



## Re-Visioning to Address 21<sup>st</sup> Century Skills

Kristen R. Stephens, Ph.D.

*Do not go where the path may lead; go instead where there is no path and leave a trail.*

Ralph Waldo Emerson

Over the last 100 years, we have witnessed how the needs of society have influenced our paradigms regarding how to best educate our citizenry. The United States has transitioned from an agrarian country to the industrial age and is now moving from the information age to 21<sup>st</sup> century education initiatives. In addition to the influence of societal needs, the pioneering work of individuals such as Lev Vygotsky, Jean Piaget, Benjamin Bloom, and Howard Gardner have increased our knowledge regarding how individuals learn. Yet despite our newfound focus and knowledge, our country still struggles to move educational research into effective practice and a resistance to change prevails.

Where will the next 100 years take us? By all accounts, it appears that the current emphasis is on 21<sup>st</sup> century knowledge and skills. So, what are 21<sup>st</sup> century skills? How do we teach and assess such skills? What is our state doing to ensure that all students graduate prepared for a 21<sup>st</sup> century workforce? The answers to these questions will require much thought and contemplation and a willingness to envision a new structure that differs significantly from the current one.

### **From Basic Skills to Applied Knowledge**

A nationwide poll of registered voters found that 99 percent of Americans feel that teaching students 21<sup>st</sup> century skills is important to the success of our country's economy and 66 percent believe that students need more than just the basics of reading, writing, math, and science. In addition, employers have identified that the most important skills needed to succeed in the workforce are: professionalism/work ethic, oral and written communication skills, teamwork/collaboration, and critical

thinking/problem solving. Combined, these data indicate a growing emphasis on applied skills over basic knowledge and skills.

The Partnership for 21<sup>st</sup> Century Skills is an advocacy organization focused on infusing 21st century skills into education. The Partnership has identified the following major skill sets that every child in America needs:

- Information and communication skills
- Thinking and problem-solving
- Interpersonal and self-direction skills
- Global awareness
- Financial, economic and business literacy, and entrepreneurial skills
- Civic literacy

It is essential that our schools move beyond the mindset of “basic competency in core subjects” that No Child Left Behind (NCLB) emphasizes, and move toward the expectation that our students will gain a deep understanding of high level content and its interconnectedness with 21<sup>st</sup> century themes (i.e., global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; and health literacy). In addition to thinking skills, a deep understanding of a subject, and insight into interdisciplinary connections, the Partnership has identified several essential life and career skills that will be needed by students. These include flexibility and adaptability, initiative and self- direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility. So, how will the development of these skills be addressed in our schools? Many states are hard at work contemplating this very question.

### **North Carolina’s 21<sup>st</sup> Century Initiatives**

Presently, there are six states working with the Partnership for 21<sup>st</sup> Century Skills (Maine, Massachusetts, North Carolina, South Dakota, West Virginia, and Wisconsin). In North Carolina, the following major, statewide 21st century skills initiatives are in place.

- **Early college high schools** – Students attend high school on community college and university campuses to earn both a high school diploma and two years of college transfer credit and/or an associate’s degree. Students who are first-generation college goers and those identified as at-risk of dropping out receive acceptance priority.
- **The graduation project** –All North Carolina public school students produce a four-part assessment (paper, reflective portfolio, product, and presentation)

over their high school years that showcases their 21st century content knowledge and skills.

- **The teacher working conditions survey** – Every two years North Carolina teachers are asked what they need to succeed. Survey results are used to contrast innovative 21st century high schools with data from conventional comprehensive high schools as an outcome measure for innovation.
- **21<sup>st</sup> century skills policy** – The State Board of Education adopted a policy to infuse 21<sup>st</sup> century skills in curriculum across the state so that every public school student will graduate from high school globally competitive for work.
- **Middle school literacy coaches** -- A teacher-coach assists lead teachers in embedding 21st century skills into classroom instruction. These teacher-coach positions are allocated to middle schools with the lowest average scores on the eighth grade state reading assessment.

Several of the above initiatives specifically address low performing students. Even as NCLB has forced schools to almost exclusively focus on low performing students, care must be taken that the same outcome does not ensue as we begin to define and address 21<sup>st</sup> century skills in our schools. *All* students will need these skills to ensure success in the workplace, and the availability of resources and programs that foster 21<sup>st</sup> century knowledge and skills should not be restricted to any one group of students. It cannot be assumed that such skills will naturally develop in bright students, nor should it be surmised that these skills are effectively being taught and assessed in our gifted programs.

### **Promising Visions from Other States**

An analysis of promising visions from other states that address 21<sup>st</sup> century skills should also be considered in North Carolina as they encompass the needs of all learners— including the gifted. For example, Maine’s vision includes personal learning plans for *every* student to ensure all students have an individualized learning experience across their K-12 experience. In South Dakota, a virtual high school has been launched that provides a clearinghouse of distance education courses (from an array of reputable vendors), providing choice, flexibility, and quality educational experiences for all students. In West Virginia, curriculum standards were revised to meet the rigor of national and international measures (alike those assessed on the NAEP and TIMSS), thus ensuring all students are provided with a high level, rich curriculum. It should be emphasized that these visions consider the needs of *all* students, not just those who are considered at a disadvantage by means of ability or circumstance.

## Assessing 21<sup>st</sup> Century Skills

It is evident that a balanced focus between cognitive and social skills is essential as we prepare 21<sup>st</sup> century learners. While we appear to have many available methods for assessing basic knowledge and skills in the content areas, we have much to learn regarding how to assess those applied skills needed for the 21<sup>st</sup> century. High-quality standardized testing paired with effective classroom assessments are critical to monitor student mastery and growth, and new assessment tools that specifically analyze 21<sup>st</sup> century skills must be developed. Most tests currently in use measure students' knowledge of isolated facts not their ability to apply such knowledge in real world contexts. Based on the complexity and number of competencies encompassing 21<sup>st</sup> century knowledge and skills, no singular instrument will suffice. Instead, a menu of assessment tools must be made available.

## Final Thoughts

Over the years much attention has been given to the concept of “educational reform”. Reform means to amend or improve by change. Based on the rapid societal changes we have witnessed over the last 100 years and considering the basic structure of our educational system has remained largely unchanged since its inception, *reform* does not seem to be an extreme enough approach for what must be done. Instead, we need to approach how we educate students from a clean slate. We must start from the ground up and *re-vision* our educational system and agendas. Though this is a radical approach that will entail much work, debate, and compromise—it may be the only way to ensure the development of a sound educational structure that effectively addresses future demands. Our current system has “outlived its usefulness”. It has become futile to hope for favorable outcomes from an outdated system without the capacity for progress. As Albert Einstein once noted, “Insanity is doing the same things over and over again and expecting the different results.” A significant transformation must be initiated, and I challenge North Carolina educators and policymakers to lead the way, so our state can serve as a model for others.

*Kristen Stephens is Associate Professor of the Practice and Director of the Academically/Intellectually Gifted Licensure Program at Duke University.*