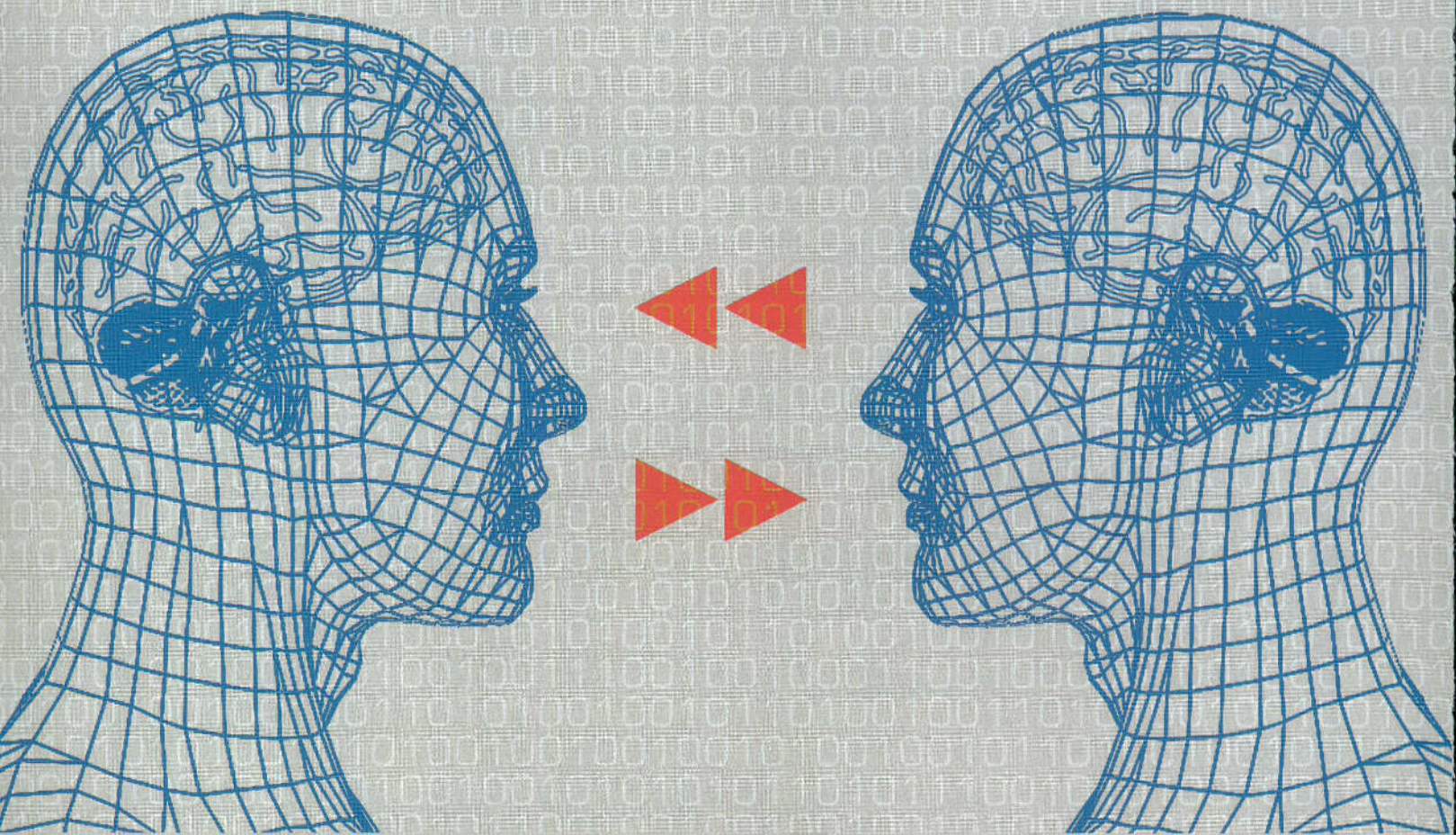


# ▶ What Dewey Can



Collaboration Inquiry Reflected  
Attitude Authentic Motivation  
Differentiation Collaborative  
Reflection Motivation Attitude  
Experience

High-stakes testing decreases student motivation and can result in a narrow curriculum.

Best practices—including differentiated instruction, inquiry-based learning, and collaborative learning—can help schools overcome a narrow curriculum and teaching to the test.

# Still Teach Us

By Daniel W. Stuckart and Jeffrey Glanz

When Dewey's monograph *Experience and Education* was published in 1938, the world was in the throes of a grueling, persistent depression and the U.S. education system was in flux because of competing visions about the purpose and conduct of school. The traditionalists favored an authoritarian structure that emphasized rote memorization, and the progressives advocated few barriers and the free flow of ideas. Dewey sought to bridge these positions by establishing a multidimensional philosophy of education that was grounded in the learning environment and human nature. In other words, he advocated educating the whole student. He identified three fundamental aspects of curriculum to achieve this end: the development of intelligence, the acquisition of socially useful skills, and the healthy growth of the individual. Seventy years later, the remnants of earlier cultural struggles remain, this time in the context of accountability and high-stakes testing that bring a host of new challenges.

Nichols and Berliner (2007) asserted that high-stakes testing inherently breeds corruption that has ethical, social, economic, and curricular consequences. Specifically, they pointed to:

- Prolific cheating by students, teachers, and administrators
- Increased retention rates for low-achieving students that often cause them to drop out of high school
- Scarce resources that are used to help "bubble" students (those on the edge of passing) pass tests, to the detriment of low and high achievers
- Narrow curricula and an emphasis on teaching to the test.

In other words, addressing the needs of the secondary student has become one-dimensional, resulting in a singular focus on passing the test at all costs. Although not everyone agrees with this analysis—notably those who offer their own set of suppositions suggesting that high-stakes testing leads to more learning with greater alignment among curriculum, pedagogy, and practice—both sides agree that the goal is to create effective learners who will be prepared for the workplace. The skills required to meet that goal extend beyond performance on standardized tests to include the ability to work with others toward common goals, effective communication skills, and the capacity for innovative problem solving. What can Dewey's philosophical legacy and research teach educators about addressing the needs of the whole student in the context of high-stakes testing and the demands of the 21st century? What curricular changes or emphases are necessary? Best practices may provide the answer.

▼  
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## The Development of Intelligence: Four Considerations

### Motivation

According to Dewey, the development of intelligence is a manifestation of human nature, specifically the desire for freedom. Although most people juxtapose freedom with physical movement and constraint, Dewey defined “freedom of intelligence” as the most lasting freedom “of observation and judgment” that the student finds “intrinsically worth while.” A key attribute for the development of intelligence is the cultivation of motivation.

High-stakes testing, according to Amrein and Berliner (2003), results in decreased student motivation and increased high school drop-out rates. The idea behind high-stakes testing is to use consequences to motivate low achievers. In their study of 18 states, Amrein and Berliner identified typical low achievers as students with low socioeconomic status who attend urban schools. They determined that “88 percent of the states with high school graduation tests have higher dropout rates” than states that don’t have tests, which disproportionately affects poorer and minority students (p. 33). Moreover, drop-out rates in those states are often inaccurate because more students choose to earn a GED, rather than risk the humiliation of failure. In addition, student motivation is decreased because “retention in grade does not motivate students to learn more or perform better.” Instead it causes “students to leave school early” (p. 34). Other studies confirm these conclusions, adding that although high achievers in suburban schools appear to be motivated by the tests, elementary students, special populations, and urban students report feeling demoralized (Clarke et al., 2003).

### Differentiation of Instruction

A second element Dewey addressed involves teacher pedagogy that is based on understanding “the capacities and needs” of the students and using this understanding to institute instruction “for individuality of experience.” Teachers are expected to provide appropriate experiences through various types of instruction.

Differentiated instruction can foster the acquisition of important content skills by appealing to most learners. In her seminal study of literacy practices in low socioeconomic schools in four states, Langer (2002) concluded that effective schools—those where the students score significantly better on standardized tests than students in typical schools—employ effective teachers who teach skills using “separated, simulated, and integrated experiences.” She defined *separated instruction* as “direct instruction of isolated skills and knowledge,” such as lectures; *simulated instruction* as “the application of those concepts and rules,” such as textbook exercises; and *integrated instruction* as student practice of “skills and knowledge within the embedded context of a large and purposeful activity,” such as letter writing.

### Inquiry-Based Learning

In describing the sequence and scope for the arrangement of curricula, Dewey identified a third way to promote the development of intelligence. He asserted that “problems are the stimulus to thinking” and that teachers are responsible for organizing content so that instruction “arouses in the learner an active quest for information and the production of new ideas.” Through systematic inquiry, students examine problems, and in the process, they create solutions and new forms of knowledge.

In a qualitative study focusing on 12 preservice science teachers, Eick (2002) concluded that some schools fail to offer significant opportunities for inquiry-based learning. But schools that take a holistic view streamline their science curricula in the context of the demands of standardized testing to build in more time for inquiry-based learning and other active-learning strategies. In those schools, teachers and administrators work together to provide an optimal environment for hands-on learning.

Eick’s findings echo other research studies that show mostly neutral effects of state-mandated tests on inquiry-based learning in schools where some teachers offer fewer hands-on activities after the introduction of high-stakes testing and some offer more. As Amrein and Berliner (2002) pointed out,

however, inquiry-based learning in the testing context occurs mainly in schools with students from affluent households. Poorer students are more often subjected to a narrow curriculum that focuses mainly on the tested skills.

## Reflection

A fourth means of developing individual intelligence is through reflection. Dewey explained reflection as the process of "thinking" with the added "postponement of immediate action" involving the "self-control" of "impulses." In this schema, intelligence operates as the agent of self-control. Reflection allows learners to regulate, monitor, and control their thinking.

Langer (2002) discovered that effective teachers in effective schools incorporated metacognition into their own professional practice as well as student assignments, meaning that teachers and students are aware of their reflections. A common attribute that outstanding educators share is that they nurture an intimate classroom dynamic in which the students reflect on their own experiences using such strategies as reader-response theories and portfolios. One example Langer noted was using portfolios to help students become aware of their learning and prepare them to address areas of weakness in the coming semester.

## Socially Useful Skills

The development of intelligence depends on the continuity and quality of the experiences. Dewey said that all experiences were social in nature. Therefore, to navigate toward the "experiences that are worth while educationally," students must develop socially useful skills. Students gain experiences from "the nature of the work done as a social enterprise," which also functions as "the primary source of social control" that gives each student "an opportunity to contribute something." Dewey maintained that teachers should provide social experiences to cultivate socially useful skills.

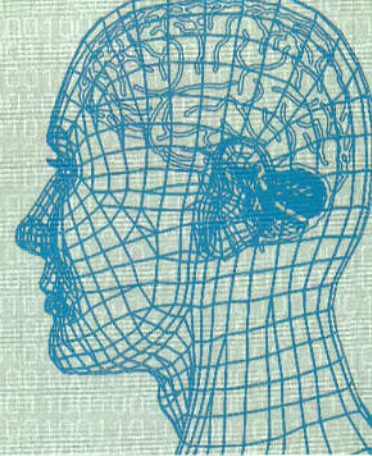
A key finding from Langer's (2002) study was that:

in effective schools, English learning and high literacy (the content as well as the skills) are treated as social activity.... In

## Why Do Students Drop Out?

- Thirty-five percent cited failure in school as their main reason for dropping out.
- Forty-five percent stated that they entered high school unprepared for the academic challenges and fell behind because of lack of additional support services.
- Thirty-two percent were retained in a grade before dropping out.
- Twenty-nine percent believed they could not have met the requirements for graduation with any amount of effort.

Source: Bridgeland, J. M., Dijulio, J. J., & Morison, K. B. (2006). *The silent epidemic: Perspectives of high school dropouts*. Retrieved July 9, 2007, from [www.gatesfoundation.org/nr/downloads/ed/TheSilentEpidemic3-06FINAL.pdf](http://www.gatesfoundation.org/nr/downloads/ed/TheSilentEpidemic3-06FINAL.pdf)



contrast, in typical schools, students tend to work alone or interact with the teacher, and when collaborative or group work occurs, the activity focuses on answering questions rather than engaging in substantive discussion from multiple perspectives. (p. 36)

Further, when collaborative learning contains the key elements of cooperation, interdependent group goals, and individual accountability, all ability groups achieve at higher levels. Slavin (1996) analyzed 52 studies that were conducted in secondary schools and concluded that of those studies that incorporate the key elements, about three-fourths of them result in significantly positive learning gains.

## Healthy Growth: Three Considerations

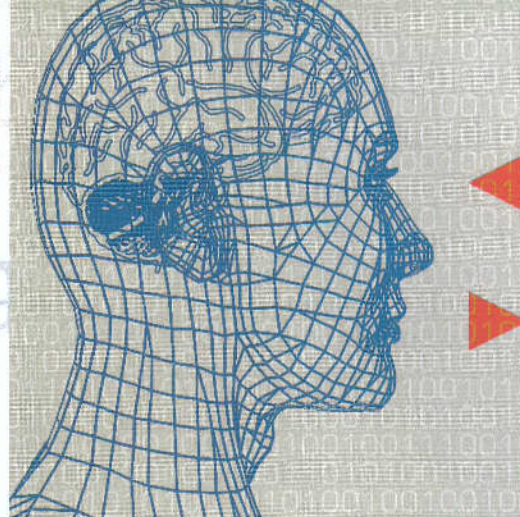
### A Narrow Curriculum and Teaching to the Test

The third fundamental aspect of curriculum relates to the healthy growth of the individual. Dewey explicitly acknowledged the role of the curriculum in context, particularly regarding "subject matter...in an organization which is free...because it is in accord with the growth of experience itself." Experience originates from the interaction of "needs, desires, purposes, and capacities to create." Hence, students

## Actions for Principals

- Use data coaches
- Provide better data analysis training for teachers and administrators
- Address cultural fears
- Demonstrate enthusiastic leadership with data-driven decisions
- Provide adequate time for administrators and teachers to understand the data
- Model the appropriate use of data

Source: Jerald, C. D. (2006). *Using data: The math's not the hard part*. Washington, DC: The Center for Comprehensive School Reform and Improvement. (ERIC Document Reproduction Service No. ED494094)



thrive within a broader curriculum in which intelligence—manifested through motivation and reflection and expertly guided with differentiated instructional strategies, including inquiry-based learning—can be exercised to overcome perceived difficulties.

Teaching to the test and narrowing the curriculum are widely reported consequences of high-stakes testing. According to Jerald (2006), “item teachers” teach disaggregated bits of information that are most likely to appear on the test, leading to a narrow curriculum, but “curriculum teachers” take into account the full breadth of skills and knowledge associated with a domain. Item teachers tend to substitute the test for the curriculum.

### Authentic Learning

The healthy growth of the individual also depends on the quality of the educational experience. Dewey envisioned curricula in which the items “fall within the scope of ordinary life-experiences” making the subject matter relevant and interesting to the learner, something educators refer to as “authentic” today.

Analyzing the conclusions of a study that was conducted in the 1990s involving classroom assignments and students’ standardized test scores from more than 400 Chicago classrooms, Jerald (2006) reported that students who were exposed to authentic learning assignments scored, on average, 20% higher on norm-referenced tests. These assignments required students to solve problems using real-

world applications, such as learning fractions while investing hypothetical money in the stock market. Although students who were assigned fewer authentic assignments also scored above the national average, they “gained much less,” even when controlling for income, gender, and race. Further, teacher disposition and choice determined the use of authentic assignments.

### Attitudes About Learning

A final consideration of the healthy growth of the individual is his or her attitudes about learning. Dewey stated that the most important attitude is the “desire to go on learning.”

In a literature review of best practices, Gulek (2003) indicated a growing consensus that high-stakes testing leads to negative attitudes toward learning and increased test anxiety. The anxiety appears to affect students differently: female and non-White students are the most adversely affected and are prone to developing cognitive interference and poor study habits.

### Conclusion

Preparing students for the 21st century workplace is a continual process that goes well beyond the high-stakes test. Keeping the whole student in mind through the fundamental aspects of curriculum—the development of intelligence, the acquisition of social and emotional skills, and the healthy growth of the individual—is a challenge. Using best practices may alleviate some of the negative effects of high-stakes testing. Administrators can help by providing valuable assistance with the analysis of data targeting those students most at risk. **PL**

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## Best Practices

#### To enhance motivation:

- Use multiple and frequent formative assessments in the classroom.
- Use data to target interventions for those students who are at most risk.

#### To differentiate instruction:

- When teaching skills, include direct instruction, applications, and assignments with purpose.

#### To promote inquiry-based learning:

- Build time in the academic schedule for administrators and teachers to plan inquiry-based learning.
- Encourage teachers to use inquiry-based activities in all content areas for all student populations.

#### To encourage reflection:

- Cultivate intimate and positive risk-taking classroom climates.
- Create assignments and assessments that have meaningful opportunities for students to engage in reflection and promote metacognition.

#### To institute collaborative learning:

- Provide opportunities for collaborative assignments, such as cooperative learning activities.
- Explain, model, and practice social skills, such as listening to others, expressing ideas, and negotiating differences.

#### To overcome a narrow curriculum and teaching to the test:

- Convene teachers, principals, and subject matter and curriculum specialists to align the curriculum and instruction with standards.
- Align instruction with research-based strategies.
- Include a little test preparation in formative assessments throughout the year.

#### To incorporate authentic learning into instruction:

- Provide professional opportunities for teachers to learn more about authentic learning in their content areas.
- Encourage the use of authentic learning as a means to enhance student interest and motivation.

#### To address attitudes about learning and test anxiety:

- Prepare the students with instructional best practices.
- Nurture the students' emotional well-being by providing positive affirmations and acknowledging that some anxiety is natural and beneficial.



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SOURCE: Principal Leadership (High Sch Ed) 8 no4 D 2007

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