

Tracy W. Smith, Ph. D., Special Edition Editor
 Appalachian State University
 Boone, North Carolina

David Strahan, Ed. D., Editor
 Western Carolina University
 Cullowhee, North Carolina

Fall 2010

Volume 25

Number 2

A Star to Guide Us?

Questions about the North Carolina Professional Teaching Standards and the Ideology of Education in the Service of Global Economic Competition

Vachel Miller, Ed. D.
 Appalachian State University
 Boone, NC

The Power of Standards

Standards exert power. As a strong institutional force, standards have the power to accelerate changes in curriculum and instruction. Standards shape teacher education, inform professional development and evaluation, and orient our collective efforts to improve student learning.

But at the same time, standards have the power to silence dialogue necessary for the growth, development, and implementation of educational reform. Rather than opening new conversations about teaching and learning, the process of implementing standards tends to limit, even close discussion. Whether in colleges of education or professional learning communities, we feel pressure to align our programs, courses, and teaching strategies with the standards, in order to demonstrate our fidelity to state mandates. In the process of doing so, we have little time for dialogue about the standards themselves, i.e., about the ideological foundations of the standards, whose interests they might serve, and how we might relate to them in a creative manner. If we aren't careful, the very

standards which are supposed to prepare us for a new century can narrow our vision of the future and narrow the scope of our work as educators.

This discussion is based on the premise that standards are not neutral. They arise out of specific ideas about the purpose of education and the identities our children should grow into. Understanding that broader political and economic discourses shape teaching standards (Delandshere & Petrosky, 2004; Hobbel, 2009), my concern is that the discourse of "21st century skills" that undergirds the North Carolina Professional Teaching Standards imagines adolescents primarily as young workers/consumers in training. Such an identity may not be large enough to make space for the holistic development of young adolescents with the courage to create their own futures.

Middle school is an especially formative time for identity development in young adolescents. Consequently, it is important for middle school educators to think critically about the assumptions and values embedded in the NC Professional Teaching Standards. In this article, my intention is to

open questions about the thinking behind the North Carolina teaching standards—in the spirit of the standards themselves. Standard 1, for example, calls for teachers to participate in shared leadership regarding each school’s vision and operation (Standards Commission, 2007). So that they can effectively exercise such leadership, I would argue, teachers should understand the ideas behind the standards and critically engage their learning communities in dialogue about those standards.

In North Carolina, the Professional Teaching Standards represent a powerful vision of teachers’ work, with an understanding that effective, knowledgeable, engaged teachers are key catalysts of student learning. The Professional Teaching Standards Commission (2007) invokes the image of “a star in every classroom” to indicate that teachers provide guidance, warmth, and light as they lead students to richer, more integrated understandings of core content. This imagery honors the deep commitment that many teachers feel about their power to serve as a positive influence in the lives of young people.

Indeed, the teaching standards reflect many of our best ideas about teaching and learning. Yet the positive face of the standards can distract us from attending to more complicated issues beneath the surface. There, we encounter a market-oriented set of ideas about the purpose of education and the imagined identities of our students.

21st Century Skills in North Carolina

In North Carolina, the new professional teaching standards have been profoundly influenced by the movement for “21st century skills.” In 2006, the State Board of Education updated its mission statement with the goal that every student will graduate from high school “globally

competitive for work and postsecondary education and prepared for life in the 21st century” (State Board, 2006). The State Board of Education then requested that the Professional Teaching Standards Commission re-align the state’s teaching standards with the updated mission (Standards Commission, 2007). In preparing the new version of the standards, the Standards Commission sought to identify core knowledge/skills for teachers to be successful in “21st century schools” (Standards Commission, 2007). In such schools, as envisioned in the standards, teachers make their content engaging and relevant; students learn a rich set of collaboration and communication skills; and teachers use authentic assessments to reflect on their practice. No longer do teachers cover content in a rote manner; no longer do students sit passively, bored bystanders in their education. As a departure from poor practices of the past, the discourse of “21st century” education values student engagement and teacher leadership. But what else does this version of 21st century education value?

The Call for Global Competitiveness and 21st Century Skills

The conceptual framework of 21st century skills is shaped primarily by a business-oriented vision of what students need to learn, in order to be productive, competitive workers in a global economy. As evidence of this claim, we can look back to the 2006 State Board of Education’s revised mission statement. The first goal is this: “NC public schools will produce globally competitive students.” Economic competitiveness is positioned as the first and foremost objective of public education. This emphasis is reinforced by several sub-goals, including this one: “Every student will be enrolled in a course of study designed to

prepare them [*sic*] to stay ahead of international competition.” Another sub-goal calls for students to use technology in order to become competitive lifelong learners. Here again, we see that learning—whether during adolescence or later in life—is positioned in the service of economic competitiveness.

Overall, the Board’s mission statement is informed by a particular ideology about the purpose of education, an ideology that is not unique to North Carolina. The view that education should build human capital in the service of the national economy has come to dominate the international educational policy landscape in recent years. Educational theorist Joel Spring has observed this global trend:

Educating workers for global economic competition is the prevailing goal of most national school systems. Around the globe from China to Japan to the United States and the European Union, educational policymakers try to match the school curriculum and instruction to what they perceive are the needs of the global workplace. (2007, p. xi)

The necessary link between education and economic prosperity in a global economy has become an “education gospel” (Grubb & Lazerson, 2006). A core tenet of this “gospel” is that we are witnessing the rapid evolution of a knowledge economy (Peters, 2001). To serve this emerging knowledge economy, schools must produce more highly skilled, technologically savvy students. And the quality of the educational system is vital to the nation’s prospects for securing economic well-being in the future.

The emphasis on global competitiveness is usually accompanied by frustration that schools have failed to produce students fit for the needs of the economy in an era that demands more technological sophistication,

better communication skills, more flexibility, and more entrepreneurship (Apple, 2006). To prosper, according to this line of thinking, nations must produce students who can “outsmart” their peers in other countries (Brown & Lauder, 2006). In the United States, policymakers often point to China and India as looming threats to American economic security. The documentary film *Two Million Minutes*, for example, fuels that fear as it contrasts the high school experience of American, Indian, and Chinese students (Raney & Heeter, 2007). The film suggests that Asian students work much harder than their American peers to learn math, and thus are gaining a competitive advantage in the global economy. Another source of economic anxiety has been Thomas Friedman’s book, *The World is Flat* (2007). Friedman describes how technological connectivity has constructed a new global platform for individual expression and economic competition. The image of a hyper-connected, hyper-competitive “flat world” has fueled concern about how well American students are faring in international comparisons of math and science skills.

Undergirding the focus on global competitiveness is an economic philosophy known as neoliberalism. This philosophy argues that public services can be improved through market competition, and that governments should support the creation of open, deregulated markets, even in areas previously protected from those markets, such as education (Giroux, 2005). By fostering competition, markets are thought to increase the quality and efficiency of services. The neoliberal philosophy favors privatization and opens the door to increasing levels of commercial/corporate influence in public services (Leistnya, 2007).

Neoliberalism, as a pedagogical project, seeks to shape human beings as individual

producers and consumers. Critical theorist Michael Apple (2006) points out that, from a neoliberal perspective, “our educational policies should centre on removing schools from state and bureaucratic control; enhancing privatization and marketisation; weakening the power of teachers and their unions; and reconstructing a people’s character based largely on individual entrepreneurial values” (p. 23). The pedagogical vision of neoliberalism, Apple suggests, is to encourage students to identify themselves as self-interested individuals, rather than as members of collective groups. Such an identity serves a market-oriented vision of society.

At a national level, evidence of corporate influence on the thinking behind the framework of 21st century skills comes from a closer look at the framework’s primary advocate, the Partnership for 21st Century Skills. This group, with a national headquarters in Tucson, Arizona, now works with North Carolina and several other states to infuse 21st century skills into educational policy. The board of the Partnership is populated primarily by global corporate actors with strong interests in the technology sector, including Apple, Dell, Microsoft, Ford, Hewlett Packard, CISCO Systems, Verizon, and Disney—together with other influential educational actors including the National Education Association, ASCD, and the Sesame Street Workshop.

The Partnership’s approach to educational reform is built upon the tight linkage of educational outcomes with economic competitiveness in a global market. Shortly after the election of President Obama, for example, the Partnership for 21st Century Skills issued a policy brief advocating a national education strategy that positioned the United States to “triumph in the global skills race” (Partnership for 21st Century Skills, 2009). As might be expected, the policy brief

decries the failure of schools to prepare students for success in the global economy, given its demand for highly skilled and flexible workers. In a recent policy document entitled “21st Century Readiness for Every Child,” the Partnership opens with this statement:

The United States is competing in a global economy that demands innovation from our nation’s workforce. Our education policies must help all children keep up with those demands. There is a growing achievement gap between the U.S. and other nations in the interconnected world of the 21st century. (2010, n.p.)

This opening statement reflects how advocates of 21st century skills foreground an economic imperative for educational reform. This imperative is edged with anxiety about the U.S. falling behind other nations in critical skill areas and thus risking our national prosperity.

The preoccupation with competitiveness and international rankings reflects the power of a market-oriented vision of education. Since the 1990s, it has become increasingly evident that commercial interests have gained influence in educational policy (Giroux, 1998). In North Carolina, the 2004-06 Biennial Report from the State Board of Education is explicit in saying that the “demands of 21st century business practices” drive the increased use of technology in school as well as curriculum, assessment, and instructional practices (2006, p. 16). As noted above, concern for market competitiveness frames the State Board’s new mission statement and, by extension, the North Carolina Professional Teaching Standards.

It is noteworthy that the Center for 21st Century Skills in North Carolina is housed within the NC Business Committee for

Education (NCBCE) which acts as a “business voice” in public education. As such, the NCBCE focuses on the preparation of North Carolina students for productive employment and, more broadly, promotes the importance of quality education as an engine for economic growth. The structural placement of the Center for 21st Century Skills within the NCBCE sends a clear message about the centrality of business needs in shaping 21st century skills in education.

Questioning the Purpose of “Global Competitiveness”

Certainly, educators should pay attention to how well they are preparing students for future jobs. The acquisition of market-ready skills is one important aspect of public schooling. Yet is it reasonable to assume that instructional practices are singularly responsible for economic well-being? As educators, we should be wary of direct linkages between educational reform and national economic prosperity. Educational historian Lawrence Cremin points out that the Americans tend to invest “millennial hopes and expectations” in education, expecting education to solve all forms of social and economic problems (1989, p. 92). Challenging the linkage of economic prosperity and educational quality, Cremin writes:

American economic competitiveness with Japan and other nations is to a considerable degree a function of monetary, trade, and industrial policy, and of decisions made by the President and Congress, the Federal Reserve Board, and the federal Departments of the Treasury and Commerce and Labor. Therefore, to contend that problems of international competitiveness can be solved by educational reform, especially

educational reform defined solely as school reform, is not merely utopian and millennialist, it is at best foolish and at worst a crass effort to direct attention away from those truly responsible for doing something about competitiveness and to lay the burden on the schools. It is a device that has been used repeatedly in the history of American education. (1989, p. 103)

In light of Cremin’s argument, American educators might ask: Is there any causal connection with what children learned (or did not learn) in schools over the past 15-20 years and current problems with home prices or unemployment rates? And when the United States enjoys another period of economic prosperity in the future, would we have any basis or inclination for pointing to improved instructional practices or curriculum standards as the cause of economic recovery?

Several educational scholars find problems with the idea that education determines success in the global economy. At an individual level, possessing a strong set of skills in math and science will not guarantee a high-paying job. In their analysis, Brown and Lauder (2006) point out that, as educational access increases globally, there will be far more highly skilled workers available than jobs. Wages, even for high-skilled jobs, are likely to decrease due to an over-supply and severe price competition in a global market. A strong set of marketable skills may not guarantee employment; factors such as reputational networks will continue to play a key role in the process of finding jobs. Additionally, racism and social marginalization still have a hand in shaping economic success for individual workers. Analyzing US Census data from 2000, Brown and Lauder find that white men with a bachelor’s degree earn roughly \$10,000

more per year than African American or Hispanic men with the same level of education (2006, p. 327). But such inequities tend to be downplayed or ignored in the discourse about the skills needed for economic prosperity in the global market.

Generally, the discourse of 21st century skills lacks a critical lens for looking at social inequalities. Attention is focused on differences in individual skills, rather than systemic imbalances in resources and power. For Williams (2005), the emphasis on individual skills shifts blame to the disadvantaged for not having the right skills to get adequate jobs and, thus, side-steps social critique of enduring, structural inequalities. Continually framing the purpose of education as imparting skills for employment, the discourse of 21st century schooling easily distracts the public from asking broader questions about social justice in relation to education.

The ideology of education for market competition is not an abstract issue; on a daily basis, it has practical consequences for teachers. This ideology stresses the importance of standardized assessments and international benchmarking (i.e., how are US students doing in relation to foreign students?). The “new managerialism” (Lauder, Brown, Dillabough, & Halsey, 2006) in education demands that teachers use data more effectively to increase student achievement. Teachers are expected to use data to inform practical improvements and demonstrate accountability—just as the managers of factories or other productive enterprises do. According to the “new managerialism,” educational performance must be measured, while discussion of educational judgments and values is marginalized (Lauder, et al., 2006). Teachers become outcome-producers, to abide by standardized formulas, rather than professionals with their own sense of

judgment and creativity who nurture multiple forms of growth for their students.

The emphasis on data-driven instruction is evident in the North Carolina Professional Teaching Standards. For example, standard 1 calls for teachers to use assessment data to evaluate student learning and modify instructional strategies accordingly. The standards ask teachers to “analyze and use local, state, and national data to develop goals and strategies in the school improvement plan.” This emphasis on teachers as data-workers is related, in part, to a larger vision of education supporting global competitiveness. Teachers must measure students’ learning in ways that produce standardized comparisons relevant to a global market. Teaching performance becomes commodified in relation to its impact on achievement scores, and teachers become technocrats who “execute teaching rather than construct and transform it to address social problems as they emerge” (Delandshere & Petrosky, 2004, p. 13).

This situation deeply constrains the space open for students—and teachers—to exercise critical thinking about the meaning of education (Lauder, et al., 2006). The implementation of standards suggests that the real thinking has already been done by political and business leaders. Regardless of the issues a particular teacher, class, or student may care about, the task of teachers is to make American children better equipped to beat their Chinese and Indian counterparts in the race for tomorrow’s jobs. The focus on global competition, as the overarching purpose of education, reinforces a mental outlook of “us against them” (Zhao, 2007). It does not orient students to a future in which human well-being is a shared, global challenge. It supports skill development to benefit “me” and “my company” and “my country”, rather than cultivating a broader concern for creating a

more equitable world (Frey & Whitehead, 2009).

In a satirical essay about 21st century skills, Alfie Kohn (2009) questions the influence of corporate perspectives in education. He suggests that standards are a way to force teachers to comply with a neoliberal version of the world. In an ironic voice, Kohn muses:

How can we rid our schools of those who refuse to be team players? Well, we can insist that all classroom instruction be rigorously aligned to state standards—a very effective technique since most of those standards documents were drafted by people steeped in the models, methods, and metaphors of corporations. (p. 39)

I would like to conclude this section by asking a provocative question. What if the guiding vision of 21st century skills (and, by extension, the guiding vision for the Professional Teaching Standards) was not focused primarily on global competition? What if taking leadership in restoring the health of the biosphere was the primary goal of education? What if the goal of 21st century education was fulfilling human rights and cultivating human wisdom? What if public education was oriented toward revitalizing democracy (LaGaurdia & Pearl, 2009)? How might that change the content of our teaching standards—or the way we think about standards themselves?

There is no doubt that the world is changing, and that a new kind of education is needed in order to meet the challenges of the new century. But is the economic challenge of regaining American prosperity the only challenge we face, the only challenge we should care about? How valuable is economic competitiveness when the planet is overheating and running out of fresh water? Will economic supremacy

naturally result in a more robust, equitable democracy? Will having “globally competitive” skills enable young people to lead a meaningful, happy life? Or, as Kohn (2009) suggests, are questions like these outdated, and reflective of “18th century” critical thinking skills?

Privately, many teachers might express their heart-felt concern for children’s long-term happiness as an important goal of education. The goals of middle-level education articulated by the National Middle School Association hint at this value, acknowledging that students should “read avidly for enjoyment” (2010, p. 11) and develop talents and interests that can contribute to society and “personal fulfillment” (2010, p. 12). Yet educating for the social good and personal fulfillment doesn’t seem to find a prominent place in today’s official educational standards.

Students as Consumers-in-Training

Middle school educators are acutely aware of the importance of the young adolescent years in shaping the developmental trajectories of young people. In *This We Believe: Keys to Educating Young Adolescents*, the National Middle School Association (2010) points out that 10-15 year old youth are in the process of forming attitudes and identities that will shape their future as adults. The Association calls for a kind of education that “will enhance their healthy growth as lifelong learners, ethical and democratic citizens, and increasingly competent, self-sufficient individuals who are optimistic about the future and prepared to succeed in our ever-changing world” (p. 3).

While in many ways parallel to the 21st century skills framework, the NMSA’s document reflects concern for the healthy identity development of young adolescents. Specifically, it recognizes the dangers

arising from the commercialization of youth, which may promote “a passive, consumer-oriented, and at times, self-destructive lifestyle” (2010, p. 8). This sensitivity stands in contrast to the ways in which students are viewed by the discourse of education for global competitiveness primarily as workers/consumers.

In the neoliberal view of education, students should grow into identities as entrepreneurial workers and discerning consumers who are quick to adapt to a changing market. In a recent press release, the Partnership cites a survey conducted by the American Management Association in which business leaders say they need employees with improved critical thinking and problem solving skills in order for their firms to compete globally (Partnership for 21st Century Skills, 2010). In an early concept paper from the Partnership, critical thinking is linked to effective consumption and service work: “Workers, of course, must employ critical thinking to better serve customers, develop better products, and continuously better themselves within an ever-changing economy” (2007, p.13). In this approach, critical thinking lacks any social justice dimension and quickly becomes situated in a production/consumption context. A vision of students as producers/consumers lies close to the surface of the 21st century skills framework, and this vision may constrain the richness and diversity of identities into which young people can grow.

Conclusion: Finding Our Own Stars?

My argument here is not that business concerns should have no voice in setting educational policy or standards. Indeed, they should have an important voice, since *one* of the functions of schooling is to prepare students for future employment. Schools fail students if they graduate without skills that

will enable them to find satisfying work and earn a livelihood in the future.

But human beings are more than employees, and education is a bigger project than maintaining American economic dominance. The broader social and environmental challenges we face cannot be solved by a singular educational vision. The revised North Carolina Board of Education mission statement highlights a particular way of thinking, globally in vogue, about the purpose of education. As educators, we have been asked to align all our standards of professionalism with that vision without critical reflection on the nature of the vision itself, where it comes from, and what alternatives might look like.

In North Carolina and around the world, the discourse of “global competition” has become “common sense” and thus, immune from critique. When confronted with the problems of market globalism as an educational ideology, it is difficult for us to think of another way. We have lost access to “counter-narratives”—alternative ways of framing education in relation to social justice and the future (Grogan, 2004). As critical theorist Henry Giroux (1998) writes, “Most disturbing about the market approach to schooling is not only that it is bereft of a vocabulary of ethics and values but also that it has the power to override competing value systems” (p. 13). A challenge for educators, in an era of standards, is to think and talk together about the purposes of education that transcend economic competitiveness.

What I am arguing for here is that middle school educators take a critical disposition toward official mandates—even after they have been approved. We can model leadership when we take standards as a starting point for dialogue about our values and the purposes of our educational work, rather than as a conversation stopper. The question we have been given: How do we

align our work with standards of 21st century learning? may be too narrow and constraining. In their discussion of the movement for sustainability in higher education, Wals and Jickling (2002) make a similar argument about standards. They advocate that institutions continually *seek*, rather than *set* (italics added), standards in order to hold open

Space for new ways of thinking, valuing and doing. Space for participation minimally distorted by power relations. Space for pluralism, diversity and minority perspectives. Space for deep consensus, but also for respectful *dissensus* (italics in original). Space for autonomous and deviant thinking. Space for self-determination. (p. 129)

Even when standards have been the result of long and careful development, there is need to hold open space to critique their meaning. Space for educators to consider alternative meanings, to ask why?, as a model of the kind of critical thinking we value in our students.

There is an irony in the Standards Commission's use of the star as a signature symbol for the North Carolina Professional

Teaching Standards. At first glance, the star image radiates with all the positive connotations of quality teaching— understanding, compassion, and purpose. It resonates with our own desire as educators to be “stars” for our students, guiding their growth, and for our students to shine on their own. The star imagery gives power to the standards themselves, as guides for professional practice, as beacons that “light the way.”

Dense stars can exert a powerful gravitational force, pulling other bodies into their orbit. In education, standards can have a similar influence, as we seek to align teacher preparation, development, and evaluation with the standards.

The star is also an object far removed from our daily lives. Placed in the high heavens, a star is out of human reach. The star imagery, in this sense, reinforces the impression that standards themselves are untouchable, i.e., that we should follow them faithfully, without question. My argument in this article is that we reach out to grab hold of those stars. By thinking critically about the direction they guide us, by using them as a starting point, rather than an end point, for understanding our practice, we can generate even more light.

References

- Apple, M. (2006). Understanding and interrupting neoliberalism and neoconservatism in education. *Pedagogies: An International Journal*, 1(1), 21-26.
- Brown, P., & Lauder, H. (2006). Globalization, knowledge and the myth of the magnet economy. In H. Lauder, P. Brown, J. Dillabough & A. H. Halsey (Eds.), *Education, globalization, and social change* (pp. 317-340). Oxford: Oxford University Press.
- Cremin, L. A. (1989). *Popular education and its discontents*. New York: Harper & Row.
- Delandshere, G., & Petrosky, A. (2004). Political rationales and ideological stances of the standards based reform of teacher education in the US.

- Teaching and Teacher Education*, 20, 1-15.
- Frey, C. J., & Whitehead, D. W. (2009). International education policies and the boundaries of global citizenship in the US. *Journal of Curriculum Studies*, 41(2), 269-290.
- Friedman, T. (2007). *The world is flat: A brief history of the 21st century* (3rd ed.). New York: Farrar, Straus, & Giroux.
- Giroux, H. (1998, October). Education incorporated? *Educational Leadership*, 12-17.
- Giroux, H. (2005). The terror of neoliberalism: Rethinking the significance of cultural politics. *College Literature*, 32(1), 1-19.
- Grogan, M. (2004). Keeping a critical, postmodern eye on educational leadership in the United States: In appreciation of Bill Foster. *Educational Administration Quarterly*, 40(2), 222-239.
- Grubb, W. N., & Lazerson, M. (2006). The globalization of rhetoric and practice: The education gospel and vocationalism. In H. Lauder, P. Brown, J. Dillabough & A. H. Halsey (Eds.), *Education, globalization, and social change* (pp. 295-307). Oxford: Oxford University Press.
- Hobbel, N. (2009). Standards talk: Considering discourse in teacher education standards. In S.L. Groenke & J.A. Hatch (eds.), *Critical Pedagogy and Teacher Education in the Neoliberal Era: Small Openings*, (pp. 37-48). New York: Springer.
- Kohn, A. (2009, February). When 21st century schooling just isn't good enough: A modest proposal. *District Administration*, 38-39.
- Laguardia, A. & Pearl, A. (2009). Necessary educational reform for the 21st century: The future of public schools in our democracy. *Urban Review*, 41, 352-368.
- Lauder, H., Brown, P., Dillabough, J., & Halsey, A.H. (2006). Introduction: The prospects for education: Individualization, globalization, and social change. In H. Lauder, P. Brown, J. Dillabough & A. H. Halsey (Eds.), *Education, globalization, and social change* (pp. 1-70). Oxford: Oxford University Press.
- Leistyna, P. (2007). No corporation left behind. In K. Saltman (Ed.), *Schooling and the politics of disaster* (pp. 141-157). New York: Routledge.
- National Middle School Association. (2010). *This we believe: Keys to educating young adolescents*. Westerville, OH: National Middle School Association.
- North Carolina Department of Public Instruction. (2006). *Future ready schools: Preparing students for the 21st century*. Raleigh, NC: Department of Public Instruction.

- North Carolina Professional Teaching Standards Commission. (2007). North Carolina Professional Teaching Standards. Retrieved from: <http://www.ncptsc.org/Final%20Standards%20Document.pdf>
- North Carolina State Board of Education. (2006). Mission statement. Retrieved from <http://www.dpi.state.nc.us/organization/mission/>
- Partnership for 21st Century Skills. (2007). The intellectual and policy foundations of the 21st century skills framework. Retrieved from: http://www.21stcenturyskills.org/rou te21/images/stories/epapers/skills_foundations_final.pdf
- Partnership for 21st Century Skills. (2008, November). Transition brief: Policy recommendations on preparing Americans for the global skills race. Retrieved from: http://www.21stcenturyskills.org/documents/p21_transition_paper_nov_24_2008.pdf
- Partnership for 21st Century Skills. (2010). 21st century readiness for every child. Retrieved from: http://www.p21.org/documents/Principles%20and%20Recommendations%20for%2021st%20Century%20Readiness_ESEA%20Reauthorization_100326.pdf
- Partnership for 21st Century Skills. (2010, April). Executives say the 21st century requires more skilled workers. Retrieved from: http://www.p21.org/index.php?option=com_content&task=view&id=923&Itemid=64
- Peters, M. (2001). National education policy constructions of the ‘knowledge economy;’ towards a critique. *Journal of Educational Enquiry*, 2(1), 1-22.
- Raney, A., & Heeter, C. (2007). *Two million minutes*. Indianapolis, IN: Broken Pencil Productions.
- Spring, J. (2007). *A new paradigm for global school systems: Education for a long and happy life*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Wals, A. J., & Jickling, B. (2002). “Sustainability” in higher education: From doublethink and newspeak to critical thinking and meaningful learning. *Higher Education Policy*, 15, 121-131.
- Williams, J. (2005). Skill as metaphor: An analysis of terminology used in *Success for All* and *21st Century Skills*. *Journal of Further and Higher Education*, 29(2), 181-190.
- Zhao, Y. (2007, March-April). Education in the flat world: Implications of globalization on education. *EDge*, 2(4), 3-19.

Dr. Vachel Miller, Ed. D., is an Assistant Professor in the Reich College of Education at Appalachian State University (ASU) in Boone, North Carolina. In the doctoral program in educational leadership at ASU, Dr. Miller teaches courses in research methodologies, leadership, globalization, and diversity. He has many years of experience in international and cross-cultural education projects. Prior to joining the faculty at Appalachian in 2008, Dr. Miller worked as a regional monitoring and evaluation, policy, and research specialist for the Academy for Educational Development (AED) on a project focused on child labor and education in East Africa. He holds an Ed.D. in educational policy and leadership from the University of Massachusetts Amherst (UMASS).