From: Teaching Toolbox - Center For Faculty Innovation on behalf of Center for Faculty Innovation

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Subject: Teaching Toolbox: Minding the Expertise Gap

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## Minding the Expertise Gap by Benjamin S. Selznick

It is, to quote *Beauty and the Beast*, "a tale as old as time." Students bemoan that instructors simply "don't get it" and "can't teach." Instructors, meanwhile, complain that students aren't able to grasp new concepts quickly enough, despite being provided with numerous resources, instruction, and time. How can both perceptions exist simultaneously? And what can we do about it?

Two recent articles—one by Adam Grant (August 25, 2018) with advice for <u>students</u> and another by Harry Brighouse (September 4, 2018) with advice for <u>instructors</u>—explore this phenomenon. Grant, a renowned organizational psychologist and author of <u>Give and Take: Why Helping Others Drives Our Success</u>, presents the issue: The very skills, knowledge, and abilities that make someone an expert in their subject might be the very same skills, knowledge, and abilities that make teaching that subject difficult. This issue is supported by Bradford et al. who note in <u>How People Learn: Brain, Mind, Experience, and School (2000)</u> that, "though experts know their disciplines thoroughly, this does not guarantee that they are able to teach others" (31).

From the standpoint of undergraduate learning, why might it be so hard for instructors to teach content and skills they already know so well? As Bradford et al. (2000) describe, experts differ from novices in their very orientation toward the knowledge itself. Where the expert sees immediately recognizable patterns and quickly separates essential from trivial information, the novice sees complex new scenarios and can easily become overwhelmed by non-essential material; where the expert sees organization and reason, the novice sees chaos; where the expert can fluently retrieve information and quickly access resources needed for clarification (e.g., how many dog-eared pages do we have on our shelves!), the novice doesn't even begin to know how to explain what they see or where to look to efficiently resolve issues. These gaps present significant frustrations for both students and instructors. The real question is, what can instructors do to bridge the expert-novice divide?

In his advice, Grant (2018) suggests students consider how long it has been since the instructor learned the material, how difficult it was for the instructor to master the material, and how well the instructor communicates the material. This *expertise gap*—between years of experience and fresh minds in the classroom—can be particularly difficult in introductory courses, where eager, expert instructors may be working with students who are encountering fields of knowledge for the first time.

Fortunately, Brighouse (2018) offers some initial guidance on how instructors might proceed and improve their teaching. He spoke with a panel of college students about what teaching practices *they* found to be particularly beneficial. Brighouse highlights several suggestions, which include:

- **Explain all the details:** When teaching complex concepts, it is helpful to students to explain every step, detail, aspect, and nuance. As one student notes: "Few steps in a solution are obvious to students who have never encountered a similar problem before." This instructional strategy—referred to as "transparency"—is gaining momentum within teaching and learning conversations, with projects such as TILT HigherEd providing resources on the effectiveness of these approaches. Such approaches are especially beneficial in improving <u>learning outcome achievement</u> in traditionally underrepresented groups in higher education. Expanding on this suggestion, instructors may engage in the practice of "minding the expertise gap." Think back to when you first learned the material and what you needed clarified. Remember, then, that students may not be as familiar with all the thought processes and steps or may not be able to recognize errors in their reasoning as quickly as experts. Remember, also, how many unconscious and unarticulated knowledge biases may contribute to your expert abilities. (Dr. Michele DiPietro further explains these ideas in a short, highly informative video.) Finally, be sure to provide feedback that acknowledges gaps between your own expert knowledge and the students' attempts to learn the material. For example, when a student misses a step in a process and provides an incorrect answer, it is important to identify the step missed and explain why it led to the incorrect response. Imagine how much more helpful this feedback is to the student than simply marking their answer wrong!
- reached an important conclusion: Good teaching, including meaningful student-faculty interaction, isn't positively associated with *a* college outcome; it's positively associated with virtually *all* college outcomes. Students themselves place importance on quality teaching as well. Beyond outcomes, connecting with students can also help instructors come to better understand the potential disconnects between their knowledge and students', which can create new opportunities for authentic learner-centered teaching—pedagogies and practices that, as theorized by Nevitt Sanford (1962), produce instructional challenges and learning supports appropriate to the students' readiness. Furthermore, seeing students more holistically might help remind instructors about the struggles in (and out) of the classroom that they or colleagues may have encountered when learning new material or skills for the first time.
- when learning: A final piece of advice students gave is that they really appreciate when learning is placed at the forefront of the classroom and course experience. While certainly grades are vital and necessary, one student recalled a distinctively different impression of the learning environment when grades were positioned as learner-centered. In this student's words: "I was pretty surprised when the professor said she had hoped to see high test averages. She explained that our test scores were an indication of her teaching; if she were doing her job right, we should score well." Centering student learning can also ensure that value is placed on how knowledge is communicated to the students. One particularly helpful insight when confronting scenarios where most students are struggling to learn a new concept or topic can be to ask: How could I, the instructor, communicate this information differently? How can I be more transparent in organizing, presenting, assessing, and providing feedback on this content?

Preparing or revising courses early on in the semester can be an opportune time to engage in reflection on teaching and to consider opportunities to better share the knowledge we have spent years acquiring and uncovering with our students. Reflecting and reconfiguring courses also be a time to keep in mind the *expertise gap* to ensure that processes are well explained, students actively engaged, and learning emphasized. This might not only help avoid a proverbial stumble; it could also help all of us—students and faculty—come to a place where we can say "we get it" in harmony.

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