**FACULTY NARRATIVE**

**What worked, and what did not when it came to using and assessing student achievement of the SaS learning outcomes?**

WHAT WORKED: Using and assessing student of achievement of SaS learning outcomes worked by providing an alternative view of the course. That alternative view reassured me as the course’s instructor that learning outcomes were indeed reasonable and achievable. Instead of occasionally defaulting to what I feel most comfortable teaching about research, being required to articulate and map intended learning outcomes from the outset kept me focused on structured steps and the main items students to needed to learn about research from the course. In other words, the SaS approach and course map format organized learning outcomes in such a way that I taught research *for* the students rather than falling back on the teaching methods with which I was most comfortable. The approach also provided enough structure to sufficiently support students in their research process without curbing their enthusiasm for the pursuit of knowledge good research presents. Each team ultimately produced original scholarly materials by articulating an original research question, refining it over the course of the semester, and even changing their minds along the way. I am quite proud them for that.

What also worked was attending SaS meetings where I could listen to other faculty describe their desired learning outcomes. Those meetings provided the context I needed to take some risks while teaching this new course. When I started teaching years ago as a graduate student, I planned new courses by first deciding what I wanted to teach and sticking to that. We were even encouraged to do so. Because of the SaS approach, which first views a new course through the lens of the learning outcomes it should produce, I now have much more clarity on three important items: what students should learn, when they should learn it, and how to ultimately tell if they did. If only we always had eighteen months to plan a course and additional time to track its outcomes!

WHAT DID NOT WORK: Despite Kathy’s warning, I failed to simplify the course map and associated activities, instead mistakenly choosing to expand it. Because I had never taught a course quite like this, I was nervous about not having enough content to teach, especially since there was no assigned textbook for the course. Adding more activities (there were 15 total in a 14-week course), I increased the amount of work I asked from the students but in the process probably compromised quality, which in turn, sometimes muddled my own lesson planning.

**Describe some successes and challenges in creating this course.**

SUCCESSES: In creating this course, we successfully crafted a space in which Honors College students formed effective research teams and recognized the benefit of team research in the process. As proof, here is testimony from one of them:

Although I still believe that a large part of research depends on the collaboration of academic scholarship, I no longer believe that the process has to be an individual endeavor, and I have actually come to believe that the final product is enhanced when there is a team effort. I believe that the research we conducted was much more powerful than the research either of us could have conducted individually because of our different interests. While she pursued sources that dealt largely with topics like stigma and language, I pursued sources that allowed me to quantify the phenomena her sources described. Without her work, my findings wouldn’t have adequately addressed the theories behind my data, and without my data, her research was largely theory. Together however, our own research interests were able to cohesively form a final report that incorporated both of our individual interests in collaboration with the interests of the public sphere, which guided our research inquiry.

Another success was the quality of reflection the course produced. The pretests, which I renamed “Refraction Essays,” identified student research strengths and weaknesses out of the gates, which helped me teach to each of the six students accordingly. Identifying research traits early on enabled me to accurately track and gauge student progress, and in the process demonstrate for the students how much they were learning and growing as researchers. This meant their final reflection essays proved to be quite insightful. Rather than listening to their instructor explain here is what you learned from the course, in the true spirit of productive reflection, they saw their own progress with research for themselves. When describing that progress in their reflection essays, some sentences even approach eloquence!

As basic as it sounds, students like to know what they are supposed to learn in a course. The SaS approach successfully demonstrated how important transparency is when teaching a new course. Because the course so clearly presented itself as an opportunity to explore complex and difficult challenges in the public sphere, the students were truly empowered to ask real questions and pursue them. In the process, they improved their critical thinking, interpersonal, and research skills, instead of unrealistically seeing themselves as problem-solvers who already have all the answers.

If you asked each HNRS 312 student to explain the relations and distinctions between “pure” and “applied” or “translational” research, I do not think a single one would give you a straightforward answer. For me, this is the course’s most formidable success.

CHALLENGES: Probably most challenging was simultaneously teaching individual researchers and managing their respective research team dynamics without one interfering with the other.

For example, while I am perfectly capable of teaching a team to recognize their own tendencies and how to manage their strengths and weaknesses accordingly (I already do this kind of work in our Honors College Connects program), teaching the research process itself to each individual on these HNRS 312 teams was quite challenging, especially since best research practices can vary so much across different disciplines. A good example is from the behavioral economics team. One team member was excellent at assessing the current validity of key assumptions and evidence in behavioral economics, and she excelled individually at locating and evaluating appropriate sources within economics. However, she really struggled with communicating knowledge from those sources in her paper and to her research teammate, and in the process, would often forget to include her own perspective in the scholarly conversation. As much as her Honors 110 course should have, it had not in fact taught her how to use writing as a tool that places multiple perspectives into conversation with each other. So while I worked with her until her writing rose to meet these communication challenges, her research teammate fell by the wayside and struggled to stay connected to the team’s research topic itself. He admits as much in his reflection at the end of the semester:

This was the first time that I was tasked with being a team player for a large research project…In my opinion, the biggest problem I had in this research process was, for lack of a better phrase, my lack of caring for the topic. At the start of the semester, it seemed like the only way to look at our topic was through an economic point of view. I am not crazy about economics, and I think this stems from my lack of understanding of the concept. So, when tasked with extensively researching it, I was neither interested nor motivated to perform the research…I know that I could have done much better in my writing, which is disappointing to me, and the main reason why my researching and writing was poor was because I was not interested in the topic. I should have made a stronger stand for researching a topic that interested me at the start of the semester. But, I tried to be a good team player, so much that it ended up hurting both my teammate and me.

What I learned from this challenge is that as early as possible in the research process, students need to learn how to help themselves *and* motivate each other as teammates, especially when it comes to multi- and interdisciplinary research. I also need a way to measure their interest in and commitment to research from the outset. In this team’s case, it would have been ideal if, through conversations with his teammate, the other teammate’s interest in the research topic (or lack thereof) would have peaked. Unfortunately, end-of-the-semester pressure and a frank conversation with the team and the individual were both necessary and are what ultimately motivated this student to put in the work. Involving the librarians and nonprofit partners earlier in this process would have helped address these communication challenges, so it is clear I did not connect students to resources, including each other, as early as I should have.

**Changes planned for the course based on what I learned from this semester.**

As I say above, going forward I need to remember that students learn just as much or more from each other as they learn from their instructor. That means the next time I teach this course, my methods should incorporate peer review workshops and peer-led activities to a greater extent. Another change planned is to involve faculty and public sphere partners as early on in the research process as possible. Doing this earlier and more rigorously should serve to reinforce the team approach to research the course already aims to teach.

**Brief comparative analysis of two sets of student work samples.** What did you know about their knowledge and abilities when they started the course? How do you rate their developmental progress over the semester? Evaluate their overall performance, and discuss the decisions you make about their work.

 From the “proficient but inconsistent student” I knew several things. First, I knew she was a second-year University Scholar, which means she is one of approximately twenty students who receive a full tuition waiver that is merit-based. Because I work closely with the professionals who select these students, I knew this student would be self-motivated and committed to her studies. Secondly, I knew she was also a potential leader in the classroom based on her work as a team member in our Honors College Connects program. I was pleased to discover from her pre-test that she also had experience with another research project where she

had to adjust my research to the tau protein specifically rather than gene to compensate for this. With research, ideas do not usually go slightly wrong. In my experience, you find out early on if you research will be strong enough for a paper or a project. Therefore, a change of direction is usually switching to plan B or narrowing the scope of plan A.

As you move on and read her refraction essay, you will notice that she and her teammate had plenty of enthusiasm for a range of ideas about what they would research, yet also a healthy amount of skepticism in the classroom that these writing samples do not necessarily demonstrate. While the team (and that is how I ultimately rated developmental progress over the semester) eventually reached a more narrow focus and refined research question, and you can see them progressing toward this clarity in Activity 6 on through the annotations in Activity 7, their research did not ultimately produce the kind of deep complexity I was hoping it would.

 On the other hand, the emerging student’s progress was more noticeable over the course of the semester, though this could in part be perceived progress since I knew far less about the “emerging” student’s knowledge and abilities as she started the course. I knew only that she was a freshmen and currently participating on an HCC team. It became clear pretty quickly that her writing and analytical levels were not on par with the proficient student’s, but that her enthusiasm and range of ideas about research were equal if not greater. For example, her team had far more difficulty with articulating and refining their research question yet by the end of the course, the extent to which the team is effectively using language as a tool to probe and connect research ideas is quite compelling.

 While I still feel too close to the course, its content, and its participants to accurately judge whether I have appropriately categorized these two students based on the SaS learning assessment criteria, my hope is these student samples provide some sense of the trajectory two of the six students followed from the beginning of the semester to the course’s completion.

**What was the best part about teaching this class?** The best part about teaching this class was how we were able to take advantage of the small class size. Despite the late formation of the class, wonderfully productive relationships with each of the students still emerged. The quality of those relationships allowed me to demand more from each of them individually while also bringing them together as research teammates in support of one another. Seeing those productive working relationships rewarded in the form of a joint presentation the students and I will give this fall at a national conference has truly been the best part about teaching this course.