

**OPAS Student Success: Access, Motivation, Retention (SAMR)  
Notes for Meeting #3, June 8, 2006 at the Capital Center**

**Attendees:** Eileen Boerger (Agilis, ETIC), David Coronado (MESA/PSU), Jo Oshiro (OUS/OPAS), Zanoon Nissar (Microsoft)

**Summary**

**Reviewing the Meeting of April 27 –**

Because this committee has had difficulty scheduling such that a consistent group of members can attend, the previous meetings discussion was summarized by David Coronado:

- There is a lot we want to accomplish
- We need a focus
- We need to talk about strategies
- One focus point, counselors, are currently overburdened with behavioral issues; teachers get more contact time with students.

Bruce also gave an overview of current activity in the Steering Committee meetings, centered around discussing three paradigms for curricular change and whether to have and what form a fall OPAS meeting/workshop should take.

**Decisions & Action Items:**

- Eileen & Jo – work on leveraging other people’s ideas and activities; talk to Bruce; compare to overlaps with other committees noted in the notes of the 4/27 meeting; make sure to minimize duplication of effort.
- Jo – provide a link to the State Standards Assessment and Content Panel report.
- Our energy should really focus on teachers, parents, kids 8 &9; counselors are necessary but not sufficient. First, analysis phase:
  - For teachers, students
    - What gets them interested? What do they need?
      - Find a home for a poll?
      - Ellen Momsen – access to engineering ambassadors?
      - Set up a focus group with MESA teachers (David & Jo – report at [http://opas.ous.edu/Committees/IPD/Notes\\_062006.html](http://opas.ous.edu/Committees/IPD/Notes_062006.html))
      - talk to some people young enough to remember why they got into STEM, get an understanding. Draft a set of questions for students & decide if we want to do an online survey. (7/7/06 - Jo – Draft set of three surveys available at [http://opas.ous.edu/Committees/SAMR/SAMR\\_Survey.doc](http://opas.ous.edu/Committees/SAMR/SAMR_Survey.doc). We have at least a few students who have offered to post the survey on MySpace or otherwise circulate it.)
  - what about parents? How do we promote consistency of message in both home and school domains?

- Survey events – partner with ACCC? Others? To ensure adequate publicity for college prep, academic rigor, career choices?

**Next Meeting:** Focus Group with MESA teachers was scheduled for June 20; Jo will try to schedule the next regular meeting in mid-July.

## **Discussion points**

### **Strategies, focus, activities:**

David: In school, one of the things essential to get through to kids is what you need to take to go to college – whether or not you know what you want to do. Prioritize 8<sup>th</sup> and 9<sup>th</sup> grade year?

Eileen: Pull the focus down to 8<sup>th</sup> and 9<sup>th</sup> grades because of the course choice planning horizon.

Jo: We have data underpinning our current direction:

- The study ([http://opas.ous.edu/Committees/SAMR/Sci\\_pref.pdf](http://opas.ous.edu/Committees/SAMR/Sci_pref.pdf)) that concluded interest in science in Middle School was a better predictor of career than math grades,
- Beaverton School District's experience with the Explore/Plan/ACT test results which indicate that much of the High School population is academically under-challenged by their current coursework; overall scores were much higher than anticipated.

Bruce: There may be some nuts and bolts opportunities for PR; we might be able to piggyback on GetReal website (<http://getreal.ous.edu/>) and expand it to engineering, for example.

Zanoon – Do we need to partner with organizations/corporations to have an engineering career event such as the Women in Technology evening in Redmond, which is run and sponsored by corporations. About 150 attendees came to their last event, many employees of sponsors – maybe 60 were K12 kids. Would such an event be something worthwhile?

### **Steering Committee:**

Bruce – OPAS Steering Committee currently has two main discussions underway:

- What is our strategy related to curriculum? No conclusions yet; we need to consider the target audience and workability of any strategies and tactics developed, and perhaps be more quantitative and less intuitive. This discussion has been structured by the three Paradigms for Curricular Change/ Strategic Alternatives:

1. “Academic Enhancement” - There are some HS in OR doing a good job preparing students, often using AP/IB. 2 opportunities here:
    - get more HS to adopt these best practices;
    - add engineering exposure/problems into curricula to expose students, increase relevance
  2. “Technical Enhancement” - Look at pre-engineering and challenging technical electives in HS; Hope this exposure inspires some
    - get these to more HS;
    - perhaps make some of these available at MS.
  3. “Redesign” - Evidence is that for every student who succeeds in STEM, 5-9 don’t retain the information much past the test. Redesigning curricula to reach more of these students could have a huge impact on the number and diversity of students succeeding in STEM subjects. However, this model has a 5-10 year lead time to show effects.
    - Take advantage of inquiry, project-based, hands-on, multi-modality teaching and engineering problem solving;
    - Favor depth over breadth.
- How should we model the activities of the subcommittees to ensure forward progress and synergy? do we need another summit? Should really be a workshop; different goal – bring together committees to share what we’ve been doing, having a longer slot of quality time, try to get in-person interaction. Would it be in September?
    - Situational analysis: 7 of 8 subcommittees are up and running; have had 1-4 meetings; one chair resigned. There is some concern there are too many committees or that the division of labor/mission is not optimal or even correct. This discussion has been structured by evaluating current committees as to whether the main question they are wrestling with is “What” or “How”.
    - Eileen: people are coming and engaging but scheduling issues mean the synergy of continuity and the energy of strong people coming to consensus are often missing.
    - Bruce: One possible answer to that problem is the use of a web collaboration tool, a wiki. The most accessible example is wikipedia. These are highly stylistic; some committee members may be self-excluding due to work style. We are prototyping the process in the Diversity Committee. (7/7/06 – Jo notes we are also about to release a wiki for the SCC subcommittee as well.)

Bruce: On June 7, ETIC presented its plan for the next biennium at the Strategy Summit “Growing Oregon’s Prosperity through Innovation”, Driven by the OSU College of Engineering. The ETIC plan was very well received.

### **MESA - a successful model program:**

MESA programs have been running in several states for many years, and post great participation and success statistics. Most MESA graduates go on to college in STEM fields and successfully complete degree programs. How does MESA do it?

- use teachers as a vehicle
- MESA doesn't only design curricula; they also provide a passive knowledge base for inquiry
- Bringing teachers to PSU and talk to professors and industry professionals
- Bridging gap of knowledge and skills
- Bringing engineers into the classroom
- Motivation for teachers/counselors
- Motivation for kids
- persistence of message
- teachable moment

*Respectfully submitted, Jo Oshiro, 7/7/06*