

Authentic Intellectual Work: Common Standards for Teaching Social Studies

M. Bruce King, Fred M. Newmann, and Dana L. Carmichael

For most students in most schools, the usual work demanded of them is rarely meaningful, significant, or worthwhile. Learning tasks still tend to call for memorizing and reporting on specific information and content, rather than asking students for higher-level thinking, interpretation, or problem solving. Subject matter is covered, not examined in ways that produce in-depth conceptual understanding. Schoolwork is regarded largely as a series of contrived exercises necessary to earn credentials (grades, promotions, and diplomas) required for future success; but for many, especially poor students of color, this work leads to disengagement and dropping out. The challenge for students is to comply with teachers' and tests' requirements, rather than to use their minds to solve meaningful problems or answer interesting and challenging questions. This is no less true for social studies than it is for other subject areas.

What is meaningful intellectual work? To define it more specifically, we analyzed the kinds of mastery demonstrated by successful adults who continually work with knowledge—for example, scientists, musicians, childcare workers, construction contractors, healthcare providers, business entrepreneurs, repair technicians, teachers, lobbyists, and citizen activists. Adults in these diverse endeavors face common intellectual challenges that provide guidelines for an education that extends beyond basic skills to more complex academic work.

Of course, we do not expect children to achieve the same level of mastery accomplished by skilled adults, but identifying the nature of intellectual work in these professions can help to define criteria for performance necessary for success in contemporary society. Consider, for example, an engineer designing a bridge. To complete the bridge design successfully, the engineer relies on extensive factual knowledge from engineering, architecture, science, and mathemat-

ics. But the particular context for the bridge, such as its length, height, peak points of stress and load, and the impact of local variation in weather conditions, require the engineer to organize, analyze, and interpret all this background information to make a unique product. Consider also a citizen trying to make an informed decision about whether an elected officeholder has done a good enough job to be reelected over the challengers, or trying to make a convincing public statement to increase local funding for school security. Finally, consider a single mother of pre-school children who calculates the costs and benefits of job opportunities, paying for childcare, and deciding how to choose among childcare providers. The examples illustrate how diverse endeavors of work, citizenship, and personal affairs present adults with intellectual challenges that differ from those commonly experienced by students in schools. Such challenges can serve as guidelines for curriculum, instruction, and assessment that extend beyond

"Research and Practice," established early in 2001, features educational research that is directly relevant to the work of classroom teachers. Here, I invited Bruce King, Fred Newmann, and Dana Carmichael to summarize important and promising research on what they call "authentic intellectual work." It is important because so often schoolwork, not only in social studies but across the curriculum, requires little in the way of deep conceptual learning that also connects to life beyond school, and it is promising because the research shows that students who experience higher levels of authentic instruction and assessment achieve more than students who don't; and these results are consistent for students regardless of race, gender, disability status, or socioeconomic status. Are we serious about addressing the achievement gap? Read on.

—Walter C. Parker, "Research and Practice" Editor, University of Washington, Seattle.

the basics, and beyond extensive lists of content standards, to more complex intellectual work.

Authentic Intellectual Work: Criteria and Rationale

As a short-hand phrase for the difference between the intellectual accomplishment of skilled adults and the usual work that students do in school, we refer to the more complex adult accomplishments as *authentic intellectual work*.

Figure 1. Criteria and Standards for Authentic Intellectual Work

CRITERIA	STANDARDS		
	Instruction	Assignments	Student Work
Construction of Knowledge	Higher Order Thinking	Construction of Knowledge	Analysis
Disciplined Inquiry	Depth of Knowledge & Student Understanding	Elaborated Written Communication	Disciplinary Concepts
	Substantive conversation		Elaborated Written Communication
Value Beyond School	Connection to the Real World	Connection to Students' Lives	

Authentic is used here not to suggest that students are always unmotivated to succeed in conventional academic work, or that basic skills and factual knowledge should be devalued, but only to identify some kinds of intellectual work as more complex and socially or personally meaningful than others. Often times, authentic is used to mean only that the tasks students are assigned have meaning or connect to something in their lives now. We mean much more. Specifically, authentic intellectual work involves original application of knowledge and skills, rather than just routine use of facts and procedures. It also entails careful study of the details of a particular topic or problem and results in a product or presentation that has meaning beyond success in school. We summarize these distinctive characteristics of authentic intellectual work as *construction of knowledge*, through the use of *disciplined inquiry*, to produce discourse, products, or performances that have *value beyond school*. Figure 1 presents these criteria and the different standards for authentic instruction, assignments, and student work.

Construction of Knowledge

Skilled adults in diverse occupations and participating in civic life face the challenge of applying skills and knowledge to complex problems that are often novel or unique. To reach an adequate solution to new problems, the compe-

tent adult has to “construct” knowledge because these problems cannot be solved by routine use of information or skills previously learned. Such construction of knowledge involves organizing, interpreting, evaluating, or synthesizing prior knowledge to solve new problems. Teachers often think of these operations as higher order thinking skills. We contend, however, that successful construction of knowledge is best learned through a variety of experiences that call for this kind of cognitive work with important content, not by explicitly teaching discrete “thinking skills.”

Disciplined Inquiry

Constructing knowledge alone is not enough. The mere fact that someone has constructed, rather than reproduced, a solution to a problem is no guarantee that the solution is adequate or valid. Authentic adult intellectual accomplishments require that construction of knowledge be guided by disciplined inquiry. By this we mean that learners

- (1) use a prior knowledge base,
- (2) strive for in-depth understanding rather than superficial awareness, and
- (3) develop and express their ideas and findings through elaborated communication.

Prior knowledge base. Significant intellectual accomplishments build on

prior knowledge accumulated in an academic or applied discipline. Students must acquire a knowledge base of facts, vocabularies, concepts, theories, and other conventions necessary to conduct rigorous inquiry. Transmitting a knowledge base, along with basic skills, is usually the central focus of direct instruction in the content areas.

In-depth understanding. A knowledge base that is of value to students involves more than familiarity with a broad survey of topics. To be most powerful, students must have a deeper understanding of that knowledge that helps them grapple with the complexities of specific problems. Such understanding develops as one seeks, proposes, and tests relationships among key facts, events, concepts, and claims in order to clarify a specific problem or issue. Lessons and assignments that satisfy this criterion have students sustain a focus on a significant topic or issue, and demonstrate their understanding by arriving at a reasoned, well-supported conclusion or explaining how they solved a relatively complex problem.

Elaborated communication. Accomplished adults in a range of fields rely upon complex forms of communication both to conduct their work and to present its results. The tools they use—verbal, symbolic, graphic, and visual—provide qualifications, nuances, details,

and analogies woven into extended narratives, explanations, justifications, and dialogue. Elaborated communication may be most often evident in essays or research papers, but debates, simulations, and facilitated public issues discussions could also involve elaborated communication.

Value Beyond School

Finally, meaningful intellectual accomplishments have utilitarian, aesthetic, or personal value. When adults write letters, news articles, organizational memos, or technical reports; when they speak a foreign language; when they design a house, negotiate an agreement, or devise a budget; when they create a painting or a piece of music—in all of these they try to communicate ideas that have an impact on others. In contrast, most school assignments, such as quizzes, questions on a reading, or typical final exams are designed only to document the competence of the learner. They lack meaning or significance beyond the certification of success in school.

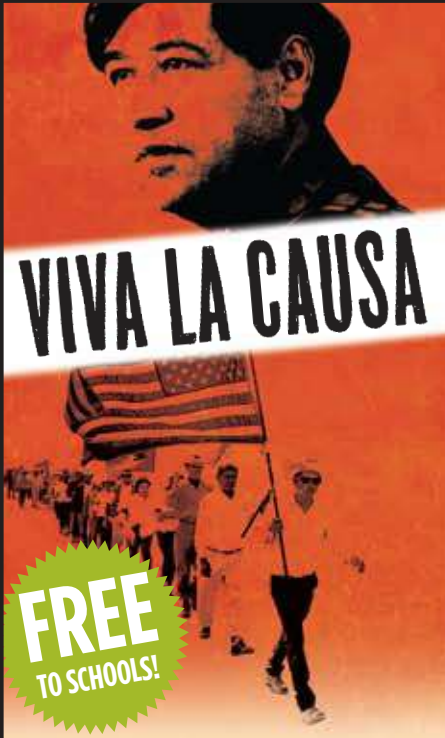
The call for “relevant” or “student-centered” curriculum is, in many cases, a less precise expression of the view that student intellectual accomplishments should have value beyond simply indicating school success. While some people may regard the term “authentic” as equivalent to education that is “relevant,” “student-centered,” or “hands-on,” we do not. Value beyond school is only one component of authentic intellectual work. Activity and topics should not just be interesting to students, they should involve particular intellectual challenges that when successfully met would have meaning to students beyond complying with teachers’ requirements. These tasks have students explore the connections between academic knowledge and situations outside the classroom in ways that create meaning and significance for that knowledge.

The three criteria—construction of knowledge, through disciplined

inquiry, to produce discourse, products, and performances that have meaning beyond success in school—provide a foundation for the more complex intellectual work necessary for success in contemporary society. All three criteria are important. For example, students might be asked to write a letter to the editor about a proposed social welfare policy. One student might say she vigorously opposes the policy, but offer no arguments indicating that she understands relevant economic and moral issues. This activity may meet the criteria of constructing knowledge to produce discourse with value beyond school, but it would fall short on the criterion of disciplined inquiry, and thereby represent only superficial awareness, not deep understanding, of the issue. Or students might be asked to interview family members about experiences during wartime or to conduct a survey of peer opinion on local economic or environmental conditions. These activities would connect schoolwork to students’ lives beyond school, but if students only reported what the respondents said, without summary or analysis or drawing connections to disciplinary content, there would be virtually no construction of knowledge or disciplined inquiry. Judgments about the extent to which schoolwork is “authentic” should be made on a continuum, from less to more, depending on how fully all three criteria are met.

Examples

What does authentic intellectual work by students look like? The first example illustrates a high school social studies student constructing knowledge through disciplined inquiry to produce intellectual work that has meaning and value beyond completing tasks in school. Students were instructed to develop a “position paper” on a controversial issue. The following excerpts are from one student’s longer paper justifying U.S. intervention in Kuwait in the Persian Gulf in 1991.



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Student Work Example, 12th Grade History

There have been numerous instances when the world has witnessed what happens when aggressors are not stopped. Let us look back to 1935 when Mussolini decided to invade and annex Ethiopia. Ethiopia's emperor appealed to the League of Nations, but nothing was done.

Soon afterwards, in 1936, Adolph [sic] Hitler reoccupied the Rhineland, thereby violating the Treaty of Versailles. Again, the world ignored these blatant displays of hostility and power. ...

When Emperor Hirohito of Japan attacked Manchuria in 1931, and then China in 1937, he was simply scolded by the League of Nations. ...

In 1938, Hitler united Austria and Germany. The world protested, but then gave in to Hitler who said he only wanted to unite the German people.

Then, Hitler took the Sudetenland [sic] from Czechoslovakia. As before, concessions were made to appease the aggressor. ...

In all the examples of unchecked aggression, the moral is the same. The school bully who demands lunch money from other children will not stop until someone stands up to him. If the bully is allowed to harass, intimidate, and steal from other children, it is giving him silent permission to use power against the weak. ...

Those who complain about the United States acting as a "police nation" would do well to remember that Desert Storm has been a United Nations effort, not solely a U.S. effort. The UN Security Council condemned Iraq's invasion and annexation of Kuwait, as did the Arab League. The UN imposed mandatory sanctions, forbidding all member states from doing business

with Iraq. The European Community, the United States and Japan froze Kuwait assets. The United States, Britain, France, Canada, Australia, West Germany, the Netherlands, and Belgium; acted in accordance with the United Nations and with the support of its many members.

There is a time for peace and a time for war. War is a horrible situation, but it is imperative that countries learn to recognize when it is necessary. Perhaps someday the world will be able to solve its problems without violence. In the meantime, we would endanger international security to allow people like Saddam Hussein and his terrorist goons to threaten and overpower independent countries such as Kuwait.

By organizing an argument for intervention to stop international aggression, especially when international support for the action is evident, the student constructed knowledge. Elaboration was offered by citing historical instances where aggression, if not stopped, led to a chain of negative consequences. In addressing an important policy issue of the day, the student produced intellectual work connected to issues beyond school.

For a second example, let us turn from student work to the assignments that prompt that work. The following example of an essay assignment, is from an inclusive classroom that is team-taught by a social studies and special education teacher. This assignment scored high on two of the three criteria for authentic intellectual work. In this class, there were 24 students, 4 of them special education students with mild to moderate learning disabilities.

Teacher Assignment Example, 11th Grade U.S. History

Students worked for a week on an assignment that required them to write an essay from the point of view of a specific individual after the end of the Civil War. Roles were given that reflected perspec-



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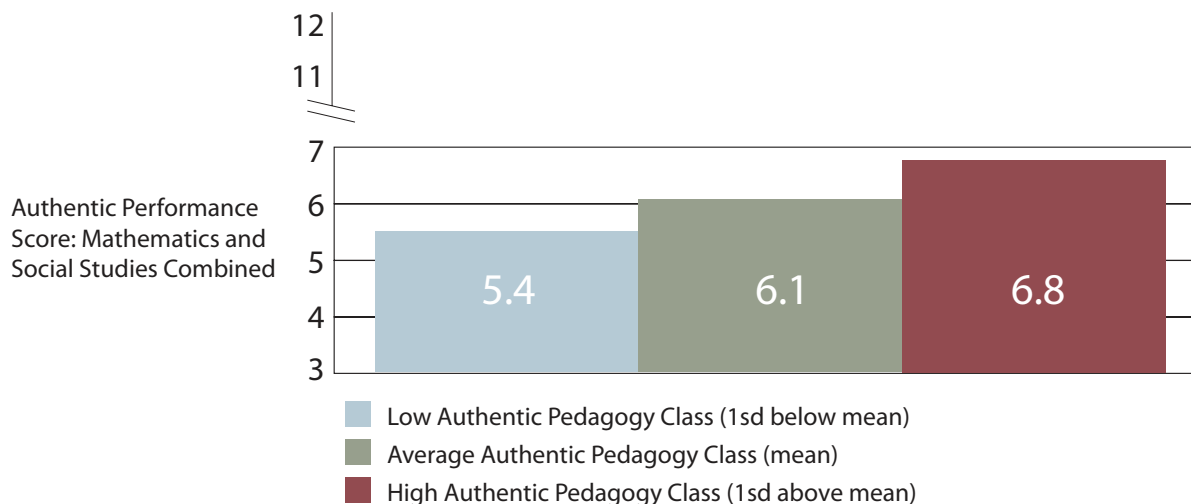
Student Investigations

- Spanish American War
- The Scopes Trial and American Culture
- Social Security and the New Deal
- Rosa Parks and the Civil Rights Movement

TEACHER MATERIALS

classroom strategies, examples of student work, handouts and more

Figure 2. Mathematics and Social Studies Authentic Student Performance in Classes with Low, Average, and High Authentic Pedagogy in 24 Restructuring Elementary, Middle, & High Schools



Source: Newmann, Marks & Gamoran (1996)

tives of both the North and the South. In their essays, students proposed a plan for the post-Civil War South from their individual's point of view. Two of the students with disabilities, for example, wrote from the perspective of a northern wife and mother and of a freed slave.

Based on the criteria for authentic intellectual work, this assignment was rated as follows:

- High on **construction of knowledge**. Students were asked to interpret and organize information relevant to the Civil War from the perspective of their particular role and to consider how their character would feel after the war and what that person might recommend for reconstruction of the South.
- High on **disciplined inquiry**. Students were asked to write an essay in which they made generalizations or drew conclusions from their role's perspective, as well as to support these. Through elaborated writing, they could demonstrate in-depth understanding of important social studies content.

- Low on **value beyond school**. The assignment did not offer students the opportunity to connect the topic to experiences or significant contemporary issues, or to communicate ideas that have an impact on others.

One of the keys to successful team teaching in an inclusive classroom, according to these veteran teachers, is holding high expectations for all students while accommodating individual learning needs. For them, learning expectations included both mastery of important social studies content and critical thinking. They stressed the importance of having students evaluate historical situations, synthesize information, speculate on events if the situation were different, and make connections between historical events and contemporary issues. While not using the language of the specific criteria of authentic intellectual work, their lessons and assignments consistently met those criteria.

This U.S. history assignment highlights two further considerations. First, it scored high on two of the three criteria; not all criteria can or should be met in every task or assessment. Second, students of varying backgrounds and learn-

ing strengths can successfully tackle intellectually challenging assignments, as the research has shown.

Research, Obstacles, and Policy

What are some of the important lessons regarding authentic intellectual work for the research and policy arenas? From 1990 to 2004, researchers completed studies at the Wisconsin Center for Education Research at the University of Wisconsin-Madison, the University of Minnesota, and the Consortium on Chicago School Research.¹ These studies demonstrated that students who experienced higher levels of authentic instruction and assessment showed higher achievement than students who experienced lower levels of authentic instruction and assessment. *The results were consistent for grades 3 through 12, across different subject areas, and for different students regardless of race, gender, disability status, or socioeconomic status.* Current research in Australia is showing similar results. Research focused on social studies has been consistent with the broader studies. Figure 2 presents one example; the difference between scores of 5.4 and 6.8 represents 30 percentile points in the full distribution of scores.

Actual reform of teaching and assessment, however, has proceeded at a snail's

Research on Authentic Intellectual Work

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pace. Teachers and schools face persistent obstacles that undermine emphasis on intellectual challenge: low expectations for academic excellence, especially for students from educationally disadvantaged backgrounds; lack of student engagement in their courses; professional isolation of teachers; proliferation of incoherent reform projects and professional development initiatives; and testing programs that emphasize only basic skills and recall of knowledge. The recent standards movement

has not significantly alleviated the main problems. Standards for curriculum and assessment commonly issued by districts, states, or professional organizations tend to emphasize the specific subject matter (content and skills) to be mastered in each subject and grade level. Though the standards often call for "critical thinking," "inquiry," and "learning to learn," in reality, the pressure on teachers to cover voluminous amounts of subject matter and to prepare students for high-stakes tests can

prevent them from taking time to help students think carefully about, build in-depth understanding of, and communicate elaborately about the content and skills that the standards prescribe.

These problems leave teachers, administrators, parents, students, and the public at large without a clear sense of the core intellectual mission of schooling. Whether policymakers and educational institutions will successfully tackle these systemic problems remains to be seen, but even with these issues unresolved, individual schools and social studies departments can, this research shows, increase student achievement for all student groups with curriculum, classroom instruction, assignments, and assessment of student work that are guided by the framework outlined here.

Why Promote Authentic Intellectual Work?

With schools in general and social studies in particular being called upon to meet a myriad of purposes (e.g., prepare students for higher education and democratic civic participation; encourage responsible social behavior; celebrate cultural diversity; provide a foundation in historical, geographic, and economic literacy; and develop personal, social, and workplace skills), why add another goal?

Promoting authentic intellectual work is not a project that adds a new or different educational goal. Instead, authentic intellectual work provides a framework for teaching and assessing any goal that relies on knowledge from an academic or applied discipline. The framework does not recommend how schools should arrive at priorities among the many tasks they are asked to perform. These issues must be resolved through democratic processes in local communities. The framework does insist, however, that whenever a school or teacher is involved in teaching content or skills from an academic or applied discipline, serious effort should be devoted to helping students produce authentic intellectual work. This position rests on three main points.

Better Preparation for Demands of the Workplace, Citizenship, and Personal Affairs

Studies of cognitive demands in modern workplaces document the importance of workers' problem-solving skills, in-depth understanding of problems and specific vocational content on the job, and elaborated and nuanced forms of communication. While thousands of jobs continue to require only low-level skills, as a matter of fairness all students deserve the opportunity to be educated for the demands of more intellectually challenging workplaces.

Public investment in education is justified not only for its contribution to individual economic success, but also for building civic competence in a democracy. From Aristotle to Jefferson, Dewey, and contemporary political scientists, the argument for democracy assumes that citizens are capable not only of basic literacy, but also of exercising principled and reasoned judgment about public affairs. Arriving at defensible positions on controversial public issues—from local disposal of environmental waste to national regulation of campaign financing or whether to vote for the candidate who most consistently agrees with your positions but is not likely to win—all require interpretation, evaluation, in-depth understanding, and elaborated communication that extends well beyond traditional tests of knowledge.

Furthermore, education should reinforce intellectual competence needed to maximize individual health, safety, and personal fulfillment. Consider the intellectual competence required in contemporary society to care for one's family and friends, to be safe and maintain health, to manage one's time and resources, and to develop rewarding hobbies and relationships. Coping with escalating and often conflicting information in each of these areas presents daunting challenges of interpretation, analysis, synthesis, in-depth understanding of specific problems, and working with elaborate forms of written, oral, and electronic communication.

Increased Student Engagement in Learning

Participation in authentic intellectual activity is more likely to motivate and sustain students in the hard work that learning requires. Teachers report that authentic intellectual work is often more interesting and meaningful to students than repeated drills, lectures, and worksheets aimed at disconnected knowledge and skills. Our research indicates that students exposed to authentic intellectual challenges are more engaged in their schoolwork than students exposed to more conventional schoolwork.

When students have opportunities to construct knowledge rather than only reproduce what they have been given, to understand topics deeply instead of only superficially, to express themselves by explaining their ideas, and to study topics that have some significance beyond the classroom, they are more likely to care about learning and be willing to devote the serious effort that learning requires. Increased opportunities for student engagement offered through authentic intellectual work lead to more effort—which pays off in increased student achievement on both basic skills and more complex intellectual challenges.

Intellectual Mission Strengthens Professional Community

The criteria for authentic intellectual work (along with more specific standards and rubrics for rating lessons, assignments, and student work) provide a common language for teachers and administrators to use in describing the intellectual mission of the school, department, or teaching team when selecting curricular content and instructional activities, and when evaluating their progress and their students' accomplishments.² By defining the kinds of intellectual work to be nurtured in common across classes and grade levels, this framework transcends lists of content standards and skills, thereby strengthening unity on the academic purpose within the professional community.

The criteria and specific standards can stimulate teacher dialogue and cooperative planning within and across courses,

grade levels, and subjects. Because the dialogue is grounded in rigorous intellectual activities, the framework itself becomes more meaningful to professionals than vague school missions that provide little guidance to teachers for explicit, shared intellectual goals. Teachers can meaningfully collaborate to teach content and skills according to the criteria for authentic intellectual work.

Research in schools across the United States and internationally has shown that when teachers' lessons and assignments meet these criteria, students from diverse backgrounds score significantly higher on assessments of complex intellectual performance as well as on tests of basic knowledge and skills, compared to students in classes where teaching falls short on the criteria. As research uncovered substantial positive achievement benefits for students in social studies and other subject areas, we concluded that teachers should have opportunities for professional development to help them use the standards and rubrics to guide their teaching and assessment of student work. In working with several schools along these lines, we are encouraged by the results. Our goal is not to rule out traditional teaching but to strive for a more reasonable balance between traditional teaching and authentic intellectual work to enhance student engagement and learning. 🌐

Notes

1. This research was conducted at the Center on Organization and Restructuring of Schools, and the Research Institute on Secondary Reform for Youth with Disabilities.
2. Available from www.thedlcteam.com/DLC/AIW_Books.html.

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