# Effective Literacy Instruction for Adolescents

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Executive Summary and Paper Commissioned by the National Reading Conference

Donna E. Alvermann
University of Georgia

Department of Reading Education
309 Aderhold Hall
University of Georgia
Athens, GA 30602-7125

dalverma@arches.uga.edu

Voice: 706.542.2718
Fax: 706.542.3817

## Executive Summary

The National Reading Conference (NRC) recognizes the importance of continuing literacy instruction beyond the elementary grades, especially for students at the middle and high school level. In commissioning this paper on *Effective Literacy Instruction for Adolescents*, the NRC acknowledges the complexities of reading in relation to writing and oral language in an array of 21st century media environments, of which print is a part. The term *adolescent literacy*, broader in scope than secondary reading, is also more inclusive of what young people count as texts (e.g., textbooks, digital texts, hypertexts). Many adolescents of the Net Generation find their own reasons for becoming literate—reasons that go beyond reading to acquire school knowledge of academic texts. This is not to say that academic literacy is unimportant; rather, it is to emphasize the need to address the implications of youth's multiple literacies for classroom instruction. The following statements represent NRC's position on keeping adolescents' interests and needs in mind when designing effective literacy instruction at the middle and high school level.

- Adolescents' perceptions of how competent they are as readers and writers, generally speaking, will affect how motivated they are to learn in their subject area classes (e.g., the sciences, social studies, mathematics, and literature). Thus, if academic literacy instruction is to be effective, it must address issues of self-efficacy and engagement.

- Adolescents respond to the literacy demands of their subject area classes when they have appropriate background knowledge and strategies for reading a variety of texts. Effective instruction develops students' abilities to comprehend, discuss, study, and write about multiple forms of text (print, visual, and oral) by taking into account what they are capable of doing as everyday users of language and literacy.

- Adolescents who struggle to read in subject area classrooms deserve instruction that is developmentally, culturally, and linguistically responsive to their needs. To be effective, such instruction must be embedded in the regular curriculum and address differences in their abilities to read, write, and communicate orally as strengths, not as deficits.

- Adolescents' interests in the Internet, hypermedia, and various interactive communication technologies (e.g., chat rooms where people can take on various identities unbeknown to others) suggest the need to teach youth to read with a critical eye toward how writers, illustrators, and the like represent people and their ideas—in short, how individuals who create texts make those texts work. At the same time, it suggests teaching adolescents that all texts, including their textbooks, routinely promote or silence particular views.

- Adolescents' evolving expertise in navigating routine school literacy tasks suggests the need to involve them in higher level thinking about what they read and write than is currently possible within a transmission model of teaching, with its emphasis on skill and drill, teacher-centered instruction, and passive learning. Effective alternatives to this model include participatory approaches that actively engage students in their own learning (individually and in small groups) and that treat texts as tools for learning rather than as repositories of information to be memorized (and then all too quickly forgotten).

**Effective Literacy Instruction for Adolescents**

More often than not in the United States, newspaper headlines and feature stories on national television networks focus on early literacy instruction and the so-called reading wars between advocates of direct skills instruction and those who favor more holistic approaches to teaching young children to read print text. As a result, adolescents and their specialized needs for literacy instruction at the middle and high school level often go unnoticed by policy makers and the general public. This is indeed unfortunate. Although the neglect of older readers might signal that all is well in the area of adolescent literacy instruction, such is not the case. Despite the work of conscientious teachers, reading supervisors, curriculum coordinators, and principals in middle schools and high schools across the country, young people's literacy skills are not keeping pace with societal demands of living in an information age that changes rapidly and shows no sign of slowing.

Equally demanding of adolescents and their teachers are the higher standards for reading achievement set as a consequence of policies enacted during the previous two decades of school reform. Although data collected on trends in reading achievement for 13-year-olds and 17-year-olds show that achievement levels have not declined between 1971 and 1999 (in fact, the average score for 13-year-olds was higher than that in 1971) (U. S. Department of Education, 2000), the percentages of students in grades 8 and 12 who are performing at or above the basic level (e.g., comprehending primarily factual information) are 74 and 77 percent, respectively. In grade 8, fewer than 3 percent of the students can analyze and extend information, which is required for reading at an advanced level. In grade 12, fewer than 6 percent of the students can read at an advanced level (U.S. Department of Education, 1999a). The percentages are similar for achievement levels in writing for students in grades 8 and 12 (U. S. Department of Education,

1999b). Simply put, basic level literacy is insufficient in today's world where both reading and writing tasks required of adolescents are continuing to increase in complexity and difficulty. As argued in the International Reading Association's position statement on adolescent literacy, "adolescents deserve instruction that builds both the skill and desire to read increasingly complex materials" (Moore, Bean, Birdyshaw, & Rycik, 1999, p. 5).

Literacy and reading, though related, are neither synonymous nor unambiguous terms. Typically reading is subsumed by literacy, with the latter term used to refer to reading, writing, and other modes of symbolic communication that are often valued differently by people living in different social and economic structures and holding different political views. Simply broadening the definition, however, does not alleviate the ambiguity; nor does it adequately describe the terms in question. Reading is too complex a process to refer to it simply as decoding alphabetic print or making meaning of text. To read critically, one must go beyond asking "What does this text mean?" to asking "How does it come to have a particular meaning (and not some other)?" Similarly, literacy is more than school literacy. The privileging of one form of literacy (academic literacy) over multiple other forms (e.g., computer, visual, graphic, and scientific literacies) has been criticized for ignoring the fact that different texts and social contexts (reading for whom, with what purpose) require different reading skills (Barton, Hamilton, & Ivanic, 2000; Gee, 1996; Street, 1995).

Effective literacy instruction for adolescents acknowledges that all uses of written language (e.g., studying a biology text, interpreting an online weather map, and reading an Appalachian Trail guide) occur in specific places and times as part of broader societal practices (e.g., formal schooling, searching the Internet, and hiking). Typically it is the case that book reading is privileged in middle and high school classrooms. This privileging elevates the

importance and value of academic reading but tells teachers little about their students' everyday uses of language and literacy. Effective instruction builds on elements of both formal and informal literacies. It does so by taking into account students' interests and needs while at the same time attending to the challenges of living in an information-based economy during a time when the bar has been raised significantly for literacy achievement.

The situation grows considerably more tense, however, when the general public becomes convinced that a literacy crisis exists or is imminent. Worried that educators are not holding up their end of the bargain, parents and policy makers are understandably quick to respond. Among other things, a search begins for the "best" way to teach adolescents to read and study the print-based texts their teachers assign. Unfortunately, what starts out as a quest for better instruction sometimes ends up looking more like a search for the proverbial "skills-in-a-box solution" (Schoenbach, Greenleaf, Cziko, & Hurwitz, 1999, p. 7). Teachers are wary of quick-fixes and the twin notion that one-size-instruction fits all. Moreover, they sense that such approaches fail to take into account the multiple literacies young people living in the 21st century already possess or are in need of developing.

The remaining sections of this paper offer a situated view of effective literacy instruction for adolescents in the middle and high school grades. Specifically, five statements grounded in current literacy research and school-based inquiry precede more fully developed descriptions of the warrants for each claim. Although the resulting descriptions are but snapshots of the research available on any given topic, their aim is to focus attention on the varied literacy interests and needs of older readers in relation to what is known about effective literacy instruction for adolescents.

1. ***Adolescents' perceptions of how competent they are as readers and writers, generally speaking, will affect how motivated they are to learn in their subject area classes (e.g., the sciences, social studies, mathematics, and literature). Thus, if academic literacy instruction is to be effective, it must address issues of self-efficacy and engagement.***

The potency of one's beliefs about the self is phenomenal. In adolescence as in earlier and later life, it is the belief in the self (or lack of such belief) that makes a difference in how competent a person feels. Although the terms self-concept and self-efficacy are sometimes used interchangeably in the research literature, they actually refer to different constructs. For example, an adolescent may have a good self-concept of herself as a reader, but her answer "Not very" to the question "How confident are you that you can comprehend a primary source on the Battle of Gettysburg?" would indicate low self-efficacy for that particular task. A statement of self-concept is domain specific, whereas self-efficacy is task specific. Moreover, the two constructs need not relate to one another. For instance, an adolescent boy may feel highly efficacious in American Literature class yet experience few if any positive feelings of self-worth, partially due to the fact he may not value excelling in this subject area (Pajares, 1996).

Perceptions of self-efficacy are central to most theories of motivation, and the research bears out the hypothesized connections. For example, providing adolescents who are experiencing reading difficulties with clear goals for a comprehension task and then giving feedback on the progress they are making can lead to increased self-efficacy and greater use of comprehension strategies (Schunk & Rice, 1993). As well, creating technology environments that heighten students' motivation to become independent readers and writers can increase their sense of competency (Kamil, Intrator, & Kim, 2000). The research is less clear, however, on the shifts that occur in students' motivation to read over time. Although decreases in intrinsic

reading motivation have been noted as children move from the elementary grades to middle school, explanations vary as to the cause, with a number of researchers attributing the decline to differences in instructional practices (Eccles, Wigfield, & Schiefele, 1998; Oldfather & McLaughlin, 1993).

In an extensive review of how instruction influences students' reading engagement and academic performance, Guthrie and Wigfield (2000) concluded that various instructional practices, while important, do not directly impact student outcomes (e.g., time spent reading independently, achievement on standardized tests, performance assessments, and beliefs about reading). Instead, the level of student engagement (including its sustainability over time) is the mediating factor, or avenue, through which classroom instruction influences student outcomes. Guthrie and Wigfield's conception of the engagement model of reading calls for instruction that fosters: student motivation (including self-efficacy and goal setting); strategy use (e.g., using prior knowledge, self-monitoring for breaks in comprehension, and analyzing new vocabulary); growth in conceptual knowledge (e.g., reading tradebooks to supplement textbook information, viewing videos, and hands-on experiences); and social interaction (e.g., collaborating with peers on a science project, and discussing an Internet search with the teacher).

Other research on effective literacy instruction has shown that teachers contribute to adolescents' sense of competence and self-worth when they are able to convince them that they care about them as individuals and want them to learn (Dillon, 1989). It is also the case that teachers' perceptions of students' motivations to learn influence how hard they are willing to work to instill in them a sense of competence and self-worth. For example, Patrick Finn (1999), an educator born into a working-class Irish Catholic family on the south side of Chicago, has devoted a lifetime to exploring teachers' perceptions of working-class adolescents and what

those perceptions mean in terms of the education students receive. According to Finn, there are two kinds of education in the United States: "First, there is empowering education, which leads to powerful literacy, the kind of literacy that leads to positions of power and authority. Second, there is domesticating education, which leads to functional literacy, or literacy that makes a person productive and dependable, but not troublesome" (pp. ix-x). Students also seem aware of distinctions in the quality of education offered them, and some are speaking out, as in the case of one young woman who was overheard telling a roomful of high school teachers:

> We know we aren't very well educated. We know there are things we should know by now that we don't. But we're not stupid; most of us are really smart. You just need to show us, break it down for us, work with us and expect us to do it. (Schoenbach et al., 1999, p. 10)

2. ***Adolescents respond to the literacy demands of their subject area classes when they have appropriate background knowledge and strategies for reading a variety of texts. Effective instruction develops students' abilities to comprehend, discuss, study, and write about multiple forms of text (print, visual, and oral) by taking into account what they are capable of doing as everyday users of language and literacy.***

The expectation that effective literacy instruction should address the demands that various subject area classes place on adolescents is fueled by the perceived need to develop students' abilities to comprehend and think critically about multiple forms of text related to the school curriculum. Tied to this perception is the research finding that comprehension is indeed a complex process—one that should not be left to chance for its development. Members of the National Reading Panel (NRP) (2000) concluded that seven types of comprehension strategies met their strict criteria for effectiveness in an evidence-based assessment of the experimental and

quasi-experimental research on reading. The panel's findings, which were based primarily on research conducted in grades 3-8, suggest that the following strategies are effective ways of teaching comprehension in the middle grades, and possibly beyond:

- Comprehension monitoring – knowing when understanding falter or breaks down and which "fix-up" strategies to apply (e.g., rereading, reasoning the matter through, and using cues from the sentence/paragraph's organizational structure).
- Cooperative learning – engaging with peers in problem-solving activities or to share ideas through peer-led discussions.
- Using graphic and semantic organizers (including story maps) – representing ideas by combining words, symbols, and lines to organize information.
- Answering questions – providing responses to teachers' questions and receiving feedback on responses.
- Generating questions – asking questions of one's self to understand various aspects of a text.
- Using text structure – developing an awareness of how a writer organizes information to assist readers in recalling the content of a selection.
- Summarizing - integrating ideas and generalizing information across one or more texts.

The importance of vocabulary knowledge to subject matter comprehension has been recognized since the 1920s (Whipple, 1925). Although the NRP reported research trends that suggest vocabulary instruction does facilitate comprehension, it drew no conclusions as to the most effective method or combination of methods, partly due to the large number of variables represented and the small number of studies that met the panel's criteria for analysis. Among the trends cited were those that found using computer-assisted vocabulary instruction was more

effective than traditional methods; listening to others read was a way of enhancing students' incidental vocabulary knowledge; and preteaching vocabulary in assigned materials facilitated comprehension.

Caution needs to be taken generally in interpreting the NRP's findings. The report did not include research on second language reading and reading to learn in subject-specific areas. Nor did it include studies using qualitative research designs, the absence of which severely limits what can be known about the contexts in which instruction occurred. Moreover, six of the seven comprehension strategies considered effective were ones that teachers would use if they believe the reading process typically consists of students working individually to extract information from print texts. This rather narrow view of comprehension instruction risks disenfranchising students who may learn better in more socially interactive settings or whose literacies (e.g., visual and computer) span a broader range than those typically emphasized in school literacy.

In addition to providing strategy instruction, effective teachers ensure that students have adequate background information and relevant hands-on experience as a way of preparing them to read a textbook, view a video, or listen to a tape on content particular to their subject areas (Alexander & Jetton, 2000). They also look for ways to integrate reading and writing as often as possible because they know that each process reinforces the other and can lead to improved comprehension and retention of subject area content (Tierney & Shanahan, 1991). Finally, teachers also make room for student-generated visual, oral, and written texts in an effort to provide adolescents with opportunities to weave their own experiences, feelings, and interests into various learning activities. Through hypermedia projects, peer-led discussions and journal writing, adolescents find ways to make textbook reading and studying less "dry" or boring. At the same time, teachers learn from student-generated texts about adolescents' everyday literacies

and the competencies they exhibit when reading, talking, and writing about things that matter to them (Knobel, 1999; Wade & Moje, 2000).

3. ***Adolescents who struggle to read in subject area classrooms deserve instruction that is developmentally, culturally, and linguistically responsive to their needs. To be effective, such instruction must be embedded in the regular curriculum and address differences in their abilities to read, write, and communicate orally as strengths, not as deficits.***

The struggling reader label is a contested term and one that means different things to different people. It is sometimes used to refer to youth with clinically diagnosed reading disabilities as well as to those who are English language learners (ELLs), "at-risk," underachieving, unmotivated, disenchanted, or generally unsuccessful in school literacy tasks that involve print-based texts. As such, these labels tell very little about the reader, though they do suggest ways of thinking about culture and adolescents, who for whatever reason, are thought to be achieving below their "full potential" as readers. The research on struggling readers covers a broad spectrum and varies in specificity according to the perceived reasons behind the struggle. For example, reviews of research that take into account individuals with clinically diagnosed reading disabilities (Shaywitz et al., 2000) focus on the cognitive basis for the struggle. Reviews of second language reading, on the other hand, encompass a much wider view of the reasons behind the struggle. In fact, the difficulties ELLs experience are often spread over a vast array of sociocultural, motivational, and linguistic factors that vary with the population being studied (Bernhardt, 2000). These same factors are often manifested in the difficulties monolingual adolescents experience when a reading problem is present.

One framework through which to examine literacy instruction for struggling adolescent readers is known as the culture-as-disability perspective. This perspective finds support in the writings of anthropologists McDermott and Varenne (1995) and a group of interdisciplinary scholars with an interest in literacy who call themselves the New London Group (1996). Proponents of this perspective argue that skills instruction for adolescents who struggle with reading is necessary but insufficient. What is needed, they say, is greater access to teachers who understand that the manner in which schools promote certain normative ways of reading texts is, in effect, disabling some of the very students deemed most in need of help. Viewed from the culture-as-disability perspective, society (for the problem does not lie solely with schools) is seen as making struggling readers out of some adolescents who for any number of reasons have turned their backs on a version of literacy called school literacy. This perspective assumes that all cultures, as historically evolved ways of doing life, teach people about what is worth working for, how to succeed, and who will fall short. To McDermott and Varenne's (1995) way of thinking, "cultures offer a wealth of positions for human beings to inhabit" (p. 336). Each position requires certain things. For example, to inhabit the position of "good reader" (or "struggling reader"), a person must possess certain abilities that are verifiable and recognizable to others who occupy that same position or who have the authority to fill it. Thus, how some students end up inhabiting certain positions and not others is often a matter of having been put into them as a result of literacy instruction that was neither culturally nor developmentally appropriate.

The instructional implications of the culture-as-disability perspective are considerable. For example, when teachers conceive of adolescents who struggle with subject area reading assignments as being part of the same cloth from which good readers come, they may begin to

question what they had assumed to be stable (though arbitrary) sets of literacy tasks. They may observe the struggling readers in their classes with new eyes, as Elizabeth Moje and her colleagues (Moje, Willes, & Fassio, 2001) did. They may look for reading and writing proficiencies that qualify under a different set of literacy tasks (e.g., Moje et al. adapted the way they had structured writing workshops to be more inclusive of students who had previously avoided sharing time).

Teachers may also begin to question the fairly common practice of allowing struggling readers to rely on them, rather than on the assigned texts, as a source of information. Often it is a matter of simply expecting struggling readers to use their texts and then supporting them in their attempts to do so. For example, in research conducted as part of the Strategic Literacy Network, Ruth Schoenbach and her colleagues (Schoenbach et. al., 1999) found that teachers who had earlier shelved their course textbooks in despair of students ever reading them were able to reintroduce the texts once students were taught comprehension strategies and gained greater confidence in themselves as readers.

Culturally responsive instruction also extends English language learners' opportunities to learn by connecting home, community, and school literacy practices. The importance of building on students' home language and culture has been documented repeatedly in the literature. For example, a cultural modeling approach to teaching has been shown to be effective in motivating underachieving African American high school students to read book-length novels and engage in fairly sophisticated levels of literary analysis. This approach, which built on students' cultural knowledge and personal experiences, fostered an intellectual community in the classroom that sustained interest in reading and discussing texts over an entire school year (Lee, 2001). Similarly, a series of carefully documented studies, known collectively as the "cultural funds of

knowledge project," have shown that Latino/a students are motivated to engage in school literacy tasks when the gap between school and the home/community environment is bridged. Teachers in this project double as ethnographers. They visit the working-class homes of their students' families for the purpose of tapping into cultural and linguistic resources that can be used to make their classroom literacy instruction more relevant. In addition to documenting as false the various and sundry claims about working-class, language minority homes providing little in the way of background knowledge and experiences that is useful for literacy development in a second language, teachers leave the project with positive shifts in attitude and considerable information with which to revamp their instruction (García, 2000; Moll & González, 1994). Because culturally responsive instruction need not match home, community and school literacies in grid-like precision, teachers come away with what Au (2000) described as a heightened sensitivity of the need to connect patterns of participation and home/community values with the regular curriculum. Although teachers need not be "insiders" in a particular culture to engage in culturally responsive instruction (Au, 2000; Ladson-Billings, 1994), they can learn about that culture, respect its values, and view differences in students' literacies as strengths, not deficits.

4. ***Adolescents' interests in the Internet, hypermedia, and various interactive communication technologies (e.g., chat rooms where people can take on various identities unbeknown to others) suggest the need to teach youth to read with a critical eye toward how writers, illustrators, and the like represent people and their ideas—in short, how individuals who create texts make those texts work. At the same time, it suggests teaching adolescents that all texts, including their textbooks, routinely promote or silence particular views.***

The Internet figures prominently in the lives of American adolescents. According to a phone survey of 754 teenagers and 754 of their parents reported by Pew Internet and American Life Project in conjunction with a week-long online discussion group study conducted by the research firm Greenfield Online (Lenhart, Rainie, & Leiws, 2001), 17 million youths between the ages of 12 and 17 use the Internet. This number represents 73% of the young people in that age bracket. Moreover, close to 13 million adolescents use instant messaging (with one-quarter of that number saying that they pretend to be different people when online). The idea that literacy is reinventing itself through new digital technologies (Luke & Elkins, 1998) has enormous implications for teachers at the middle and high school level, as does the fact that these new technologies are fundamentally and irreversibly affecting how ideas get represented in texts and communicated (de Castell, 1996).

Everyday literacy practices are changing at an unprecedented pace, and speculation as to the impact of interactive communication technologies and multimedia on current conceptions of reading and writing is evident on many fronts. At the center of much of the discussion is the perceived need to develop adolescents' critical awareness of how all texts (print, visual, and oral) position them as readers and viewers within different social, cultural, and historical contexts. This is not a call for the type of critical literacy instruction that would have students searching for the villains or heroes in their texts, for the oppressors or emancipators amongst us, and the general labeling of oppositional categories such as "us" and "them" (Morgan, 1997). As Morgan pointed out, doing away with these overly simplistic categories would give teachers and students alike the opportunity to "develop a different view of how people may act, provisionally, at a particular time and within particular conditions" (p. 26). For teachers, the implications of this perspective on critical literacy might translate instructionally into purposes such as these:

- To motivate students to explore the assumptions that authors/video artists/web page designers/cartoonists, and so on may have been operating under when constructing their messages.
- To facilitate students' thinking about the decisions computer users in chat rooms make (and why) when it comes to choice of words, content, topics included (or excluded), and interests served.
- To encourage multiple readings of the same text from different perspectives (e.g., an ecology text on water resources read from the perspectives of a scientist, a swimmer, a shrimp boat captain, a homeowner, a Green Peace activist, and a politician).

Working within a hypermedia environment, however, teachers might need to vary their instructional purposes to accommodate its special qualities. The term hypermedia, which is an amalgam of hypertext and multimedia (Semali & Pailliotet, 1999), refers to the links that readers simultaneously make between computer windows and a mix of media texts, such as sounds, images, words, movies, and the like. Jay Bolter (1992), a literacy expert in this medium, observed that above all else, "hypertext challenges our sense that each [text] is a complete, separate, and unique expression of its author" (p. 22). Thus, teaching for critical literacy awareness with hypertext might mean taking into account questions such as the following:

- Are hypertext readings privileged in ways that traditional (linear) readings are not? For example, do hypertexts allow readers to make multiple interpretations of what they read with greater ease than do traditional texts? If so, what might be the consequences of this privileging? What kind of reader would stand to benefit? Who might fail to benefit?

- How does hypertext create opportunities for readers to manipulate information in ways that are unavailable to them in print-based media? What are the trade-offs in working within such an environment?

The extent to which the Internet, hypermedia, and other new technologies effectively support literacy teaching and learning in classrooms is unknown. There is little empirical research on the topic generally, and even less that applies specifically to instruction at the middle and high school level (Kamil, Intrator, & Kim, 2000; National Reading Panel, 2000). A related issue is the paucity of available research sites given that so few schools have integrated the new technologies into their curricula (Leu, 2000). Still, from the work that has been done (and synthesized by Kamil et al., 2000; Leu, 2000), there is promising evidence of the effectiveness of literacy instruction that integrates print and visual texts (e.g., hypermedia, hypertext, the Internet, and interactive CD-ROMS). This is especially the case among populations of second-language readers. There is also evidence that adolescents are making valuable reading-writing connections in their bid to communicate in a computer-mediated world (e.g., Beach & Lundell, 1998; Horney & Anderson-Inman, 1994).

Moreover, researchers working within a qualitative paradigm have found patterns in their data to suggest that adolescents who appear most "at risk" of failure in the academic literacy arena are sometimes the most adept at (and interested in) understanding how media texts work—in particular, how meaning gets produced and consumed. For example, O'Brien (1998, 2001) found in a 4-year study of working-class adolescents deemed "at risk" of dropping out of high school that students were quite successful in producing their own electronic texts, such as multimedia documentaries, and critiquing media violence using multiple forms of visual texts. Working alongside the students and their teachers in what came to be called the Literacy Lab,

O'Brien observed that by not privileging print over other forms of literacy, the students appeared capable and literate. This finding is similar to one that Alvermann and her colleagues (Alvermann et al., 2000) reported based on their after-school study of 30 adolescents who participated in a 15-week Media Club project. Although the participants had scored in the lowest quartile on a standardized reading achievement test, they capably demonstrated their critical awareness of how a variety of popular media texts represent people, ideas, and events. They also engaged in literacy practices of their own choosing (what they called their "freedom activities"), which included searching the Internet for song lyrics, producing hair and fashion magazines, e-mailing knowledgeable others to obtain information on favorite rap groups, and so on. Activities such as these, along with numerous other examples in Intermediality: The Teachers' Handbook of Critical Media Literacy (Semali & Pailliotet, 1999), point to young people's interest in working with diverse symbol systems and their ability to be critical consumers, as well as producers, of multiple forms of text.

Without instruction, however, students may gain little from their forays into the world of high tech and multimedia production. For example, in a study of two girls' instant messaging (IM) practices, Lewis and Fabbo (2000) documented the intricate manipulations of friends and social situations that these young adolescents were learning to do on their own. Yet, as the researchers noted, the girls seemed relatively unaware of how the chat/IM technology might be manipulating them. This is a concern for many adults, but especially for parents and teachers who realize that effectively monitoring adolescents' use of interactive communication technologies is next to impossible. And even if it were possible, commonsense points to the futility of asking young people to critique the very texts they find most pleasurable. As Luke (1997) adroitly noted, such a request would likely "cue a critical response which can often be an

outright lie…[for while youth] are quick to talk a good anti-sexist, anti-racist, pro-equity game…what they write in the essay or what they tell us in classroom discussion is no measure of what goes on in their heads" (p. 43).

5. ***Adolescents' evolving expertise in navigating routine school literacy tasks suggests the need to involve them in higher level thinking about what they read and write than is currently possible within a transmission model of teaching, with its emphasis on skill and drill, teacher-centered instruction, and passive learning. Effective alternatives to this model include participatory approaches that actively engage students in their own learning (individually and in small groups) and that treat texts as tools for learning rather than as repositories of information to be memorized (and then all too quickly forgotten).***

The teacher-centered transmission model of instruction is common to most subject area classrooms in the United States (Bean, 2000; Wade & Moje, 2000). Although it is often impugned for its lock-step approach to literacy learning and for emphasizing subject matter coverage (with little depth) over more authentic activities for engaging adolescents in learning academic content, the widespread use of this model at the high school level (and to a lesser extent at the middle school level) suggests reasons for its existence. One frequently cited justification for its use is the need to address pressures coming from outside the classroom, such as accountability in meeting curriculum standards and preparing students for statewide assessments. However, pressures within the classroom to maintain order, regulate socialization patterns, and meet the constraints of time and resource availability also contribute to the transmission model's longstanding use among subject area teachers (Alvermann & Moore, 1991; Hinchman & Zalewski, 1997).

Participatory approaches to literacy instruction are no less concerned with content mastery than is the transmission model. However, rather than emphasize the teacher's role in transmitting facts and concepts (often through lecturing), participatory approaches support adolescents' academic literacy development by incorporating classroom structures that promote peer interaction (e.g., peer-led literature discussions and reading/writing workshops) and interaction with a more knowledgeable other (e.g., scaffolded instruction whereby a teacher supports student learning and then gradually withdraws that support as students show they are capable of assuming more responsibility for their own learning). Reading apprenticeship is an example of scaffolded instruction. Its primary goal is to show adolescents "what goes on behind the curtain of expert reading" (Schoenbach et al., 1999, p. 21) by demystifying the comprehension process. Central to this approach is what is known as the "metacognitive" conversation, which is an ongoing interactive discussion between teachers and students about personal reading goals, problem-solving strategies for making sense of text, and the resources available for building knowledge beyond the text.

A distinguishing feature between participatory approaches and the transmission model is the role of the text in students' learning. In transmission classrooms, texts (like teachers) are viewed as dispensers of knowledge, whereas in participatory classrooms, students use texts as tools for learning and constructing new knowledge. Researchers who have studied participatory approaches to reading instruction point to the authenticity of student-constructed texts, especially when compared to texts that serve as repositories of information in the transmission model (Wade & Moje, 2000). However, in actual classroom practice, it is rarely the case that one can draw lines separating the two approaches as cleanly as is possible on paper. As Pearson (1999) noted, teaching approaches that seem contradictory on the surface often support one another.

This seemed especially the case in the literature Moore (1996) reviewed on contexts for literacy at the middle and high school level. In that body of research, teachers' knowledge and beliefs about the goals that should drive literacy instruction, the availability of resources, and classroom participation structures influenced how a particular approach was used. Thus, peer-led literature discussions enacted in one context did not necessarily resemble the same approach used in a different context. On the other hand, seemingly different approaches might look similar when employed by teachers who shared common beliefs about the goals of literacy instruction.

Adolescents' beliefs and knowledge about different approaches to literacy instruction also vary with the context. In a multi-case study of adolescents' perceptions of classroom discussion at five sites across the United States (Alvermann et al., 1996), students in classrooms favoring mostly the transmission model of literacy instruction held strong views about their role as learners. In those rooms, discussions often reflected the teacher's emphasis on learning facts and covering the content rather than on students interacting with each other to construct new knowledge based on those facts. When students believed a topic was meaningless or a task unchallenging, they did not comply with the teacher's instructions to discuss the text in small groups. In their view, the topic and/or task did not merit a collaborative effort. Rather than discuss the topic as a group, students often divided it into smaller parts, with each one working independently on his or her part to produce a written response—very much like they would do had the task required them to answer questions at the end of a chapter. On the other hand, when a group of seventh graders engaged in a classroom project that required them to use several software authoring tools to construct their own hypermedia documents for a poetry unit, discussions flowed (Myers, Hammett, & McKillop, 2000). Seated around computers, they debated how, when, and why to bring together various kinds of texts (e.g., graphics, sounds,

video excerpts, and electronic text); they made suggestions that would improve each other's work; and they (rather than the teacher) decided the criteria for effectively communicating their ideas.

The differences reflected here are about much more than the two approaches to literacy instruction discussed above. They echo a larger debate in the field of education, and increasingly the public sector as well. Briefly, this debate centers on the degree to which teacher-centered instruction is superior (or inferior) to more student-centered instruction. The question most often raised is whether or not participatory approaches that engage youth in project-based learning "will really teach young people, especially those who struggle with print, to read and write" (Moje, Young, Readence, & Moore, 2000, pp. 9-10). It is a fair and important question, as Moje et al. noted, especially given that project-based instruction, such as software authoring of hypermedia documents, rarely focuses specifically on teaching reading and writing. In part, the answer to that question rests with how much one believes that meaningful content learning displaces literacy teaching. It would be false to claim that there are no tradeoffs. For example, project-based learning that motivates students to use their literacy skills to solve real-world problems is of little value if such skills are unavailable or at a level of development insufficient for completing a project. On the other hand, adolescents who possess the requisite literacy skills for learning content area material may not apply those skills if they are bored or unmotivated by teacher-centered instruction. Of course, nowhere is it written that one approach must prevail at the expense of the other.

## Summary

Effective literacy instruction for adolescents must take into account a host of factors, including students' perceptions of their competencies as readers and writers, their level of

motivation and background knowledge, and their interests. To be effective, such instruction must be embedded in the regular curriculum and make use of multiple forms of texts read for multiple purposes in a variety of learning situations. Because many adolescents of the Net Generation will find their own reasons for becoming literate—reasons that may extend beyond reading to acquire school knowledge of academic texts—it is important that teachers create sufficient opportunities for youth to engage actively in meaningful projects that both extend and elaborate on academic literacy.

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