

OPAS Prepare Meeting #3
April 17, 2007 – Capital Center and Teleconference

Attendees: Tom Thompson (ODE), Dick Knight (Saturday Academy), Walt Mayberry (ORTOP), Jo Oshiro (OUS/OPAS), Sean Gallagher (Hermiston/Lake County), Jay Bockelman (OIT)

Summary as posted and emailed April 19, 2007

Because detailed notes from the meeting of March 20 were not completed, Jo provided the status summary from that meeting.

All members were asked to review the funding analysis worksheet for the steering committee and forward comments to Jo, if possible for the next steering committee meeting April 24, although it is always useful to keep in mind how current projects and priorities might be structured to be fundable.

Larry Flick was unable to attend but provided, per request, NSF pre-proposal 6685574, “Teaching Science Through Construction Engineering Problems” and a summary of the benefits of partnering with OPAS. The work could become a design template for disseminating curriculum and teaching methodology suitable both for introducing applied content to academic-style courses and academic content to PTE courses. The group consensus is to ask Larry for his ideas on specific supportive actions.

Steve Day’s White Paper “Creating the Opportunity for K-12 Pre-Engineering in Conjunction with the Reform of K-12 Science Standards in Oregon” was also discussed in the absence of the author. Tom Thompson of ODE’s judgment is that the State Content and Assessment Panel for Science (SACPS) is supportive of moving from content-based standards to process-, inquiry- and skill-based standards. Assessment is likely to be the most difficult piece. OPAS could be valuable as a counter-weight to those vocal groups advocating content-based standards. Additional recommendations finding favor:

- Advocate including pre-engineering content in the grades 6-12 standards as a way of increasing the opportunity and support for teachers wishing to use it in their classrooms.
- Advocate exposure to STEM careers/ activities in middle school, embedded into the curriculum, with follow-on in high school. Starting that exposure in high-school is almost too late.
- Develop new curriculum to model
 - putting more academic content into CTE classes
 - more engineering and applied content into academic science and math classes.

Project Lead The Way (PLTW) was brought forward as a possible exemplar program. The group asked for further information, and Tim Brower of OIT and a high school or community college teacher will be asked to speak with the group at or before the next meeting.

The TeachEngineering website was discussed; although it looks well-done, the group is leery of such websites because there are so many and it is hard to know how usable the materials are, and

if usable, how often they are accessed and implemented. Jo will inquire at OSU, where some TeachEngineering expertise exists.

Further exploration of what constitutes a well-prepared university freshman was discussed; the group would like to know

- what constitutes “well-prepared”;
- how close the majority of freshman are to meeting those criteria;
- what programs are in place at each university to support those not meeting the criteria, and how well are they working;
- what additional changes need to be made within the universities;
- what additional changes need to come from outside the universities, and who must make them?

The group decided not to pursue a multi-university panel at this time, and staff will make inquiries, and perhaps set up some discussions with individual institutions, including both admissions and instruction personnel.

Action Items:

- All - review the Framing Student Success documents (Larry's NSF pre-proposal); funding feedback to the listserv and/or Jo; review Steve's White Paper and send comments to Jo; review PLTW info Jo will distribute
- Larry - more specifics on how OPAS can provide communication and dissemination for Framing Student Success grant
- Steve - more specifics on how OPAS can align with ODE/SACPS to influence standards; reference on TIMS(sp?) study on AP vs. IB to Jo
- Dick - useful summary of curriculum examples he has (the 50-lb. pile); provide ACE contact info to Jo/Larry
- Jo/Dick - University preparedness/ retention research
 - All Suggested questions to prime the pump?
- Jo - contact Brower and another guest for the next meeting; try to get a debrief of the university panel from OCSTA; provide Larry contact info - Boyanovsky, Schoelkopf, ACE, Lane County Math in CTE

Additional points of information, discussion, and resources:

- Funding analysis exercise for the Steering Committee – regardless of the April 24 deadline, we should keep capturing any ideas for how to spend \$1 million to move our agenda forward.
- Tom: Talking with Cheryl Kleckner, who is heading the State Assessment and Content Panel for Science (SACPS) there is agreement among the panel that inquiry is important; OPAS is preaching the choir. The new contractor for assessments has the capability for doing simulations online; work samples are driving process learning in OR. Tom says OPAS needs to be able to push back when the content-only people talk too loudly.

- Again, the concern with standards addressing the floor, where OPAS needs to be targeting the Academic High-achievers and Capable-but-underachieving. Quality control processes are not driven off the minimal. A large number of potential engineering recruits are spread across academics and many of them are in CTE. Many recruited through “career exploration” like robotics.
- Dick: the assessment process is troubling. Beaverton used the ACT recently and found their students were performing considerably better than they thought.
- Tom likes OPAS doing more on what and how to teach, rather than assessment. Assessment can drive the system, so we have to be cautious about that. But OPAS will have a hard time getting too involved in assessment.
- AP or IB requires infrastructure – a curricular pipeline, sometimes all the way down to the 6th grade.
- Tom will eventually want feedback on the Oregon Skill Sets/ Career Clusters. OPAS has previously had conversations with Ron Dodge on this issue.
- Tom: advocate for getting applied science and applied math; show districts how this type of class would look like – ODE doesn’t really know what applied science looks like, but will have to provide guidance to districts. There tons of websites that look good, but they haven’t made much difference for a variety of reasons. Putting career units/information in physics texts also don’t seem to make much of an impression.
- Exemplars Project:
 - flog our various personal networks for exemplars and find and disseminate
 - look at stuff that is already out there and propagate that – PLTW – Tim meeting with Tom April 26. ODE has problem endorsing because of politics
- University panel Project – “panel” not the best format:
 - Dick wants real data on the table; possibility of a panel/workshop previously discussed. Also need to talk to community colleges? Potential questions:
 - What are you seeing coming in?
 - How does that affect student success?
 - What can your system do to correct that?
 - What has to be done outside your system?
 - Traveling: Do more of a focus group approach with a particular institution – and a few CC – discuss same topics with a wider cross section of the institution(s). To start, OSU and PSU and maybe OIT (Klamath). Sean will be down in Lakeview at the end of June. Commencement in mid-June. First check institutions about retention.
 - Quite a bit of national data.
 - JO – can you check out for this retention data at OSU – and others on an individual basis.
 - JO – guiding questions and base data to request ahead of time – work on that next time.

Next Meeting: Tuesday, May 15, 2007 3:30 – 5:00