

## Students Earn Higher Grades, Have Higher Completion Rates with ACUE Credentialed Faculty at Rutgers University-Newark

Between January 2017 and April 2019, the Center for Advanced Study in Education (CASE) conducted an evaluation of impact of the ACUE course at Rutgers-Newark. The evaluation includes both qualitative and quantitative analyses and spans the first five levels of ACUE's six-level evaluation framework. The following data were analyzed:

- Faculty reflections\*
- Faculty survey responses\*
- Student survey responses\*
- Student course outcomes (grades, completion)

The evaluation includes 32 faculty who participated in the ACUE course during the spring 2017 semester, 18 faculty that completed the course during the fall 2017 semester, and eight faculty that completed the course during the spring 2018 semester. By synthesizing data collected from varied perspectives and points in time, as well as using different data collection methods, summary findings and conclusions were reached.

\*involved only the faculty who participated during spring 2017

### Key Findings

#### Student Recognition of Evidence-Based Classroom Practices

- 414 students responded to 17 items asking about their instructors' use of 17 different evidence-based teaching practices.
- The mean response of 4.63 (out of a five-point scale) with a standard deviation of .62, demonstrates **strong agreement with statements indicating students recognized that they had engaged with evidence-based teaching practices.**

#### Student Course Outcomes (grades and completion)

- **In a longitudinal comparison of ACUE faculty over time (Before/During/After):**
  - Students taught by instructors after they earned the ACUE credential were **more likely to be successful (earn a grade of A-C) in their courses** than students taught by the same faculty either during ( $p=0.0006$ ) or before ( $p < 0.0001$ ) the instructor earned the ACUE credential.
  - Students were **more likely to have higher grades** if they were taught by an ACUE-credentialed faculty after they earned their credential than before or during the ACUE course.
  - Significant differences were not found in completion rates before, during, or after an instructor earned the ACUE credential ( $p=0.853$ ). However, since the majority of students taught by ACUE-credentialed instructors passed their courses, regardless of time, there was little likelihood of finding statistically significant differences.
  - Student data were available for 43 instructors before, during, and after they participated in the training.
    - Data included up to 7,183 students (2,468 with ACUE-after instructors, 2,086 with ACUE-during instructors and 2,629 with pre-training instructors).
- **ACUE-Credentialed Faculty compared to the matched courses (data collected before ACUE compared to during/after ACUE)**
  - Students taught by ACUE-credentialed instructors received **grades that were significantly higher** compared to students who were taught by comparison instructors ( $p < 0.0001$ ).
  - Students taught by ACUE-credentialed instructors were **more likely to be successful (earning grades A-C)** compared to students taught by comparison instructors ( $p < 0.0001$ ).
  - Students taught by ACUE-credentialed instructors had **significantly higher completion rates** compared to students who were taught by comparison instructors ( $p=0.0004$ ).
  - Data included up to 39,416 students (4,554 students from ACUE instructors and 32,233 students from comparison instructors).

### **Faculty Reflections**

- Themes within faculty reflections were studied using qualitative coding computer software, NVIVO, to sort reflections into major themes and sub themes.
- Overall conclusions include:
  - Faculty were using the reflection process to deepen and fully consider what they had learned.
  - Reflections typically referenced multiple educationally relevant themes rather than a single topic addressed in the module that had just been completed.
  - Faculty reflected on gaining knowledge and skills that helped them to be more effective instructors.
  - Faculty reported an increased awareness of the different ways they could improve communications with students.