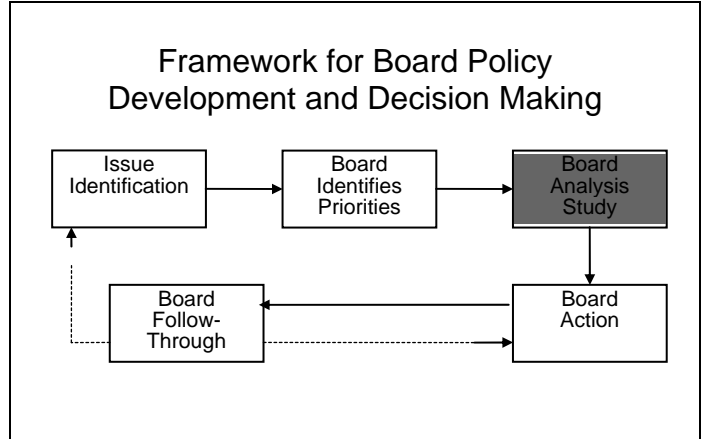


Iowa State Board of Education

Executive Summary

February 6, 2008



Agenda Item: Authentic Intellectual Work

Iowa Goal: 2. All K-12 students will achieve at a high level.

Equity Impact Statement: School districts have the responsibility to ensure that all students have access to high quality learning opportunities.

Presenter: Kevin Fangman, Administrator
Division of PK-12 Education

Rita Martens, Lead Consultant
Bureau of Teaching and Learning Services

Attachments: 2

Recommendation: It is recommended that the State Board hear and discuss this information.

Background: Teams of teachers in nine high schools are currently using the standards of Authentic Intellectual Work (AIW) to improve instruction. Authentic Intellectual Work is defined by three criteria: construction of knowledge, through disciplined inquiry, to produce discourse, products, and performance that have value beyond school.

This presentation will focus on developing an understanding of the standards and applying them to evaluate one assessment task. Also, reactions from those participating in the pilot project will be shared.

Authentic Intellectual Work Pilot Participants' Comments

"AIW provides a logical, effective, and user friendly framework from which to evaluate and improve the tasks we provide to students and our instruction itself. Its value rests both in the sound research identifying effective core elements of instruction and in its flexibility in utilization across varying styles of instruction and types of assigned tasks. With over twenty years of teaching experience, I rate this framework as one of top influences I have in designing student tasks and determining instructional strategies."

Kevin Neal, Social Studies Teacher
Valley High School

"By its very nature, Authentic Intellectual Work causes teachers to gather, focus intellectual, forthright discussion on a teacher task or student work, assess that work against standards, and suggest improvements. These discussions happen continually, as there are always teacher preparation and student work to assess and reflect upon. What's happening is this: AIW causes professional learning communities to take shape. This is one of AIW's strongest components."

Becca Lindahl, Consultant
Heartland AEA 11

"The AIW process is the missing link to a quality staff development program. Teachers are able to collaborate with one another; improve tasks, assessments, and instruction; and create a clear and consistent message for students. The rubric for evaluation of all facets of the program provides the teachers/administrators with the empowerment needed to increase achievement and delivery of instruction. In my 30 years in education this has proven to be the piece that helps teachers help themselves."

Joe Mueting, Principal
Spencer High School

"AIW provides teachers a framework for conversations and collaboration that gets to the heart of why we go to school in the first place. It is a refreshing change of direction from the narrower conversations about basic skills that frequently distract us from fully preparing children for the next stages of their lives."

David Johns, Humanities Curriculum Coordinator
Des Moines Public Schools

"We have established a professional learning community at Price Laboratory School focused on meaningful discourse about improving instruction. AIW materials and professional development have given our community a set of tools to look critically at each others tasks, instruction and student work. I know that our students have been given better tasks this year because of our involvement."

Megan Balong, Mathematics Teacher
Price Lab School

"I appreciate the time we are given to improve our lessons that we use on a day to day basis that impact our students' learning. So often, inservice works in a figurative world; I like that this works in a literal one."

Rodd Mooney, Language Arts Teacher
Humboldt High School

"The AIW process provides school districts with a research based structure to move instructional practice to the level of rigor and relevance that we have only talked about in the past. Teachers often talk about the need for time to work collaboratively. The AIW process ensures that this collaborative process will be of quality and directly benefit students."

Sharon Dowd-Jasa, Associate Superintendent
Boone Community Schools

Authentic Intellectual Work

Presentation to the
State Board of Education
February 6, 2008

Traditional Goals for Curriculum

- ***Content Knowledge***
- ***Skills***
 - Intellectual
 - Social
- ***Attitudes, Values***

Definition: Teaching that promotes student production of *Authentic Intellectual Work*

- **Construction of Knowledge**
- **Disciplined Inquiry**
 - Knowledge Base
 - In Depth Understanding
 - Elaborated Communication
- **Value Beyond School**

Justification

- **Meets intellectual demands of contemporary work, citizenship and personal affairs**
- **Minimizes problems of traditional curriculum and pedagogy: fragmentation of meaning, intellectual powerlessness**
- **Common set of intellectual demands stimulates professional community among teachers**

Justification

- **Extends work started with Rigor and Relevance Framework**
- **Has a solid research base**
- **Supports the Iowa Core Curriculum**
- **Can be applied to any discipline**

Indicators of Authentic Pedagogy

- **Pedagogy = teachers' intellectual demands of students, not practices or methods.**
- **Standards and scoring rubrics for construction of knowledge, disciplined inquiry, value beyond school.**

Standards for Student Work in Mathematics

- **Standard 1. Construction of Knowledge:** Student performance demonstrates thinking about mathematical content by using mathematical analysis; that is, going beyond simple recording or reproducing of facts, rules, and definitions or mechanically applying algorithms.
- **Standard 2. Disciplined Inquiry:** Student performance demonstrates understanding of important mathematical concepts central to the assignment; for example, by representing concepts in different contexts, or making connections to other mathematical concepts, other disciplines, or real world situations.
- **Standard 3. Disciplined Inquiry:** The student's performance demonstrates elaboration of his or her understanding, explanations, or conclusions through extended writing; for example, through diagrams, symbolic representations, or prose that presents convincing arguments.

Standards for Assignments in Mathematics

Standard 1. Construction of Knowledge

- The assignment asks students to organize and interpret information in addressing a mathematical concept, problem, or issue.

Standard 2. Disciplined Inquiry: Written Mathematical Communication

- The assignment asks students to elaborate on their understanding, explanations, or conclusions through extended writing; for example, by explaining a solution path through prose, tables, equations, or diagrams.

Standard 3. Value Beyond School: Connection to Students' Lives

- The assignment asks students to address a mathematical concept, problem or issue that is similar to one that they have encountered or are likely to encounter in daily life outside of school.

Standards for Instruction

Standard 1. Construction of Knowledge

- **Instruction involves students in manipulating information and ideas by synthesizing, generalizing, explaining, hypothesizing, or arriving at conclusions that produce new meaning and understandings for them.**

Standard 2. Disciplined Inquiry: Deep Knowledge

- **Instruction addresses central ideas of a topic or discipline with enough thoroughness to explore connections and relationships and to produce relatively complex understandings.**

Standard 2. Disciplined Inquiry: Substantive Conversation

- **Students engage in extended conversational exchanges with the teacher and/or their peers about subject matter in a way that builds an improved and shared understanding of ideas or topics.**

Standard 3. Value Beyond School: Connections to Students' Lives

- **Students make connections between substantive knowledge and either public problems or personal experiences in their lives outside of school.**

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