

## Standards and Globalization

### How the cognitive processes movement can guide both the standards movement and the individual proficiencies movement

Mogens R. Jensen, Ph.D.<sup>1</sup>  
Director, ICCL

Two emerging approaches aim to fix our ailing schools by preparing students to compete in the global knowledge economy. One emphasizes the development of common standards, assessment, and accountability. The other emphasizes the development of creativity, innovation, enterprise, and 21<sup>st</sup> century skills. Based on antagonistic philosophical impulses the two approaches yield divergent policy recommendations. Thus the stage is set for another clash in education; one our country, already behind, can ill afford the time and resources to wage. Yet with prosperity in the balance, the question of direction in education is the one question before us we can least afford to get wrong.

The article does not analyze the two approaches as a prelude to casting a vote for one over the other. Instead, I argue that an analysis of their strengths and weaknesses points to the need for an alternative, third direction that we can use to reconcile the conflict between the other two approaches. Like the others, this alternative requires us to make some changes in our thinking that we must match with changes in policies and practices. However, if we do that, I contend, our resulting blueprint will enable us to move with greater alacrity to catch up where we have fallen behind and reach the outcomes we seek, as we prepare our students to compete in the globalized knowledge economy.

The article is divided into three sections: The *first section* illustrates upsides and downsides of both the common standards movement (CSM) and the movement for 21<sup>st</sup> century skills, which I here for simplicity and contrast shall refer to as the individual proficiencies movement (IPM). Along with creativity, innovation, and enterprise this movement emphasizes such skills as critical thinking, problem solving, flexibility, self-direction, team-building, cross-cultural competence, and proficiency with media and technology. The *second section* describes how the infusion of knowledge from the cognitive sciences now enables us to approach the achievement of academic standards and the development of individual proficiencies as two parts of one integrated whole. For shorthand, I refer to this alternative as the cognitive processes movement or CPM. The *third section* surveys the status of CPM within the context of the nation's effort to ready children for the globalized knowledge economy.

---

<sup>1</sup> Suggested citation: Jensen, M. R. (2011). *Standards and Globalization*. International Center for Cognition and Learning. <http://www.mindladder.com> (accessed [date]).

## Common Standards and Individual Proficiencies - Upsides and Downsides

To clarify, I am a proponent of both common standards *and* individual proficiencies. Here are the upsides and downsides of CSM and IPM that, taken together, suggest we look for a different approach, so we can achieve them both.

**Common standards – upside:** Perhaps the most promising attempt to achieve common standards in the United States is a bottom-up effort where the individual states collaborate to set shared, rigorous expectations for all students using evidence-based and internationally benchmarked standards (Duncan, 2009; Rothman, 2009). Advocates of CSM see the use of the same high standards, regardless of where students live, as an effective way to remove the withering disadvantage of low expectations and close the domestic achievement gap, which especially harms low-income students and students of color. For students, parents, and teachers, common standards serve as guides to learning by making clear what the abilities are that students need to demonstrate. For curriculum and test developers, common standards make it easier to produce the materials schools need to achieve the standards and meet their accountability requirements (Rothman, 2009). Advocates of CSM see this approach as a compelling way to leverage the comprehensive change that is needed in America's schools.

**Common standards – downside:** CSM has enjoyed growing political support with the passage of both No Child Left Behind (NCLB) and Race to the Top. Nevertheless, the structure of these initiatives may impair their ability to achieve the goals they endorse. Here is how: Between making investments to *produce* or *measure* outcomes, the Federal legislation has, onwards from the passage of NCLB, tilted sharply toward measurement. The bias reflects the assumption in CSM that standards-based measurement will enable or force educators to produce better results: The measurement of results drives the production of results - with progressively higher stakes for educators whose students continue to fall short of progress goals.

Here is the problem: The bias in CSM and the Federal legislation is reasonable only under the assumption that school teachers and administrators in fact know how to produce the desired results or can learn to do so from the measurements that are taken. If this assumption is wrong, as it arguably is for many students, then CSM and the structure of the Federal legislation place distraught educators in the grip of a tightening vise where others may see them as complacent, lazy, or unqualified to work in schools.

Under these desperate conditions, sadly, one result may be outright cheating. Another may be the replacement of sound instructional practices with teaching-to-the-test. When educators don't know how to produce the desired results, they are more likely to teach skills in the test format, target only tested areas, and make students drill and practice in mind-numbing classrooms. Instead of measurement, as hoped, driving the production of worth-while educational outcomes, we uncover a warped relationship: The greater the focus on test scores the greater the distortion of instruction and the lower the credibility of test scores (Nichols & Berliner, 2007). Improved test performance, in other words, may not generalize to independent measures of the same content, and test scores, simply put, may go up without any real gain in student knowledge or achievement. That, of course, is not where we or CSM want to be, but we have to make some changes to ensure CSM and the Federal initiatives don't take us there.

**Individual proficiencies – upside:** Since 2004 I have travelled frequently to Singapore in connection with research projects and teaching in education. Over this period it has been striking to observe how Singapore, among other countries (Zhao, 2009), is responding to the challenge of the globalized economy by shifting its focus to what I here am calling individual proficiencies. Even as the U.S. works to create a more centralized, standards-based system to prepare our students, a country like Singapore – which long has enjoyed test scores we hope to achieve – is moving in the opposite direction to prepare its students.

To illustrate, in 2004, building on its 1997 mission statement “Thinking Schools, Learning Nation”, Singapore launched its “Teach Less, Learn More” initiative (TLLM) to transform learning from a “quantity to a quality orientation” and “nurture a spirit of innovation and enterprise.” In describing the new initiative, the Ministry of Education noted: “TLLM ...mean(s) less dependence on rote learning, repetitive tests and a ‘one size fits all’ type of instruction, and more on experiential discovery, engaged learning, differentiated teaching, the learning of life-long skills, and the building of character through innovative and effective teaching approaches and strategies. ...In essence, TLLM aims to touch the hearts and engage the minds of our learners.” (Ministry of Education, 2004, p. 3).

IPM reflects the shift away from the industrial economy (with its need for homogenous groups with the same knowledge and abilities) to the globalized knowledge economy with its need for diverse talents in people with a passion to create, innovate, improve, contribute, and share within communities and networks of people (Jacobs, 2010; Zhao, 2009). In contrast with CSM, IPM moves from a test-oriented to a talent-oriented system of education - a system where students are supported to go above and beyond expectations striving not for standards, but for personal best (Tyson, 2010).

**Individual proficiencies – downside:** IPM has clear precursors in the alternative education movement (Dewey, Montessori, and Steiner readily come to mind as does the Reggio Emilia approach). However, the rationale for IPM draws less on such precursors and more on the emerging understanding of the nature and consequences of the globalized knowledge economy. Even so, the downside of IPM is similar to that of the alternative education movement: We can create lightning in a bottle, but it is hard to catch and difficult to reproduce – especially to scale. Thus, IPM is currently guided largely by aspiration, even in Singapore. Emphasizing a need to “focus on every child in our education system,” Singapore’s minister of education recently observed “This is cited as a working aspiration for all school systems but rarely achieved in reality. However in Singapore, there are cogent reasons why we have to deliver on this promise.” (Ng, 2010).

CSM and IPM point us in opposite directions. Each has an upside that highlights its goals and a downside that highlights its limitations. The downside of CSM is the emphasis on centralizing and standardizing what students learn, when they learn it, and how their learning is measured, all of which does little to develop the skills and abilities students (including disadvantaged students) need in the globalized economy (Zhao, 2009). On the other hand, the downside of IPM is that it lacks a blueprint educators can use to achieve their objectives (which include high levels of academic performance) and scale their solutions to size.

## **An Alternative Approach: The Cognitive Processes Movement**

The cognitive processes movement (CPM) builds on findings from the cognitive, neuropsychological and brain sciences to come up with new solutions in education. CPM focuses on the processes students use to collect, connect, and communicate information; construct knowledge; and achieve proficiency with its use. CPM integrates cognitive processes with subject area knowledge, motivation, experience and behavioral skill.

Building on CPM, many aspects of schooling do not change. Foremost among these is the continued need to update the content curriculum, select appropriate standards, and design valid and reliable tests to measure student achievement, including standardized tests. What changes is the focus on *content* and *instruction*, which is broadened to include also *process* and *learning*. Like the two legs of a pair of scissors, process and content are both included - and the better the former is, the better the latter can be.

Taking advantage of CPM in schools requires us to change some practices long sustained by convention and perhaps some assumptions hitherto considered self-evident. Here are four examples covering the roles of teachers (1), school psychologists and clinicians (2), parents (3), and school leaders (4). Some may be surprising.

(1) We need to stop seeing schooling in terms of instruction. We can now enter the interface between knowledge construction processes and subject area content. We can identify and nourish the development of the knowledge construction processes students need to acquire academic content and achieve proficiency with its use. Therefore, we can start seeing schooling in terms of learning and learning how to learn. We can use the acquisition of curricular knowledge to develop students' learning ability.

(2) We need to stop testing with the aim of classifying learning ability. For students with learning difficulties, including students whose performance makes them eligible for special education, we need to start using assessments that enable us both to identify and make the requisite investments in learning processes that need support. We need to integrate this approach with our Response to Intervention and Student Support Team programs.

(3) We need to start programs where parents can learn to use daily life events within their home setting, their culture and community to bond with their children and nourish the formation of cognitive, motivational, social, emotional, and language skills that support learning. Parents should be able to enroll during their children's preschool years. The programs should be recommended for parents of children with special needs.

(4) We need to stop leading schools by their results. We have to lead schools by their purpose and manage them by their results (Schlechty, 1990). CPM offers a way to lead by the dual purpose of enabling all students to acquire high academic standards (CSM) while learning how to learn (IPM). Thus, CPM offers a way to turn off the siren call to lead by what we should manage: We can stop teaching to the test. With CPM we have a model of learning we can use to manage results by taking constructive action.

## Status and Further Development

Research from the cognitive sciences adds foundations to learning theory that can guide the pursuit of both CSM and IPM objectives. Many educators already draw skillfully on this approach – and are widening the gap between our best schools and the rest – but the approach remains alien to most educators and policy makers. Perhaps for this reason, CPM has not been integrated with CSM and the Federal efforts to address the crisis in our nation’s schools. Yet, as we have seen, it may provide answers that may be of critical importance for these efforts to be successful and meaningful.

The development of the next generation of Federal and state policy initiatives should integrate the CPM approach. In preparation, resources should be made available without delay to encourage schools and universities to intensify the exploration and research on the education of children and the training of educators following this combined process-content direction. Research is already making powerful tools available to schools to pursue this objective (Jensen, 2009). The task will require creativity and innovation along with knowledge, skill and practical abilities. But that should not be a worry: After all, it is what education is all about.

## Bibliography

- Duncan, A. (2009). *States will lead the way toward reform*. Keynote address delivered to the Governors Education Symposium, Cary, North Carolina, June 14-15.
- Jacobs, H. H. (2010). *Curriculum 21: essential education for a changing world*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Jensen, M. R. (2009). *The Mind’s Ladder: Dynamic Assessment Guidebook 2.0*. Roswell, GA: Cognitive Education Systems.
- Ministry of Education. (2004). *Teach less, learn more – transforming learning from quantity to quality*. Singapore Education Milestones 2004-2005.  
<http://www.moe.gov.sg/about/yearbooks/2005/teach.html> (accessed September 16, 2010).
- Ng, E. H. (2010). *Opening address*. 5<sup>th</sup> Teachers Conference, Singapore International Convention and Exhibition Centre, Suntec City, Singapore, September 6.
- Nichols, S. L., & Berliner, D. C. (2007). *Collateral damage: How high stakes testing corrupts America’s schools*. Cambridge, MA: Harvard Education Press.
- Rothman, R. (2009). *Common standards: The time is now*. Alliance for Excellent Education, Issue Brief, December 2009, <http://www.all4ed.org/files/TheTimeIsNow.pdf> (accessed September 10, 2010).
- Schlechty, P. C. (1990). *Schools for the twenty-first century*. San Francisco, CA: Jossey-Bass.
- Tyson, T. (2010). Making learning irresistible. In: H. H. Jacobs (Ed.), *Curriculum 21: essential education for a changing world* (pp. 115-132). Alexandria, VA: Association for Supervision and Curriculum Development.
- Zhao, Y. (2009). *Catching up or leading the way: American education in the age of globalization*. Alexandria, VA: Association for Supervision and Curriculum Development.

**Mogens R. Jensen, Ph.D.**, is cofounder and director of the International Center for Cognition and Learning in Roswell, Georgia. He is the author of *The Mind’s Ladder: Dynamic Assessment Guidebook 2.0* (Cognitive Education Systems, 2009) and developer of the MindLadder family of programs. To contact Jensen or learn about connecting process and content in learning, visit [www.mindladder.com](http://www.mindladder.com) or send an email to [mj@mindladder.com](mailto:mj@mindladder.com).