expand, increasing basic word recognition. Contributing to this spiral is a sense of identity and selfhood; improving readers see themselves as capable, which is gratifying. Beyond self-confidence, however, students on the upward spiral see themselves as readers who are learners and thinkers; these students internalize literacy as a part of who they are. (p. 6)

Also, Guthrie notes that the relationships between engagement, identity, and achievement are equally potent in the opposite direction. Disengaged readers read less, experience fewer opportunities to learn from text, and gradually define themselves as disinterested readers.

Although numerous researchers have articulated the importance of cognitive strategy training, Guthrie (2004) expands and qualifies this focus in noting that “good strategy instruction cannot be provided with impoverished content” (p. 9). He also highlights the importance of texts that are well structured with respect to how knowledge is organized within the text (e.g., headings, bolding, italics, etc.). Students must also be given an opportunity to be self-directed in at least a portion of their
learning from text, and discourse among students must be encouraged. He states that “if no social interchange is allowed, students’ cognitive efforts to read and understand evaporate quickly” (p. 10). Finally, provision of ample time for engaged reading is crucial.

It is worth noting that the narrow research lens employed by the National Reading Panel (2000) did not enable the panel to address the relevance for reading achievement of self-direction, social interaction, or time for engaged reading. However, Guthrie’s account of engaged reading is clearly congruent with Bransford and colleagues’ synthesis of the research on how people learn. Unlike the National Reading Panel or the NCLB policy that it legitimated, Guthrie’s analysis of the research includes the constructs of affect, identity, and extensive reading as significant components of engaged reading and reading achievement. The themes emphasized by Guthrie also converge with an earlier synthesis of research on reading comprehension carried out by Fielding and Pearson (1994). These authors highlighted four instructional components that research suggests are strongly related to reading comprehension outcomes:

1. Large amounts of time for actual text reading;
2. Teacher-directed instruction in comprehension strategies;
3. Opportunities for peer and collaborative learning; and
4. Occasions for students to talk to a teacher and one another about their responses to reading.

At this point, it is appropriate to revisit the construct of reading to understand better the nature of reading comprehension and the relevance of the four frameworks to the promotion of sustained reading development beyond the initial grades. We focus this analysis on low-income and English language learning (ELL) students, since these are groups that tend to experience the most disproportionate levels of academic failure.

**Literacy and Academic Language Development among Low-Income ELL Students**

In order to understand patterns of academic development among low-income and ELL students, one must distinguish between three very different aspects of proficiency in a language: (1) conversational fluency, (2) discrete language skills, and (3) academic language proficiency. The
rationale for making these distinctions is that each dimension of proficiency follows very different developmental paths among both ELL and non-ELL students and each responds differently to particular kinds of instructional practices in school.

**Conversational Fluency**

Conversational fluency is the ability to carry on a conversation in familiar face-to-face situations. The vast majority of native speakers of English have developed conversational fluency by the time they enter school at age 5. This fluency involves use of high-frequency words and simple grammatical constructions. Certainly, conversational fluency evolves in complexity according to sociolinguistic context and the language registers required in particular situations (e.g., a job interview). However, for present purposes, it is sufficient to note that ELL students generally develop peer-appropriate fluency in conversational aspects of English within a year or two of intensive exposure to the language either in school or in the environment.

**Discrete Language Skills**

Discrete language skills involve the learning of rule-governed aspects of language (including phonology, grammar, and spelling) where acquisition of the general case permits generalization to other instances governed by that particular rule. Becker (1977) describes this process with respect to decoding as follows: “One can teach a set of sounds, blending skills, and rapid pronunciation skills, so that the student can read any regular-sound word composed from the sounds taught” (p. 533). Discrete language skills can be developed in two independent ways: (1) by direct instruction (e.g., systematic explicit phonics instruction) and (2) through immersion in a literacy-rich home or school environment where meanings are elaborated through language and attention is drawn to literate forms of language (e.g., letters on the pages of books). A combination of these two conditions appears to yield the most positive outcomes (e.g., Cunningham, 1990; Hatcher, Hulme, & Ellis, 1994). Students exposed to a literacy-rich environment in the home generally acquire initial literacy-related skills, such as phonological awareness and letter–sound correspondences, with minimal difficulty in the early grades of schooling (e.g., Neuman, 1999).

Some of these discrete language skills are acquired early in schooling and some continue to be acquired throughout schooling (e.g., spelling).
The discrete language skills acquired early include knowledge of the letters of the alphabet, the sounds represented by individual letters and combinations of letters, and the ability to decode written words into appropriate sounds. Some of these skills, such as phonological awareness and knowledge of the letters of the alphabet, show consistently moderate relationships with the acquisition of word decoding skills (National Reading Panel, 2000; Snow, Burns, & Griffin, 1998).

English language learners can learn these specific language skills concurrently with their development of basic vocabulary and conversational fluency. However, little direct transference is observed to other aspects of oral language proficiency, such as linguistic concepts, vocabulary, sentence memory, and word memory (Geva, 2000; Kwan & Willows, 1998). Similar findings are reported by Verhoeven (2000) for minority language students in the Dutch context and by Lambert and Tucker (1972) in Canada for English-speaking students in French immersion programs.

**Academic Language Proficiency**

Academic language proficiency includes knowledge of the less frequent vocabulary of English as well as the ability to interpret and produce increasingly complex written language. As students progress through the grades, they encounter far more low-frequency words (primarily from Greek and Latin sources), complex syntax (e.g., passives), and abstract expressions that are virtually never heard in everyday conversation. Students are required to understand linguistically and conceptually demanding texts in the content areas (e.g., literature, social studies, science, mathematics) and to use this language in an accurate and coherent way in their own writing. Figure 2.2 illustrates the complexity of the language that students are expected to acquire in content areas such as social studies.

Acquiring academic language is challenging for all students. For example, schools spend at least 12 years trying to extend the conversational language that native-speaking children bring to school into these more complex academic language spheres. It is hardly surprising, therefore, that research has repeatedly shown that ELL students, on average, require at least 5 years of exposure to academic English to catch up to native-speaker norms (Cummins, 1981; Hakuta, Butler, & Witt, 2000; Klesmer, 1994; Thomas & Collier, 2002; Worswick, 2001). In Israel, research has shown that Russian and Ethiopian immigrant students require at least 9 years to catch up to
their peers in academic Hebrew (Shohamy, Levine, Spolsky, Kere-Levy, Inbar, & Shemesh, 2002).

In addition to the complexity of the academic language they are attempting to acquire, ELL students must catch up to a moving target. Every year, native speakers are making large gains in their reading and writing abilities and in their knowledge of vocabulary. In order to catch up to grade norms within six years, ELL students must make 15 months gain in every 10-month school year. By contrast, the typical native-speaking student is expected to make 10 months gain in a 10-month school year (Collier & Thomas, 1999).

All three aspects of language proficiency—conversational fluency, discrete language skills, and academic language proficiency—are important. However, policymakers and the media frequently confuse them. Many ELL students who have acquired conversational fluency and decoding skills in English are still a long way from grade-level performance in academic language proficiency. Students who can “read” English fluently may have only a very limited understanding of the words they can decode. This is illustrated in the phenomenon of the fourth-grade slump.

**The fourth-grade slump**

Low-income and ELL students seem to be particularly susceptible to what has been called “the fourth-grade slump” (see Chall, Jacobs, & Baldwin, 1990; Chall & Snow, 1988; Rand Reading Study Group, 2002). Chall and
Snow (1988) report that “experienced teachers of low-income children have long reported a fourth-grade ‘slump,’ when their students’ reading achievement slows down and reading problems increase” (p. 1). These students demonstrate grade-level reading performance in the primary grades (1 through 3) but begin to fall significantly behind grade norms starting at grade 4, with the discrepancy growing larger with each succeeding grade. Chall and colleagues (1990) report that low-income students in grades 2 and 3 are on grade level on tests of word recognition, oral reading, spelling, and word meaning. However, between grades 4 and 11, the extent of deceleration in reading performance is “overwhelming” (p. 43). These authors attribute these trends to low-income students’ weakness in academic vocabularies. They point out that at grade 4 and beyond, “the reading materials become more complex, technical and abstract and are beyond the everyday experiences of most children” (p. 45). In the primary grades, where students were on grade level in word meaning, most of the words students were asked to define were common, familiar, and concrete words. Chall and colleagues note, “Whereas the major hurdles prior to grade 4 are learning to recognize in print the thousands of words whose meanings are already known and reading these fluently in connected texts with comprehension, the hurdle of grade 4 and beyond is coping with increasingly complex language and thought” (p. 45).

Numerous other studies have documented either significant gaps between decoding and comprehension performance or actual declines in reading comprehension among low-income students in the later grades of elementary school (Becker, 1977; Becker & Gersten, 1982; Venezsky, 1998). For example, Becker and Gersten (1982), in discussing students’ performance on the DISTAR direct instruction program used between kindergarten and grade 3 in three school districts, document significant declines between grade 3 and grade 6 in Total Reading percentiles of the Metropolitan Achievement Test. In these districts, students’ performance fell from the 31st to the 16th percentile, the 52nd to the 26th percentile, and the 28th to the 17th percentile, respectively. In a fourth district, there was a decline between grade 3 and grade 5 from the 40th to the 20th percentile.

A similar gap between word-level decoding and reading comprehension skills has been noted by Venezky (1998) in reviewing data from the Success for All (SFA) program, which follows a highly controlled scripted approach in grade 1. A major gap was observed in students’ performance on measures of word-level skills (word recognition, letter–sound decoding), which were close to grade expectations, in comparison to their
performance on reading comprehension measures. Although there was a significant difference in reading comprehension at the grade 5 level between the SFA schools and controls, this difference was minimal (four months) and students were still about two years below grade expectations.

In short, the fourth-grade slump reflects the fact that neither language proficiency nor reading ability are unitary constructs. Reading comprehension does not develop automatically on the basis of decoding skills; similarly, academic language proficiency is distinct from students’ conversational fluency in English or their knowledge of discrete language skills. A core component of academic language proficiency is vocabulary knowledge, and the vocabulary load in the curriculum increases dramatically after the primary grades. The development of academic language proficiency, for both ELL and non-ELL students, requires that students gain access to academic language by means of extensive reading and also that they are supported in harvesting the language they encounter in literature and content area texts.

The importance of vocabulary knowledge for reading has been frequently articulated (e.g., Corson, 1997). Nation and Coady (1988), for example, in reviewing research on the relationship between vocabulary and reading, point out that “vocabulary difficulty has consistently been found to be the most significant predictor of overall readability.” Once the effect of vocabulary difficulty (usually estimated by word frequency and/or familiarity and word length) is taken into account, other linguistic variables, such as sentence structure, account for little incremental variance in the readability of a text. They summarize their review as follows: “In general the research leaves us in little doubt about the importance of vocabulary knowledge for reading, and the value of reading as a means of increasing vocabulary” (p. 108).

Although direct instruction of vocabulary has a place in supporting its development, this instruction is likely to be most effective when integrated with extensive reading and writing activities in which students are engaged. If low-frequency (nonconversational) vocabulary is found predominantly in written text, then extensive reading of text must be promoted as a crucial component of both vocabulary acquisition and reading comprehension development. There is overwhelming evidence for the importance of extensive reading in building up academic language proficiency in both first and second languages (L1 and L2) (e.g., Elley, 1991; Guthrie, 2004; Krashen, 2004b; Postlethwaite & Ross, 1992).

At this point, we have a basis for addressing the specific pedagogical issues that are in dispute regarding what constitutes effective literacy instruction.
Pedagogical Conflicts and Choices

Current disputes about literacy pedagogy revolve around one seemingly straightforward question: What forms of pedagogy will most effectively promote reading comprehension? There is actually a considerable degree of consensus around this issue. We suggest that the intensity of the current debate about literacy instruction derives primarily from underlying ideological orientations regarding the nature of learning and teaching—specifically, the extent to which proponents of alternative positions endorse behaviorist or social constructivist approaches to pedagogy. The misinterpretation and misleading communication of the NRP findings that we and many other commentators have noted (see Chapter 1) can be understood as an attempt to legitimate a programmed learning (behaviorist) approach to reading instruction.

Although its roots lie in the 1940s and 1950s behaviorist psychology of B. F. Skinner, recent incarnations of programmed learning derive from the work of Siegfried Engleman (1969), the developer of the DISTAR program. The instructional focus of programmed learning is on the design of appropriate skill hierarchies for efficient transmission of knowledge and content and is seen most clearly in scripted programs. The instructional science is in the script rather than in the actions of the teacher. Because the script is sacrosanct, there is minimal opportunity or encouragement to deviate from the script to address the learning needs of individual students (e.g., ELL students who may not understand the tasks dictated by the script).

By contrast, a social constructivist approach focuses on the collaborative construction of knowledge by teachers and learners. Pedagogical interactions build on learners’ prior experience, helping them integrate new understandings or knowledge into their cognitive schemata. Since students come to school with very different cultural, linguistic, and personal experiences, teachers must orchestrate interactions in a flexible way that takes into account the diversity of experiences, needs, and talents within their classroom. In other words, by definition, within a social constructivist approach teacher–student interactions cannot be preprogrammed.

The Pedagogical Divide: Programmed Learning versus Social Constructivist Learning

Behaviorism for the masses?

As noted in Chapter 1, the architects of the Reading First component of No Child Left Behind continue to insist that “systematic phonics
instruction produced significant benefits for K–6 students” (Lyon & Chhabra, 2004), omitting to note that systematic phonics instruction produced no benefits beyond grade 1 in reading comprehension among normally achieving and low-achieving students (i.e., a large majority of the elementary school population). This questionable interpretation of the NRP findings entails major consequences for schools. For example, in 2003, Reading First grants were withheld from the New York City school system until it agreed to adopt an additional intensive phonics-oriented program for the primary grades (K through grade 3).³

In addition, some school systems have implemented scripted phonics-oriented programs in highly prescriptive ways, perhaps even going beyond the intent of the authors of these programs. In many school districts, this has led to intense teacher frustration and anger (see, for example, Meyer, 2002). In discussions with teachers, we have heard on numerous occasions views such as those expressed by California elementary school teachers André Gensburger (2005) and Elizabeth Jaeger (2006). Gensburger highlights the widespread demoralization of teachers caused by scripted reading programs that leave no room for creativity and professional judgment in the classroom. He points out that all reading materials that were not included in the reading adoption were removed from his classroom despite the fact that these books were totally appropriate for “reading-starved children” and had been paid for by parents, the parent–teacher association, the school, and teachers themselves over the years.

Jaeger (2006), a teacher in the West Contra Costa Unified School District northeast of San Francisco, recounts the dramatic changes that occurred in her school reading program with the introduction of the Open Court reading series, “a scripted reading program that tells teachers what to say and do at every moment” (p. 39). Open Court instruction occupied between two and three hours each day and replaced the literacy curriculum that teachers had previously developed which, according to Jaeger, “more fully addressed the range of levels and the varied strengths and weaknesses of our students” (pp. 39–40). Noting that “teachers got laryngitis while children remained silent” (p. 40), Jaeger describes how the interaction between teacher and student was reduced to “a mechanical and impersonal back-and-forth” (p. 40):

In kindergarten and 1st grade, teachers now taught the least meaningful aspects of literacy—letters and sounds—and postponed emphasis on meaning for nearly two years. These children faced a steady diet of so-called decodable texts (“The cat sat on the mat. The cat is fat. Where is
Jaeger goes on to discuss how trainers and consultants could enter classrooms at will, interrupting lessons, chastising teachers in front of their students, and going through personal files without permission. Furthermore, any teacher who veered from the mandated script by altering or expanding less effective lessons was threatened with disciplinary action by the principal. This “heavy-handed implementation” of the scripted reading program did not extend to the same degree to other schools that were located in middle-class neighborhoods with a greater percentage of white students:

The district shackled teachers of poor children with generally lower achievement to a curriculum that did not let them modify their teaching. Teachers in more affluent schools could enrich the curriculum to emphasize higher-level thinking and aesthetics. These children had the opportunity to obtain an education that prepared them to assume demanding leadership roles. Poor kids received an education that prepared them for McDonald’s, McMilitary, and McPrison. (p. 40)

Jaeger’s active opposition to this type of program resulted in her being transferred to another school, giving a clear message to other teachers who might contemplate resisting top-down mandates: “Speak up and you will be punished; advocate for your students and you will be silenced” (p. 41).4

These accounts articulate some of the most problematic aspects of the literacy instructional approach being implemented in many low-income districts. Instruction is scripted and uniformly paced; all teachers are expected to cover the same material at the same rate regardless of whether students understand it or not. Many ELL students have no way of connecting cognitively with the one-size-fits-all instructional content but teachers are routinely told, “Trust me, this program is good for every child in your class” (Meyer, 2002, p. 53). Typically, ELL and special needs students are not permitted to be withdrawn for remediation during the phonics component of the program, clearly communicating that all other aspects of literacy instruction are secondary to systematic phonics instruction.

The instructional approach described by commentators such as Gensburger (2005) and Meyer (2002) goes far beyond simply the transmission of skills and information as one component of a broader instructional philosophy. It represents a programmed learning approach
that is explicitly based on behaviorist psychology and ideology. Becker (1977) outlines the essential elements of Englemann’s direct instruction approach:

In common with other theories of programmed instruction, Englemann specifies teaching one thing at a time, providing adequate practice, and designing lessons for a low error rate. (p. 531)

Becker (1977) also articulates the role of instructional scripts within a programmed learning approach:

The use of explicitly detailed lessons—scripts—has been criticized as restricting teachers’ initiative. This may be a valid criticism, but one should consider the potential advantages of scripts in providing quality control in a delivery system. The scripts permit the selection and testing of sequences of examples that produce efficient learning if followed. Most teachers simply do not have time to find appropriate words and examples or to sequence skill hierarchies in the most efficient possible manner. When teachers phrase their own questions, they may choose terms unknown to lower-performing children or may include unnecessary verbiage. In choosing examples, moreover, they may teach incorrect rules because the positive examples have some irrelevant feature in common. (p. 523)

With respect to reading comprehension, Carnine, Silbert, and Kameenui (1997) note that in “each aspect of the comprehension model . . . instruction begins with the least complex form and moves to the most complex in hierarchical fashion” (p. 28). The focus is on the skills hierarchies built into the script rather than on what students may be bringing to the learning environment. This approach relies on what Iran-Nejad, McKeachie, and Berliner (1990) call simplification by isolation, where complex skills are broken down into their components and taught in isolation from other skills with which they are normally integrated.

**Social constructivist alternatives**

By contrast, social constructivist approaches draw their inspiration from the work of cognitive theorists such as Vygotsky (1978) and Piaget (1929) and emphasize both the importance of students’ prior knowledge as a foundation for constructing new understandings and the role of the social context in facilitating this process. Particularly influential has been Vygotsky’s (1978) notion of the zone of proximal development (ZPD),
which he defined as the distance between children’s developmental levels as determined by individual problem solving without adult guidance and the level of potential development as determined by children's problem solving under the influence of, or in collaboration with, more capable adults and peers. Expressed simply, the ZPD is the interpersonal space where minds meet and new understandings can arise through collaborative interaction and inquiry. Newman, Griffin, and Cole (1989) label this interpersonal space the construction zone.

We have argued that not only is knowledge collaboratively generated within this interpersonal space or construction zone but, equally significant for learning, identities are negotiated between teachers and students (Cummins, 2001). The reciprocal negotiation of identities and the collaborative generation of knowledge are intimately related to each other. Teacher–student collaboration in the construction of knowledge will operate effectively only in contexts where students’ identities are being affirmed. Essentially, this conception extends the ZPD beyond the cognitive sphere into the realms of affective development and power relationships. It also makes clear that the construction zone can also be a constriction zone, where student identities and learning are constricted rather than extended.

Common ground and areas of dispute

Behaviorist and social constructivist pedagogical orientations entail very different implications for reading instruction and define the major issues of contention in current debates. This can be appreciated by considering the common ground that a large majority of researchers, educators, and policymakers are likely to endorse (see review in Cummins, 2001). There is considerable consensus, supported by the research, on the following:

- Immersion in a literate environment either in home or school (and preferably both) is a strong predictor of success in both decoding and reading comprehension.

- Development of phonological awareness, letter knowledge, and concepts about print is an important component in acquiring initial decoding skills.

- An explicit instructional focus on developing phonological awareness, letter knowledge, and concepts about print, together with a significant
instructional focus on actual reading and writing, contributes to the development of decoding skills and early reading comprehension skills.

- The extent to which students have access to print and the amount of actual reading that they carry out are major determinants of reading comprehension development.

The most significant points of contention appear to be (1) the extent to which reading instruction should be rigidly scripted and (2) the extent to which tight control should be exercised over students’ access to authentic text (i.e., text that would not be classified as “decodable”). Advocates of scripted instruction see scripts as essential to ensure quality control in the delivery of reading instruction. They also tend to emphasize that decodable text should predominate in initial reading materials with only limited access to “nondecodable” text (e.g., children’s literature). Mathes and Torgesen (2000), for example, express this perspective as follows:

Likewise, to ask children to read text that they cannot decode using the alphabetic elements and skills that they have been taught is to communicate to them that the alphabetic knowledge and skill they have spent effort learning is not really relevant to reading, and that they must rely heavily on guessing the identity of words from context. (p. 12)

In other words, it is seen as problematic for children to encounter words in reading materials for which the letter–sound correspondences have not been previously taught in an explicit and systematic way. Becker (1977) makes essentially the same argument with respect to the teaching of vocabulary, arguing for a graded progression of reading materials in which “words in a proposed text that are not suitable for a given grade level would be replaced, emphasized in the text, or listed so that the teacher could teach them before beginning a lesson” (p. 539). Thus, a behaviorist approach assumes that students can reliably learn only what has been explicitly taught. Therefore, both letter–sound correspondences and also vocabulary-concept knowledge should be pretaught prior to students encountering new vocabulary in texts. One implication of this approach is that students will not be encouraged to engage in extensive independent reading because errors cannot be minimized when students encounter the uncontrolled vocabulary of trade books or other reading materials that have not been specifically programmed to fit into the skill hierarchy. This assumption underlies the removal of nonprescribed books from classrooms in contexts such as that described by Gensburger (2005).
Illustrative research studies

What does research say about the underlying theoretical assumptions of behaviorist and social constructivist orientations to pedagogy? Two illustrative studies point to the limitations of one-size-fits-all scripted programs. For example, in a study involving detailed observations in four classrooms, Juel and Minden-Cupp (2000) found that “children who entered first grade with some reading ability did exceptionally well in a classroom that included a less structured phonics curriculum and more reading of trade books and writing of text, . . . whereas children who entered with fewer literacy skills benefited from a curriculum with an early word-level focus” (pp. 484–485). They further point out that after a “strong dose of effective phonics and a rapid rise in word-level skill, these low-group children then benefited from the same type of increased vocabulary and text discussions, and reading from a variety of types of materials, as did their peers” (p. 485). The authors interpret the finding that phonics is critical for some children but may not be helpful for others (p. 484) as support for the self-teaching hypothesis (Share & Stanovich, 1995), which proposes that when children have developed phonological awareness and letter–sound knowledge, and are provided with rich exposure to print, they can ultimately teach themselves to read. The interaction between students’ entering ability and the initial focus of teaching shows clearly the limitations of direct instruction approaches that ignore student diversity of language, culture, and prior experience in favor of a uniform script that attempts to transmit hierarchical skills to all children in the same sequence.

The second illustrative study also supports the basic principles of a social constructivist approach by showing that when students’ identities are invested in the learning task, and learning is supported by a culturally responsive instructional context, students can acquire extensive literacy skills that have not been explicitly taught. This research consisted of a longitudinal case study carried out by María de la Luz Reyes (2001) of the “spontaneous biliteracy” of four low-income working-class Mexicano/Latino children in a bilingual program, two of whom were taught to read initially only in Spanish and two only in English, according to their language dominance on entry to the program. The children received structured phonics instruction (in English or Spanish) in kindergarten, but in first and second grades only minimal phonics were taught. All four children spontaneously transferred their literacy skills from the initial language of instruction to their second language and in bilingual programs around the world, children spontaneously transfer literacy skills across languages without systematic and explicit instruction in the dominant language.
without formal instruction. Their “natural, spontaneous, and uncomplicated approach to bilingualism and biliteracy” was supported by their interest in writing in both languages and also by their social play where they challenged each other to read in the language in which they had received no formal reading instruction.5

In interpreting the spontaneous biliteracy development of the four children, Reyes (2001) emphasized the centrality of affective dimensions related to students’ identity. She notes that the learning environment legitimated children’s bicultural identity:

There is no doubt that these students felt their languages and their culture affirmed. . . . Although each of the girls received [reading] instruction in only one language, all their learning from kindergarten to second grade took place in classrooms where the teachers supported and nurtured their cultural and linguistic resources. Each day they heard their teachers and peers use Spanish and English. Their teachers also made great efforts to treat English and Spanish as equally as possible, valuing both languages for personal, social, and academic purposes. (p. 116)

Reyes’s (2001) documentation of the biliteracy development of these students clearly refutes predictions derived from the learning theory underlying scripted reading instruction. As a result of the supportive sociocultural environment, these four low-income students learned extensive literacy skills that had not been “systematically and explicitly” taught. This research is just as “scientific” as the quasi-experimental studies considered by the NRP and just as capable of contributing to scientific advancement and knowledge generation (Cummins, 1999). In most scientific disciplines, knowledge is generated by constantly testing and refining theory-based predictions and thus systematic observations such as those reported by Reyes contribute directly to the testing of hypotheses. In this case, they refute central hypotheses underlying programmed learning and scripted curricula.

In short, there is extensive research evidence from a variety of qualitative and quantitative research studies on reading development that is inconsistent with the pedagogical assumptions of scripted curricula and programmed learning. In addition, the principles of social constructivist approaches to reading instruction are not only consistent with the research evidence but also with the broader research-based principles of learning articulated by Bransford and colleagues (2000). Those who endorse a social constructivist approach to learning point to the extensive scientific
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research showing that children are capable of developing complex phonological and decoding skills that have not been explicitly taught when they are provided with a culturally responsive learning environment at home or at school and when their learning is guided or scaffolded by supportive adults. They argue that because children come to school with widely different degrees of preliteracy knowledge, such as phonological awareness and other concepts about print, as well as different degrees of knowledge of the English language, one-size-fits-all scripted instruction constricts the learning environment and limits students’ potential for sustained growth in reading comprehension. The empirical research suggests that children’s time would be much better spent applying their phonological awareness, knowledge of phonics, and knowledge of the world to reading engaging texts and exploring possibilities for expressing their identities through personal writing (Chow & Cummins, 2003).

However, although social constructivist approaches accurately capture important aspects of learning, they typically do not address broader social issues related to the nature of literacy and the goals of literacy instruction within a globalized Information Age society. There is general agreement among proponents of all pedagogical orientations that strong literacy skills are important for economic participation and national competitiveness. However, only transformative approaches raise issues of teacher and student identities as they intersect with societal power structures. The rationale for addressing these issues is that the role definitions or identities of teachers in relation to the overall goals of education will determine the kinds of pedagogy they orchestrate and the literacy abilities they aspire to promote among their students.

Pedagogical Images: Preparing Students for Civic Participation

As educators, our interactions with students are constantly sketching a triangular set of images:

- An image of our own identities as educators;
- An image of the identity options we highlight for our students; and
- An image of the society we hope our students will help form.

The intersection of these three “images” and the ways in which instruction opens up or shuts off identity options can be illustrated in
the findings of large-scale studies of classroom interaction in the United States (e.g., Goodlad, 1984; Ramírez, 1992). In discussing the implications of Goodlad’s finding that teacher-centered transmission instruction predominated in U.S. classrooms, Sirotnik (1983) pointed to the fact that the typical American classroom contained a lot of teacher talk and a lot of student listening . . . almost invariably closed and factual questions . . . and predominantly total class instructional configurations around traditional activities—all in a virtually affectless environment. It is but a short inferential leap to suggest that we are implicitly teaching dependence upon authority, linear thinking, social apathy, passive involvement, and hands-off learning. (p. 29)

In other words, an image of the society that students will graduate into and the kind of contributions they are being prepared to make within that society is embedded implicitly in the interactions between educators and students.

The ways in which these images are transacted in classroom interactions reflect the ways in which educators locate themselves in relation to the power structure of the society. When one chooses to frame the universe of discourse about underachievement primarily in terms of children’s deficits in some area of psychological or linguistic functioning (such as phonological awareness), one expels culture, language, identity, intellect, and imagination from one’s image of the child. Similarly, these constructs are nowhere to be found in one’s image of the effective teacher of these children, nor in policies that might guide instruction.

The erasure of imagination from the images of children and teachers is particularly unfortunate in view of the major environmental, social, and economic problems that today’s global society faces. It is also clearly at variance with the emphasis on knowledge generation and collaborative inquiry that both the corporate sector and many government reports have emphasized in recent years. Imagination can be defined as “the act or power of creating mental images of what has never been actually experienced” (Egan, 1986, p. 7). Egan (1986, 1999) makes an extremely persuasive case that school curricula have excluded the “most powerful and energetic intellectual tools children bring to school” (1986, p. 18). He suggests that educators need to reconstruct their curricula and teaching methods in light of a richer image of the child as an imaginative as well as a logico-mathematical thinker. Children’s imaginations are revealed in their capacity for highly abstract and sophisticated thinking
in relation to engaging stories (e.g., *Star Wars, Harry Potter*), yet children’s opportunities to exercise these imaginative intellectual powers are systematically restricted throughout their schooling. Society views children, and particularly children of poverty, as relative intellectual incompetents ignoring the everyday experience of their creative intellectual energy and imaginative powers (1986, p. 22). One might add that the new regime of truth also constructs teachers as relative intellectual incompetents who must be policed to ensure that they do not deviate from the official script.

At issue are radically different conceptions of learning and education and their roles in society. Should education automatically reinforce the societal status quo or should it challenge societal structures and discourses that are at variance with the articulated (although perhaps only sporadically pursued) core values of the society, such as equality, social justice, and freedom? Do we truly want historically subordinated groups to develop active intelligence and imagination whose outcomes, by definition, can’t be predicted? Shouldn’t we rather prescribe exactly what is to be taught as a means of controlling what can be thought? Are we comfortable promoting the multilingual talents of our students in light of the different perspectives on reality that this multilingual access might provide? Do we really believe that inner-city children should be encouraged to take pride in their linguistic creativity and further explore the range of English varieties they command (Delpit, 1995) despite the fact that such varieties are stigmatized in the wider society?

The answers to these questions will depend on the extent to which society sees constructs such as power and identity as in any way relevant to children’s education. The conceptions of literacy and pedagogy that underlie the analyses and instructional practices described in this book explicitly incorporate an image of society as needing all the intelligence, imagination, and multilingual talent it can get. Effective citizenship requires active intelligence and a willingness to challenge power structures that constrict human possibility. If instruction doesn’t promote active intelligence from children’s first day in school, or promotes it only in middle-class suburban schools, then it is failing both students and society. The case studies that we document in Chapters 5 through 9 and in the appendix illustrate clearly how various forms of technology can be harnessed to mobilize students’ imaginations and active intelligence in ways that powerfully challenge the anemic pedagogical vision that currently holds sway in far too many inner-city and rural schools.
Discussion Questions for Study Groups

1. Think about an instructional situation with which you are familiar (e.g., your own classroom if you are teaching). Approximately what proportion of instruction is spent in each of the three pedagogical orientations discussed in this chapter (transmission, social constructivist, transformative)? What are some of the reasons for the patterns you have identified? In your ideal teaching situation, how would you organize instruction with respect to the three orientations?

2. In their book *How People Learn*, Bransford and colleagues (2000) highlight the importance of activating and building on students' preexisting knowledge. What implications does this have within a culturally and linguistically diverse classroom? What strategies might you use to activate students' preexisting knowledge when their English language skills are still quite limited?

3. In addition to the rapid increase in low-frequency vocabulary that students encounter after the early grades of elementary school, what other aspects of academic language might contribute to the fourth-grade slump phenomenon?

4. Why do you think that the bilingual students that María de la Luz Reyes (2001) documented were spontaneously able to develop reading and writing skills in their second language without any systematic and explicit literacy instruction in that language? What are the implications of this phenomenon for monolingual “mainstream” classrooms?

Endnotes

1. Some skepticism in relation to the Knowledge Society rhetoric is warranted in view of the fact that the vast majority of new jobs that are being created in Western societies are in the service sector. Thus, only a relatively small segment of students graduating from high schools will work in jobs that require critical interpretation of data and generation of new knowledge. Most service jobs will involve greater use of new technologies (e.g., scanners at supermarket checkouts) but few will require significantly greater use of higher-order thinking or critical literacy skills than is currently the case. However, all students will require critical literacy if they are to participate effectively in the democratic process.

2. The metaphor of “nesting” these three pedagogical orientations within each other was developed in discussions between Eleni Skourtou, Vasilia Kourtis Kazoullis, and Jim Cummins. The visual depiction of these nested relationships was initially created by Vasilia Kourtis Kazoullis (see Skourtou, Kourtis-Kazoullis, & Cummins, 2006).

3. Abby Goodnough (2003) in the *New York Times* described the change in New York City schools as follows:

   In addition to Month by Month Phonics, the program that Deputy Chancellor Diana Lam chose in January as part of a new system wide reading and
math curriculum, kindergarten through third grade classrooms will use the New York City Passport program, developed by Voyager Expanded Learning of Dallas. Reid Lyon, Mr. Bush’s top reading advisor, complained in January that Month by Month did not have enough research backing it; he and other reading experts have warned New York City that it could lose millions of dollars in federal funds. (p. D1)

Part of the concern in regard to Month by Month Phonics appears to have been that it did not focus almost exclusively on systematic intensive phonics instruction. According to Goodnough:

The curriculum will also require students to read books from classroom libraries and practice writing for several hours every day. But while [New York City Schools Chancellor] Mr. Klein and Ms. Lam have expressed more excitement about the daily reading and writing, critics have warned that the city’s many struggling students should spend more time drilling in phonics. (p. D3)

A footnote to the confrontation over New York City’s Reading Program is that when Reid Lyon resigned from the National Institute of Child Health and Human Development in May 2005, he took a high-level position with Best Associates, the founder of Voyager Learning. Education Week described the switch from public to private sector as follows:

Best Associates is a merchant-banking firm that underwrites start-up companies, including education ventures. Randy Best, a founding partner, was the creator of Voyager Learning, a company that publishes commercial reading programs that have been approved for use in schools receiving federal funds under Reading First. The Voyager program, for example, was adopted for use in New York City schools that receive Reading First money after the district’s existing reading initiative was criticized by Mr. Lyon as not being explicit or systematic in its approach to teaching the subject. (Manzo, May 24, 2005, www.edweek.org)

4. The frustrations of experienced and talented teachers were also documented in a New York Times article in May 2003 that profiled the experience of a Florida kindergarten teacher who refused to participate in the test-preparation stampede (Winerip 2003). Ms. MacLeish had been named Orange County Teacher of the Year in 1998 and is described in the article as possibly “the best kindergarten teacher in Florida.” She decided to move to a resource teaching position, helping children who were experiencing academic difficulties, rather than compromise her vision of what education should be. The letter she wrote home to parents announcing that she would not be teaching kindergarten next year explained:

Winerip (2003) notes that “the breaking point for Ms. MacLeish was an article in the paper praising a kindergarten teacher who had eliminated her play centers and was doing reading drills, all part of a push to help her school get a higher grade on the annual state report card.” By contrast, Ms. MacLeish’s classroom is described as “crammed with books” and her focus on linking reading and writing to students’ lives was far removed from the pedagogy of reading drills and scripted lessons.

5. This process of spontaneous transfer of literacy across languages parallels what is typically observed in Canadian French immersion programs (e.g., Geva & Clifton, 1993; Lambert & Tucker, 1972) and in U.S. dual language programs (Cloud, Genesee, & Hamayan, 2000; Freeman, Freeman, & Mercuri, 2005; Genesee, Lindholm-Leary, Saunders, & Christian, 2006; Lindholm-Leary, 2001). English L1 students are typically introduced to reading through their second language (French in Canada and usually Spanish in U.S. dual language programs) but quickly transfer their reading skills to English and acquire fluent English reading skills with no systematic or explicit instruction in English phonics.