

UW Academic Challenge and Engagement Study (UW ACES):

Public Health

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August 2013*

INTRODUCTION

Research on learning in college shows that learning is profoundly shaped by the goals, practices, culture, and values of the academic disciplines¹, particularly the disciplinary practices in students' majors. Therefore, if we are to understand the kinds of experiences that students find intellectually rigorous (and, thus, engaging), we need to examine challenge in the major. Understanding challenge in the major is important because at every stage of their college experience, students report that they want to be challenged, that they perform better in courses that are challenging, and that they value classes that stretch their thinking and ask them to demonstrate learning more than they value classes that ask little of them.² Although learning about where students experience challenge is important, asking students to describe challenging learning experiences in their majors requires some prior understanding of how those majors operate. The Office of Educational Assessment (OEA) designed the UW Academic Challenge and Engagement Study (UW ACES) to accommodate these needs.

METHOD

Qualitative methods are recommended when researchers are seeking to understand the complex learning experiences of students, as well as the meaning of those experiences³; therefore, we designed the UW ACES to be primarily an interview study.⁴ Using a "citizen science" model, OEA asked departmental advisers if they would be willing to volunteer to interview seniors in their departments who came in to advising to apply for graduation. Advisers are knowledgeable about their academic programs, understand disciplinary practice in their departments, and are trusted by students in the major, so they have the best chance of gathering good information from seniors about their experiences in the major.

Sixty-six advisers from 32 undergraduate programs volunteered to participate. During the 2012-13 academic year, the volunteer advisers asked students if they would participate in brief (5-10 minute) interviews about challenge in the major. If the students agreed, advisers asked students to respond to four open-ended questions, entering students' responses directly into a Catalyst survey form that OEA researchers had designed for that purpose. The questions were as follows:

¹ Beecher & Trowler, 2001; Bransford et al., 2000; Beyer et al., 2007; Donald, 2002; Pace and Middendorf, 2004; Wineburg, 2001, 1991; Neumann et al., 2002; Shulman, 1988; Biglan, 1973.

² Beyer, et al., 2007.

³ Merriam, 2001.

⁴ One participating department asked students to respond to the open-ended questions in writing.

1. What do you consider to be the most challenging work that you had to complete in this major? And by "challenging" I mean doing the work that stretched your thinking the most. This can be anything—a project, a paper, an exam question, homework, something else you did related to the major.
2. What made the project/class/activity challenging?
3. What did you do or learn that enabled you to meet those challenges?
4. What do you think you learned by completing this project/class/activity?

In addition, advisers asked students in what course the challenging work took place and how many quarters they had until they graduated.

Researchers in OEA conducted training workshops in interviewing skills with all participating advisers, provided individual departments with customization if required, and monitored all resulting interviews, reporting back to advisers about the interviews they had conducted. By the end of the academic year, departmental advisers had interviewed 1,237 students.

Students' responses were analyzed using a constant comparison method, an inductive process designed to let themes emerge, rather than imposing assumed categories of response on students' comments.

STUDY LIMITATIONS

If we interviewed students post-graduation, they would be likely to identify their capstone courses or their advanced senior-level courses as the ones asking for their most challenging work. However, because we wanted to attach the interview to a time when students would normally see their academic advisers, we interviewed students when they came into the advising office to apply for graduation, which often meant that they were two or three quarters away from graduation. Although this approach meant that we might not gather information about late-senior year courses, we felt that it would be interesting to departments to learn the kinds of challenges that lead to and prepare students for those more advanced experiences.

PUBLIC HEALTH RESULTS

The Public Health Program was one of the UW ACES' participating departments. Susan Inman, the academic adviser in Public Health, asked 27 students if they were willing to be interviewed for the study and all 27 agreed. This number represents about 60% of the Public Health seniors who graduated during the 2011-2012 school year.⁵

Quarters to Graduation and Where Students Experienced Challenge

Most of the students interviewed had two (12) or three (14) quarters to complete before graduation. Only one of the interviewees was graduating in the quarter in which he was interviewed. Even so, many students were already underway in their capstone experiences, as their responses made clear.

⁵ The number of undergraduate degree completions is based on the IPEDS report published by the UW Office of Planning and Budgeting: http://opb.washington.edu/sites/default/files/opb/Data/ExternalReports/Completions_Seattle_2011-12.pdf. Since newer data for 2012-2013 is not currently available, this 2011-2012 figure is only a proxy to approximate what percentage of graduating seniors we were able to interview.

When asked which courses in the major had presented them with the greatest challenges, students listed a total of 22 classes. The courses students listed came from a range of disciplines, representing the interdisciplinary nature of the major. The list of courses were as follows:

ANTH 215	HSERV 480 (2)
BIOL 118	HSERV 481 (2)
BIOL 220	HSERV 482 (3)
BIOST 517	INDIV 493
COM 495	POL S 333
ENV H 451	Psych 250
EPI 420	SOC 201
G H 101 (3 students listed this class)	SOC Class Human Rights Movement
GEOG 280 (3)	SPH 491 (4)
HONORS SOC	SPH 492 (2)
HSERV 100	SPH 493

1. Students' Greatest Challenges

Students were asked: "What do you consider to be the most challenging work that you had to complete in this major? And by "challenging" I mean doing the work that stretched your thinking the most. This can be anything—a project, a paper, an exam question, homework, something else you did related to the major."

Several themes emerged from students' responses.

Specific courses. More than a third of the students mentioned a specific course that they felt was the most challenging—excluding students who said "the capstone." We counted students who gave that response in a separate category—the second theme we discuss in this report. The non-capstone courses students noted were as follows:

- *Science classes/labs, in general: "Getting the basis of science was most challenging but I knew I wanted it."*
- *Anthropology 215: "...it was a form of research that I had never really heard about as far as ethnographies go....I just was able to figure out how much public health and global health really involve every little thing from culture to politics. It was directly applicable."*
- *Geography 331 and Geography 218: "The [331] lectures just really hammered home how those [i.e., poverty and privilege] are two sides of the same coin."*
- *"[In Geography 280] we looked at structural violence and we had to write an essay. It stretched my thinking because i had not heard the term before, and it was difficult to place myself in that community's shoes. It stretched me in a way i had not been before."*
- *Psychology class: "[It] altered your world view. [You] interpret daily things differently."*
- *Biology 118: "...stretched my thinking a lot."*

- *Sociology 201 and Honors Sociology: “The professors were incredible the way they lectured and really made it work. [It was] a seminar, a lecture that you really wanted to go to. They cared so much.*
- *HSERV 480/481: “...seeing all the places you can go in public health—[there’s] a broad range of degrees and jobs in public health, opening your eyes to all the fields, I feel like a lot of the time people come into public health thinking only about the government but just conceptualizing that there is a lot more out there and you have to push yourself in a lot more ways.”*

The Capstone Experience. Second, as we might predict, about a fourth of the students interviewed noted that the capstone was their most challenging experience in the major. We placed students’ responses in this category only if they specifically mentioned the capstone. In the words of two of those students:

- *The capstone project I’m working on right now. I’m thinking as a teacher, but at the same time you’re writing a paper about working with this population...The having to teach a course and at the same time write a paper—you’re planning out a class syllabus but you’re also trying to get at the students and get at what happens around them and in their everyday lives to inform the paper you’re writing while you teach them.*
- *The capstone. How it’s self-directed and you’re not really on a schedule makes it a little easier to fall behind. Researching—[I’ve] never had to do such intensive researching. [I’m] usually just doing a 5-page paper and can crank it out in one week.*

Community Learning. About a fifth of all students spoke specifically about the experiential learning part of the major as the most challenging. We believe that students giving these responses may have been speaking about the capstone experience, but if they did not explicitly state that they were, we included it in this category rather than in the previous one. In the words of one of those students:

You’re actually in the environment with the people and outside of your comfort zone,...whereas here on campus you’re with college students. I’m at [a public] high school as a public health educator, and we’re teaching a ten week public health unit to the 9th graders. There’s only eight of them. You’re standing in front of them being a total stranger, and [saying] “let me tell you about these things”. They don’t know you. You don’t know them. They question you—“Who are you to come in here and teach me these things? What’s your authority?”

Reading. In addition, three students mentioned specific books as presenting them with the most challenge in the major. Between them, they mentioned four books: *Mountains beyond Mountains* by Paul Famer, *The Spirit Catches You and You Fall Down* by Anne Fadiman, *The Absolutely True Diary of a Part-Time Indian* by Sherman Alexie, and *The Immortal Life of Henrietta Lacks* by Rebecca Skloot. As one of those students said:

For me specifically, I want to go to med school and reading those books showed me a side of health care I hadn’t really thought about before. Especially The Spirit Catches You and You Fall Down.

Global fund project/paper. Two students mentioned the global fund project/paper as their most challenging experience. As one of them said:

[The course was] interesting because we had to write this global fund project paper at the end. It was a 20-page paper. I learned more about NGOs, and it was the most relevant coursework I completed. You broke it up into individual assignments throughout the quarter, and it got tied in together all at the end. You had pick a specific place and topic and it was interesting because you got to take everything you'd learned about public health and then put it into public health [somewhere]. I think I did it in Haiti. I thought it was cool because I got to use the other courses. It forced you to pull in information and connect ideas that we'd learned in other courses.

2. What Made Those Activities/Classes Challenging?

Next, students were asked to note what it was about the activity or the class they had described that made it especially challenging. Three major themes emerged from students' comments.

Integrating and applying ideas/perspectives to new situations. About half of the respondents spoke of the challenge in integrating ideas from their courses in order to apply them to new situations, as these two comments illustrate:

- *The first novel was difficult to connect to public health. [It was challenging to] look for things that connect to public health in something that isn't very obvious that there is actually a public health connection there.*
- *I guess just interacting with...students who don't know what public health is, applying what we've learned within the major...to the project.*
- *Trying to incorporate all material into one setting.*

Working with the "real" public. In speaking of what made the activity or the class they had discussed challenging, close to a third of the students talked about the challenge of applying what they had learned in their classes to their interactions with the public. This response was most often paired with students saying that their biggest challenge was the capstone or their experience in the community. Quotations from two students illustrate this response.

- *It was kind of eye-opening working with people in that position. [There was} a language barrier. Most of them didn't speak English very well and didn't know the area very well, so helping them get the basics and the first few steps [was challenging].*
- *Trying to accurately relay information to the public when they hadn't been learning about it—people who didn't know that social determinants of health are a real issue and the US isn't ranked so high, trying to intelligently reiterate the information we'd been learning in a way they would understand.*

Researching for and writing papers. Several students spoke of the challenge in conducting research and in writing papers. One of those students spoke of the difficult of writing with a group. Others spoke more generally about research and writing, as these examples illustrate:

Researching—[I've] never had to do such intensive researching. Usually [I'm] just doing a 5-page paper and can crank it out in one week.

Formulating the essay and presenting evidence from the papers read. It was very theoretical and some of the papers were really long and detailed, and [I needed] to be able to rephrase them in my own mind.

In addition to these major themes, the following three challenges were each mentioned by two of the interviewees:

- Selecting one's own topic or place to present
- Giving a presentation or speaking in public
- Changing one's own world view

3. What enabled students to meet those challenges?

Students' responses to the question of what had enabled them to meet the challenges they had described focused primarily on instruction.

Preparation and information provided by current or previous instructors. Nearly two-fifths of all interviewees directly credited the courses they had taken in the major for helping them meet their most demanding challenges in the major, as these four comments illustrate:

- *The professor gave us lots of examples, [and] there were clear expectations.*
- *The literature review and synthesis paper in the first course really helped me conceptualize how to go about research--the methods specifically. The second quarter synthesis paper talking about your experience and critically think about the population you worked with [was helpful]. Most people are a little uncomfortable going in [to the public] but they told us we're supposed to be. They talked to us about conflict resolution and a few other ways of handling situations. They definitely gave us a heads up about being uncomfortable. "You should expect to be a little nervous..."*
- *One main thing we really focus on is the social determinants of health, which we've learned about in nearly every class in the major. We're having to understand how the students think and where they come from. The exercise helped, as well as all of our previous information from classes.*
- *Reviewed lectures, reviewed social determinants of health from other courses, developed solid midterm from pulling in from other courses, areas.*

The reading. Several students noted that assigned readings helped them complete the project they found challenging. For example:

A lot of reading was relevant and easy to get through and it helped you complete the project.

Observing, talking to, and researching capstone groups. Several students also spoke about the importance of observing and interacting with the groups they were involved with in the capstone. For example, the following quotations focus on such group interaction:

- *Trying to observe and seeing as much as you can take in to learn. Talking to the students and getting a feel for what they are going through. You got hints about their experience and their community but it is subtle.*
- *...the fact that you had to really bypass everything you had ever learned about these groups. You were debating not just in support, but you were acting as if you were specific members of the organization at that time, since we literally had to put ourselves*

in their shoes. A lot of readings. A member from the movement came in and spoke to us, an activist and an intelligent individual. He talked about his experiences. Listening to him helped us to empathize. It put a face to everything.

In addition to these themes, two students mentioned that the following aspects of their experience helped them meet the challenges they discussed:

- An awareness of health's effects on all aspects of our lives
- Preparation ahead of time
- Time management/planning
- Class discussions/collaborating with peers

4. What did students learn by completing this project/class/activity?

Finally, we asked students what they believed they had learned by completing the challenge they had described. In response to this question, many students listed a number of "lessons learned," as this student's response illustrates:

It helped with public speaking, and I learned how I felt. I learned that I was lucky to be learning all this information—the statistical data that compares the US to other nations. I learned that there really is an issue with health in the US and that the US needs a lot of help in its own. I learned how not only are we unhealthy but there is also a lack of awareness about how poor we are on the social determinants of health.

Several themes emerged from the twenty-five students who provided a response to this question.

To be open-minded; to understand the importance of thinking about where different people are coming from. A fifth of all students who responded to this question said that they had learned to stay open minded and understand others' perspectives. Three comments illustrate this theme:

- *It would probably be the idea of cultural relativism and not even necessarily learning about culture with an open mind but walking into almost every aspect of life with an open mind and thinking about it without preconceived notions and thinking critically about what you can learn from the situation or culture.*
- *I learned to know that people will rarely have the same mindset as me and it's so important to start from a place of learning where they're coming from before you go on to do anything else so you can grasp their position.*
- *I think with that project we learned how to put [ourselves] in other people's shoes and understand what we think is good and bad. Historically, we've been blinded by how things are recorded, but we learned how activism works and why things [are] and you need to keep an open mind.*

To think critically and problem solve. Students also spoke about learning a number of skills, with several students mentioning that completing the challenges they described taught them to think critically, as this example illustrates:

Being able to think critically—make sure that there is always something more than you can know.

To become better at communication/public speaking. Another skill area that students mentioned learning more about was how to communicate effectively, especially in public speaking and giving presentations. For example:

Learning to present things in a different type of format that gets you out of your element and integrates multiple perspectives.

The importance of working in the community. Several students spoke about the importance of being in the community so that they could see “what is actually happening out there,” as these two quotations illustrate:

- *You actually go out to a community and learn what they're doing. You're not just writing about the perceived issues but seeing it first hand and that interaction is important.*
- *So I think the practical, hands on learning aspect was definitely invaluable--seeing what is actually happening out there as opposed to just writing and talking about it. I didn't know a lot about the refugee placement situation. I learned a great deal about that, which was pretty eye-opening.*

The value of working collaboratively. Several students spoke about the various benefits of working on challenging projects with peers, as these two quotations illustrate:

- *Organization, team work, hashing out all the details.*
- *Group work, the process of delegation and creativity.*

Other. Finally, two students each noted that they had learned the following:

- How to integrate and apply learning
- Importance of public health advocacy in preK-12 schooling
- Time management

SUMMARY

Students spoke of several significant challenges in the Public Health major, most notably their hands-on capstone experiences. Students spoke of this experience as presenting them with several challenges, including the need to select a topic and a site, integrate and apply information from a range of courses, observe and listen to people whose perspectives differed from their own, and combine that experience with research, writing, and giving a presentation on the topic.

Interestingly, when students spoke of challenges, they rarely mentioned learning content as challenging; instead, their focus was on skill-based learning (critical thinking, researching, writing, interacting with communities).

For the most part, students gave faculty credit for their learning, noting that their instructors prepared them to meet those challenges in a number of ways, including by assigning reading that was relevant and by having them observe and interact with the populations that were the focus of their projects.

In speaking of what they learned by meeting those challenges, students' responses centered on the importance of being open-minded and aware that others' experiences may not be the same as their own when working with community groups. They also pointed to a range of skills that they believed

they had learned or improved, such as critical thinking, communication, collaboration, and the integration of ideas in application of learning.

The UW ACES results for the Public Health Program show that the capstone is extremely valuable to students because it asks them to bring their academic learning and skills into a community in a reciprocal way, with the community dimension adding depth and new challenges to the students' academic learning, and their academic experience informing their work in the community. Results from the UW ACES suggest, therefore, that more training and opportunities students in Public Health have to apply their learning to real-world situations, the more challenging the major will be for students.

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