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### **What Spurs Students to Stay in College and Learn? Good Teaching Practices and Diversity**

*By Dan Berrett*

St. Petersburg Beach, Fla.

Good teaching and exposure to students from diverse backgrounds are some of the strongest predictors of whether freshmen return for a second year of college and improve their critical-thinking skills, say two prominent researchers.

Patrick T. Terenzini, a professor of higher education at Pennsylvania State University, and Ernest T. Pascarella, a co-director of the Center for Research on Undergraduate Education at the University of Iowa, spoke to an audience of chief academic and fund-raising officers convened by the Council of Independent Colleges here on Sunday.

The two men are co-authors of a highly influential book, *How College Affects Students*, and they sought on Sunday to synthesize what recent research says about student learning, while also weighing in on recent controversies in higher-education research.

Mr. Pascarella based his observations on the findings from the first year of the Wabash National Study of Liberal Arts Education, which followed thousands of students at 19 liberal-arts colleges. It recorded the background information of entering freshmen, asked them about their experiences, recorded their outcomes after their first year, and collected the same information again after their fourth year.

Good teaching was not defined by test results. Instead, its attributes were identified on a nine-item scale, which included student appraisals of how well the teacher organized material, used class time, explained directions, and reviewed the subject matter.

The likelihood that freshmen returned to college for their sophomore year increased 30 percent when students observed those teaching practices in the classroom. And it held true even after controlling for their backgrounds and grades. "These are learnable skills that faculty can pick up," Mr. Pascarella said.

Exposure to students of diverse backgrounds was measured on a nine-point "interactional diversity scale," which asked students whether they had made friends with a person of a different race, attended a diversity workshop, or interacted with others with different religious or political views, among other measures. The gains in critical-thinking skills over four years were strongest for students who entered college with weaker academic backgrounds, defined as those with scores of 27 or lower on the ACT college-entrance examination.

The Wabash National Study, Mr. Pascarella said, is one of the most complex and rich data sources he had ever worked with. "We wanted a home movie," he told the crowded session. "What we have is a Hollywood spectacular."

The data also allowed Mr. Pascarella to cast a fresh eye on two highly used, often cited, and [sometimes controversial](#) pieces of research. The first was the National Survey of Student Engagement, or "Nessie" for short.

"Nessie's gotten a lot of heat lately," Mr. Pascarella said. He analyzed Nessie results for the colleges in the Wabash study, checking to see if the categories captured in the survey reflected gains in critical-thinking skills. He found "decent relationships" between the measures that Nessie deems important, like positive student attitudes toward literacy, and gains in critical-thinking skills in the first year, which were observed through other tests.

"I can't reject the possibility of a causal relationship between these experiences and these outcomes," Mr. Pascarella said.

But he also cautioned his audience of leaders of small liberal-arts colleges against making too much of Nessie's positive results. For those types of institutions, about half of the effects on students observed in Nessie could be attributed to the kinds of people who attend those colleges.

"Mostly, it's due to the students you recruit," he said. "They have nothing to do with the programs."

He also sought to replicate the findings of *Academically Adrift*, the blockbuster book released this year that argues that 36 percent of college students show no significant gains in learning between freshman and senior year. The book's authors, Richard Arum, of New York University, and Josipa Roksa, of the University of Virginia, also found that just under half of students wrote papers of 20 pages or more each semester and that they spent 13 to 14 hours

per week studying.

Mr. Terenzini ran a similar analysis, but used the Collegiate Assessment of Academic Proficiency instead of the Collegiate Learning Assessment, as Mr. Arum and Ms. Roksa did. Still, he achieved similar results. Among students in the small colleges he studied, 33 percent failed to show significant gains in learning, 60 percent wrote papers of at least 20 pages, and they spent 15 hours studying each week.

Mr. Pascarella cautioned against reading too much into measures of change. No one has tracked the gains in critical thinking among young people who don't attend college, which means there is no control group to compare college students to. The other problem, he said, is that no consensus exists about precisely how much people should change while in college.

"Until we know that, it's like a fistfight in a dark room," he said.

Still, the findings are alarming enough, said Mr. Pascarella, and his findings only buttress those from *Academically Adrift*. "These folks need to be taken seriously," he said. "They met the test of replicability."

*Correction (12:55 p.m.):* This article originally described the research and findings as jointly produced by Mr. Pascarella and Mr. Terenzini. While they presented together and do much work as a team, each man was responsible for a separate area of research. This article has been updated to reflect what part of the work each researcher conducted.

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