Teaching-as-Research Fellows Working Group
Facilitator's Guide

Derek Bruff
Updated April 21, 2010

First Orientation Session – 45 Minutes

Note that the first orientation is only 45 minutes, whereas the second session is two hours. That was a result of scheduling constraints, but having a short first session and longer second session ended up working well. Participants were given "homework" to do over the weekend before the two sessions, which greatly enhanced the second session.

- Brief Introductions (10 minutes)

- Venn Diagram (15 minutes) – Have participants share answers to the following question: "What are the differences and similarities you see among the terms good teaching, scholarly teaching, and teaching-as-research?" Document their answers on the board using a Venn diagram with three circles, one for each term. Have the participant suggest ways in which these terms overlap and are distinct. This activity is primarily a way to have participants surface and reflect on various aspects of these three terms.

  For the purposes of this particular activity, there are no "correct" answers. However, for the purposes of the working group, it's important to have working definitions of these terms to give the participants a common language. This activity can be used to clarify these working definitions. Here are the definitions we've used:

  - *Good teaching* is teaching that leads to student learning (knowledge, skills, perhaps attitudes and beliefs).
  - *Scholarly teaching* is teaching that makes use of the literature on teaching and learning and/or one's teaching community.
  - *Teaching-as-research (TAR)* combines scholarly teaching (as defined above) with accurately determining what students have learned as a result of one's teaching practices so as to improve one's future teaching practices. It's "evidence-based teaching."
  - The *scholarship of teaching and learning (SoTL)* involves asking questions about student learning and the teaching that leads to it, gathering and analyzing evidence of student learning in some systematic way so as to answer those questions, and "going public" with the results of one's analysis so as to invite critique and contribute to the teaching community.

- Discussion (10 minutes) – Lead a discussion of the following question: "What are some potential benefits (to you, to students, to faculty members, to other instructors) of engaging in teaching-as-research projects?" Use this not only to establish some possible outcomes of participating in the working group for the participants, but also as a way to find out what has motivated them to engage in this work. Below are some possible answers.

  - Helps you integrate the two sides of your professional life (teaching and research).

- Improves your teaching by (a) developing your skills in identifying learning objectives and designing teaching and assessment activities aligned with those objectives and (b) by improving your understanding of student learning and the teaching practices that lead to it.
- Prepares you for the faculty job market by (a) showing you take teaching seriously, (b) giving you an interesting project to talk about, and (c) demonstrating your ability to align your learning objectives, teaching methods, and assessments. See the CRLT teaching statement rubric.
- Prepares you for future faculty roles in assessment and accreditation, faculty roles that are taking on increasing importance. See this sample learning outcome assessment plan (LOAP), an example of the kind of document that departments are now frequently asked to produce as part of accreditation procedures.
- Improves the end-result of your teaching—your students' learning.
- Provides faculty members with assistance in designing and assessing curricular improvements, improvements that have the potential to impact students for years to come.
- Contributes to the ongoing dialogue in the teaching and learning community here at Vanderbilt and beyond.

- Homework (10 minutes)

  - Familiarize yourself with the Cycle 3 wiki, particularly the pages on the Vanderbilt IRB process.
  - Read chapters 1, 2, 3, 5, and 6 in *Enhancing Learning through the Scholarship of Teaching and Learning: The Challenges and Joys of Juggling*, by Kathleen McKinney (Jossey-Bass, 2007). We'll focus on chapters 3, 5, and 6 in the second orientation session, so if you're pressed for time, just read those chapters.
  - Find an example TAR project to share with the group at our next meeting. You can find links to galleries of online projects and to lists of journals that publish TAR (sometimes called SoTL) on the CFT's SoTL teaching guide. Prepare to address the following questions when you share your project on Monday:
    - What inquiry question was investigated? Is it a "what is" question or a "what works" question? (See McKinney, page 28, for definitions of these terms.)
    - What kind of evidence of student learning was collected and analyzed? Was it quantitative or qualitative or both? Was it direct or indirect evidence of student learning? (See McKinney Chapter 6 and the "Evidence of Student Learning" wiki page for definitions of these terms.)

Second Orientation Session – 2 Hours

- Example TAR Projects (45 minutes)

  - Distribute copies of the "Evidence of Student Learning" page on the wiki. Use the following activity as a way to clarify the concepts of "what is" vs. "what works," quantitative vs. qualitative evidence, and direct vs. indirect evidence.
  - Have each participant share the TAR project they found over the weekend. As they do, have them address the following questions.
    - What inquiry question was investigated? Is it a "what is" question or a "what works" question?

        - What kind of evidence of student learning was collected and analyzed? Was it quantitative or qualitative or both? Was it direct or indirect evidence of student learning?
    - After sharing the sample projects, take a look at the traditional vs. nontraditional assessment activities section of the wiki page and highlight assessment options not already mentioned. Also talk about any of the principles of analyzing evidence listed there not already mentioned.

- IRB Q&A (10 minutes)
    - See what questions the participants have about the IRB resources on the wiki.

- Break (10 minutes)

- Fellows' TAR Projects (45 minutes)
    - Have each participant briefly share his or her planned project. Since participants have been selected for this program on the basis of their proposed projects, each participant should have some project ideas ready to share here. Pull up the "Presenting to the Working Group" questions below as a way to guide them. Encourage questions and suggestions, but keep each participant to 7- 8 minutes total.
    - Be looking for who will need to share first in working group meetings during the semester. Some participants might plan to conduct their project's teaching or assessment activities early in the semester. Giving these participants a chance to share their projects at greater length with the group prior to this implementation will allow them to benefit from feedback from their peers.

- Scheduling (10 minutes)
    - See if you can determine a regular meeting time for the fall, as well as a line-up for presenters for the first few weeks.

Regular Meetings – 60 Minutes Each

- Presenters
    - In each meeting, one of the group members will act as "presenter," sharing their TAR work-in-progress with the group and inviting feedback and discussion. The presenter will be chosen ahead of time according to need. (For example, if a group member is planning to implement their project at the end of September, then they might present their project in early September.)
    - Provide the "Presenting to the Working Group" prompts below to presenters ahead of time. These prompts will help presenters prepare to share with the group and give the group presentations similar structures.

- During the group meeting, the presenter takes 10-15 minutes to share their project with the group. The format of this presentation is up to the presenter—PowerPoint slides or handouts describing their project or just talking through their project.

- Discussion
  - Then the floor opens to a group discussion about the project, starting with questions of clarification. Group members should direct their comments and questions to the project at hand. It's tempting to shift the focus to one's own project, but it's more important to keep the focus on the presenter's project.
  - It's also tempting to spend more time talking about teaching methods than teaching-as-research. Some "teaching talk" is productive, but make sure the conversation moves around to assessment of student learning designed to answer the presenter's inquiry questions.
  - It's sometimes tempting for the presenter to talk at length about the disciplinary content embedded in their projects. Some explanation of the content may be necessary for the other Fellows to understand the presenter's project, but be sure to reign in presenters who go on at length about disciplinary content not particularly relevant to the goals of the working group.
  - At the start of the group meeting, members are given a blank form for sharing written feedback on the presenter's project. See Appendix 1 for a copy of this form. Members are welcome to use this form during the meeting. Several minutes at the end of the meeting should be reserved for written feedback via this form to be given to the presenter. (Using this form is particularly important if the participants or facilitators are new to teaching-as-research. With more experienced participants and facilitators, verbal feedback might be sufficient.)

- Notes
  - It can be helpful for someone (the facilitator or assistant facilitator) to take notes on a (traditional or interactive) white board during the meeting. (One could project a Word document on a screen, as well.) The notes provide a reference for the members during the meeting and reduce the presenter's need to take notes while interacting with the group.
  - You might consider using different colors for different kinds of notes: **black** for descriptions of the project offered by the presenter, **blue** for initial results and analyses offered by the presenter, **red** for potential trouble spots identified by the presenter or members, and **green** for ideas and suggestions raised by the members. See the "Presenting to the Working Group" prompts below for another possible organizational scheme for the meeting notes.
  - After the meeting, send a copy of these notes to the presenter. If you've used an interactive white board, then this is simple. If you've used a traditional white board, then take a high-resolution digital photo of the notes.

- Common Problems
  - Big Questions Versus Well-Defined Questions – It's common for TAR Fellows to start with an inquiry question that's too big and ill-defined to lead to any kind of productive

investigation. For example, someone might want to investigate the use of cooperative learning in a particular teaching context. If pressed for a question, the Fellow might say something like, "Does cooperative learning help students learn?" That's in the form of a question, but it's too vague to be operational. Encourage the Fellow to refine that question in some way—by focusing on a particular course topic, a particular kind of cooperative learning activity, a particular aspect of student learning, a particular outcome that can be assessed, and so on.

- "What Works?" Versus "What Is?" – It's also common for TAR Fellows to want to investigate a "What works?" question, mainly because of their training as scientists. For example, someone might want to know if a particular kind of cooperative learning activity works better than a traditional lecture. However, often there's a "What is?" question that needs to be answered before the "What works?" question can be investigated. For example, what does "works better" mean in a particular context? The Fellow will need to have a clear understanding of the learning objectives in that context and the various ways students meet or fail those learning objectives. Otherwise, creating an instrument of some kind to measure which activity "works better" will be very difficult. And gaining that understanding of the various ways students learn in that context often requires a well-designed "What is?" project—something more open-ended and qualitative, perhaps involving the coding of student written work or verbal interactions.
- Student Demographics – It's common to treat one's students as a single cohort in TAR projects. However, how students respond to various teaching activities is often affected by a variety of demographic variables. Encourage Fellows to consider particular cohorts of students within their courses—cohorts perhaps determined by gender, major, learning style, initial confidence level, and so on. They might find that their interventions are more or less effective with different cohorts.
- IRB – At Vanderbilt, if you want to share your teaching-as-research project outside of Vanderbilt (at a conference, in a publication), then you need to seek Institutional Review Board (IRB) approval for your project, as it involves human subjects research. If you're okay not to share your project outside of Vanderbilt, then the IRB doesn't consider your project research (since it's being generalized to other settings) and so IRB approval isn't necessary. IRB approval is best obtained before a project is conducted. After-the-fact IRB approval is possible, but if the IRB doesn't like an aspect of your project, you can't go back in time and change it, so after-the-fact approval is riskier. IRB approval usually take a few weeks, and often initial applications are rejected with feedback from the IRB. Fellows interested in sharing their projects more broadly should plan their time accordingly. See the "Advice on the IRB Process" wiki page for more information.

- This format is based on one used by the Visible Knowledge Project and the CASTL Institute.

Presenting to the Working Group

When preparing to present your project to the working group, please consider the following questions. Note that depending on where you are in your project, you may not be able to answer all of these questions. That's fine. The questions are meant to help you structure your presentation and communicate effectively with the group by using a shared language.

1. *Context* - Describe the course, class, or other teaching context in which you are conducting your project.

2. *Questions* - What questions about student learning and/or your teaching practice are you investigating in your project? Would you describe these as "What is?" questions, "What works?" questions, or "What's possible?" questions?

3. *Evidence* - What sources of evidence of student learning are you collecting order to help answer these questions? Will these sources generate qualitative or quantitative evidence? Direct or indirect evidence?

4. *Findings* - If you have already started analyzing evidence you have collected, then what answers to your questions of inquiry have emerged from your analysis? Support your answers with samples of student work or other data, if possible.

5. *Help* - What questions do you have about your project? How can the working group help you answer these questions?

Appendix 1 – Feedback Form

Presenter: _____

Please use the prompts below to provide written feedback to today's presenter. Some time will be reserved at the end of the session to do so, but feel free to take notes during the presentation and discussion.

1. What questions about teaching and learning has the presenter articulated as most central to their project? Are these "What is?" questions, "What works?" questions, or "What's possible?" questions?

2. What kinds of evidence of student learning does the presenter plan to collect or has the presenter collected? Is the evidence qualitative or quantitative? Is it direct or indirect evidence of student learning?

3. What aspects of the project are most interesting to you? Why are they interesting?

4. What aspects of the project need clarification or deepening?

5. What steps might the presenter take to refine their questions, methods, or analysis?

6. What resources can you recommend to the presenter?

7. Other comments?

Your Name (optional): _____