

The Narrowing of Knowing: What it Means to Be Literate and Learned in Today's Society

Thomas Smith
Northwest Missouri State University

Currently, the idea and definition of learning and literacy is being pushed and pulled in competing directions. Current governmental policies, most notably embodied in the No Child Left Behind law, are pushing the definitions to mechanical enterprises aimed at the lowest common denominator. At the same time, the technology race is working to open access to being learned and literate to populations that are traditionally underrepresented in these arenas; however, at the same time, this technology is setting up new barriers that act to limit access. Finally, the student population of schools in the United States is quickly becoming the most diverse in the history of U.S. public education. This diversity is putting pressure on the ideals of learning and literacy to be opened up to more forms of knowing and being. Critical pedagogy offers the best opportunity to understand and respond to the current debate. Under this lens, being learned and literate are social constructs and, therefore, can and should be shaped to best meet the needs of all people.

Over 30 years ago, Paulo Freire (1970) decried what he called the banking notion of education. In this vision of education, knowledge is a thing that teachers deposit into the minds of passive students. Such an education dehumanizes people, “through the lack of creativity, transformation, and knowledge in this (at best) misguided system. For apart from the inquiry, apart from the praxis, individuals cannot be truly human” (p. 72). In the decades since then, at least in theory, society in America has taken steps forward in terms of humanizing education and providing all people with a greater degree of dignity.

Why is it, then, that education in America is still struggling with defining and valuing a classroom praxis that is both educational and equitable? Up to this point, many classrooms have been characterized by uniformity in the conditions of learning in which only a very narrow range of strategies and approaches are validated. As a result, only a few pathways to success are open to students. In place of this minimalistic, singular approach to educating students, education needs to be a place of multiplicities—multiple opportunities to learn, multiple ideas about how learning is best accomplished, and multiple choices for students—all aimed at deeper understanding (Darling-Hammond, 2005).

Such teaching is neither easy nor fast, and in a society that increasingly refers to the classroom more as a site of business than learning, things which are not easier or more efficient are viewed suspiciously. Consequently, teaching that aims to give all students a deep, flexible grasp of material, if we are not careful, is in grave danger of becoming extinct.

Teaching is standing at a crossroads. Competing and contradictory forces are pushing and pulling at the field. In the simplest terms, what is at the heart of the struggle is the definition of literacy and learning. Certain forces driven by policy initiatives are pushing to narrow the definition of literacy and learning, while, at the same time, the issues of social justice and technological advancement are pushing to broaden the definition to be more inclusive.

Policy as a Limiting Factor

In 2001, President George W. Bush signed into law the No Child Left Behind Act (NCLB) to end, “the soft bigotry of low expectations” (Bush, 2004). This is a reference to two accepted points of educational research: that low expectations hurt students and that these low expectations fall disproportionately on students of color (Singham, 2003). While no one would argue with addressing these problems, the implementation and assumptions underlying NCLB are open to debate (Cochran-Smith, 2005).

NCLB attempts to correct these problems by putting in place a stringent reward/punishment system directed at those schools who do not meet the criteria set forth in NCLB. Schools who fail to meet certain milestones outlined in the law become increasingly subject to federal penalties including limited funds and, ultimately, governmental take over.

To tie school performance so closely to test results is grossly behavioristic in nature and denies the efforts of teachers, students, communities, and administrators in the years preceding the law. The assumption seems to be that before NCLB students did not achieve simply because teachers and schools did not try and now that they will be punished for continued failure, they will shape up. In conjunction with this, NCLB and its proponents specifically claim that teacher education is not only unnecessary to providing highly qualified teachers but it is also harmful to prospective teachers (Cochran-Smith, 2003, 2004a; Darling-Hammond, 2005). Instead, of a profession that requires nuanced, intricate, contextual knowledge, NCLB paints a picture of teaching as simply a technical tool that only requires minimal training to do well (Cochran-Smith, 2004; Altwerger, et al., 2004).

As part of this picture, NCLB mandates that only “scientifically based teaching practices” are appropriate for use in schools. In this context, scientific research means only those studies that make use of an experimental or quasi-experimental design (Meyer, 2004; Darling-Hammond, 2005). By doing this, proponents of NCLB have swiftly and subtly denied all of the knowledge that has been gained by teacher researchers and others trying to define the knowledge held by insiders in a classroom (McCracken, 2004). Because of this definition, certain approaches to teaching are immediately made more difficult, if not impossible, because they do not lend themselves easily to such research (Gunzenhauser, 2003). In the area of literacy teaching, the most notable approach would be the use of reading/writing workshop in the classroom (McCracken, 2004; Anagnostopoulos, 2003). Then, by denying or limiting avenues for research on these approaches, they are essentially outlawed because there will never be an accepted base of “scientific research” to support them. In other words, NCLB is making the claim that only certain practices which value certain types of literacy are valid approaches to literacy, teaching, and learning. The end result is a narrowing or limiting of what it means to be literate.

Worse still might be the fact that such limited approaches to teaching are not allowing minority and high poverty students to catch up to the white, middle-class students. Instead, critics have shown that NCLB and its limited approach negatively impact students with physical disabilities (Whitfield, 2005; Moores, 2005), minority students (Vogel et al. 2006; Starnes, 2006; Gunzenhauser, 2003), rural students (Jimerson, 2005; Kossar, Mitchem, & Ludlow, 2005), and students from lower socio-economic backgrounds (Karen, 2005; Gerstl-Pepin & Woodside-Jiron, 2005). Although beyond the scope of this paper, it is worthwhile to point out that several other criticisms have been leveled against NCLB including issues surrounding the reasonableness of the mandates (Haas et al., 2005; Welner, 2005) and the lack of funding provided to meet these requirements (Lee & Wong, 2004; Moores, 2005).

Still, it should not be surprising that central government is working to limit the definitions of what is valued as research, literacy, and practice in schools. Luke & Luke (2001) argue cogently that during times of transition in education, government policies and standards are used to inhibit growth and maintain the status quo by reducing the definition of literacy to the lowest common denominator and, then, claiming that society is failing at meeting the demands of literacy. Echoing this prediction, Meyer (2004) in reporting on the state of reading instruction in

the light of NCLB says that, “the definition of ‘reading’ has been narrowed to include: saying sounds in isolation, saying lists of non-words, reading lists of words, and reading sentences. In short order, the schools in which we teach, place students, work with teachers, and do research have become substantially different places” (p. 135; see also Gerstl-Pepin & Woodside-Jiron, 2005; Arya et al., 2005). If the ways in which literacy can be taught are limited, how can the skills and abilities and, even, identities of our learners be anything but just as limited? Yet, that is exactly what is happening. Testing as put forth in NCLB limits the identities and skills validated for students by labeling ‘good’ reading as focused on recall of facts and ‘good’ readers as those that are minimally skilled at best (Anagnostopoulos, 2003). At a time when we must be more inclusive federal policies such as NCLB are acting to reduce and narrow that which is valued as learning, literacy, and literacy education.

Technology as a Tightening or Broadening Factor

In recent years, schools at all levels have been investing in computer-related technologies at an astonishing rate, and each year the level continues to increase. The rate of increase and expenditure is so great as to almost defy description. For example, in the years between 1996 and 1999, the percentage of k-12 schools connected to the internet rose from 65 percent to 95 percent—an increase of almost 50% more school with internet connectivity in just three years (Web-Based Education Commission, 2000). In a similar time period, 1999 to 2000, the number of computers-per-pupil dropped 42 percent from one computer per 13.6 students to one computer per every 7.9 students (eSchool News Online, 2000).

Such purchases seem to be built on two common myths (Selber, 2004). First, technology is seen as a great leveler. The myth says basically that if a low-achieving student is given a computer than everything will be okay (Monroe, 2004). Second, technology is supposed to produce more efficient workers. Both myths, though, seem to be based on faulty logic. Technology in any of its forms is simply a tool that can be used to be more productive and do newer, more exciting things or it can be used to waste time and to simply do the same old things in less efficient ways (Warlick, 2003). Just as any tool will change the way people work and what they can do; technology is changing the face of our work on a consistent basis. The results of that work, though, can be either to limit and narrow what is meant by learning and literacy or expand it. The direction will depend on other factors.

Technology as a Limiting Agent

Beginning in the early 70's, scholars began to identify a fundamental shift in the organization of society because of emerging technologies including the computer and the promise of further advancements in the field. The pushing force behind this "information technology revolution" is the ability to manufacture smaller and smaller microchips and processors (Castells, 1996). Just as the industrial revolution of a century and a half ago changed much about schools and schooling, this revolution is currently pushing the field of education in new directions (Lankshear & Knobel, 2003).

Lyotard (1984) suggests that the even more than education, such a technology boom changes the nature of knowledge and information, which in turn causes changes in schools and schooling. In Lyotard's model, because knowledge and information are available to so many so easily, their value shifts from being an end product to being a medium of exchange. In other words, the focus is not on what you know, but on what you can use knowledge to do. Accordingly, there are some serious repercussions for the field of education.

Most notably, Lyotard argues that such a change will result in a push to shift the focus of education from being an inherent right of every individual and a way to help all achieve greater freedom to simply being an exercise in cost effectiveness. In other words, education is no longer something that should be delivered at a high level of quality to all; rather, it becomes something to simply be delivered in the lowest cost way. Furthermore, true knowledge comes to be seen as only existing outside of the knower. The two are separated in basic and fundamental ways according to this new mindset. An extension of this is the idea that people themselves become valuable only as they are able to contribute in mechanistic ways to the overall commercial success of a business or group (Gee, 2000; Apple, 2001).

These changes can be seen in the policy reforms discussed earlier. Rather, than engage the messy science of what it means to 'know' on a personal, individual level, NCLB validates only that research which is conducted from a randomized, quantifiable model because that is the only true way to 'know' things. Also, we see the push, to create more cost effective ways to run and staff our schools with the emergence of alternate routes to licensure. One particularly troubling result of this movement is that the students most at risk receive the education least likely to help them take on a larger role in a digitally mediated society (Cochran-Smith, 2004b;

Darling-Hammond, 2005). Many of these changes can be seen as a result of the way knowledge is conceptualized in the changing world of the digital age.

In other words, current educational policies are working to take advantage of the conditions established by the technology revolution to narrow what is valued as true literacy, learning, and knowing. However, that is not the only possible course to be taken. Technology is also providing opportunities for widening these definitions.

Technology as a broadening agent While emerging technologies seem to be paving the way for a narrowing of the definition of literacy, they are also paving the way for a widening of that same definition. This enlarging is seen in the creation of new spaces and ways for knowing and representing what is known.

New spaces for knowing and representing The idea of technology as a place is ingrained into the very terminology used to discuss 21st century technology—cyberspace. In fact, the users of cyberspace themselves have delineated the boundaries around their world. In 1996, on the same day President Clinton signed into law the Telecommunications Reform Act, there appeared on the internet what was called “A Declaration of the Independence of Cyberspace (Barlow, 1996). This document laid claim to this space for the rising generation and asked that all others leave. “Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of the Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.”

By adopting the title Declaration of Independence, the document is obviously making reference to the American Revolution. An act in which a group of former colonists, often referred to as kids by those in charge, aggressively claimed independence on the grounds of insufficient representation, political power, and social equity. Those who adopt this position may be seen as making the same claims—claims which may become more relevant when it is considered that many of those taking part in this cyberspace world are adolescents (Lankshear & Knobel, 1998, 2003; Luke & Luke, 2001).

In a similar vein, by acknowledging that cyberspace gives adolescents and others a new place to stand, we also make room for a new way of thinking of critical pedagogy. Gruenewald (2003) calls for a “critical pedagogy of place.” In his analysis, which deals primarily with

physical location not cyber location but is nonetheless applicable to both, Gruenewald claims that by addressing place in theory, a standard for treating space as well as people with respect and integrity emerges. By placing spaces occupied primarily by adolescents at the center of theory and concern, adolescents themselves are allowed greater equity and justice in their own positions in the non-cyber social world as well.

Understanding adolescents this way clarifies the call to independence and solidarity discussed above in “A Declaration of the Independence of Cyberspace.” Furthermore, it supports the idea that the new technologies not only create these spaces, but also that from these new places an emerging adolescent may view and hold knowledge in ways that are new and unfamiliar to those entrenched in more traditional notions of these concepts.

New ways of knowing and representing Concurrent with this growth in the schools, personal knowledge held by students of all ages, but especially that held by adolescents is expanding and changing at a rapid rate. Adolescents now communicate in a wider, more broad-based way than at any previous time in history (Lankshear, Peters, & Noble, 1996; Hawisher & Selfe, 1999; DeVoss et al., 2004; Harper & Bean, 2006; Kist, 2005).

In fact, based on the new technologies emerging during this time, a new term has sprung up that speaks directly to the idea of technology as a force for widening our definition of literacy—new literacies. The idea of new literacies springs from what are called new media. New media refers to digital-based media including but not limited to the Powerpoint slide shows, films, and web pages (Kist, 2005; Lankshear & Knobel, 2003). Thus, the term ‘new literacies’ refers to the ability to use new media in ways to create meaning and impact the world. Also, though, the idea of New Literacies “represents a shift in perspective on the study and acquisition of literacy from the dominant cognitive model, with its emphasis on reading, to a broader understanding of literacy practices in their social and cultural contexts (Street, 2005, p. 417). Similarly, Harper & Bean (2006) warn that “the complexity and diversity found in the lives and literacies of 21st-century-adolescents demand a shift from classroom-based, single-text forms of learning to an environment that involves students in reading across multiple forms of texts [including new media] and discourses” (p. 153).

This new form of literacy is based on what Kress (1999) calls the “turn of the visual.” This phrase is based on the idea that computer mediated texts are highly visual. This visual

aspect disrupts the flow of traditional reading practices because in cyberspace and elsewhere in the new medias visual animations spin and flash to capture the reader's attention in ways foreign to print-bound texts (Dickinson, 2001). This turn of the visual requires that education address notions of agency and decision-making as they impact students. All students need the tools to critically engage this new turn of literacy or they will become subject to it (Kress, 1999; Hawisher & Selfe, 2004; DeVoss et al., 2004).

Unfortunately, in schools visual literacy and many of the other literacies emerging in the new digital world are not valued. While on the surface many schools and curriculums pay lip service to the idea of computer literacy, in far too many cases, this is defined as simply keying in a report that was researched and written in entirely paper-based ways. An example of the prevalence of this conception of technology integration is seen in the number of research studies still being conducted which examine things such as the length of writing done on a computer or word processor versus writing done by hand (for a review of these studies see MacArthur, 2006). As Monroe (2004) points out when being computer literate is reduced to mastering a simple motor skill as in the example above, then its place as an important part in school curriculum is jeopardized. As a result, students will become less invested in schooling because it does not represent the worlds in which they interact; it denies their identities by denying the experiences that create those identities. Instead, Monroe argues we must value technology as a social arena in which identities are shaped. When this shift occurs in our values, educators “can shift the focus from the *forms* and onto the *norms*” (p. 32).

This shift necessitates, then, a new approach to teaching technology. Not only is it imperative to value technology and shifting ways of making and representing meaning, but also schools must approach teaching in such a way as to give all students access to those literacies in authentic, meaning-full ways. Unfortunately, what is often called technology integration—superficial uses that avoid getting at the ‘mature’ or ‘insider’ views—is really only a tack-on that does not serve students (Lankshear & Knobel, 1998). In fact, such instruction can cause students problems in that they tune out and miss the skills that may be necessary to make it past the societal gatekeepers (Lankshear & Knobel, 2003; Monroe, 2004). Instead, teachers need to use technology and require students to use technologies in ways that are authentic to what true technology users do. Unfortunately, research shows that most teachers are only using

technology as a new way to do the same old things (Mouza, 2003; Doherty & Orlofsky, 2001; Cuban, 2003; Lankshear & Knobel, 2003).

Tied to these requirements, then, is what educators expect as outcomes of their instruction. If simply typing a document in a word processing program is considered mastery of technology, then students will leave school unprepared to enter the workforce of the 21st century. Instead, the focus must move beyond a mechanical mastery of using the components of the computer to perpetuate traditional ways of thinking and knowing. Using technology as a teaching tool must address the social and critical components of literacy and learning. In contrast to the fill-in-the-blank knowledge validated under NCLB and similar policies, this view of learning and knowing requires more room to expound and opportunities to use these skills as a means of interacting with the world, of solving problems, and of interrupting unjust and inequitable situations in the lives of students (Anagnostopoulos, 2003).

So, what about education? What does a reconceptualization of cyberspace as place and a framework for understanding place and adolescents have to do with education? If adolescents and others are truly staking claim in real and powerful ways to spaces previously unknown (as they are), then our education must support this movement. Such a shift will not be easy. In fact, it may require new ways of thinking about curriculum, adolescence, teaching, learning, and literacy.

Even when achieved, such transitions are not harmless enterprises in themselves. William Kist (2005) in his book *New Literacies in Action: Teaching and Learning in Multiple Media* examines several classrooms that are making these changes and the results are encouraging and noteworthy. At the end of his book, though, Kist wonders about the possibility of an 'alternative' view of literacy actually surviving in the schools without becoming simply another way to express the traditional view of literacy. "Will 'new literacies' in a classroom become just another dominant literacy practice?" (p. 140). Certainly, such a danger is real and the caveat is worth keeping in mind. In fact, I would argue that in one sense it is inevitable—at some point these new medias will form more of a base in schools and will become, to some degree, entrenched as the dominant literacy. However, the hope is that in the process of becoming entrenched, these views force a more inclusive democratic vision into the dominant discourse. Not one that continues to promote unequal, unjust methods, but one that advocates for greater inclusion in political decisions and curricular voices. Still, it will be a stair step process.

It always is. This is what Dewey (2004, 1938) is speaking of when he calls for teachers to not teach the dominant social view of citizenship and democracy. Rather, he calls for teachers to take that which is most democratic and build on it.

The emerging technologies seem to provide a natural moment of the changing of the guard (Luke & Luke, 2001). This changing-of-the-guard moment presents teachers and those of us invested in schooling with the opportunity to broaden this dialogue and build on what is best. On the other hand, if the policy forces that are attempting to co-opt the technology boom gain the upper hand, then we could see a narrowing view of society, literacy, and democracy win out. In other words, the current technology revolution offers a chance to choose the direction our schools and society take. Teachers and teacher educators must seize the opportunity and lead in the direction that best serves our increasingly multi-cultural, multi-racial schools.

Diversity as an Enlarging Force

Certain facts about schools are undeniable. One of these facts is this: schools in the United States are rapidly becoming the most culturally, racially, and economically diverse they have ever been (National Educational Goals Panel, 1997). As of 2000, people of color make up twenty-five percent of the total U.S. population. That figure represents a five percent increase over the previous decade. Along with an increasing diversity of ethnicity comes an increasing diversity in languages spoken. Eighteen percent of residents speak a language other than English in their homes with Spanish being the most prevalent but by no means the only other language (U.S. Bureau of Census, 2000). Furthermore, the number of new immigrants reached in highest point in United States' history in 2000, and unlike previous waves of immigrants, relatively few of them came from European backgrounds; instead, most came from Latin America and Asia (U.S. Bureau of Census, 2002).

Similar trends are evident in our schools. While white students are still in the majority, the gap is quickly closing. As of 2000, only 61.2 percent of students are white, while Black and Latino students are both approaching 20 percent of the total number of students (Nieto, 2005).

Dealing with this increased diversity is a major challenge for public education, and this challenge is seen in the fact that segregation in schools is on the rise (Nieto, 2005; Orfield, 2001). Currently, more than 70 percent of Black students attend schools that are predominantly minority, and only a little over a third of Latino students attend schools that are heavily

integrated. Ironically, the most segregated student populations are white students. The average white student attends a school in which less than 20 percent of the students are from all other ethnic groups put together (Orfield, 2001).

Moreover, this segregation is not seen in just the physical settings in which these students learn, it is seen in the results of these children's educations. Since the 1990's "the demographic imperative" has called for a serious answer to the growing disparities in educational opportunities and outcomes of students of color (Banks, 1995). For example, according to research cited in Nieto (2003), the average 12th grade low-income student of color has a reading level equivalent to that of the average 8th grade middle-class white student (Kahlenberg, 2000 as cited in Nieto, 2003). Also, while 88 percent of white students have graduated from high school only 56 percent of Hispanic students have reached the same milestone (U.S. Census Bureau, 2000). Furthermore, by percentage only slightly more than half as many Black and Latino students are taking Calculus as white students (Nieto, 2003; Ndura, Robinson, & Ochs, 2003).

Part of the answer lies in the cultural norms and visions of education enacted silently and often unknowingly by the various ethnic groups. With this in mind, contrast the increasing diversity of the student population in the United States with the make-up of the teaching force. Currently, White, non-Hispanic teachers account for approximately 84% of all teachers and about 80% of prospective teachers in schools and colleges of education (Zumwalt & Craig, 2005). Despite the fact that some alternate routes into teaching seem to be bringing a higher percentage of teachers of color, the numbers are such that the overall percentage will not reflect a significant change any time in the foreseeable future (Cochran-Smith, 2003; Zumwalt & Craig, 2005).

The difference is not simply in the color of skin either; as alluded to earlier, students of color live very different lives from those of the majority of white teachers (Merryfield, 2000). As Gay (1993) suggests white teachers and students of color "live in different existential worlds" (p. 287). As a result, white teachers have trouble acting as viable role models for students of color (Villegas & Lucas, 2002). Also arising from this difference in lived experience is the fact that White teachers and students of color tend to conceptualize knowledge and learning in different ways. Generally speaking, this makes it difficult for White teachers to effectively design instruction and classroom structures that help students of color bridge the difference

between home communities and school-based communities (Chubbuk, 2004; Ladson-Billings, 2000; Cochran-Smith, 2003).

Supporting this argument is the fact that students of color achieve significantly greater educational gains when in the classrooms of teachers of the same ethnic background (National Collaborative on Diversity in the Teaching Force, 2004; Meier, Wrinkle, & Polinard, 1999; Weiher, 2000). Furthermore, students of color are significantly more likely to have inexperienced or less well-qualified teachers than their White peers—another factor shown to affect student achievement (Cochran-Smith, 2003; Weiher, 2000; Meier, Wrinkle, & Polinard, 1999). In essence, then the students most at need are receiving teachers that are least likely to be in a position to help them where they need it most. This failure is tied to notions of literacy and learning that are informed only by white, middle-class ideals and fail to acknowledge alternative perspectives—something the increasingly diverse population is making necessary if we want to avoid an economic apartheid state marked by millions of minorities effectively blocked from school or societal success upon birth.

While one obvious way to address this problem is to take steps to increase the number of teachers of color, the more meaningful change would be to understand teaching, learning, and literacy in expanded ways. In this vein, Ladson-Billings (1992, 1995, 2000) and others (Pewewardy, 1993; Au & Blake, 2003; Sleeter, 2001) have called for teachers that practice culturally relevant pedagogy. Culturally relevant pedagogy “is designed not merely to fit the school culture to the student’s culture but also to use the student’s culture as the basis for helping students understand themselves and others, structure social interactions, and conceptualize knowledge” (Ladson-Billings, 1992, p. 314). In other words, it is inserting education into the student’s culture as opposed to inserting the student’s culture into education (Pewewardy, 1993).

Teachers enacting a culturally relevant pedagogy require their students to perform at high levels of academic achievement. They do require their students to meet all of the traditional gatekeeping skills that have historically served to exclude people of color from certain positions (Delpit, 1995). Additionally, these teachers push their students to use the cognitive and social skills they already have to discover and demonstrate higher levels of thinking and problem solving. It is a balancing act and different teachers balance these two demands in different ways; the thing that does not vary, though, is the level of work required by these teachers.

Also, these skills are couched in the culture of the students. This approach has two effects. First, the students see their own culture as one of potential and worth as opposed to the dominant view of non-white culture that is often portrayed in education settings (Ladson-Billings, 1994). Second, by creating a better match between the students' home life and their schooling life, there are less inherent difficulties for students in terms of how learning and teaching are conceptualized and enacted (Starnes, 2006; Dyson, 2004; Pewewardy, 1993).

Even when students have achieved academically and have grounded that knowledge in their culture, culturally relevant pedagogy calls for more. Students must be given the tools to critique societal institutions especially those structures that serve to hold them back. This idea is closely linked to the Freirean (1970) notion of "conscientization," which is the ability to engage the world and others in critical ways to explore the political and historical forces that have shaped much of what we take for granted as 'the way it is.' The best citizens of a democracy are those capable of changing structures and practices to make life more equitable (Dewey, 1938; Banks, 2001; Freire, 1970; Freire & Macedo, 1987). In the classes of teachers enacting this pedagogy students are pushed to question and critique societal norms, institutions, and practices (Ladson-Billings, 1995). In other words, culturally relevant teachers are pushing the boundaries of what it means to be literate and engage in literate activities.

The increasing diversity of the student population in the United States is putting the education system (and the rest of society) under great pressure to see if the democratic ideals the country is founded on can be realized. Because of different lived experiences of an increasingly diverse student population and an almost completely homogenous teaching population, many times those students most at risk of falling through the cracks of society and schools are receiving the least beneficial education. In order to combat this, teachers need to teach in ways that honor students' cultures, help them gain the dominant discourse skills needed for entry into the dominant society, and aids them in developing the tools to challenge this system from within.

Again, the issue becomes whether the notion of what it means to learn and to demonstrate learning is to be limited or broadened. Should we limit notions to racialized views of learning and knowing that are inherently biased against particular groups of people? Such a position has absolutely no moral ground on which it can stand. Part of the debate surrounding this issue must take effort to replace the idea of learning as simply a cognitive function to an ideal that includes spiritual, emotional, and moral components as well. From a teacher education perspective, Nieto

(2005) argues that only as we infuse such principles into ideas about education will we be able to truly educate a new generation of teachers prepared to meet the needs of the new majority.

Critical Pedagogy in Response

The idea behind the current standards movement is a narrowing of what counts as literacy and literate practices. By placing a ridiculous value on a select few aspects of literacy—through high standards testing and the like—the current standards movement is working in ways that go against the best possibilities for the increasingly diverse student population. This seems paradoxical, at a time, when new, more accessible technologies make it possible for students to enact literacy in new, interesting, and complex ways that only seem to be the threshold of what is to come.

Critical pedagogy and critical literacy show great promise in offering a potentially potent rebuttal to such thinking. By critical, here I am referring to the Freirean notions of critical. Under this umbrella, literacy—in the traditional pen-and-pencil sense—is tied inextricably to the world and the individual's experience with and in relation to society. This attachment is so complete that literacy comes to mean not simply being able to produce and consume various texts; rather, acts of literacy are defined by the actor's ability to understand not just the literal words being read or written but rather the ways in which those words shape and are shaped by various social contexts (Freire & Macedo, 1987). Indeed, knowledge itself is defined as the praxis of thought and action (Freire, 1970; Lankshear & Knobel, 1998). In other words, no text based act is truly an act of literacy until it is tied to this act of transforming the world.

Under this framework, reading the word (traditional notions of literacy) is not possible without being able to read the world—that is understanding the tension between the individual's desires and goals and society's imposition of limits on the individual's ability to act. On the other hand, in 21st Century America, the opposite is also true. Speaking of the challenges faced by minority students, Delpit (1995) expresses this relationship and results in these words, "Let there be no doubt: a 'skilled' minority person who is not capable of critical analysis becomes the trainable, low-level functionary of the dominant society, simply the grease that keeps the institutions which orchestrate his or her oppression running smoothly. On the other hand, a critical thinker who lacks the 'skills' demanded by employers and institutions of higher learning can aspire to financial and social status only within the disenfranchised underworld" (p.19). In

today's world it takes both the ability to read the word and the ability to read the world to find an uncompromised place at the table of democratic action.

Thus, using the lens of critical pedagogy, it is when literacy in the text-based sense becomes a tool for reflection, action, and transformation and ceases to be simply a tool of gatekeeping, limits, and economic and social domination that literacy suddenly becomes a concept large enough for all viewpoints.

Similarly, this idea of critical literacy operates with the onset of new technologies. In fact, in some ways, we see certain individuals or groups using technology to break down barriers (Kist, 2005; Monroe, 2004). At the same time, we see new barriers being established from inside as well as the outside. A good example of this is the Declaration of the Independence of Cyberspace (1996) mentioned earlier. At the same time it is demarcating cyberspace as a place where people are free to judge others only on their ideas and actions—at least in theory—it is also establishing technology use as its own gate-keeping system. The net result is the same. Perhaps there is a reshuffling of social/economic/political order but not a restructuring. Thus, the idea of more technology in the school still leaves teachers with the same dual mission—teach the use of this medium and the vision of the possibilities within the medium. Selber's (2004) comments in this regard echo Delpit's sentiments. "Not only are teachers obligated to prepare students responsibly for a digital age in which the most rewarding jobs require multiple literacies, but students will be citizens and parents as well as employees, and in these roles they will need to think in expanded ways about computer use"(p.4). Or, to use Freire's words, "Educators should never deny the importance of technology, but they ought not to reduce learning to a technological comprehension of the world" (p. 58, Freire & Macedo, 1987)

Finally, in the light of the increasing student diversity, critical pedagogy seems, in many ways, to be the best possible answer. Over sixty years ago, Dewey (1938) put forth a vision of education that juxtaposed schooling with increasing democracy. That vision has perhaps never been so endangered or needed as it is now in light of the increasing number of students of color. Teacher education programs need to enact curriculum and model practices that emphasize issues of social justice and democratic practice. Teachers need to carry these practices and mindsets into their classrooms, if we are to realize the ideal of a truly democratic society.

As it stands now, students of color are in danger of missing out on the American dream because of a schooling system built on arcane racialized notions of what it means to learn and to

be literate. According to Pollock (2004), if the field of education and teacher education is to deal effectively with issues surrounding students of color, educators at all levels must “race wrestle.” This means working to expose our hidden prejudices and the assumptions underlying the structures that exist in schooling, learning, and being literate through reflection and dialogue. Often, by avoiding the idea that race is a factor in our institutions and practices, educators and researchers simply preserve racial bias in unexamined and, therefore, unimpeachable ways.

While we have always had the responsibility to educate a more democratically minded generation of children, the convergence of the standards movement with its narrowing definition of literate and learned as embodied most prominently in NCLB, the increasingly diverse student population in the United States, and the burgeoning technology advancements that are opening the possibilities of what can and should count as literacy, tempered with the vision provided critical pedagogy, give us the necessary response ability to meet the challenge laid out in Dewey’s words. To thoughtfully envision and enact a more democratic education in our p-12 schools, the field of teacher education must stand up and lead the way by helping a new generation of teachers emerge carrying a new vision of what is important and possible in our schools and the skills necessary to enact that vision.

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