

Senators Rockefeller-Snowe-Kerry S.1029 The 21st Century Skills Incentive Fund

The knowledge base and skills set that most students learn in school should expand to ensure that students can succeed in modern workplaces and communities. Essential attributes of the 21st Century learner must include:

- Demonstrated mastery of core academic subjects;
- Preparation in 21st Century content such as understanding of global issues; economic, entrepreneurial, and civic literacy; and health and wellness awareness – content that complements core subject knowledge;
- Habits of life-long learning that ensure adaptability in the face of rapidly changing work environments; and
- Facility with using information media and technology to enhance their learning.

The 21st Century teacher also plays a critical role by bringing life skills into the classrooms – skills that include leadership, ethics, accountability, adaptability, personal productivity, personal responsibility, self-direction, and social responsibility.

Students need to develop critical thinking and problem solving skills, communication and collaboration skills, creativity and innovation skills, and contextual learning skills – all of which work hand in glove with core academic subject matter to prepare them for success in modern and increasingly global work settings. Moreover, students must be able to use information and communications technology in their learning, both for core and 21st Century content knowledge and higher-order cognitive skills.

Recent studies confirm these needs. For example, 84% of employers say K-12 schools are not doing a good job of readying students for the workplace; and nearly 40% of secondary school graduates feel inadequately prepared for college or work.¹ Also, 74% of Americans believe proficiency in using computer technology should be a high school graduation requirement, ranking its importance just below that of reading (94%) and writing (84%); and 76% of the public support students learning to use computers at a young age.²

Higher education also asks for these 21st Century skills. For example, in its criteria for postsecondary engineering programs the Accreditation Board for Engineering and Technology (ABET) includes student outcomes such as the ability: (i) to communicate effectively; (ii) to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability; (iii) to engage in life-long learning; (iv) to function on multidisciplinary teams; and (v) to understand the impact of engineering solutions in a global, economic, environmental, and societal context.³

¹ From “Using Technology to Maintain Competitiveness: How to Get Our Groove Back.” Geoffrey Fletcher (2006). *T.H.E. Journal*; 33:13, pp 18-21.

² *Writing, a National Pastime, Takes New Forms: A National Survey for the National Writing Project* (2009). Washington, DC: Belden Russonello & Stewart.

³ ABET is the premier national organization that accredits United States postsecondary degree programs in applied science, computing, engineering, and technology, see <http://www.abet.org>.

The business community also endorses the Framework. For example, in his support, Bernie Trilling, global director of education strategy and partnerships for the Oracle Education Foundation notes: *“Schools are being designed for a new balance that combines the best of traditional classroom learning with leading 21st century learning methods and tools.”* Furthermore, he asserts: *“The learning environments of the 21st century will encompass a powerful mix of face-to-face learning opportunities with digital connections to bridge cultures and blend virtual and real-life relationships.”*

Paige Johnson, worldwide manager of K-12 education for Intel Corporation and chair of the Partnership for 21st Century Skills, writes: *“It is critical that 21st century learning environments address the multiple and interconnected needs of the whole child. Learning supports are only valuable if they effectively reinforce human relationships, give relevance to learning and encourage student engagement. Schools must devote themselves to more than the mind-body connection to ensure student achievement.”*

And Charles Fadel, global lead for education for Cisco Systems notes: *“As important as it is for physical structures to be adaptable, it is even more important that class time be elastic. Instead of assigning a certain amount of time for teaching one subject per day, teachers need the flexibility of bigger and more adjustable time slots to truly impact learning. There must be a renewed focus on increasing the quality of teaching by providing teachers more time and opportunities to plan, collaborate and work with advanced technology systems.”*

Implementation of the framework for the 21st Century learner and teacher should flow from planning that involves business, civic, and education leaders (including classroom teachers). There should also be assessment of progress towards the four priorities for the 21st Century learner and systematic program evaluation.

Schools willing to adopt such a comprehensive approach deserve support and incentives including:

- An Incentive Fund at the Education Department to provide Federal matching funds to eligible States that secure new monies to invest in this priority. States can provide state dollars, foundation grants or private donations to secure the Federal match.
- In order to encourage private donations, the legislation provides corporate tax incentives to businesses that support the 21st Century Skills Framework in states and schools.

Thirteen states have already adopted the 21st Century Skills Framework: Arizona, Illinois, Iowa, Kansas, Louisiana, Maine, Massachusetts, Nevada, New Jersey, North Carolina, South Dakota, West Virginia, and Wisconsin.