

OPAS Steering Committee Meeting #9
August 8, 2006

Attendees: Jeremy Tucker (OPAS/ OUS), Dave Krumbein (Blue Mountain CC), Dick Knight (Saturday Academy), Jay Bockelman (OIT), Bruce Schafer (OUS), Jo Oshiro (OPAS/OUS), Don Kirkwood (N. Salem HS), Michal Young (UO), Roger Rennekamp (4H/ OSU), Susan Boyanovsky (CCWD), Don Domes (Hillsboro HS), Larry Flick (OSU), Scott Huff (PCC), Di Saunders (OUS).

Summary

- **Standards:** The staff work on standards consists of summaries of state and national standards and the collection of exemplary standards documents. These are available at <http://opas.ous.edu/Committees/Resources/Standards/standards.html> and in the Master Resources List at <http://opas.ous.edu/Committees/Resources/>. While the Fordham Institute report was used in the decision of which state standards to investigate, they have a bias for content rather than process. Although the Fordham report cards are posted on the webpage, they are not the only source used in determining which states' standards were investigated. Because Jeremy looked at the original standards documents, he does not feel he was influenced by this bias. He was looking for:
 - Clarity and usability:
 - Organization
 - Depth
 - Appropriateness for the audience
 - Inclusion of
 - Technology
 - Design
 - Engineering

Jo has brought this work to the attention of the OPAS ODE Delegate, Jim Schoelkopf and OPAS members Bill Becker and Steve Day, who are on the State Assessment and Content Panel for Science which is currently in the process of rewriting Oregon Standards.

The committee commended Jeremy for an extraordinary job.

- **Graduation Requirements:** Bruce is working on a [document](#) to facilitate his discussions with OSBE and individual board members on the questions surrounding possible changes in graduation requirements for science currently before the board. He hopes to begin sensitizing the board to the value of applied science, math, and engineering. Caveats:
 - Graduation requirements is a Least Common Denominator; raising the LCD doesn't help the high tech industry much. Ensuring extraordinary educational opportunities can compete with raising LCD; we need to be very careful. Even if requirements are resolved to our satisfaction, standards must be improved and implemented if our problems are going to be helped.
 - To what extent are we talking about Carnegie units, course titles, and measuring what is learned independent of what the course is called? Our ability to assess that stuff without doing more harm than good is limited. We need to talk about

rigor and relevance, and the tradeoffs between flexibility for local control and state requirements for consistency and accountability across districts.

- OPAS Bottom Line: Limited Flexibility, Updated Content. It is NOT ok to limit the requirements to Biology, Chemistry, and Physics as currently taught. Use this a vehicle to start the discussion on new teaching methods – inquiry-based, and relevance. Focus on outcomes and a brief pro/con analysis.
 - The most recent revision of this document as of August 22, 2006 is available at http://opas.ous.edu/Committees/Resources/Staff_papers/GradRequirementScienceJ.pdf and through the Master Resources List at <http://opas.ous.edu/Committees/Resources/>.
 - Duncan Wyse of OSBE has asked if OPAS also wants to put a stake in the ground for math.
 - In parallel, Dave Krumbein will rough draft a white paper for polishing by Dick Knight and Susan Boyanovsky, with the working title “The proposed role of engineering and applied science in science curriculum reform.”
- **Subcommittee Activity**
 - Alignment & Coordination: Curricular and Cocurricular (ACCC) was awarded funds for its networking effort for informal science/engineering educators and will kick off that effort August 9.
 - Student Success: Access, Motivation, Retrieval (SAMR) has released a set of surveys for high school students, college students, and working professionals collectively titled “[Sparkling an Interest in Engineering](#)” to the wild. The survey will be open until at least September 1. Diversity and other committees are interested in the results. *The link to the survey has been placed on the OPAS Steering webpage, in the table of links near the top of the page, 8/22/06.*
 - **Workshop Plan**
 - The products, rather than long position papers, should be 1 – 2 page issue briefs targeted at opinion leaders. Avoid looking like a lobbyist.
 - We should take care that our recommendations do not target “fixing K12 public education” by acting solely on ODE, school districts, and schools. Our strength is our alliance to industry.
 - Instead of centering on subcommittees and perpetuating that structure, center the day around issues and use those to collapse the number of subcommittees and reenergize the effort. Consider a pre-emptive gathering of committee chairs as part of the planning process.
 - Enforce ownership of issues
 - Solicit an issues list; ask subcommittee chairs first
 - Match interests to issues
 - Have committees come together at the end of the day (one alternative).
 - OPAS Staff to create an alternative workshop format centered in issues and call a meeting of the subcommittee chairs. Pick a date in October.

- **The River**
 - Di Saunders will provide a leaky pipeline graphic for comparison to this harvesting the resource model, and at least one set of talking points.
 - Beau will provide another round for the next meeting.

- **EPIC**
 - PI David Conley has welcomed our interest and his staff has been very helpful as well.
 - Jo's [summary of the grant](http://opas.ous.edu/Committees/Resources/Staff_papers/EPIC_Summary.pdf), reviewed and approved by EPIC at http://opas.ous.edu/Committees/Resources/Staff_papers/EPIC_Summary.pdf.
 - The [original grant proposal](http://opas.ous.edu/Committees/Resources/Staff_papers/UO_EPIC.pdf) document in full at http://opas.ous.edu/Committees/Resources/Staff_papers/UO_EPIC.pdf.

- **Website Reformatting of the [Master Resources List](#)**
 - Now includes resources from all committees in one place; hopefully this will make life easier and more interesting for committee members, and just plain easier for the webmistress. Note that the list is searchable, the website contents are searchable, and the list is sortable, ascending and descending, by column.

- **Other Business:**
 - Policy Option package status: Various OUS policy option packages have been combined, and we are one of 8 bullets. If fully funded, we are golden; if not, we may have a less happy outcome.
 - Workforce 2005: The taskforce is doing specific research of what and how much needs funding. Another piece that fits in here: 2+2, Dual Credit, and Applied Baccalaureate Degree programs. Taskforce recommendations will be further defined, repackaged, and forwarded to the legislature; target date is September.
 - Larry Flick of OSU is writing a proposal about integrating engineering into science.

- **Next Meeting:** Tuesday, August 29, 3:00 – 5:00 at the Capital Center.

Discussion Details:

Standards

Dick: Spent some time on the Fordham report. Written from a point of view – Fordham is a charter school advocate. They appear to DK to have a pretty strong bias for content rather than skill. If we are going to quote this report, we need to know more about this bias.

JT: Fordham is a conservative place. He looked at criteria for the report's grading. Did focus a lot on content. Had several boards of people reviewing this; didn't seem to overly biased. He used the report mostly as a way to weed out the lower 80%. Mostly looking at science content standards rather than skills. Looked at science standards: organization, depth, audience? Included any technology, design, engineering? Did note if they included any science inquiry.

Dick: congratulations on an extraordinary job. Urge to follow through on offering additional staff time to SACPS – has Sean contacted Bill and Steve? Bruce will follow through and perhaps talk to Cheryl Kleckner also.

Graduation Requirements (see doc)

Dick: Remember that graduation requirements is a Least Common Denominator; raising the LCD doesn't help high tech industry much. Ensuring extraordinary educational opportunities can compete with raising LCD; we need to be very careful.

Bruce: When the dust settles on requirements, we still need to do better on standards and implement them if we want help.

Model says we need to talk about rigor and relevance (relates to Dick's work, small schools). Tradeoffs between flexibility for local control and state requirements for consistency.

Bruce talked to Joyce Cresswell about a bottom-line recommendation – she votes for Limited Flexibility, Updated Content.

Bruce: 2 goals: 1) help inform, facilitate the debate; some board members talking past each other, some really agreeing with each other; some think they are agreeing but not seeing points that need further discussion. 2) sensitize the board to the value of applied science.

Does plan to take this to the board and sit in the back of the room. He has talked to Kristin Bryant; she sees the value in it (with the benefit of the narrative) and has shared it with Duncan Wyse. Duncan would also like to know if we want to put a stake in the ground for math.

At most recent marketing meeting, Ed Dennis offered to connect OPAS with the board, to get additional contact (pre-meeting with board members) (Ask Bruce to flesh this out.)

Susan: Need a really good working definition of what “applied mathematics” and “applied science”, she would relate it to outcomes. Take developing a better definition offline. Move “applied” more to “relevance”

Dick: Can draw some pictures with Bruce offline (Rating the Alternatives) can use it as a platform for applied science. New teaching models – relevance and flexibility.

Di: shows a pro/con analysis. Needs to be relatively objective, but ...

Bruce: The value of framing the debate so people will be influenced in the directions we want.

DaveK: the floor of the debate has to be that the answer is NOT to say “OK, Bio, Chem, Physics”.

Bruce: some of us will finish this framing tool; in parallel take a stab at a white paper with a real recommendation of consensus or strong majority.

Di: what other courses are girls choosing instead of IB higher level math

Dick: College Board asks students anticipated field of study, broken down to student level – average SAT score that chooses to study ... can we get that data at a lower level.

Dick will reconstruct the link (8/22/06 – *Jo figured out this link and pulled the data and is working it into a spreadsheet. This could be a time sink.*) Data is collected during the SAT application process.

Bruce 1) shop conley's department for connection to this data (*Jo sent email 8/22/06*)
2) pick content from registrar's office
3) Institutional research

Workshop Plan:

Di: Do advocacy light; should be 1-2 pp "Issue Brief". Avoid looking like a lobbyist.

Dick: Looks like there has been some drift over time, like we are going to fix K12 public education. Is our wording biasing us to become one more group advocating for K12 education? We should not limit ourselves? Some things only industry can fix ...

Dick: Rather than having a committee oriented meeting, have an issue oriented meeting. What are the key topics? Then decide what the role of the committees and chairs?

Di: I agree with Dick. Do we need as many subcommittees? Maybe one outcome of the day is to collapse the number of subcommittees?

Enforce ownership of issues.

Solicit issues list.

Match interest to issue.

Have committees come together at the end of the day.

Susan: Good to collapse and focus on key strategic areas. Advocate for getting committee chairs together, even in a pre-session or planning session. Brainstorming about format.

Don: Pressure some of the groups to get on the stick?

DaveK: are we going to pick a date pretty soon?

Di: October would be good.

The River

Assignment for Di: leaky pipeline for comparison. Talking points – maybe more than one set for different audiences. Minor adjustments to graphics; Di will take to Beau.

EPIC

Conley very welcoming on this collaboration. Small window to tweak questions. Tweak questions to not limit curriculum to content. Dick will provide a question. (8/22/06 *Sorry, I don't think this happened/got incorporated*).

Reformatting Website for Resources

Other business

Sue: Policy Option package?

Bruce: Definitely part of the main POP; two gotchas – OPAS now a single bullet in the main policy package. If the main POP fully funded, we are golden. If not fully funded, we are one of about 8, so there may be a less happy outcome.

DonD: Workforce 2005?

Sue: Specific research of what and how much needs funding. Other piece: 2+2, Dual Credit, Applied Baccalaureate Degree. Recommendations will be further defined, repackaged, and forwarded to the legislature. Going to try to have something prepared by September.

Larry: will call Bruce about a proposal he is writing re: integrating engineering into science (JO send Jay B the link to the flyer about the summer class).

Next Meeting: Tuesday August 29 3:00 – 5:00