State Assessment and Content Panel for Science

Emails, conversations, and informal presentations by Bill Becker & Steve Day
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ODE establishes 8 Content and Assessment panels to assist in the various activities that surround the academic content standards and statewide assessments:

- Assessment Policy Advisory Committee
- Sensitivity Panel
- English/Language Arts Assessment and Content Panel
- Mathematics Assessment and Content Panel
- Science Assessment and Content Panel
- Social Sciences Assessment and Content Panel
- Accommodations and Modifications Review Panel
- English Language Proficiency Assessment and Content Panel.

These panels' major responsibilities may include the following:

- Review new field test items for content alignment, estimated difficulty, and grade level appropriateness for subjects with statewide assessments.
- Review and provide suggestions for revision (with input from other Oregonians) to the academic content standards and eligible content, based on the benchmarking of Oregon Standards and assessments with national and international standards.
- Review and develop materials designed to assist teachers in implementing the common curriculum goals, academic content standards, performance standards, and/or performance requirements
- Evaluate instructional resources matched to the academic content standards.

Panel members are nominated by School Districts, OEA, ESDs and via an application process.

From the ODE website at http://www.ode.state.or.us/teachlearn/testing/dev/panels/

- Cheryl Kleckner is the ODE representative/sponsor for the State Content and Assessment Panel for Science. Leslie Phillips, who runs the testing, is also on the Panel.
- Current panel membership
    - 25-30 people divided into 3 working groups
        - Elementary
        - Middle School
        - High School (about 7 people)
    - Steve Day, sole rep from a School District at the administrative level.
    - Bill Becker, sole rep from higher education.
    - Most people are from schools, rural districts, and Beaverton.
- The timeline for the Panel's current work is from August 2005 – April 2009.

    - Now reviewing, as a group, the current testing items (assessment) as a group calibration exercise
    - Over several years will develop, revise, and implement new round of standards
- Standards are for K through 10th grade level.
- Now have 42 content standards per grade level in most cases which is too many; it's not workable. Teachers are now forced to teach wide and shallow to cover all content standards. This results in "Jeopardy" learning – if indeed anything sticks past the test. Some territoriality involving content has been seen. There are no content standards related to electricity or similar engineering/technology topics, probably because of the 10th grade level. Basing assessment on a multiple-choice test driven by content standards does not work.
- All agree that change is desirable and inevitable; but there is no working model for an alternative (The international community shows examples of less breadth and much more depth at the earlier grades), which will slow progress. It is hard to assess student learning in an inquiry- or project-based science curriculum/pedagogy because we've never done it. We must figure out how to reliably assess such learning, to the point of building a program around it.
- There is a strong national movement to change standards; Oregon is ahead of the curve in many regards. There's an opportunity here to be involved in the whole conversation about how we teach and learn science.
- There is some available funding through Federal Department of Education RFP's with summer deadlines; Bill intends on responding after doing some more homework.
- Bill and Steve's vision: This is a long-term investment of time and energy; the payoff could be standards that are more process-oriented, that support inquiry- and project-based learning, and hands-on methodologies that motivate and engage students and the infrastructure and pedagogical tools to support that type of learning. We can work more easily when not hamstrung by a lot of content outcomes. They had quite a few allies in the room, especially at the secondary standards level.
- Bill & Steve feel we have a much better chance of introducing engineering and problem-solving into the science standards than into the math standards, which are even more hard-wired to the testing.
- Third player(s): The College Board & ACT, through their testing assessments and Advanced Placement (AP) Curricula. Their instruments of influence are:
    - Standardized tests for college entrance (SAT, ACT in junior and senior years). Attempting to influence these tests may not be optimal; these students are already college-bound.
    - Standardized tests used as assessments (ACT/PLAN etc.)
    - Often High School opinion leaders are AP or IB teachers.
    - College Board is big enough and influential enough to offer a curriculum culminating in AP classes; witness "Springboard" which pushes all the way down to Middle School.

- IB is also an externally mandated and assessed curriculum, which pushes down all the way through early elementary school through the MYP and PYP programs.
- There is, however, A National Academy of Sciences study a few years ago that was critical of AP and IB curricula, advocating a more project-based approach.