



5th Annual Life Sciences Summit

High School to Higher Education Transitions Initiative

May 5, 2010

Casper, Wyoming

1. **Please rate the value of this meeting to you, your work in the classroom, and your professional development. For any response lower than 5, please use the space below to explain.**

Ratings: 8, 10, 10, 10, 10, 8, 9, 10, 9, 8, 7, 10, 9, 9, 9, 8, 8, 7, 9, 9, 10, 10, 9, 8, 8, 9, 9, 9, 10 (t=259, n=29)

Average Rating: 8.9

- This can be very valuable; I think being able to develop a plan of action would move my rating to a 10.
- Excellent conversation and insight from high school and college.
- Very good.
- Exchange of ideas, priceless.
- Interesting look at assessment.
- This meeting will definitely result in me changing my methods of assessment.
- Very good discussion, was great to see the level of assessments.
- My first exposure to Bloom tax!
- I still don't know what I need to do to fix the problem! ☹ What was the problem again?
- Always interesting and effective conversation.
- It is valuable and important to know what other Biology teachers are doing in the classroom.

2. **How effective were the small-group table discussions in examining and understanding various “core” assessments?**

Ratings: 10, 10, 9, 9, 10, 8, 10, 9, 8, 9, 8, 10, 9, 8, 10, 9, 9, 8, 9, 8, 10, 10, 9, 7, 9, 10, 10, 10, 10 (t=265, n=29)

Average Rating: 9.1

- Constructive criticism!
- We were grades 9-16 and seem to be on the same page – assessing students' understanding and applying concepts.
- They were productive up to a point – some colleagues still forget the rules for participating in group discussions.
- Great discussion.
- The discussion allowed for a very good exchange about assessment.
- Exceedingly useful group.
- Great discussion, great examples, professional group.
- It was important to get feedback.
- Good to see other level examples – to see expectations at higher grade levels.
- I appreciated looking at and learning from the group's assessments.
- This was the best group discussion I have ever participated in.
- I liked the small group discussions. I guess at times it was hard to tell the value of the assessment because we lack background on the course content.
- It was interesting to get to talk to other teachers.
- Examining real student work at different levels was invaluable.

3. **How effective were the small-group table discussions in examining and understanding “Blooming” assessments, especially in contrast with “core” assessments?**

Ratings: 8, 10, 9, 9, 8, 8, 7, 10, 9, 9, 8, 10, 8, 9, 8, 9, 8, 8, 9, 8, 8, 8, 6, 9, 10, 9, 8, 8 (t=238, n=28)

Average Rating: 8.5

- Great to hear other perspectives – this is hard to do without some collaboration!
- Useful. I am beginning to have doubts on bloom... which is good.
- We “bloomed” – we had excellent assessments to examine and to level.
- Important to get different points of view and experiences.
- It made me aware of what I need to shoot for when writing exams.
- Bloom's levels are different for different ages, levels or content.
- I learned a lot and made conclusions as a result.
- Good concept. Something that I need to work at doing more of.
- Some at our table were unaware of the article.

- It was interesting to get to talk to other teachers.
- Exceptionally useful – seeing an analysis of test questions teachers brought using Bloom’s.
- It was hard not to talk about this in the “core assessments” discussion?

4. How important and effective were the large-group sharing and observation sessions in understanding the broader context of student learning and teacher expectations?

Ratings: 8, 10, 8, 10, 10, 8, 10, 10, 7, 8, 8, 9, 10, 8, 9, 9, 9, 10, 7, 10, 8, 10, 8, 6, 9, 10, 9, 9, 9 (t=256, n=29)

Average Rating: 8.8

- Good to hear what or how other groups thought about similar questions.
- Here’s where some of the “bigger” questions came up. What happens to these questions after the meeting?
- Great! (broader context part)
- It was interesting to get to talk to other teachers.
- Sometimes hard to know where conclusions came from without actually seeing the work.
- Good: reinforces our ideas and presents some more food for thought.
- Good to hear different viewpoints.
- They were good, but the small group ones were more personal, easier to participate in: comfortable.
- It’s a lot to think about and then interpret/implement in your own way.
- We found tables to be on the same page.

5. What types of activities do you feel are important for faculty to partake in during these high school to higher education summits in order to improve science learning for students? Please focus your comments on *student learning*.

- I like the idea of developing a statewide vertically articulated program that is developmentally appropriate. Bring K-16 together to chunk this task out into smaller, manageable pieces.
- Keep looking at assignments and syllabi.
- Gaining a better understanding of what skills students come to us with and what they need to take with them to the next level.
- Direct exchange observation/discussion. This way we see how others do their teaching and they see our constraints.
- Group discussions. Participant presentations.
- I think as a discussion on “learning theory,” “learning styles” would be important.
- The small group discussions with participants of varying backgrounds are great.
- Sharing student work; sharing lesson plans?
- Continued discussion on curriculum ideas and associated age/development levels.
- Share and compare.
- Discussing success and needs; discussing expectations.
- Teachers/instructors need to “know” their students as persons before attempting to infuse in them any concept or skill.
- I would like to see something in the way of inquiry learning models.
- I’d like more UW faculty that teach lower division courses. We become better teachers by attending.
- It’s nice to bounce ideas of activities and assessments off each other.
- Reading and writing.
- Talk about teaching methods? Classroom activities? How are we teaching our students?
- Student work – expectations and content.
- The assessments were great to see and examine the comparison.
- Walking in each other’s shoes!
- Understanding what takes place at each level.
- Group discussion have been very beneficial.
- Small group discussions (as done today) as well as coming up with concrete ways to solve the issues of discussion.
- Reflections and self-evolution make each of us better teachers.
- Site swap for longer period of time.

6. a. What do you feel is the key issue concerning coordination of the teaching and learning of the life sciences from high school to college?

- Articulation of content and methods.
- What students need, teachers want at next level, or how can we better prepare students for success.

- The difference in expectations regarding “personal responsibility” – retakes, extra credit, late work, etc. between secondary schools and UW. The gap in how much of “out of class” time must be spent studying and working on class work.
- The culture shock to the rigor of the college atmosphere.
- Equipping students to read and write and think!
- Helping students so they can learn how to read and understand text.
- Student to teacher expectations vary between levels.
- Communicate and cross-comparison.
- Communication and willingness to learn opposing sides “customers”.
- Not hand-holding the students so much to prepare them for the rigors of college.
- A better understanding of what is being taught at high schools and better yet, what is being learned.
- How do we as high school teachers get our students more motivated to reach the college level?
- There is not a single “key” issue. There are many. I learned this here...
- Develop essential learning for high school students to be successful.
- Are we “cramming” too much in our classes?
- Labs and what is expected in and from them. Looking into those more as we did with evaluation methods this time.
- Understanding differences in cognitive levels.
- Are our expectations at each level realistic?
- The culture students are part of in high school in college; they are too different.
- How to teach with the standards.
- I believe that the key issue is including English and math disciplines in the discussion. During the last three summits, the topic of inadequate writing abilities has been raised.
- Expectations
- Critical thinking.
- Comprehension and retention.
- More time in site swap discussion.
- Understanding the constraints and parameters/expectations in each area.
- Reality of what is taught at each level and the disconnect between the two.
- Standards – enhance transition.
- Open, honest discussion.

b. How can future articulation meetings best address the issue you identified?

- More participants.
- Continue with small to large group working together.
- Invite high school and college counselors and high school administrators.
- We need to realize that we all have different constraints, but the underlying purpose of education is to build knowledge. Learning ways to help students in different levels is necessary.
- More participation – representatives from more school districts; broader invitations, personal contact/collaboration.
- Information shared with high school counselors and administration.
- Perhaps survey our students and compare expectations.
- We simple need more articulation meetings.
- Facilitate discussion.
- More look at how much we are “covering” in our classes. Are we teaching for retention? Just giving resources for use later? What are we expecting students to do with the knowledge we cram into their heads?
- More discussion on the aspects of school culture surrounding the teaching and learning of science in classrooms.
- Continue the conversations.
- Similar to this one but with topic of labs. More time to share the best of the best projects/labs, etc. that each of us uses in our classrooms.
- Effective teaching and learning strategies.
- Develop an essential learning calendar related to coursework from high school to college.
- We need a “super summit” that incorporates language, math and science disciplines.
- Student work.
- How do we integrate more inquiry learning? Specific ideas about inquiry.
- Let’s look into the notion of charting out age appropriate topics for biology k-16, as mentioned in closing discussion.

- We need to spend time discussing and learning them.
- How do we teach science reading and writing?
- More exchanges.
- Have more broad-spectrum, Wyoming K-12 teachers involved.

7. What (if any) component of this summit wasn't an effective way to address a topic, or wasn't an effective use of time? Please be specific.

- Well done.
- Reviewing student work has been productive and effective, but doing it in alternate years could keep it from getting stale.
- Comparing the “blooming” of various examples of student work.
- The last discussion on overall course assessments was a bit diffuse and long.
- It was great: no complaints.
- Too much time per topic; made it inefficient.

8. Would you participate in another life sciences summit in the future?

Yes – 29 Maybe – 1

- Great to hear other perspectives – it will definitely help me perfect my teaching strategies.
- I learned much.
- Peer contact.
- It is important to understand the different environments in high school and college.
- As a newer teacher, the summit allows me to obtain knowledge from other experienced educators to better my classroom.
- I always learn something that can improve my teaching.
- I enjoy collaborating with other biology teachers.
- They are soooo good!
- I always want to learn more to help my students be successful in my classes and after they leave them.
- Extremely valuable information and contacts made.
- I learned from this and reevaluated myself.
- Excellent and enlightening discussion.
- It provides great insight into levels.
- It is extremely important to bridge the gap in science and make all aware of the importance and all that is lacking.
- Informative and thought provoking.
- It always depends on what is going on at that time (Maybe).
- Small group discussions are one of the best ways I learned.

9. How would you improve the summit?

- Wish we could discuss for longer...
- Shorten discussion times.
- Encourage more people to attend. I was surprised that even though we had a good group, the overall number of attendees was small.
- Make Wyoming a smaller state with less driving time.
- More beyond just looking at assessments.
- Something other than tacos for lunch.
- More time to chat.
- Perhaps have tasks for group members to accept and bring back to the next session – Action Research?
- Cooperative learning – more groups around to discuss ideas versus sharing with the large group (regroup during each discussion).
- Have more involvement with/from classroom teachers k-12 in the summit.
- I wonder about cultural issues that affect education.
- I would look to having additional secondary teachers/administrators.
- More time.
- Student swap with the site swaps.
- Beer.
- More time?
- Continue to have a varied direction of the meeting.

- What about pairing a Biology teacher in high school with a college biology teacher?
- End with us writing a reflection to ourselves of what we think we could change or improve.
- I would like to go home after this summit with some ideas that can be developed/explored throughout the school year in collaboration with my high school and college colleagues.

Comments:

- This is the first time I have had an administrator in my group. Really enjoyed the different perspective.