

Title: The Diagnostic Assessment and Achievement of College Skills (DAACS) Initiative

Responsible Unit: School of Education

DAACS is a fully functioning, free, online suite of diagnostic assessments of college readiness, including reading, writing, mathematics, and self-regulated learning (<https://daacs.net/>). DAACS provides newly enrolled students with the information and resources needed to prepare for the academic rigors of college. Our research shows that students who use the feedback provided by DAACS are more likely to complete their first six months on time, and are more successful in earning credits. Data from DAACS also increased the accuracy of prediction of academic progress by up to 6%.

DAACS was developed with the support of a Fund for the Improvement of Postsecondary Education First in the World Grant (Grant #P116F150077) to address the shortcomings of placement exams and remediation. Through an iterative process of development, testing, and refinement, the first fully functioning version of the DAACS system has been rigorously evaluated using a randomized controlled trial experiment at two private, nonprofit, online institutions. DAACS will be adapted for use at UAlbany through the following key activities:

1. Incorporate DAACS into orientation for the entire incoming freshman class, as well as transfer students. Taking the four assessments and reading the feedback takes most students less than two hours. Because DAACS is fully online, students can use it anywhere, any time, and can take the assessments one at a time or all at once.
2. Train academic advisors to use DAACS during student advising. A newly developed Advisor Dashboard will provide easy access to information about students' strengths and weaknesses, which can be used to inform course selection, help students set actionable goals, and introduce them to useful resources.
3. Nudge students to use the feedback and Online Educational Resources (OERs) provided by DAACS to boost their academic skills and increase their readiness for college-level work. Nudges will be delivered via email and text messages.
4. Replace the automated scoring of the writing assessment, which is currently done by LightSide, with the cutting-edge machine scoring system, BERT. Like LightSide, BERT is open-source and free.
5. Identify and support students at risk of academic failure. DAACS data increases the accuracy of models predicting student success in their first term by as much

as 6% over baseline models. Information provided by DAACS will be used to prioritize outreach to students as well as the monitoring of student success.