



FACETS Assessment Report: Reflections on the Three Seminars (Year 2 - 2005)

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The purpose of this document is to provide a brief report of the assessments regarding the perceived strengths and weaknesses the three seminars of the FACETS program (Year 2 – 2005). Participants of the seminars completed a preseminar assessment, assessments following each of the three seminars, and an overall postseminar assessment. Each assessment contained self-assessment items along with items designed to evaluate the FACETS program. Open-ended questions for both purposes were also included. Participants showed moderately large increases with their reported comfort with knowledge in the three FACETS topic areas. Again, the assessments also showed a positive reaction toward the issues addressed in the seminars, the quality of the seminars, and the utility of the information.

The Faculty Alliance for Creating and Enhancing Teaching Strategies (FACETS) again held a series of seminars in the Spring of 2005. [For more, please see the related document – “FACETS Assessment Report: Reflections on the Three Seminars (Year 1 – 2004)” for an account and assessment of the inaugural implementation of the seminar program.] This seminar program again contained three seminars: Exploring Generational Issues, The Impact of Cognitive Science on Teaching and Learning, and The Backwards Design of Teaching. Each seminar contained a brief presentation of relevant theory and research, a interactive task designed to flesh out the main issues for that seminar’s topic, and facilitated discussions among the participants. More information is available at the FACETS web site.

Importantly, each of the three seminars was updated significantly based on prior feedback. The Exploring Generational Issues seminar included new data from the National Survey of Student Engagement; the Impact of Cognitive Science seminar included updated material on memory structures and cognitive effort in memory recall; and the Backwards Design seminar included more examples of backwards design in practice.

The purpose of this document is to provide a brief report of the assessments regarding the perceived

strengths and weaknesses the three revised seminars of the FACETS program (Year 2 – 2005). Both qualitative and quantitative data are presented.

Method

All participants of the assessment were university faculty, local public school administrators, or businesses leaders in the Central Wisconsin region involved in the FACETS program. University faculty, the primary (though not only) target group for the sake of evaluation, were from the University of Wisconsin – Stevens Point and University of Wisconsin – Marathon County.

Participants were asked to complete a pre-seminar self-assessment which was conducted prior to all of the seminars. (This survey was presented in print form as a web-based version of the survey was non-functional.) This instrument contained ten 5-point Likert-type scales (see Table 1) and three open-ended questions all designed to gauge the participants’ teaching self-efficacy in areas relevant to the three FACETS seminars. Twenty-one participants completed this assessment.

Table 1: Assessment Statements for the FACETS Program

Parallel Pre- and Post-Seminar Assessment Statements

- 1 I understand the characteristics of today’s traditional-aged students.
- 2 I feel that I make references that today’s students understand.
- 3 I am comfortable developing materials that take advantage of students’ and employees’ learning styles.
- 4 I am comfortable with my knowledge of newer educational findings (i.e., learning styles, brain-based education, etc.)
- 5 I am comfortable with my ability to use a variety of classroom techniques to assess student learning.
- 6 I am comfortable with my ability to create assignments that help my students learn the material.

Parallel Post-Seminar Assessment Statements

- 1 The inclusion of [business leaders / university students] in the FACETS seminar contributed to a better understanding of [relevant topic].
- 2 The inclusion of non-university faculty in the FACETS seminar contributed to a better understanding of [relevant topic].
- 3 The seminar on [relevant topic] has caused me to think more about [relevant topic].
- 4 I have discussed or intend to discuss issues [relevant topic] with my colleagues.
- 5 I believe that other faculty and business leaders would be receptive to information on [relevant topic].
- 6 I have begun thinking about ways to incorporate knowledge of [relevant topic] into my work.
- 7 I have read some of the FACETS readings/materials on [relevant topic].
- 8 I believe that I know more about [relevant topic] now than I did before.

Post-Seminar Series Assessment Statements

- 1 As a result of the FACETS seminars, I have become more aware of the strengths in my interactions with my students.
- 2 As a result of the FACETS seminars, I have become more aware of the weaknesses in my interactions with my students.
- 3 As a whole, the FACETS program met my needs and expectations.

Note. All statements were measured on a 5-point Likert-type scale ranging from Strongly Disagree (1) to Strongly Agree (5).

All participants were asked to complete web-based post-seminar assessments approximately two weeks after each of the three seminars. In addition to repeating the relevant assessment items from the pre-seminar assessment, these surveys included more focused questions about the topic at hand using both Likert-type items (again see Table 1) and open-ended items. These statements remained parallel across the post-seminar assessments to foster comparisons (see below) regarding the usefulness of the seminars, the seminar materials, etc. Twenty, 19, and 16 participants completed the post Seminar 1, Seminar 2, and Seminar 3 assessments respectively.

A post-seminar series (program) assessment was included with the third post-seminar assessment. This assessment also utilized both Likert-type items (see Table 1) and open-ended questions. Sixteen participants completed the post-series assessment.

Unlike the previous year's assessment, responses from the 2005 seminar series were matching across assessments. Thus, statistical analyses treated these separate assessments as repeated measurements on parallel items. Thirteen participants provided complete data on all assessments.

Results

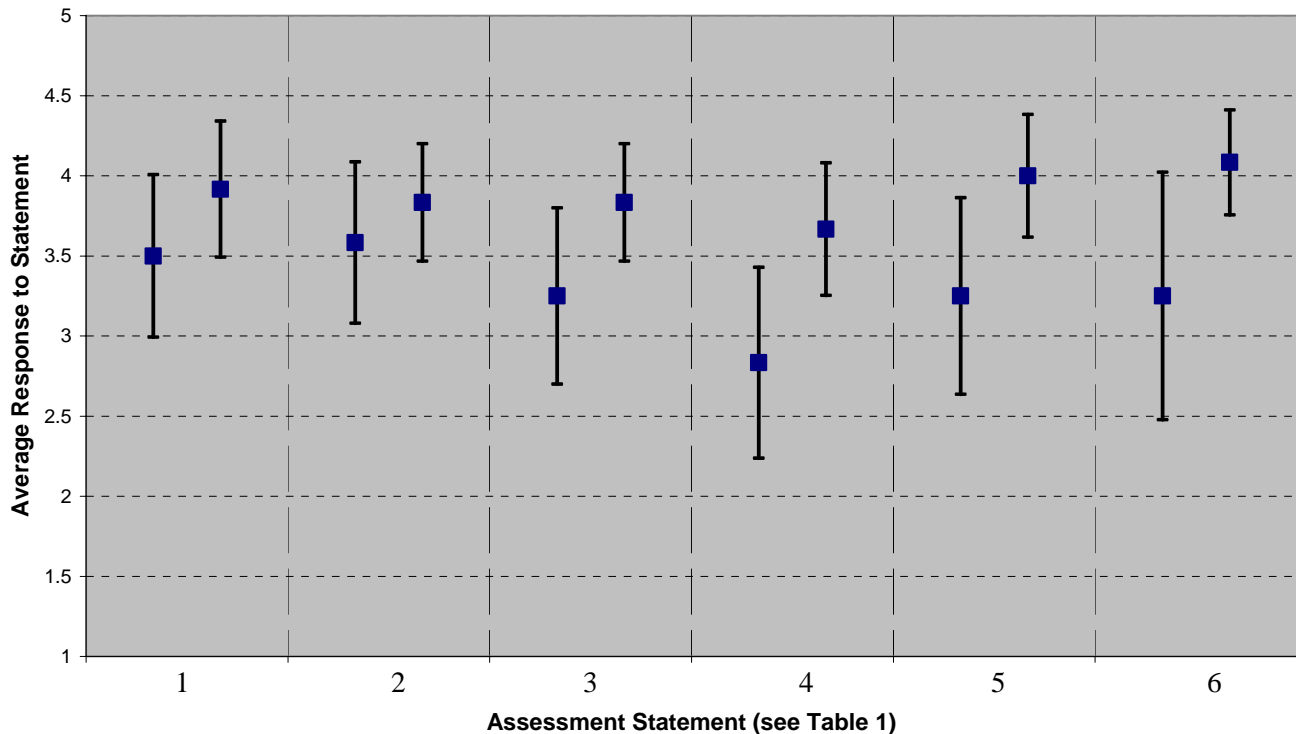
Pre- and Post-Seminar Self Assessments

Figure 1 summarizes the ratings on the 6 parallel pre- and post-seminar assessment statements. The bold middle lines represent the average ratings. The bars represent a 95% confidence interval, which can be used to make inferences about the average relative to the scale midpoint (neutral). For each item, two confidence intervals are given: one for the pre-seminar assessment and one for the relevant post-seminar assessment.

For the pre-seminar assessment, the ratings show that participants on average disagreed with the statement addressing comfort with knowledge of recent educational findings (prior to the seminar). Faculty showed moderate agreement with all other statements about the millennial generation, various learning styles, and pedagogical techniques prior to the relevant seminars.

Paired-sample t tests on these ratings also show that the participants showed a statistically significant higher average after the relevant seminar on all other items (with the exception of the item on a faculty member's ability to make generationally-relevant

Figure 1: Average Responses and 95% Confidence Intervals for Parallel Pre- and Post-Seminar Assessment Statement Ratings



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statements), all $ps < .05$. Thus, faculty reported higher understanding of the millennial generation and reported more comfort with their understanding of learning styles, cognitive science applications to teaching, pedagogical techniques, and assessment strategies.

Seminar Assessments

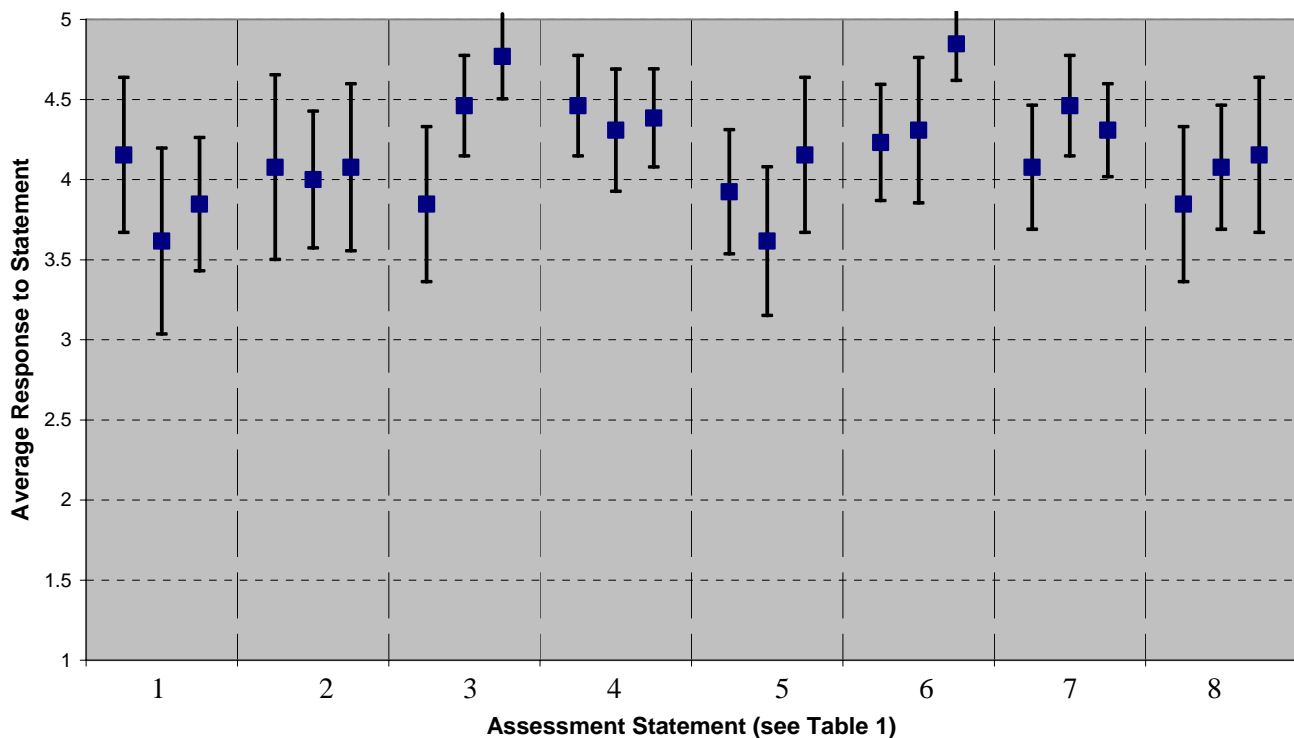
Figure 2 provides the average responses to the first eight statements of the assessments from each of the three seminars. A repeated measures Multivariate Analysis of Variance showed that, in general, participant responses did not differ across seminars on four items: the inclusion of business leaders/university students, the inclusion of non-university faculty, the discussion of material with colleagues, and overall knowledge about the relevant topic.

However, the analysis showed that responses differed significantly across the other four items, $ps < .05$. Specifically, faculty reported the seminar on Backwards Design caused them to think more about the topic than the seminar on Cognitive Science, which in turn was more thought-provoking than the seminar on Generational Issues. Faculty reported that they believed that other faculty would be more

receptive to Backwards Design than Cognitive Science information, but that receptability for Generational Issues information would not differ from the other two. Also, faculty reported thinking significantly more about how to include Backwards Design into their classes than material relevant to the other two seminars (which did not differ in ratings). Finally, faculty reported reading more materials on Cognitive Science and Backwards Design than they did on Generational Issues.

The post-seminar series assessment showed that the FACETS program indeed had a positive effect on the participants. Faculty reported that the seminars increased their awareness of their own strengths ($M = 4.27$; 95% CI: 3.78 - 4.76), increased awareness of their weaknesses ($M = 4.42$; 95% CI: 3.64 - 4.76), and met their expectations in general ($M = 4.40$; 95% CI: 3.82 - 4.98). It is important to note that these means are all statistically greater than the midpoint (neutral), $ps < .05$, indicating positive evaluations of the FACETS program as a whole. Qualitative data (presented in the Appendix) supports these conclusions, but also provides specific suggestions for improvements.

Figure 2: Average Responses and 95% Confidence Intervals for Parallel Statement Ratings from Post-Seminar Assessments



Appendix: Open-Ended Assessment Questions and Selected Responses

What did you learn about dealing with generational differences from the FACETS seminar?

I gained a sense of the variety of areas in which my perspectives may diverge from those of my students based upon the differences in our culture and experiences that formed us in different "eras." Having recently seen much of the information in orientation, I think that I'm less able to answer this question fully.

Instead of complaining about the new generation, I began to have an appreciation of the structural conditions that shape my students: that many work while study, that many have a lot of community activity involvement, that the format with which they receive information is changing, etc.. In a word, the traditional teacher – student relation is changing. *Because of these structural factors, it seems that we will have to adapt, like it or not.*

I found the presentation of our central Wisconsin batch of millennials most interesting and useful, as it reflected the distinctive nature of our students, as compared to national trends. One of the most useful realizations was that today's students have many more demands on their time than many of us did at their age. That said, our table felt that millennials may expect a higher proportion of what they learn to be learned while they are in the classroom, whereas most of us learned much more on our own outside the classroom during study time, etc. While I'm not sure that this is a trend I want to condone or contribute to, I need, at the very least, to consider more critically the learning value of the time I spend with my students in the classroom.

Specifically, how have you used or do you plan to use the information on generational differences?

I have adopted a more positive attitude toward students' work in class, increasing "wait" time between my questions and student answers, and really listening and offering positive support when students volunteer answers/information/observations/opinions.

I can see where it is really important to develop web based components to my computer applications courses. My students actually like taking the chapter quizzes on line because they can take them when they want, and retake the test two times. I am using the chapter test as a technique to have them visit and revisit the terms and definitions. The test is not being used to measure retention of concrete facts or definitions. The millennium generation love the web based activities.

What concerns or questions about generational differences do you still have following the seminar?

From where did some of these differences in the millennial generation arise... & how did I (my generation) miss or adapt differently to those social phenomena? It seems the program painted such disparity between what might be my generation's views and the millennial generation's views... where is the common ground between generations most distinct or most fertile?

I still feel I don't know how to effectively teach information to a generation used to "instant access" via the Internet, and how to help them understand that more literary means of access (books, articles) might be more reliable sources of accurate information. I have a (mild) read/write learning preference, and I believe this mind set may limit the range of my teaching techniques.

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What are the most important things you learned about memory and learning styles from the FACETS seminar?

Perhaps the most important point (for me) was the emphasis on long-term memory; this piqued my interest, and I would like to read more about how to encourage this type of learning. I give it lip service (e.g. tell my students that cramming doesn't cut it), but I have not yet come up with effective methods of long-term learning for students in my large classes.

I did not know the actual process of short term v. long term memory and its implication for retaining (and recalling) information. I also learned that certain types of learning styles are vastly underrepresented in pedagogy in comparison to students' learning strengths and preferences.

I've used them in the past as a manager to motivate employees to perform however I never thought about or considered using that approach for students as well. I have a strong background in this area as it relates to organizational behavior and I am very excited to use it in the future.

Specifically, how have you used or do you plan to use the information on memory and learning styles?

I am using more visual, graphical ways to present sociological theories and researches. Rather than simply presenting them in statement formats, I am presenting them graphically in terms of the dependent variables and independent variables and their relationships, the controls, and their measurements. They may not make the contents more interesting, but they certainly would make the contents easier to comprehend.

I am going to try to provide information that includes more modalities (visual, auditory, tactile, etc.) in my teaching. I am also going to attempt to make material more memorable by more inclusion of emotion. In assessment I plan to make a conscious effort to provide multiple assessment methods, in an attempt to allow each student to perform in their preferred style.

I plan to begin with one specific conceptual topic that comes up in most of my courses and that many students have a hard time wrapping their minds around. Presumably this is due to a combination of autopilot and not being given a way to work through it that fits their preferred learning style. I plan to focus on this one topic as my "apprenticeship" in designing multimodal instructional activities.

What concerns or questions about memory and learning styles do you still have following the seminar?

My main question is simply *what* are the different learning styles; not the names of these styles, but what they mean – what activities best help each "type" learn best. Also, I wonder which types are most common.

Everyone is familiar with Piaget's distinction between concrete operational v. formal operational. I think some are concerned with whether by catering to different learning styles, we are giving up the "formal operational" teaching objective. Is this a valid concern? Does the movement toward learning style diversity threaten the traditional ideal? Just a question.

There seem to be an overwhelming number of different ways to think about learning styles, many of which overlap, but some of which are almost incompatible. It's hard to imagine how I could possibly incorporate (or even fully understand) all of them.

WENDORF

What are the most important things you learned about reflective practice and assessment techniques from the FACETS seminar?

The “intuitive” approach I’ve been using to design my courses to achieve my pedagogical objectives, while fairly successful, leaves out important considerations that will enhance my teaching.

The backwards design idea – it’s so logical and obvious, yet I’ve never done it. I have done a little reflective practice, and look forward to doing more. I will definitely be working on the backwards design this summer for all of my courses – I’m very excited about it.

Specifically, how have you or do you plan to use the information on reflective practice and assessment techniques?

The processes for reflective practice and backwards design will help me with prioritizing outcomes. I often struggle with balancing the amount of content I feel I need to cover with the amount of time that really needs to be spent on the material.

I have already determined major course goals for my courses, but until now, have jumped straight from there to designing instructional approaches. After the FACETS experience, I plan to develop my assessments of how well my students are reaching these goals, THEN design the instructional approaches. I’ll also be teaching a brand new course this fall for the first time and will use the backward design approach from the outset.

What concerns or questions about reflective practice and assessment techniques do you still have following the seminar?

No concerns, really – I just feel the need to have time to read and *think*.

How does one communicate to students that much of the material will be focused around their learning and development in the topic of the course (more self-directed), but that it’s also an exploration that the professor will accompany them on rather than a course served up more traditionally (discreet topics/modules)? I’m curious about the issue of credibility and being able to “teach” the course that is more self-directed in a class of 32 or more individuals. I think that’s several questions...

Looking back on the FACETS program as a whole, what recommendations do you have for changes (additions or deletions) to the program?

I did not find the millennial generation seminar as useful as the other sessions. Perhaps that information could be presented in a way that more clearly emphasizes how we might incorporate it into our teaching. It also might be worth exploring as a group whether or not (or to what extent) it *should* be incorporated. (I had to leave the session early, so some of this might have happened in my absence.)

I did not find the facilitated discussions at all helpful. This could be a result of the particular grouping at my table. Perhaps the participants could be redistributed from session to session instead of remaining in a consistent grouping. Or perhaps there could be more interaction between groups.

Overall, the seminars exceeded my expectations. I gained a lot of insight from them, and it came at a good time in my career.