



Helping Faculty Use Assessment Data to Provide More Equitable Learning Experiences

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Faculty and instructors stand in a powerful position to promote students' success on a daily basis, and thus to help combat persistent inequities in underserved college students' success.[1] But our systems for gathering higher education data do not regularly help faculty answer an important question: "If I had the time to change one thing about my teaching, what change would I make to best benefit the population of students in my class?" To inform massive, structural change reliably, we must gather data that is large, reliable and broadly representative. It is difficult on an individual level to determine what that data tells us about how an instructor can best adapt his or her teaching practices for a specific group of students.

To help faculty answer the perennial question about which adjustment to their teaching practice would most benefit their students, the **Transparency Project** began in 2009 to gather data about students' learning experiences through an **online survey** designed largely by faculty to gather information that might inform their course-level teaching practice decisions (Berrett, 2015). The Transparency Project removes many of the common barriers to participation by faculty and instructors in assessment of students' learning including: resistance, lack of control, lack of expertise, insufficient time, lack of short-term benefits to teaching and learning practices, and concerns about privacy. Instructors join the Project voluntarily, and receive confidential reports that analyze their (anonymous, aggregated) students' responses to recommend teaching practices that the students see as helpful. This grassroots experiment has grown much larger than expected. The Transparency Project has provided confidential, individual instructor reports to hundreds of instructors from more than 30 U.S. institutions, and has gathered data from more than 12,000 students. Patterns in the data can now inform recommendations about teaching practices with specificity to the level and discipline of the course and student demographics. And teaching practices that are helpful to underrepresented and first-generation students are emerging (Winkelmes, 2013). One of the most promising, transparency around the design and rationale of problem-centered assignments, is beneficial for underserved students across the disciplines at the introductory level -- where the greatest numbers of underrepresented, first-generation and low-income students drop out of college (Winkelmes, 2016).

A 2014-2015 **project** led by Tia McNair and Ashley Finley at the AAC&U in partnership with Mary-Ann Winkelmes at the University of Nevada, Las Vegas, identified "**transparent, problem-centered assignments**" as a simple, replicable teaching intervention that demonstrably enhanced the success of first-generation, low-income and underrepresented college students in multiple ways at statistically significant levels, with a medium-to-large sized magnitude of effect. Funded by TG Philanthropy, the project involved 35 faculty and 1,180 students at 7 Minority-Serving Institutions (MSIs). The main research goal was to study how a small change in faculty transparency about the design and problem-centered nature of student assignments would affect students' learning experiences and the quality of their

Viewpoint

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work. Faculty received training on how to make take-home assignments in a course more transparent (accessible) and problem-centered (relevant) for students. Each instructor taught a control group and an intervention group of the same course in the same term. They agreed to revise two assignments to make them more transparently-designed and problem-centered and include them in their intervention course, in the place of the same two assignments (in their un-revised state) in the control course. Many used a [Transparent Assignment Template](#) to frame conversations with students and to codify assignment prompts, so that students would understand some basic information about any assignment before they began working: the purpose – what disciplinary knowledge students would gain from doing the assignment and what discipline-based skills they would practice while working on it; the tasks (in sequence) they would need to complete; and the criteria by which successful work would be judged – as illustrated in annotated examples of work that students could review before getting started on their own project.

Results were measured via online Transparency Project survey questions about students' learning experiences before and after each course, and direct assessment of students' work. Students who received more transparency reported gains in three areas that are predictors of students' success: academic confidence, sense of belonging, and mastery of the skills that employers value most when hiring (as illustrated in this chart). Important studies have already connected academic confidence and sense of belonging with students' greater persistence and higher grades (Walton and Cohen, 2011; Aronson et al., 2002; Paunesku et al., 2015). While the benefits for all students in the aggregate who received more transparency were statistically significant, the benefits for first-generation, low-income and underrepresented students were largest. The results, published in [Peer Review](#) (Winter, 2016), suggest that faculty can help their institutions right the inequities in college students' educational experiences across the country. For example, embedding transparently designed problem-centered assignments in introductory level courses will likely increase first-to-second-year retention rates. Since most students who drop out after the first year of college are underserved students, this would likely increase the numbers of underrepresented, first-generation and low-income students re-enrolling in the second year. In the 2014-2015 study, faculty development for instructors wishing to incorporate transparently designed problem-centered assignments included small amounts of both onsite and online training. The Transparency Project is exploring ways to replicate and propagate that training through existing faculty development and institutional networks, while the AAC&U is incorporating knowledge from the study into new projects.

Beyond the quantitative data, teachers' and students' comments about their experiences in the 2014-2015 project revealed interesting trends. Once they witnessed the effects on students, nearly all the teachers incorporated the transparent, problem-centered approach to designing assignments in their other courses beyond those included in the study, despite the additional time needed to make those revisions. This domino effect impacted the way some of the instructors framed their in-class activities as well. Teachers reported gaining clarity about the purposes of their assignments, and they noted anecdotally that students' completion rates were higher on the assignments they revised to be more transparent and problem-centered in comparison to the rates of completion for the unrevised assignments. Students in the more transparent courses offered a greater quantity of appreciative comments about their instructors' efforts than students in the less transparent courses in the area of the online survey that invited optional comments. In addition, students in the more transparent courses described those courses as highly relevant and satisfying, as well as challenging.

By connecting patterns in bigger data with students' views about learning, the [Transparency in Learning and Teaching Higher Education Project](#) aims to help faculty answer: what

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single, reasonable adjustment to my teaching practice can I sustain that would benefit my current group of students the most? It is one of multiple resources that offer various ways to make big data about learning and teaching useful to individual teachers, including [NILOA Resources](#), [IDEA Papers](#), [POD-IDEA Notes](#), [High Impact Practices](#), the [Visible Knowledge Project](#), and [Visible Learning](#). Collectively, those faculty who make informed choices about teaching adjustments that benefit their particular students will have a powerful impact on increasing the equity of educational experiences for all college students.

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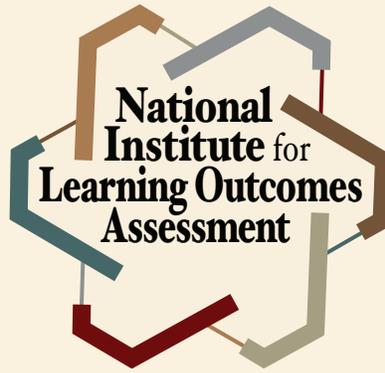
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Footnote:

[1] First-generation college students are about half as likely to graduate in four years as those whose parents completed college (Ishitani, 2006), ethnically underrepresented students are half as likely to graduate as their White and Asian classmates (NCES, 2014), and low-income students' graduation rates also lag far behind those with family incomes above the bottom quartile (Tough, 2014).



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