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SPOTLIGHT ON INNOVATION

Colleges and Universities that are Making a Difference

By

Lisa Cook, Daniel Fusch, & Sarah Seigle

Academic Impressions

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Emerging Trends: How Colleges Can Operate As Learning Organizations

In late 2014, the US Department of Education awarded \$75 million in “First in the World” grants to twenty-four colleges and universities, to fund initiatives to improve college access and completion, particularly for lower-income or first-generation students.

Since then, we’ve interviewed those leading the First in the World initiatives at each of the twenty-four institutions to learn how they’ve begun putting these new funds to use and to find out what other institutions can learn about the initiatives.

Though the First in the World programs cover a lot of territory—from a game-based approach to moving students through the admissions process to a living-learning community designed to study the issue of first-generation student success on its own campus—we have been excited to see several common threads through most of these efforts.

These emerging trends may be among the first signs of a sea-change in higher-ed leadership, as change agents at colleges and universities recognize that to address the complex problems of today and the future, colleges are going to need to take a different approach than in the past. Questions of access and completion for first-generation or academically under-prepared students can’t be addressed by a single department operating within its own silo on campus. These issues require the marshaling of ideas and resources from across campus—and even, in many cases, the sharing of both costs and benefits across multiple institutions.

Also, as student demographics continue to shift away from a majority of traditional high school graduates with a family legacy of college attainment, college and university leaders are going to need to test and assess new ways of working, and more rapidly identify what is actually contributing most to access, student success, and completion. In the past decade, most institutions have taken a scattershot approach to student success, adding an array of programs, offices, and initiatives in the hope that some will pay off. Yet, without a clear sense of *which* efforts are making a difference, it is difficult to know what to scale up and what to scale back.

Many of the First in the World initiatives are taking a more measured approach, piloting, measuring, and then scaling. These twenty-four institutions have recognized that they can turn their core expertise—learning and research—to bear on their own challenges. They are operating not only as educational institutions but as *learning organizations*.

For example:

Western Michigan University is developing learning communities in which students, faculty, and administrators will be coequal participants in research projects to identify and study barriers to student success and persistence on their campus.

The University of Minnesota is spearheading a forum of six institutions. These six will pool their knowledge and resources to conduct six case studies on how to engage first-generation students in active learning projects. These projects connect classroom learning to the experiences and issues of the students’ home communities.

Arizona State University is partnering with local high schools in a new “Early Start” program. “Early Start” students will begin college projects during their senior year of high school, continue their work during ASU’s summer experience program, and finish the project during their first weeks of enrollment at ASU in the fall of their freshman year. The projects will be created by teams of faculty and teachers from ASU and the high schools and mapped to ASU general education learning outcomes.

Bay Path University is piloting an academic resource collection that crowdsources course-related content, inviting students to share notes, resources, videos, and additional reading materials, and rate and recommend resources for their peers.

In each of these cases, institutions are relying on their ability to learn, study, and adapt to a problem or challenge. And in each example, institutions are sidestepping traditional silos or boundaries in order to leverage the shared learning potential of students, faculty, and staff across the institution or even across multiple institutions. It will be exciting to watch these twenty-four initiatives move forward over the next few years—and discuss ways to apply these new approaches to your own campuses.

Get Your Department Featured in Our Next *Spotlight!*

As part of our mission at AI, we want to shine the light on institutions that are making a difference in the higher-ed industry, often by taking creative approaches to today's thorniest challenges. We want to help keep higher education the cornerstone of our society and the engine of the American dream; we also recognize that important shifts will be required to ensure that the higher education business model is sustainable for the long-term.

WE'RE LOOKING FOR INNOVATORS

AI has long offered a platform to showcase ideas and best practices that can be replicated across the industry and we're excited to invite you to submit your department or team's success story for possible inclusion in our Spotlight series.

We want to highlight innovative thinking and practices that challenge the notion that higher quality means higher cost. We are seeking innovators who are willing to challenge assumptions, take intelligent risks, and make the tough decisions to move their institutions to a more sustainable trajectory.

The teams we are looking for have applied their learning from AI events and publications to implement initiatives that have shown a positive impact on one or more of the following:

- Increasing Institutional revenue (e.g., net tuition revenue or fundraising dollars)
- Reducing institutional costs
- Improving the quality of key student outcomes like completion and learning

There is no shortage of challenges that are jeopardizing the long-term viability of many colleges and universities. We want to shine a light on what's working to lower costs and improve student outcomes—the key to creating a more sustainable model of higher education.

We invite you to participate by nominating your team by writing to Daniel Fusch at daniel@academicimpressions.com.

Preference is given to examples of departments or teams that:

- Applied specific knowledge from an AI event or publication
- Identified a creative solution to a complex problem
- Took an intelligent risk
- Collaborated with others across campus to make it happen
- Can quantify the impact of the initiative on revenue, cost, quality, or institutional reputation

Share your story with us!

How Hampton University Plans to Increase STEM Retention and Completion through Course Redesign and Engagement

By Lisa Cook, Academic Impressions

Hampton University has set a specific goal of increasing the number of underrepresented minority students who graduate with STEM degrees, and Hampton is looking to address several obstacles to degree completion for minority students, including access, affordability, and engagement.

Hampton intends use its \$3.5 million First in the World grant to identify students who have declared a STEM major and engage them with a number of activities designed to boost success and completion. The project includes partnerships with several other organizations to facilitate internships and other opportunities for STEM majors.

To learn more, we reached out to Dr. Ira Walker, project director of the grant and associate professor in mathematics, who told us the project will address these five primary objectives:

- Increasing the completion rate of students in STEM programs
- Improving the retention rate of students in STEM programs through a variety of pedagogical strategies and engagement tools
- Increasing affordability of STEM education for students

- Increasing the number of entering students who enroll in STEM programs
- Improving the overall academic performance of students in STEM programs

Innovating Content Delivery to Make STEM Relevant for Students

One key initiative is to change the way that certain math courses are structured and taught at Hampton. The project intends to follow a **3-1-1** model for content delivery in five gateway courses: Precalculus 1, Precalculus 2, Calculus, Calculus 1, and Calculus 2:

- **3** - First 3 weeks: The instructors will use a flipped classroom approach to encourage active learning. Students will prepare for class by using the lectures from Khan Academy during the first three weeks.
- **1** - During the fourth week of each course, students will transition to learning software -- either Microsoft Excel or MATLAB, depending on the course -- that can help them implement what they are learning.
- **1** - The fifth week will consist of project-based learning to help students see the real-life relevance of the skills they are learning.

“One of the complaints a lot of us get is that students say, ‘Why do we take this math course if there’s no relevance to what I do in my real life?’

We try and refute that by having a number of projects available to students that cut across all the different STEM disciplines -- chemistry, math, physics, engineering, etc. -- so they are actually engaged.”

Ira Walker, Hampton University

Students will be able to choose from an array of projects that encompass other disciplines and will work in groups to enact and reinforce what they learn, in ways that better prepare them for careers as future scientists and engineers.

Hampton University began implementing this course redesign in Spring 2015. They will use the interventions in all five courses, but for reporting purposes, they will examine the data from PreCalculus I with special rigor. The grant will also support professional development to prepare and support faculty for this new approach, particularly regarding the software needed for the classes.

“If you look at the way math is being taught here now, this represents a pretty large departure from the way things were formerly done,” Walker concludes.

Engaging Students Beyond the Classroom

What happens *outside* the classroom is also critically important for engaging students, and Hampton University is undertaking a number of activities to engage current STEM students and to support incoming students.

One new addition is a **living-learning community for STEM students**, who will all be housed in the same dormitory and encouraged to work together outside the classroom. The dorms will include computers and other technology integration, and will also feature a number of guest speakers who have careers in engineering or science, and who can talk with the students about how what they learn applies to future career pathways and problem-solving.

Another addition will be the **Math Emporium**, which will provide a large common space for students to work collaboratively and exchange ideas. Students will have access to computers, printers, and an office for math tutoring staffed by a math professor. Plans also call for the space to include whiteboards and areas for group learning.

Walker explains that the Math Emporium will be an evolution beyond the traditional math tutoring lab, with space and resources calculated to encourage and empower collaborative learning. “When they get out into the real world, they’re not going to be operating in silos. They’re going to be working with other people,” Walker points out.

Other strategies to attract, engage, and retain students include:

- **Peer mentoring**, with upperclassmen supporting freshman and sophomore STEM students. Walker remarks that often, peers can do much more to support retention than professors can.
- Establishing a **five-week summer bridge program** in Summer 2015 for the incoming Fall 2015 freshmen. The bridge program will review math skills to help make sure that students are able to begin their fall math courses well prepared. The program will also feature guest speakers and other elements from the STEM living-learning community.
- **STEM advisors in each of the seven STEM departments**: biology, chemistry, computer science/computer information systems, engineering, marine and environmental science, mathematics, and physics. Students will each be assigned an advisor who will be involved in informing students about internships and encouraging them to be more involved in their education.

- Keeping education affordable by delivering content primarily through **online resources** so that students will not be required to purchase textbooks.

Keys to Success

Working with the right people is critical to the success of the program. Hampton faculty involved in the project meet weekly to discuss what they're doing and ensure they're doing what they outlined initially in the proposal.

Also crucial to the program's success are the partnerships that Hampton will establish, both with other academic institutions and with the private sector. Partners will provide support in a number of ways, from offering internship and employment opportunities to Hampton's STEM students to hosting lecture series on STEM topics and providing other experiences to get students excited about STEM. Partners already identified include:

- Northwestern University
- Joint School of Nanoscience and Nanoengineering
- Accenture
- Achievable Dream Academies (Newport News, VA)
- From One Hand to Another Foundation (Virginia Beach, VA)

Why You Should Watch this Project

Hampton's goal is to serve 1,056 students beginning with the Fall 2014 cohort of students with declared STEM majors. They anticipate an increase in college persistence and success rates for underrepresented, underprepared and low-income STEM students. Walker notes that Hampton's success in this project will also result in increased earning potential for those students and a higher graduation rate for STEM-qualified, underrepresented students.

At AI, we are especially interested to see what impact the Math Emporium and 3-1-1 model have, and will be eagerly watching their results.

How Central Georgia Technical College Success Coaches Will Provide Collaborative Support to At-Risk Students

By Lisa Cook, Academic Impressions

A little more than half of the students at Central Georgia Technical College are first-generation students who may not have the family support they need to successfully navigate college. Officials at the two-year college have spent more than a decade incubating strategies to effectively support first-gen and other underrepresented and academically underprepared students through graduation. This includes an effective model for using success coaches and a college success course to help guide students through their academic career.

Now with the help of a \$3.2 million First in the World grant, CGTC will expand the success coach model to all three CGTC campuses. They are also expanding the program's focus so that two particular groups of at-risk students -- students placed in developmental education courses and GED students -- will both benefit from the increased support. We talked to Amy Holloway, vice president of academic affairs, and Sam Lester, professional development director and director of the FITW project, to learn more about the two key components of their model:

1. A College Success Course
2. Success Coaches

1. A College Success Course: Providing Heightened Support to Underprepared and GED Students

The project will target students assigned to Learning Support (the college's developmental education program) and students enrolled in the Accelerated Opportunity program, a program that connects GED students to the technical college career pathways. Accelerated Opportunity aligns and accelerates Adult Basic Education, GED, and development programs. With heightened support, students have been much more successful academically, in some cases even out-scoring non-GED students.

Students will be assigned to the college's three-credit College Success class, which addresses skills and resources such as:

- Study skills
- Time management
- Test-taking strategies
- Note-taking
- Communicating with instructors
- Using the academic library

“How do you know to value a syllabus if that’s never anything that’s happened in your life?” Lester explains.

The College Success course also addresses relevancy, taking students to visit their program areas so the students can see where they’re going to be and what they’ll be doing once they complete their learning support classes. Program chairs also visit the college success courses to talk with students about how they’ll use the skills they are acquiring in future courses. “It works on the theory that what students are doing has to be relevant to some future benefit,” Lester adds. “They need to see where they’re going to be.”

In Fall 2014, CGTC offered 21 sections of College Success, serving a total of 270 students across their three campuses. Another 100 students are enrolled in the program this summer, of which four sections are on one campus and two sections each at the other two campuses.

2. Adding Success Coaches

The availability and integration of coaching is critical. Success coaches:

- Are assigned to each College Success section
- Sit in on each class to be available to students
- Meet with students outside of class to talk about their classes, their career path, and to provide advising to help students navigate through their first term in college
- Remain available to support students throughout their time at CGTC

Each campus has at least one full-time success coach, and also offers an Academic Success Center with a full-time coordinator and tutors. The approach is to offer a full support team that will be available to students.

THE DECISION TO PROVIDE COACHING IN PERSON

CGTC had previously experimented with the emporium model of online, self-directed delivery of student support but found this to be ineffective. “Putting a student in front of a computer, particularly a remedial student, in and of itself doesn’t work,” Holloway explains. CGTC’s success has been grounded in in-person coaching.

Challenges and Keys to Success

“The critical part of that success is finding the right people to drive the initiative: finding those innovators, finding those who can lead this,” Holloway says of the project. The degree of coordination, consistency, and communication will make or break the project.

The Accelerated Opportunity program involves a lot of team-teaching. For example, a GED adult education instructor may sit in on a welding class and participate in what the students in that class are doing, and then carry that experience back into the GED skills class to reinforce what they learned. That also means faculty members need to be comfortable in each others’ classrooms, which is not typical in higher education, Holloway notes.

Student volume might also prove to be a challenge for success coaches, who may still be seeing students who started four terms ago while also meeting with new students, Lester adds: “They’re pulled in a lot of directions by a lot of students.” In many cases, the relationships that students make with success coaches continue long beyond the first-term College Success course.

Why You Should Watch this Project

The payoff for the project for any college, not just CGTC, is obvious, Holloway and Lester suggest. “It just makes all the sense in the world,” Lester remarks. “If we can help these students out with a success coach and develop a relationship between the college and the student through the success coach, that’s just got to work. You get so much for so little.”

“It’s all about facilitating college access and completion,” Holloway elaborates. “It’s our reason for being, particularly as a technical college. We are an open-access institution with a workforce development mission. We do see a higher purpose in this. It’s providing that support network to ensure their success.”

Institutions of all types -- including private liberal arts colleges and regional state institutions -- will want to watch this project because of the degree to which success coaches and faculty from other courses are integrated throughout the new developmental curriculum. It will also be worth watching how CGTC handles student volume and the coach/student ratio over the years of this grant.

Purdue To Study Why Active Learning Works

By Lisa Cook & Daniel Fusch, Academic Impressions

Active learning models are becoming more common as professors seek to engage a wider array of students. Project-based learning, clickers, flipped classrooms and other strategies have transformed classrooms -- but little scientific research has been done to determine why active learning models are successful. Knowing that could guide more targeted pedagogical strategies.

Researchers at Purdue University plan to address this gap through a \$2.3 million First in the World grant that will allow them to conduct a large-scale controlled study about why active-learning strategies improve student retention and completion rates. Four years ago, Purdue began transforming large-enrollment courses from lecture-based courses to ones with active, student-centered learning as part of **Instruction Matters: Purdue Academic Course Transformation (IMPACT)** four years ago. IMPACT has already replaced 120 lecture-based courses with an active-learning approach. By the 2016-17 academic year, Purdue expects that number to rise to 300.

Now Purdue will build on that success in undertaking a new study. We spoke with Chantal Levesque-Bristol, director of the Center for Instructional Excellence and a professor of educational studies, to learn more about the new undertaking.

Success through Transformative Education and Active Mentoring

For the new study, titled **Success Through Transformative Education and Active Mentoring**, Levesque-Bristol will focus on 30 multi-section courses in science, technology,

engineering, agriculture, and math that haven't already been transformed through IMPACT. Courses in the experimental section will make the switch to the IMPACT active-learning models while other sections of the course will remain control sections.

Levesque-Bristol will use pre- and post-test assessments to measure change in faculty-identified learning outcomes to determine success. She will also administer a pre-course and post-course student perception survey that measures components of motivation such as autonomy, competence, relatedness and self-regulated learning. She hypothesizes that student motivation will be higher in the experimental section, and that those factors will result in improved student success, as measured by academic performance, retention, and degree completion.

Self-Determination Theory

"The framework that I'm using is Self-Determination Theory (SDT) by Deci and Ryan," Levesque-Bristol explains. "According to the theory, students learn best when they feel competent, autonomous and connected. I'm proposing that these motivational mechanisms will be the moderating factors between the types of transformation implemented and the types of active learning activities incorporated in the class and the student success outcomes that we want."

THE BASICS OF SDT:

Student-centered learning is most effective when students experience:

- **Autonomy**, in the sense of empowerment, choice, and options in their learning so that they feel like they are really participating in the learning experience
- **Competence**, defined as gaining confidence and development and mastery of skills
- **Connectedness** with other students, the instructor, and with the course material.

“We’ll also look at the impact of active-learning strategies on motivation,” Levesque-Bristol elaborates. “We hypothesize that active learning strategies work because they increase student motivation, not because of the implementation of the tool or strategy itself. Then, if students are motivated and engaged they’ll be more likely to be retained, earn better grades, and graduate on time.” The type of active learning used is not as important as the human influence that helps students understand how the material they learn is connected with their goals and their experience, Levesque-Bristol hypothesizes. “A redesign will be effective if the learning climate is perceived to be student-centered.

“That’s what we’re already finding out with IMPACT, that it doesn’t matter so much what you did (i.e. whether you used clickers or problem based-learning) as how you do it,” Levesque-Bristol explains. “The how you do it and whether it is done well is what we’re going to operationalize based on SDT and then rigorously test.”

Support for Faculty

The project also includes support for faculty who are teaching the experimental course sections to help them create student-centered learning environments. The support consists of active mentoring, in which faculty work closely with three staff members as part of the IMPACT program and participate in a semester-long program through Blackboard that includes weekly assignments, readings, and activities.

Participating faculty will also mentor each other, and will work to build a faculty learning community.

Keys to Success

The success of the project is rooted in faculty mastering the motivational principles to create a student-centered learning climate, and Levesque-Bristol is confident they will be successful because Purdue already has four years of experience in this work through IMPACT. “We have a good sense of what works and what does not, and we have been making modifications to the training program accordingly over the past several years,” she notes.

Tracking students and managing the data will be especially crucial. Levesque-Bristol’s research team includes several engineers who have spent their life “designing processes for efficient work,” she notes.

Why You Should Watch this Project

While no one doubts that student-centered learning is crucial for the success of students, we’re particularly interested in the questions being posed in this study. The results will have critical implications for pedagogy, especially as institutions seek to educate a wide range of students more effectively.

Game-Based Strategies for Improving Access for First-Generation Students at USC

By Lisa Cook & Daniel Fusch, Academic Impressions

For low-income and first-generation students, navigating the college and financial aid application process can be challenging. Without a mentor or experienced family member to guide students through the process, steps like requesting letters of recommendation and applying for scholarships can seem overwhelming. To exacerbate this problem, many first-generation students attend high schools without counselors or with overburdened college counselors.

Researchers at the University of Southern California set out to ease the process through online games that students can play to simulate the experience of applying to college.

USC's first such prototype, **Mission: Admission**, was launched in 2011 through a partnership between the Pullias Center for Higher Education and the USC Game Innovation Lab. Their work has been recognized by the U.S. Department of Education, which recently awarded them a \$3.2 million First in the World grant to expand the game to a wider audience.

We reached out to Zoë Corwin, associate research professor for the Pullias Center for Higher Education, to learn more.

Addressing College Access through Game-based Tactics

The project started six years ago when Pullias Center co-director William Tierney and director of research Zoë Corwin wanted to pursue strategies to increase college access for low-income and minority students. The Pullias Center offered effective outreach programs but could only serve a limited number of students due to limited resources. Their mentoring program, for example, could only serve about 200 students a year. Developing online tools provided a cost-effective solution by allowing them to scale some of the effective strategies through online games.

They partnered with USC's Game Innovation Lab, headed by Tracy Fullerton, a professor who is a leading designer of serious games — a genre designed to train or educate users. The Pullias Center received initial grant funding for the project in 2009 from USC's provost's office and other sources to make the game a reality.

"The first thing we wanted to address was that moment when students slip through the cracks," Corwin explains, noting cracks tend to appear around the college application process. "Ideally, students would have really robust support on their high school campuses with college counselors, but that unfortunately is not the reality. In Los Angeles, we've seen a lot of college counseling positions cut, so that's what we decided to focus on."

To identify specific issues students struggle with when applying to college, the Game Innovation Lab reached out to players in their target audience of low-income and first-generation students to offer junior game design camps. Students from Foshay Learning Center and Manual Arts High School created their own games about applying to college that highlighted common college application struggles. The design process also allowed the game design team to identify the kind of look and feel students preferred and consequently increase the likelihood that students would find the game appealing.

“Mission: Admission”

Mission: Admission was established as an online and open-access Facebook-based game in 2011. The next step was to test efficacy. To do so, USC formed partnerships with local high schools, many with which the center had already been running other outreach programs. They worked with teachers who were willing to invite them into their classrooms and have their students play the game regularly for a period of time.

They used pre-tests and post-tests, observations of game play and interviews to collect data between 2011 and 2014. They discovered that:

- Students’ college knowledge – understanding of key college terms and concepts – improved as a result of game play;
- College-going efficacy increased significantly if students played the game two or more times; and
- Students learned college and financial aid application strategies by playing the game.

“One of the greatest strengths of the project is that when students are playing they’re laughing, they’re collaborating, they’re helping each other, they’re asking adults in the room questions about college, so it really stimulates a different type of dialogue than traditional approaches,” Corwin notes.

Not all findings were positive. Researchers also found that most students would only play Mission: Admission when teachers gave them the opportunity to play in class. Most would not play at home due to other competing entertainment sources.

The FITW grant will allow them to expand access to the game and continue tracking the game’s efficacy. As part of the FITW grant, game designers will create a downloadable version that is no longer reliant on Facebook. To ensure successful implementation, the Pullias Center will collaborate with the [California Student Aid Commission](#) and [Get Schooled](#) as partner organizations.

The team will conduct a randomized control trial with high school juniors at 25 schools participating in a month-long game challenge, while juniors at another 25 schools will serve as a control group. Students in the treatment group will play the game again when they are seniors, and researchers will track the impact of the game on the student’s college application process later that fall. All schools will have access to study materials in the third year of the study.

Keys to Success

Solid, thoughtful collaboration between the research and design teams was essential to the project’s success, Corwin notes. Not only did each member of the team stay open to learning from each other, but they also tried to reach out to a variety of stakeholder groups such as practitioners, policymakers, game designers and entrepreneurs. “When we got involved in this project,” Corwin shared, “we realized that key groups were not communicating with each other about challenges they faced or best practices. We have been very intentional about sharing what we’ve learned.”

How Corwin and her colleagues discussed the project was also critical to its success. One of the initial challenges was to develop a vocabulary for talking about the project, translating the work so that diverse audiences could understand why the initiative is so important.

What's Next

“The neat thing about games is that they provide a safe place to fail, to try new strategies, to practice those strategies and then gain mastery of those skills, and that’s what we’re really seeing happen with Mission: Admission. When students play two, three four times, their college-going efficacy increases for every time they play.”

Zoe Corwin, USC

Based on the success of **Mission: Admission** and its no-tech partner card game, **Application Crunch**, the USC team has created two additional games:

- **FutureBound** targets middle school students and teaches them about high school, college and career pathways.
- **Graduate Strikeforce** is designed for high school students and focuses on choosing the right college, understanding financial and budgeting strategically while in school.

It’s going to be exciting to watch the findings from ongoing tests of these game-based strategies for improving college access.

How Southern New Hampshire is Replacing Remedial Education with Just-in-Time Academic Assistance

By Lisa Cook & Daniel Fusch, Academic Impressions

It is well known that traditional “remedial courses” are not working for the majority of students assigned to them; College for America at Southern New Hampshire University (CfA) is helping underprepared students with a new approach that circumvents remedial education altogether. This concurrent model enables students to pursue college-level work while receiving targeted academic support.

CfA’s work is supported by a \$3.93 million First in the World grant, and we reached out to Cathrael Kazin, Chief Academic Officer of College for America, to learn more about their work.

The Challenge

Anywhere between 25 to 40 percent of undergraduates take at least one remedial course, but studies have shown that students who enroll in remedial courses are less likely to complete the course or a college degree. Some estimate that less than 50 percent of students complete the course, and only a quarter of community college students who enroll in remedial education will earn a degree or certificate within eight years.

“In the vast majority of cases, no matter how well-meaning the administrators, no matter how hard the students work, and no matter how hard the instructors try, it’s really limbo land for a lot of students,” explains Kazin. Their solution: place students in the regular curriculum and offer concurrent assistance to address needs as they arise.

JUICE: Just-in-Time Contextualized and Empowering Academic Assistance

CfA termed the project JUICE to highlight their just-in-time, contextualized and empowering approach:

- Students engage in JUICE concurrently, rather than as a prerequisite to college-level work
- Students encounter JUICE within the context of what they are already doing in their college-level work
- JUICE is competency-based, which aligns it with the competency-based education that CfA already offers
- JUICE is student-driven, with gaming elements, dashboards and incentives to increase motivation and persistence

JUICE uses learning packages that target key CfA competencies, such as making an argument, Kazin notes. Students then access a series of mini-lessons on the relevant subcompetencies of the competency, such as identifying arguments and supporting arguments, and play games that enable them to assess their progress before returning to their regular CfA work.

“I think that this is a brand new way of thinking about how to help students who are eager to succeed in college. What happens now is that they come to college ready to

learn and they get diverted from their goals, almost immediately,” Kazin notes. “We want to change that so students are in charge of their learning.”

The Research Component

The research portion of the project studies how students who aren't fully prepared for college access help, how they think of themselves as learners, how they conceive of what they need, and what forms of help are likely to be used by them and used productively. Kazin explains that this research helps the JUICE team determine the kinds of interventions that students need, as opposed to starting with a hypothesis about what students need and then piloting it. In addition, the grant will evaluate the effectiveness of the JUICE interventions through a randomized controlled trial.

Why You Should Watch this Project

Although this approach will work well with CfA's self-paced competency-based program, the model could be more challenging for schools that do not have competency-based programming. Kazin's team will focus on replication activities during the fourth year of the grant, so that the model can be adopted or adapted by other schools for their own purposes.

To facilitate use by other schools, the learning packages will be set up on a website rather than embedded within a specific learning management system. CfA is also working with a user-design firm to design packages that are attractive and effective for students.

A New Take on Developmental Education at Gateway Community and Technical College

By Lisa Cook, Academic Impressions

There has been no shortage of research documenting the extent to which developmental education courses under-serve academically under-prepared students; traditional dev-ed curriculums typically award no college credit yet cost students time and money, while showing dismal persistence rates. In the past couple of years, we have seen a number of colleges and universities undertake innovative and impactful reforms of their developmental education.

Gateway Community and Technical College in Florence, KY, is currently engaging in such a reform through its Flexible Learning and Exploration space (FLEXspace) project, which is funded by a \$3.4 million First in the World grant.

We reached out to Kristen Smitherman, project director; Kerri McKenna, division chair of developmental education and orientation and assistant professor of developmental writing; and Doug Penix, director of learning environments, to learn more about Gateway's new plan for improving retention and completion rates among populations with at least one developmental need.

Gateway's FLEXspace is a three-pronged revision of developmental support:

1. Redesign of developmental education programs
2. Establishing active learning environments
3. Establishing an Information Commons as a one-stop shop for both academic and non-academic support services

1. Redesigning Developmental Education

Gateway had already begun working on developmental education redesign before receiving the grant, and their early results show some success. This fall, the community college paired a developmental course with a credit course to allow students to acquire college credit and save a semester's worth of tuition and time, McKenna explains. Students who used to test into a developmental writing class, for example, now go directly to English 101 but are also required to take a two-hour support course that functions as a writing lab.

Gateway is using a similar approach with its developmental reading and math courses:

- Developmental reading is now paired with a general education survey course (such as Introduction to Psychology), and everything is contextualized to the paired gen-ed course.
- Students who previously tested into Gateway's lowest developmental math course of the three Gateway offered now take the intermediate developmental course with a two-hour support class, shortening their time in remediation from three semesters to two.

- Students who test into higher levels of math accelerate in a similar fashion, based on the degree they are seeking. Associate of Arts students who test into the middle developmental math course go directly into a contextualized math course with a two-hour support class. Associate of Science students who test into the middle level take the contextualized math course with support for credit and then take college algebra their next semester. Students who test into the highest developmental math level go directly into the credit course with a two-hour supplemental course.

THE RESULTS

Preliminary data suggests the approach is working. The previous passing rate for the developmental reading course had been 72 percent, but this fall Gateway saw that rate jump to nearly 76 percent. In addition, 98 percent of the students who passed the redesigned reading course also passed the paired gen-ed class, and the vast majority passed the classes with the same grade or a one-letter grade difference, McKenna notes. Math also saw a slight increase in passing rates.

WANT TO SEE MORE APPROACHES TO DEVELOPMENTAL EDUCATION REDESIGN?

In 2013, Academic Impressions released a report interviewing academic leaders at two-year and four-year institutions that offer effective alternative approaches to traditional developmental education. These institutions have seen significant gains in retention and completion rates. Learn more from their example in our free report.

2. Active Learning Environments

The second component of FLEXspace involves establishing active learning spaces, Smitherman explains. This requires focusing on both the physical spaces and the tools, professional development and coaching that faculty need to support active learning pedagogy.

ACTIVE LEARNING SPACES

Gateway has partnered with Steelcase Education Solutions to equip classrooms with equipment and furniture that encourage student interaction. “We don’t necessarily want to have a cookie-cutter approach to every room, but we also want to keep in mind that we want things to be familiar for the faculty as well as the students,” explains Penix.

Together, Gateway and Steelcase have designed three types of active learning rooms:

- The **LearnLab** features four large tables in an X configuration. Each student is issued a tablet and everything connects to displays at each table.
- The **Verb Classroom**, in which each student uses a personal whiteboard and tables and chairs are all on wheels so the classroom can be easily reconfigured at any time to promote interaction.
- The **Node Classroom** uses individual desks on wheels that also can be easily reconfigured at any time during the class session.

Both the Verb and Node classrooms will also be equipped with a touch-sensitive projector and large whiteboards throughout the room.

ACTIVE LEARNING PEDAGOGIES

To prepare for the new learning environments, faculty who teach in these rooms will participate in 24 one-hour sessions in the Gateway Active Learning Institute’s series of active learning workshops. McKenna explains: “The first semester is about opening up their way of thinking in terms of teaching and their role in a classroom. The second semester is about how to design a class using an active learning approach to create an active learning classroom.”

Six cross-disciplinary faculty members will be trained as coaches each year during the grant’s duration, and these coaches will then be assigned to provide personalized feedback to faculty working in the new learning spaces.

3. Gateway's One-Stop Shop: The Information Commons

Gateway also intends to support students through an Information Commons, which will be Gateway's one-stop shop for support services. "Our hope is that the Information Commons will combine both non-academic, barrier-related services as well as the academic," Smitherman notes. The intent is to include the library, technical/information literacy, tutoring, and a centralized directory service of student-centered information. Ideally, the Information Commons would also provide spaces for individual study, small group work and a place for large teams to meet.

Keys to the Success of this Effort

Successfully navigating change management will be critical for success, Smitherman advises. "It's a very large project that we're doing, and it's going to impact pretty much everyone," she explains. FLEXspace has the president's full support, which will help.

Making their vision of the Information Commons a reality will also be essential to the project's success. Penix notes that the space needs to be both physical and virtual -- because a number of Gateway's classes take classes online. That, as well as the scope of services to be integrated, will be a challenge. "We have not found any significant models," Penix remarks, "that actually include both the non-academic and academic support into a one-stop shop approach. It's challenging as well as exciting because we really can pull this off."

Why You Should Watch this Project

Gateway faculty are already excited about the classrooms and changes made possible by the grant. "Just seeing the excitement on the campus already about what's to come is encouraging," Smitherman notes. The project's focus on active learning through both classroom space and faculty development could eventually change the way that many classes are taught at Gateway. The institution's preliminary results are encouraging, and we will be excited to watch FLEXspace develop.

How Delta State's Okra Scholars Program Hopes to Provide Systematic Intervention for the Most At-Risk Students

By Lisa Cook, Academic Impressions

At Delta State University in Cleveland, MS, students who score between 17 to 21 on the ACT, are Pell-eligible, and are first-generation college students or residents of the Mississippi Delta face additional challenges to stay in college. These students accounted for more than half of DSU's Fall 2012 freshmen class. This range represents a student cohort for whom timely and consistent intervention can have the greatest impact.

To help those students finish their degree and do so in four to five years, DSU has established the Okra Scholars program, which will use a \$1.6 million First in the World grant to establish a holistic, integrated student support approach for this targeted group of at-risk students. We reached out to project director Christy Riddle to learn more.

A Closer Look at the Okra Scholars

A COMMITMENT TO COMPLETION

The first thing the Okra Scholars will do is make a Commitment to Completion. This is a mutual commitment: "The students commit to earning a college degree within four to five years, and DSU commits to providing the support system essential for them to graduate," Riddle explains. "We're hoping to reveal their academic and personal capabilities and potential. Consequently,

students will perform at their optimal levels in college and successfully complete their degrees."

SUPPORT FOR STUDENTS

In keeping this commitment, DSU will provide support for students through:

- **Faculty mentors**

...who will maintain on-going, consistent communication with their assigned Okra Scholars, and who will proactively engage the team with any concerns about a student. The faculty mentors will act as professionals for academic support and advice, and create an engaging and safe environment to communicate with Okra Scholars through social media and traditional one-on-one sessions.

- **An Okra Scholars programmatic team**

...who will provide academic and career counseling to help students stay on track through graduation and beyond. The team will use data to provide strategic, targeted support that can be used to plan effective academic workshops and professional development trainings. They will also use information about students' personal interests, work and social activities, study skills, time managing abilities and other data that help identify factors that hinder success.

- **Peer mentors**

...drawn from returning Okra Scholars.

The Okra Scholars will be drawn from a pool of eligible students who are invited to participate. Eligible students include those who score between 17 and 21 on the ACT, are Mississippi Delta natives, Pell-grant eligible or first-generation college students. This spring, DSU randomly selected 50 students from the pool as the initial cohort; those 50 students will remain in the Okra Scholars program all four years. New groups of students will enter the program each fall.

According to Riddle, there has been great interest in the program from students this year, and DSU is looking into increasing the number of students selected next year.

Keys to the Project's Success

Maintaining student motivation will be the biggest challenge, Riddle points out, and they are structuring the Okra Scholars project to anticipate and meet those needs. Streamlined and engaging academic and career support services throughout a student's academic journey are vital for the project's success.

Support needs to go beyond academics to fostering a supportive relationship between students and the campus, Riddle emphasizes: "Students at DSU are not just a number, and DSU's faculty, staff, community and student body reflect this belief."

Many of the supports built into the Okra Scholars project will address obstacles for first-generation, underprepared and underrepresented students by providing:

- Access to career-focused interest assessments for students to identify personal strengths
- Cultural and service learning experiences
- Faculty mentors who guide participants through college transitional issues
- Collaborative learning classes with others who share common experiences
- Academic counseling and coaching to address deficient academic skills
- Embedded professional development workshops for students to excel in employment and internships

Why You Should Watch this Project

"As the priority to effectively educate underprepared students increases," Riddle remarks, "universities will look to employ intervention strategies that systematically support those students. We are looking to provide integrated services that are scalable and replicable."

What's especially interesting to us at AI is the targeted nature of their approach. Delta State has taken a close look at leading indicators that students may be at risk, relying not on national data but on an analysis of their own historical data. It's a step in the direction of predictive analytics, which will be critical in allocating resources to where they matter most in moving the needle on persistence and completion rates.

LaGuardia Community College Pilots Project COMPLETA to Support First-Gen, Low-Income Students

By Lisa Cook and Daniel Fusch, Academic Impressions

LaGuardia Community College's students in Queens, NY face a bevy of obstacles to their academic success. The college serves a mix of first-generation, low-income, and minority students, more than 70 percent of them from families who earn less than \$25,000 annually. LaGuardia also offers GED programs; many students who complete the GED then successfully apply and are admitted to LaGuardia, but unfortunately many of these students fall away in "summer melt."

LaGuardia hopes to get those students back on track and help other low-income and underrepresented students succeed through Project COMPLETA, Comprehensive Support for Student Success, which will be funded by a \$2.9 million First in the World grant. We reached out to Bret Eynon, associate dean for teaching and learning and director of the Making Connections National Resource Center at LaGuardia to learn more about this promising integrated support model.

A Look Inside Project COMPLETA

Eynon explains in Spanish *por completa* means to "make whole, to go all out, to make perfect" -- a good description of COMPLETA's goals for student development and student success. Approximately 25,000 students will participate in COMPLETA. LaGuardia enrolled 2,300 students in the First Year Seminar in Fall 2014, and another 1,500 are expected this spring. The program consists of three core initiatives:

- Implement the "Back on Track" program
- Rethink the First Year Seminar
- Transform advising for all students

BACK ON TRACK

Back on Track focuses on students transitioning from LaGuardia's high school equivalency program to college enrollment. Back on Track will provide counseling and targeted programming -- such as programs focused around remedial mathematics. LaGuardia will also strengthen pre-enrollment support, offer specialized orientations and skills workshops and provide advisement to every transitioning student, with the goal of increasing the number of students who successfully enroll by 10 percent.

FIRST YEAR SEMINAR

LaGuardia's new First Year Seminar is replacing the previous New Student Seminar, which Eynon notes was found to be "largely ineffective" because the majority of students either avoided the course or dropped out. The old course, while required for graduation, rarely was connected to students' majors, and students didn't earn college credit. The new required seminar is credit bearing, organized by major, and taught by faculty in that discipline. It also includes:

- An introduction to careers in each major
- Intensive advisement
- Co-curricular engagement
- An introduction to LaGuardia's technology suite

- ePortfolios, which will help students reflect on their learning and will move with them all the way to their capstone courses. The new ePortfolios, Eynon suggests, will support “engagement, reflection and deep learning that shapes not only knowledge and skill but also identity development.” Students will use the college’s ePortfolio system to define goals, engage in self-assessment and develop a two-year educational plan that will help LaGuardia provide more targeted advising for these students.
- Trained peer mentors will lead a weekly Studio Hour in a computer lab to support students as they develop their ePortfolios, and to serve as role models.

TRANSFORMING ACADEMIC ADVISING FOR ALL STUDENTS

The third core component is a campus-wide endeavor to train faculty, staff, and peer mentors to guide students through their journey at LaGuardia. Some advising will be paired with the First Year Seminar, but this holistic model also builds from that seminar to provide teams of people to guide and support students on their path to graduation, transition to a four-year college, and careers.

“We have developed and launched a new system of team-based advisement, where faculty work together with advisement professionals and peer mentors in discipline-based teams,” Eynon explains. LaGuardia had examined its previous advising system with the organization Achieving the Dream and realized that the system was too fragmented to be sufficiently effective.

Why You Should Watch This Project

LaGuardia’s exploration of how to support student development more holistically, aligning education and career from the first semester, is an intriguing project -- and it needn’t be of interest only to community colleges. Increasingly, employers are asking for college graduates

who can demonstrate the skill sets that a liberal arts education is intended to develop. In his Forbes editorial [“Are Colleges in the Education Or Training Business? Or Both?”](#) Academic Impressions president Amit Mrig argues for a different way of thinking about the relationship between college education and career:

RETHINKING THE UNIVERSITY’S ROLE IN CLOSING THE SKILLS GAP

Most academics emphasize that colleges are in the business of education (“knowing *why*”) and not training (“knowing *how*”). The classic example offered is that to know why planes fly, you need to be educated in physics and aeronautical engineering. But knowing why an airplane can fly doesn’t give you any ability to actually fly one.

This may be a valid distinction, but that doesn’t mean that institutions can’t, or shouldn’t, offer both outcomes. In the end, employers want employees who know both “how” *and* “why.” In fact, recently employers are calling for more of the “why.” 93% of employers stated in a recent survey that “a demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than [a candidate’s] undergraduate major.”

...In the end, producing students who are independent and critical thinkers is exactly what both our nation and our economy need. It’s time we worry less about the differences between education and training — and think more about ways to accomplish both.

- Amit Mrig

How Bay Path University is Improving Accelerated Online Learning through a Social Learning Platform

By Lisa Cook, Academic Impressions

Bay Path University is already breaking ground after establishing the only all-women's fully online degree program, The American Women's College Online (AWC), in the U.S. in 2014. The AWC offers over 20 degree programs, including business, criminal justice, cybersecurity, health services administration, leadership and organization, and psychology in an accelerated format. But Bay Path recognizes that online learning in an accelerated environment can present a number of challenges – particularly if students begin falling behind.

Their newest innovation, the **Social Online Universal Learning Platform (SOUL)**, funded by a \$3.5 million First in the World grant, seeks to address those challenges by making student progress more immediately visible to both faculty and students. We talked to David Demers, chief operating officer of the American Women's College Online, to learn more about this innovative program. Demers highlighted three key components of the new program:

- Data warehousing and predictive analytics
- SOUL-Connect, to foster an online learning community
- The Academic Resource Collection (ARC), which crowdsources supplemental course content

Here's what Bay Path is doing.

1. Leveraging Data and Learning Analytics

While the AWC provides a number of student support services to address the challenges working women frequently face while working on a degree, access to those services is typically reactive, after a student has started to fall behind. With SOUL, the AWC plans to leverage data and learning analytics to provide those services more proactively.

“The power behind SOUL is that we are leveraging a complex set of data and learning analytics combined to build predictive models that will allow us to proactively identify and offer our interventions and support services to those likely to need them along their educational journey, particularly during their first few semesters with us,” Demers elaborates.

AWC students take six six-week courses, and Bay Path has a huge menu of support options available for students. If a student falls behind three weeks into a course, however, it could be too late to catch up. Students need to receive resources before they stumble, Demers notes, and that's where one of the core elements of SOUL, an adaptive learning platform called KnowledgePath, will make a big difference.

Interventions are triggered within the KnowledgePath assignment, sending both a message to the student and allowing faculty members to see when interventions are recommended to students through the student dashboard. Faculty members can also review or assign specific

interventions, which will range from asking students to review a learning node or to take advantage of other available resources, Demers explains. In addition, the KnowledgePath assignment includes a built-in messaging system that allows students to trigger questions about a node. The messaging system will notify instructors with a message in the KnowledgePath system and through an additional message sent to the instructor's Bay Path email.

"Once we start to identify appropriate predictive models and effective proactive intervention strategies that help students succeed, we will be able to move away from broad-brush projects and strategies that are designed to benefit a majority of students and more toward an educational environment that can be customized or tailored to each individual learner's needs," Demers explains. "That is exciting."

Data warehousing will allow the AWC to make the data actionable and visible, and allow the college to create holistic profiles of learners in order to recommend unique resource combinations that have proven most effective for a particular profile. The data will also allow the AWC to measure precisely when a service or set of services was offered to evaluate the effectiveness of the timing and intervention.

2. Expanding Conversations beyond the Classroom

A second element of SOUL is **Soul-Connect**, an online component that allows students to connect to other students in their class, students in other classes, and even to expand those conversations to social media platforms like Facebook. In most online classes, students can only connect to other students registered for that specific section. With Soul Connect, students can expand their social connections and foster learning communities and opportunities both in and outside the classroom.

"Fostering learning communities is essential for a successful online environment," Demers notes. "We are able to do this by breaking down the 'virtual wall'

that corrals students in a typical online classroom and allow ongoing conversations to extend into the social networking world." The social media connections in Soul-Connect will be supported by the communication platform Hoot.me.

3. An Academic Resource Collection that Offers Crowdsourced Content

The third element is the **Academic Resource Collection (ARC)**, offering both supplemental instruction through articles and videos and a way for students to share resources that proved particularly informative about a topic or their own notes and papers. Demers says the idea occurred to him some years ago as he was talking to a colleague about social website bookmarking tools. He realized this was an interesting model for learning as well. In a traditional course, the material is assigned and restricted, Demers points out, "when students complete a course, that material, in many cases, disappears for the student."

"Through SOUL, what we wanted to do is put the student at the center of the educational experience, allowing them to pull resources that they have found valuable and that have worked for them into their 'student shell' as they navigate their instructional assignments throughout their degree program," Demers explains.

Through the ARC, students can:

- Access resources for their courses
- Rate those resources for other students
- Contribute their own content, which then becomes available for other students to use and rate
- Use the rating system to find popular resources

Bay Path hopes to use profile-matching algorithms in the future to provide recommendations to students based on their current courses and demonstrated learning style.

Keys to Success

Student access to the data is a crucial component for the project. Students will be able to see everything the university sees, including the profiles of model students that they match. Students could choose to opt-out, but they would lose the benefit of predictive modeling, Demers points out. Bay Path wants the project to be transparent, and hopes students can use their data as a way to self-monitor their academic progress.

Why You Should Watch This Project

If successful, SOUL will represent a leap forward in leveraging real-time data on student progress to inform early intervention, and allow Bay Path to better understand the most effective ways to deliver content and support to individual online learners. Demers notes that once everything is in place, services can be streamlined which creates efficiencies, increases retention and graduation rates, and ultimately improves the University's bottom line.

Arizona State University Rolls Out Project-Based Modular Learning to Improve First-Gen Student Retention and Completion

By Lisa Cook, Academic Impressions

At Arizona State University, students from first-generation, low-income, and underrepresented backgrounds earn bachelor's degrees at a rate that is 40 to 80 percent of their more advantaged peers. M. Jeanne Wilcox, a professor in the Mary Lou Fulton Teachers College, and Elizabeth D. Capaldi Phillips, provost emeritus and professor of psychology, head the ASU team that hopes to close that gap with three complementary innovations designed to boost retention and completion. Art Blakemore, Senior Vice President, and Duane Roen, Dean of the College of Arts and Letters, are working with Wilcox and Phillips on the implementation team. ASU hopes to increase first-generation completion rates and prepare students more effectively for life and career after graduation as they pilot several new strategies, learning what works and what requires revision.

The planned innovations include:

- ASU “project-based modular learning” or “ProMod” majors and general studies courses designed to engage students in interdisciplinary, real-world learning projects. In doing so, they expect that participating students will acquire knowledge and skills that are in demand in the contemporary workplace and develop ability to understand and integrate information and generate solutions or options relevant to a variety of contexts.
- The ASU team will also create an Early Start” partnership with a local feeder high school district to empower students to begin college projects during their senior year of high school.

- Co-curricular supports will also be added, beginning during the senior year in high school and continuing as the students matriculate and progress through ASU. These include career exploration, financial planning, near-peer mentoring, and parent-to-parent mentoring.

We reached out to Wilcox to learn more about how ASU will use its \$4 million grant, which is the largest of the First in the World grants. We find ASU's model intriguing because it combines a new philosophy for teaching and learning with the co-curricular support that first-generation and other low-income students often need. ASU's partnership with the local high school district also presents possibilities for more successful transition from high school to college. There are a lot of aspects of ASU's new projects that other institutions will want to watch.

ProMod: Project Based Modular Learning

The project-based component of ASU's approach grew out of an ASU faculty working group recommendation to adopt a problem-solving, project-based approach to general education. The working group's report notes, “In such an approach, students cultivate skills and intellectual habits as they pursue one or more projects grounded in issues meaningful to them and to society at large,” Wilcox explains.

ASU's project-based model is known as ProMod: Project Based Modular Learning. In it, all courses will contribute to a cohesive curriculum to engage students in a way that they demonstrate competence for content from multiple courses while focused on a single project. Faculty teams will develop interdisciplinary projects based on real-world experiences and situations in order to shift a student's focus from passing courses to mastering competencies and to cohere general education and major requirements.

For example, for one potential ProMod project students design a robot that solves the problem of living in the desert like a giant tortoise. The project could involve biology (genetics, evolution, and a live tortoise), writing, history (of the southwest region) and mathematics appropriate to the robot's design. At the end of the project, the student would earn credits in English, history, biology, and math, in addition to the credit for the project.

Flexibility is also built into the program. Students who demonstrate competency for a cohering course will be credited for that course at that time rather than waiting until their project is complete. Further, projects can be completed over more than one semester with different cohering courses each semester.

Other features of ProMod include:

- Variability in credit hours, length of a project, and whether students work in groups or individually.
- Each project will require students to engage in inquiry, information collection and critical analysis.
- Students can choose multiple degree programs using ProMod this fall. There are eight programs ranging from mechanical engineering to criminology and four exploratory major tracks.

Because students may need additional modules and courses to build foundational knowledge, the projects will not replace all course requirements. There will also be discipline-specific learning modules and key courses that will be incorporated into the curriculum.

ASU's ProMod pilot includes 1,600 low-income students including first-generation and those underrepresented minority groups with the goal of increasing access, success, and completion rates. The project-based approach may also provide a shorter path to a degree because a student's progression to a degree is tied to mastery learning and competence rather than a certain number of courses and credit can be given for work that students begin during their senior year in high school through the early start program.

Early Start: Partnering with Local High Schools

The other major component is ASU's "Early Start" program that will target 800 students in the Phoenix Union High School District. Students will begin college projects during their senior year of high school, continue their work during ASU's summer experience program, and finish the project during their first weeks of enrollment at ASU in the fall of their freshman year. The projects will be created by teams of faculty and teachers from ASU and the high schools and mapped to ASU general education learning outcomes. What's more, students can receive up to 12 credits toward an ASU degree if they enroll at ASU.

Co-Curricular Support for Early Start and ASU Students

ASU also recognizes that while their project-based model will engage students, first-generation, underrepresented students often need additional academic and non-academic support. They will offer comprehensive co-curricular support, including:

- Peer mentoring, featuring ASU student mentors working with small groups of PUHSD seniors.
- ASU parent to PUHSD parent mentoring and support
- Career exploration mapped to interests through early access of ASU's e-advisor system

- Family assistance in applying for financial aid on time and developing a sustainable financial plan
- Summer transition experience in a 10-day camp format

Keys to Success

One of the biggest challenges will be transitioning from a university model where work is organized around individual disciplines to one organized around interdisciplinary teams, Wilcox notes. To ease this transition, ASU will rely on faculty who already use project-based teaching to be a key resource for faculty new to this approach.

Wilcox also points out that although undergraduate education traditionally provides few opportunities for interdisciplinary collaboration, ASU has past experience to draw from in this area. This is no small feat in a university that offers 290 undergraduate majors. “Both our interdisciplinarity and innovation-driven education environment will ensure the success of this initiative,” she explains.

Why You Should Watch this Project

“The future of teaching is personalized, self-paced and learning-outcomes focused. The power of what ASU is doing is to show it can be done at scale.”

Jeanne Wilcox, ASU

At AI, we’ll be watching this closely. The idea of implementing these innovations in pedagogy at scale is exciting, and in keeping with Arizona State’s history of re-imagining their curriculum and co-curricular programs in innovative, student-centered ways. As their work with ProMod and Early Start proceeds over the next few years, there may be some very interesting findings to explore from these new initiatives.

How Jacksonville State University Plans to Boost Students' Critical Thinking Skills

By Sarah Seigle and Daniel Fusch, Academic Impressions

"We serve a student population that is largely rural," Alicia Simmons, Jacksonville State's vice president of research, planning, and collaboration, notes. "Our students come from families that are mostly lower-income and from schools that are under-resourced. This is a population that needs increased access to college and increased support to be successful." The most significant need, Simmons suggests, is for low-income (and often first-generation) students to develop critical thinking skills and confidence using technology to analyze and solve problems.

Expanding on Jacksonville State University's Collaborative Regional Education (CORE) model, which is currently funded by a \$12 million Investing in Innovation grant for PK-12, the First in the World grant will support ongoing professional development for JSU faculty, focused on unlocking the potential of technology and of active learning. Their "Fast Forward" quality enhancement plan, aided by a more than \$3 million First in the World grant from the US Department of Education, is focused initially on improvements for Jacksonville State's college of arts and sciences, but with the intent to be scalable across disciplines.

Here's some of what the initiative entails.

Realizing the iPad's Potential

Jacksonville State freshmen will have access to iPads starting in Fall 2015. But that isn't enough. Jacksonville State is working to make sure that these devices serve more purpose than simply as advanced note-taking

tools. The focus is on finding ways that the technology can facilitate transformative, active learning both in and outside the classroom.

For example, beyond simply providing iPads, Jacksonville State has equipped classrooms with televisions with Apple TV, so that students can show what they've done on their iPads to other students in the class, and so that professors can use apps or share digital publications on those screens.

Faculty Development and Faculty Mentoring

The institution is undertaking a number of faculty development initiatives to equip faculty both at Jacksonville State and throughout the region to integrate technology into classes effectively:

- An ongoing faculty development program that includes a series of expert speakers brought in to discuss emerging learning technologies.
- Jacksonville State is designating a first cohort of 16 faculty mentors. These are faculty who teach core courses and who will undertake a year's worth of professional development on active learning pedagogies and integration of technology into their coursework. The hope is that these faculty can then mentor other instructors across the institution.

- Following the old adage that the best way to learn is to teach, faculty are also mentoring local K-12 instructors on integration of technology and active learning pedagogies in the classroom.
- Hosting a three-day conference in June that provides faculty with the opportunity to share pedagogical innovation and new findings with colleagues.

Steps Forward

Simmons is tasked with evaluating “Fast Forward.” In addition to a control group of freshmen at another regional university, Simmons also wants the new initiative to focus on “before” and “after” data, looking at a 2014 freshmen cohort not receiving iPads and new courses against a 2015 freshmen cohort that will. Faculty will also be assessed with rubrics for critical thinking and technology use, and Simmons will be evaluating the data before and after faculty receive support and intervention through the Fast Forward program.

Through the First in the World grant, Jacksonville State is also partnering with Civitas Learning, a company that provides predictive analytics. Through this partnership, Simmons hopes to understand better which variables are most predictive of student success.

The outcome of this research is something we’re very excited to hear more about, at Academic Impressions. Because of the degree of the technological integration at Jacksonville State and the degree of predictive analytics to be applied, we think that the Fast Forward initiative will be critical for many institutions to watch over the next few years.

“SUCCESS LEAVES CLUES”

You may also be interested in our 2012 paper on predictive analytics of student success:

[Success Leaves Clues: Predictive Modeling in Higher Education](#)

A Note of Advice for Other Institutions

Toward the end of our conversation, Simmons raised a key point that she feels other colleges and universities should take note of -- and that is the shifting climate for funding higher education. Increasingly, both private donors, foundations, and federal agencies are more interested in funding projects that establish smart collaboration and partnerships between the university and other entities.

“Gone are the days,” Simmons remarks, “when one faculty member could say, ‘I have this great idea, let me write a grant and get funding for it.’ My advice is to start looking for partnerships now. Other universities, school systems in your area, technology providers...”

The challenges institutions are facing now are complex ones. The more brainpower you can bring to the table, the better the solutions you’ll find. And the more intentional you are in identifying potential partnerships, the stronger your case for funding new initiatives will be.

LEARN MORE ABOUT PARTNERING TO FUND RESEARCH INITIATIVES

In this 2014 special edition, Ed Mason of EMNR & Associates maps out creative ways that academic leaders and development officers can partner to merge public/private funding for existing and new research initiatives. Mason has studied an array of collaborative partnerships between the two offices most focused on external funding (the development office and research & grants), and in this edition he shares some of the models he has observed, as well as directions for the future.

[Special Edition: Missed Opportunities for Funding Academic Research](#)

How Lee College is Responding to Industry and Student Needs with Weekend College

By Lisa Cook, Academic Impressions

The Challenge

Nearly 75 percent of Lee College's students attend part-time because they need to schedule classes around their work schedules, and only 23 percent of Lee's students complete an associates degree within four years. With a demand for skilled workers in the area, especially among the region's petrochemical industries, Lee's STEM Grant and Punte Project Coordinator Victoria Marron found herself asking the community college's students, "Why are you part time? What obstacles are you facing? Let's find a way to make you more successful."

Lee will use the \$2.7 million grant to respond to industry demand for skilled workers while addressing working students' needs for flexible scheduling by providing four accelerated associate programs for full-time students in a Weekend College initiative.

A Close Look at Weekend College

To accommodate students' work schedules, Lee's Weekend College will hold classes on Friday evenings and Saturdays. Weekend College students will also have the option to block schedule classes, and will have access to blended courses. Weekend College is being offered for the associate of applied sciences and for associate of arts degree programs in general business, general transfer, welding, and computer maintenance.

Lee's Weekend College also includes:

- A cohort model of 18 students into each of the four programs each year for the next three years.
- Classes offered in multiple locations to better serve student needs.
- 3-week and 8-week bridge courses to help students quickly move from developmental to credit courses.
- Learning communities, in which students are strategically placed so they can benefit from peer-to-peer mentorships.

Lee College expects that at least 43 percent of their Weekend College Students will complete their degrees within three years.

Keys to Success

Logistics issues will be the biggest challenge Lee faces in piloting the Weekend College. Marron explains that they will be moving the welding program to a newly renovated facility to better accommodate the program. In addition, because the Weekend College is more than a program that merely offers classes on the weekend, their planning needs to keep the cohort model front and center.

Another key to success is eliminating the financial burden for students, and Marron says Lee plans to address that on several fronts, including the possibility of industry sponsorships of equipment or textbooks.

Why You Should Watch this Project

Lee's Weekend College has ambitious and exciting goals that reach beyond the four programs they are targeting with the grant. "We're hoping to be able to get a better grasp as to what students need, but it also gives us insight into a lot of other technical fields as well," Marron notes. It will also provide their students an economic advantage when finished.

"It's a great opportunity to be able to take their family from one whole socio-economic level and issues with they may be facing because they are just a helper or contractor making \$11, 12, \$13 an hour," Marron explains. "You complete a two-year degree and you skyrocket. There's a lot of opportunity there for them to be able to provide for their families."

How Texas A&M - Corpus Christi is Using Online Supplemental Instruction to Boost STEM Student Success

By Lisa Cook, Academic Impressions

Texas A&M - Corpus Christi already offers face-to-face supplemental instruction (SI) for many barrier STEM classes and has seen it boost retention and graduation. However, the number of students who took advantage of SI remained low in comparison to the number of students in the courses. Students frequently reported they could not attend face-to-face sessions due to schedule conflicts or jobs.

Dr. Patricia Spaniol-Mathews, Executive Director for Programs for Academic Student Support, hopes to eliminate that obstacle by piloting an interactive online supplemental instruction program with the \$3.3 million First In The World grant. It is an exciting opportunity because the online option will eliminate schedule barriers, increase the number of students who can benefit from supplemental instruction, and hopefully boost STEM retention and completion rates at TAMUCC.

The Initiative

During the project, TAMUCC will pilot an interactive, online supplemental instruction with several unique features, including:

- The SI sessions will mirror the face-to-face sessions by the use of WebEx.
- Each WebEx session will also be recorded and made available to students to access during the rest of the semester so that students who weren't able to participate in the three times a week online sessions or who miss a week or two can access the material later in the semester.

- SI leaders will also hold WebEx office hours online, giving students another opportunity to ask the SI leader about what they saw and heard during the interactive session.
- The same SI leader will conduct both the face-to-face and online sessions so there's no difference in the style or information provided.

"This gives them the option of being able to go online, anytime," Spaniol-Mathews explains. For project purposes, half of the students will be randomly assigned to face-to-face SI and the other half will be assigned to online SI. She also acknowledges that some students might want to opt-out of a face-to-face assignment to choose online instead — or vice versa — but hopes it will not become a major issue.

"What comes first is the student," she explains. SI is optional for all students, so meeting the needs of students who desire a specific format will remain a priority.

Keys to Success

To be successful, TAMUCC will need to address two key areas: faculty support and data collection.

FACULTY SUPPORT

"Faculty buy-in is extremely important," Spaniol-Mathews emphasizes. Because some professors prefer that their SI leaders provide face-to-face sessions and may have concerns about a new untried method the project

has started out with a smaller pilot project for this spring. She has started the project with seven barrier courses: (1) Microbiology, (1) General Chemistry II, (2) Engineering Materials Science, and (3) Stats for Life.

DATA COLLECTION

Data collection and analysis will also play a crucial role. Approximately 6,000 students will be involved during the four years of the grant, each with multiple data points. Their analysis will include multiple factors, such as:

- Midterm and final grade
- GPA
- Whether students pass the course
- Whether students are retained in STEM

To hit the ground running, her team will also start a data collection pilot this spring, so any problems can be worked out before the project is fully up and running in Fall 2015.

Why You Should Watch This Project

If successful, TAMUCC's online supplemental instruction model has the potential to boost STEM retention and completion while also providing substantial cost savings in terms of classroom space, especially at any campus where space is at a premium.

Part of Spaniol-Mathews' and the external evaluator data analysis will include the saving in classroom space alone from offering SI online. We're also looking forward to the results to see if attendance in the online sections clearly outpaces the face-to-face ones.

How Georgia Tech and AMAC Are Working to Make Course Materials More Accessible

By Lisa Cook and Daniel Fusch, Academic Impressions

Despite increased demand for more accessible course materials for disabled students, there is often a lot of inertia on the part of the textbook industry. Georgia Tech's Bob Martinengo, who serves as the accessibility solutions publisher outreach specialist for [AMAC Accessibility Solutions](#)—an organization that is part of Georgia Tech's College of Architecture, and that was incubated out of the University System of Georgia in 2005—offers this theory for why some changes have been slow:

“The industry has often said ‘yes, but we are concerned about cost’ or ‘we’re working on this project, but maybe tomorrow.’ The problem has been around so long that there’s little measurable movement.”

Bob Martinengo, AMAC and Georgia Tech

Martinengo wants to see two things change, in particular:

- Increase the pace of change to build excitement around innovations in course materials accessibility; “we need a tipping point moment where there will be focus.”
- Empower diverse students with more say about the digital platforms they use and how they wish to read textbooks.

Rethinking the Market

“The overarching theme is that students with disabilities are going to be more and more involved in the mainstream product market,” explains Martinengo. “They need to have accessible materials that they can purchase from the same sources as students without disabilities.”

Martinengo notes that this transition has already begun, but that there’s also a lot of opportunity now to accelerate and improve it.

Martinengo believes that Georgia Tech's AMAC is in a unique position to help drive change and spark a “tipping point” moment. AMAC already has a number of critical skills under one roof and already has direct relationships with many textbook publishers.

With the aid of a \$3.8 million First in the World grant from the US Department of Education, Bob Martinengo and the grant's Co-Principal Investigators Dr. Christopher Lee, AMAC's Director, and Dr. Julie Ancis, associate vice president for Georgia Tech's Office of Institute Diversity, are coordinating a research project to identify new features for existing textbook and course materials product lines, possibilities for more accessible tools, and strategies for making those tools available to organizations of all sizes – not only in Georgia but across the US.

Empowering the Student

One way that Martinengo imagines empowering the student consumer is by creating a “nutritional label” for course material products that provides clear information about what a student can do with the product.

For example, in some cases, an ebook format only works on certain platforms. Martinengo compares this situation to having to purchase one brand of TV in order to watch one network’s programs, and needing to then buy a different TV to watch programs on a different network.

In other cases, a math textbook may arrive in the appropriate format three weeks into the semester, but excludes the equations needed for the math class because the publisher couldn’t determine how to make that portion of the text digitally accessible.

So there are two pressing needs that AMAC’s grant-funded research will seek to address:

Label course material products so that students are more informed about what they’ll be able to do (or not do) with the materials.

Identify tools and features that publishers can integrate into their products to improve accessibility – and work closely with the industry to implement these.

“A transitional period in course materials can be confusing and stressful as students try to figure out what software works on which tablets or laptops, so we need to build momentum in the midst of this chaotic environment and remind everyone that these are solvable problems.”

Bob Martinengo, AMAC and Georgia Tech

A National Outreach

Georgia Tech’s project will conduct research with minority-serving institutions to identify specific challenges and work with their students to determine which interventions would be most effective.

The grant has allowed Georgia Tech to establish the [Center for Accessible Materials Innovation](#) that will work to expand access to digital content for students with disabilities at minority-serving institutions and will also provide a central professional development resource. He wants to provide guidance for other institutions in empowering students with more choice in accessing course materials.

In developing this, it will be critical to identify basic, core principles for institutions to focus on—principles that are independent of rapidly evolution in technology. For example, one core principle would be to establish a course materials adoption and purchasing review policy that takes accessibility into account.

This central resource will also make easier for student and faculty consumers of course materials to articulate what they want and need more systematically.

“Consumer demand needs to play a big part in changing the way the industry approaches accessibility solutions. If consumers can articulate what they want through a more systematic approach, companies are more likely to create products that meet consumer demand. It’s not just push, they have to be pulled.”

Bob Martinengo, AMAC and Georgia Tech

Why You Should Watch this Project

Of the 24 First in the World granted projects, this is the only one tackling the specific needs of students with disabilities. We are very excited by the project's focus on national outreach and on providing resources across the industry. We are also excited by the focus on empowering student choice and creating more consistent information around course material accessibility.

Are we near a “tipping point” moment now?

How Kennesaw's TAG Program is Creating Better Degree Completion Pathways for Transfer Students

By Daniel Fusch, Academic Impressions

Transfer student support has seen something of a revolution over the last decade, as colleges have become increasingly aware that transfer students make up over 60% of all American undergraduates enrolled at four-year institutions, and that transfers often arrive without the system of peer support and transitional support services that have been made available to many first-year students. Many institutions, especially state flagships, have put in place robust transfer student support services or, in a few cases, established one-stop transfer student centers on campus.

The one-stop approach for transfers remains rare, however, and it is more often that transfer student support is handled out of one department or office on campus. Bucking this trend is Kennesaw State University, which, with the aid of a \$3.2 million First in the World grant, is putting in place the **Transfer Advocacy Gateway** (TAG), a new program that will bring together an array of campus services to provide a more streamlined pathway to degree completion for transfer students at Kennesaw State.

TAG builds on the past success of Kennesaw State's RRP program (recruitment, retention, and progression to graduation for Hispanic students) and is guided by Complete College Georgia, the state's degree completion initiative, and by a study the university conducted ("Transforming the Transfer Experience") that made specific recommendations for serving the university's transfer student population. The university estimates that over the four years of the grant, TAG will serve up to 4,000 students.

Jennifer Wade-Berg, assistant professor of human services and campus executive director of the Nonprofit Leadership Alliance at Kennesaw State, shared with us some of the details of the project.

What the One-Stop Approach Entails

"We're really focusing on tighter partnerships with our feeder institutions and with nonprofit organizations in the community. Looking at two-year students who then want to come to Kennesaw, we need a more direct mechanism for getting those students into the process while they are still enrolled in their two-year colleges. Our service delivery model, based on the RRP program, recognizes that students need to have a more streamlined process—not handed off from person to person to person."

Jennifer Wade-Berg, Kennesaw State University

Those feeder institutions are Georgia Perimeter College, Chattahoochee Technical College and Georgia Highlands College, and Kennesaw State University's new approach is to ensure that students have one point of contact at their two-year college who can guide them through the entire transfer and financial aid process, followed by comprehensive support at the university to guide them toward graduation. For TAG, this involves:

- Adding key staff positions
- Establishing specially designed learning communities and systems for peer support

Adding Key Staff Positions

To proceed, Kennesaw State is adding these full-time staff:

- **Transfer (TAG) Enrollment Services Specialists** who will work on the feeder campuses, providing advising and financial aid information to students and advising them to finish their associate degree prior to transfer.
- **Transfer (TAG) Graduation Coaches** on the Kennesaw State campus. Students will be assigned a coach who will provide advice, workshops, and developmental and professional advising -- both academic and personal.

Wade-Berg emphasizes that key to the project's success will be close discussion between the transfer (TAG) enrollment service specialist and the transfer (TAG) graduation coach. "There has to be a seamless continuum of support for the student," she suggests. "This can't just be a hand-off. These professionals need a close working relationship, and we also don't want each professional who interacts with the student to have to recreate information on the student."

Adding Learning Communities

Citing learning communities as a high-impact practice, Wade-Berg also notes that TAG will involve developing specially-designed learning communities, "Flourishing at KSU," that have been created around the positive psychology literature. The idea is to offer a transfer student seminar that prompts students to examine personal strengths, interests, skills, knowledge, and information to be successful in a major or chosen career while promoting engagement in campus and community activities. The second course in the learning community is a general education course focused on wellness. The intent is for the faculty teaching at the learning community and the graduation coach to be in close contact.

While the details are yet to be worked out, there will also be significant peer mentoring opportunities offered to transfer students, as well as co-curricular experiences to support their academic, personal and career needs.

What You Should Watch

We asked Jennifer Wade-Berg what other institutions should learn from TAG.

She advises: "Watch how this model impacts retention, progression and graduation rates as well as how it impacts organizational accountability. KSU will continue to examine its organizational structures within the institution to see how they impact student success."

"You need to have the courage to change paradigms to meet the needs of students. In my estimation, KSU has such courage."

Jennifer Wade-Berg, Kennesaw State University

At AI, we are excited to watch TAG develop over the next few years!

How the South Dakota Higher Ed System is Transforming Support for American Indian and Low-Income Students

By Lisa Cook, Academic Impressions

In a recent initiative, South Dakota institutions are working specifically to address the needs of the state's American Indian and low-income students. This demographic faces unique challenges, in part because the majority of South Dakota's American Indian students live on rural reservations or in other rural locales and may be reluctant to leave family and community to pursue higher education.

The South Dakota higher education system first addressed some of these issues through a 2012 pilot program that served similar populations of underrepresented, low-income students. Now South Dakota Jump Start Project Director Rhoda Smith hopes to tackle those issues more comprehensively through the South Dakota Jump Start program, which will operate at seven South Dakota institutions through a \$3.6 million First in the World grant.

South Dakota Jump Start and “Earn and Learn”

The most exciting component of Jump Start is the Earn and Learn program, which allows students to live on campus, earn college credit and work part time during the summers before their freshman, sophomore and junior years. The first summer, students will be employed part-time on campus while also taking credit courses before the fall semester begins. “A modest amount of employment can be a good retention tool,” Smith explains.

The second year of Earn and Learn students might choose campus employment, a part-time off-campus job, or an internship where they earn money and college credit. Students will do internships or undergraduate research during their third summer. For many, simply having a job lined up will be a relief, because unemployment levels reach 80 to 90 percent on some South Dakota reservations. Earn and Learn fills a crucial role in providing students employment experience and in addressing financial concerns.

Other components of the program include:

- **Access Advisors** who will work as regional admissions counselors and assist students in college preparations such as scheduling the ACT, visiting campuses and applying for financial aid.
- **Summer Bridge**, offered during a student's first summer. Students will earn between two and five credits and participate in a Living Learning community that combines academic activities with cultural and other activities to foster bonds between students, mentors and advisors.
- **A Lending Library**, which will lend students course materials, including laptops if required by a course.
- **Orientation activities** for American Indian, low-income and general population students

- **Student mentors** who will function as an integral part of the Living Learning Communities and engage with students during their first year. Students from the first Jump Start cohort will be identified and trained to serve as mentors for the second Jump Start cohort.
- **Jump Start Advisors**, who will work closely with students, families, and college staff to provide academic and non-academic support, connect students to resources and create plans for success.

The first Jump Start cohort will begin in Summer 2015, as 450 students enter the program. A second cohort of 450 will begin in Summer 2016. South Dakota State University is partnering with Oglala Lakota College, a tribal college located on the Pine Ridge Reservation, and five state institutions to offer the program. The other state institutions that will feature Jump Start are Black Hills State University, Dakota State University, Northern State University, South Dakota School of Mines & Technology, and the University of South Dakota.

Current projections expect first-year retention rates of Jump Start students to increase from 65 to 75 percent, and that 54 percent of the cohort will continue to senior year. “The potential to increase the current graduation rate for this population goes from 39 percent to nearly 50 percent,” Smith notes.

Keys to Success

Smith emphasizes that building relationships is absolutely essential to the success of the project. Students need to be supported through a network of fellow students, mentors, advisors and faculty, and also by their family, tribal leaders and community to succeed. Jump Start will strengthen existing relationships and build new ones through a variety of outreach activities. Their goal is to build strong connections so that family members will feel comfortable picking up the phone or emailing the Access Advisor if they have questions.

Hiring the right advisors is also vital. “They have to be culturally aware, professionally excellent and personally invested in the students this program serves,” Smith explains. The Living Learning Communities will provide further support and help students develop a sense of place. “It’s really trying to create a strong network for those students,” Smith notes.

Adequately addressing financial concerns, providing rigorous academic support and advising, and building momentum so that students and their families can see how they are making progress toward their goals are equally important to Jump Start’s success.

Why You Should Watch this Project

South Dakota Jump Start is especially interesting in its approach to challenges specific to the region’s population. The program has to contend with the logistical challenges of educational access in rural areas, cultural challenges, and financial challenges, and if successful, will also lead to stronger ongoing connections with American Indian high schools and communities in the state, and increase opportunities for future collaboration.

How Indiana State University is Accelerating College Completion

By Sarah Seigle and Daniel Fusch, Academic Impressions

“There is a body of research suggesting the importance of a ‘growth mindset’ and its application in a collegiate setting,” Josh Powers, Indiana State’s AVP for student success, and Liz Brown, professor in Indiana State’s Department of Mathematics and Computer Science, told us recently, citing the work of theorist Carol Dweck and colleagues at Stanford’s PERTS Research Center, which focuses on projects for education research that scale. “In a nutshell, a growth mindset is about the degree to which you believe you have the capability to achieve in a certain area through hard work.

“For example, in the area of math, there is an interesting American phenomenon where you either believe you ‘get it’ or you don’t, and that somehow intelligence is fixed. This is a challenge in different subject areas, but especially in math. In a number of other countries, this isn’t the case: the mentality elsewhere is that math may be a difficult subject, but that anyone can learn it if they work hard enough. For some in the US, however, a common belief is that intelligence is *fixed*.”

But intelligence is not fixed, Powers and Brown emphasize. In fact, that might be regarded as one of the underlying premises of education. Recent research also demonstrates that the brain can be grown and strengthened -- much like a muscle -- *through hard work*.

At Indiana State University, Powers and Brown believe that the necessity of encouraging a growth mindset may be the most critical key to cracking the case of college completion.

A Growth Mindset: Do We Often Discourage It?

“There’s this archetypal example,” Brown notes, “of a college classroom where on the first day the professor says something like, ‘Look at the person to your left, and now the person to your right; they won’t be here in a year’ -- in reference to the many students that drop classes or leave the institution. That doesn’t reinforce the growth mindset. Empowering a growth mindset is aimed at flipping a switch in the student’s brain: they need to know they belong in a college setting, and that they can learn through hard work. We need to reward the value and importance of hard work.”

Like many institutions, Indiana State has a high drop/fail/withdraw (DFW) rate in gateway math courses. That’s why they are developing interventions focused on empowering a growth mindset in these courses. Powers and Brown believe that these interventions can be the key to closing the achievement gap for low-income and first-generation students especially.

Their project, funded by a First in the World grant from the US Department of Education, will carefully track the progress of students (GPA, persistence) who receive an intervention against the progress of students in a control group, throughout the four years of their education. The initiative has two phases.

Phase 1: Shifting the Student Mindset

The intervention is being implemented this term, and will consist of these steps:

- Students in three types of gateway math courses (remedial, STEM, and non-STEM) will read an article about the growth mindset (or about something else, for those students in the control group)
- After reflecting on the article, the students will craft a letter to the next year's students sharing their advice on how to be successful in college math

For now, this is primarily a learning and developmental exercise, and Indiana State University is exploring how best to share the actual letters with next year's students. They are in conversation with the College Transition Consortium (their partners in this project) on how best to put the letters to good use.

The point of the exercise, Powers and Brown emphasize, is to transform how students think of themselves: "they are assets and are not coming from a place of deficit after all."

From January 2015 to summer 2016, they also plan to work with several faculty in creating professional development materials -- for Phase 2.

Phase 2: Equipping Faculty Across Campus

In Summer 2016, Indiana State will start offering faculty training and professional development on the growth mindset so that faculty across the institution -- not only in the gateway math courses -- can develop strategies and techniques for fostering that in their teaching. The plan is to offer a 1-2 day summer workshop prior to the start of fall 2015 classes. Faculty will then continue to have conversations following up on that training over the course of that first term. "Some faculty naturally have a growth mindset and others don't," Powers and Brown note, "but the initial reaction is that a lot of the faculty are interested in this initiative."

"This intervention is powerful because it's inexpensive to implement, scalable, and straightforward, not complicated."

Josh Powers and Liz Brown, Indiana State University

Things to Think About on Your Campus

Powers and Brown look forward to sharing their findings with other institutions; this intervention, if successful, will also be highly replicable.

We asked Powers and Brown what advice they would offer now for other institutions that are interested in encouraging a growth mindset on their campus. They suggest "taking a hard look internally" at how your institution frames the identity of the student:

"You could be at Harvard or at a more accessible institution, but everyone wishes they had 'better students.' And there's also this culture in higher education that students are on their own and have to sink or swim. We send powerful negative messages without realizing it. But students are in a developmental place; how do you move them from what they were to what they want to be?"

"Part of our job as educators is to help students make that transition."

“We encourage other educators to think more intentionally about this, especially for new students, and especially for low-income students, first-generation students, students of color, who are more reluctant to ask for help because that may be seen as a sign of weakness.”

Josh Powers and Liz Brown, Indiana State University

The beauty of this approach is its simplicity and its potential for transforming the culture of a college campus. At AI, we are excited to watch the initiative proceed and study the findings once they're shared!

How the University of Minnesota is Building Collaborative Partnerships to Improve Retention of First-Gen Students

By Daniel Fusch, Academic Impressions

Geoffrey (Geoff) Maruyama, the department chair of educational psychology at the University of Minnesota, Minneapolis, has an intriguing -- and direct -- way of explaining the challenges faced in improving the academic success and persistence of under-represented and lower-income students. He cites Urie Bronfenbrenner's research on the ecology of human development.

Transformative Learning for First-Generation Students

"Kids grow up in a lot of different ecosystems," Maruyama notes. "To the extent to which those ecosystems are aligned, life is simple. When you have a bigger transition, however, it gets more complicated. First-generation students are less likely to have grown up in a culture with strong links to higher education, making the transition to a college environment a more significant change."

A lot of professionals in higher education are discussing how best to bridge the gap between high school and college; for Geoff Maruyama, the critical gap is between college culture and the culture of the community.

"We need to make connections back from the college to the community. It's critical that first-generation students and their families see the connection between their learning and their community. Often, these students arrive at college with idealism: they are going to get an education and then solve the world's problems. But they don't see immediate connection between the classes they're taking and world problems...or their community's problems."

Geoff Maruyama, U of Minnesota, Minneapolis

Maruyama's commitment is to making classroom learning relevant and active through integrating volunteerism, service learning, and civic engagement. This is a direction he feels will not only benefit first-generation students -- by empowering them to achieve and apply their learning within the context of their own communities -- but will benefit all students, by providing occasion for the examination of privilege and for translating classroom learning into real-world activity.

For example, the University of Minnesota has established an urban research and outreach center in North Minneapolis, in a high-unemployment zone. Community representatives and faculty and undergraduate student researchers meet there to address shared issues, and the university holds education, public health, and other classes at the center.

Taking the Next Steps: A Unique Partnership

Partnering with five other universities -- the City University of New York, the University of California Santa Cruz, the University of Georgia, the University of Illinois Chicago, and the University of Memphis -- the initiative Maruyama is spearheading was recently awarded a \$2.8 million First in the World grant from the US Department of Education.

The six universities each have seen some success with smaller projects focused on supporting first-gen students or integrating community-based learning experiences within academic programs in a diversity of regions, from New York to Santa Cruz.

Now, the task before them is to pool their knowledge and resources and identify the best opportunities to partner with local communities in offering new educational programming -- or refining existing curricula -- to serve nearly 9,000 under-represented students across the five institutions.

How They're Pooling Their Knowledge

"We need to first take the time to understand what we're each doing," Maruyama notes, "and how we can each do it better."

He and his colleagues at partner institutions plan to:

1. ESTABLISH A FORUM

Bring everyone together from five campus for three days, six times over the course of the project (twice during the first year, once the second year, once the third, and twice during the final year of the grant). They plan to invite colleagues from other institutions, as well, holding a symposium or forum to study the critical ingredients in the success of projects that are already serving first-generation students well.

2. DRAFT GUIDELINES

This initial research is intended to produce a set of guidelines for institutions on how to form the most effective and productive bridges with target communities. These guidelines will be made publicly available.

For example, one guideline might focus on taking the time to build relationships and establish trust. "If you go into the community well-intentioned but don't take the time up front to build the relationships you need," Maruyama cautions, "it may not be a positive experience for either the community or the student researcher or the teacher."

3. CONDUCT 6 CASE STUDIES

"We need to think of ourselves as six individual case studies," Maruyama suggests. "We need to find what's common across our own successes. What would we recommend to other institutions? What can we try that's new?"

That is what they are going to be discussing throughout this year.

Why You Should Watch This Project

The shift in demographics toward first-generation students is one of the adaptive challenges facing higher education. Addressing challenges like this one will require collaboration between institutions and communities,

because the issue is too complex and involves too many moving parts for a single department at a single campus to solve effectively. (See our article "[Higher Ed is Facing Adaptive Changes.](#)")

At AI, one of the things that excites us most about the effort Geoff Maruyama is heading is its potential for serving as a laboratory for developing this kind of collaborative initiative. We hope that it is very successful -- and that it serves as a model for similar college-community collaborations, involving multiple institutions, across the country.

We will be watching the University of Minnesota's project closely!

How Bryn Mawr is Closing Math Skill Gaps with Targeted Online Modules

By Lisa Cook, Academic Impressions

Bryn Mawr College has long boasted a strong history of women attaining STEM degrees, with more than a third of their students majoring in math or science. Now, Bryn Mawr is working to take the next step toward increasing the number of underrepresented, underprepared and low-income students attaining STEM degrees by targeting the needs of students who have gaps in specific math skills or who lack the overall mastery that would allow them to thrive in STEM. Their project, funded by a \$1.65 million First in the World grant from the US Department of Education, will combine face-to-face coaching support and blended learning through online modules, in partnership with twelve other institutions.

The Challenge

The project targets the group of students who have passed Bryn Mawr's entry quantitative skills assessment but who are struggling with math in gateway STEM courses, explains Elizabeth McCormack, associate provost and physics chair. In some cases, a student has specific areas of weakness, perhaps in functional analysis or trigonometry. "Often there's a gap in time since students last used these skills," McCormack notes. In other cases, students simply lack the overall mastery that would allow them to thrive in STEM. Either situation can leave students struggling and increase the possibility that they might drop out of a STEM program.

"Scaffolding can make a difference," McCormack notes. To address those needs, Bryn Mawr is partnering with Allegheny College, Denison University, Franklin and Marshall College, Grinnell College, Lafayette College, Mills College, Oberlin College, St. Olaf College, Smith College, Vassar College, Wellesley College, and Whittier College to create targeted online modules as a just-in-time aid.

Pairing Online Modules and Face-to-Face Coaching

Bryn Mawr will develop online modules in chemistry, calculus and physics courses that serve as gateway courses for STEM programs. Each module will address a specific area of potential weakness, and each will be context-dependent. For example, if a student in a physics class needs trigonometry scaffolding, the trigonometry module will work through the material using physics-oriented trigonometry problems.

This model also incorporates coaching so that faculty members are working with students to directly address needs. "We don't want to send a student away to work alone online without guidance; instead we want to provide them an online opportunity in context and tailored to their needs," McCormack explains. If she is teaching a class and notes that a student is weak in one area, she might assign the appropriate module as part of the student's homework for the week, and continue to work with them to address areas of weakness as needed.

McCormack says she will work with Bryn Mawr's partner institutions to determine specific areas and contexts in which to develop modules. Bryn Mawr will then build the core modules and make them available to the partner institutions. Bryn Mawr also sponsors a [blended learning conference](#) each May, and they will use that time to share data and feedback from the group.

The opportunity to have so many faculty trying different approaches with the modules results in a "rich multiplication factor," McCormack adds. For example, at one institution, modules embedded in a course might ask students to take an initial assessment, work through some

sections, and then take a mastery test to show they've mastered the concepts. Other institutions may use the same modules differently, perhaps in a tutoring center or as an alternate form of coaching or supplemental instruction.

Keys to Success

Faculty input, preparation and support will be critical to the project, McCormack notes. While at first it may appear more efficient to use ready-made online materials already available, McCormack cautions that if potential users haven't had any input in tailoring those materials to meet local students needs, those materials often will not get used. "A development process that leads to faculty adoption is key," she emphasizes.

To be successful, Bryn Mawr intends to:

- Organize a project team that strikes a balance between faculty input and expertise from outside professionals who specialize in learning technology.
- Develop communication plans and appropriate professional development activities to help faculty learn how to use the materials effectively to coach students.
- Prepare, engage and support faculty adopters as they experiment with the use of these new resources for student learning.

Why You Should Watch This Project

We are excited to watch this project and see how this just-in-time approach increases STEM success for underprepared students. If successful, it may also serve as a model for addressing skill gaps in other academic areas (beyond STEM) in a personalized and efficient manner.

Making the Library Central to Adult Learner Support at The College of New Rochelle

By Lisa Cook, Academic Impressions

Faculty at the The College of New Rochelle already know that mentoring and research-rich courses are key for the success of the adult learners in their [School of New Resources](#). Yet when Ana Fontoura, The College of New Rochelle's Dean of Libraries, was tapped to help improve student success through innovative, collaborative learning strategies, she immediately noticed that the existing research only mentioned academic libraries in a supporting role, if at all. At many institutions, this may present a missed opportunity. After all, the academic library is uniquely positioned to bring together information and research services and provide spaces for learning, mentoring, and collaboration.

That moving of the library from the support role to the center of a student success initiative with a focus on undergraduate research is what I find exciting about how The College of New Rochelle plans to use their First in the World grant funds. Fontoura sees the opportunity for the library to give adult learners, especially, an extra push to reach their goals, and she is proposing larger roles for the library and its staff in a new model that New Rochelle is calling "MURAL."

MURAL: Mentoring, Undergraduate Research, and Augmented Libraries

At The College of New Rochelle, the \$3.9 million FITW grant will fund MURAL (Mentoring, Undergraduate Research, and Augmented Libraries), which is focused on

moving full-time adult learners in the College's School of New Resources through college in four years or less with a Bachelor of Arts degree in the Liberal Arts. The initiative will create a network of support through an enhanced research-rich core course each semester, enhanced mentoring, and the creation of a library learning commons.

Included in this multifaceted approach are these key elements:

- A librarian will be embedded in each research core course to assist students in and outside class in completing their "Life Arts Projects" (focused on real-world research experiences) each semester.
- The College of New Rochelle is establishing a peer-reviewed journal, *Serviam*, in which students can publish their research, along with an institutional repository for completed projects and faculty research.
- Students who publish their research will receive an additional college credit at no cost to them, and students who publish six of their eight Life Arts Projects could graduate a semester early.

MURAL also features a Library Learning Commons, where librarians, writing specialists, tutors and other staff provide support for digital literacy, information literacy, writing, math, and other essential skill sets (such as working with spreadsheets or word processing) that some adult learners may need. The services provided in the Library Learning Commons will be supported and complemented by student services staff, who will be tasked with making sure that students have appropriate support for time

management, study skills, mental health issues, mapping out a career path and other non-academic issues. Enhanced mentoring, including alerts and more regular mentor/student communication, will also be used to address academic and other needs as they arise through the semester.

Keys to Success

“We’re changing a culture here at CNR, and that’s generally very difficult,” notes Fontoura. For The College of New Rochelle’s MURAL project to succeed, it will be critical to provide professional development as early as possible, especially to assist faculty members in moving from a silo method to a more hands-on and collaborative approach to teaching, learning and mentoring students throughout all four years.

It will be important to engage faculty in this effort while acknowledging that systematic changes can be very difficult. It is easy to get engrained in doing things a certain way. To have been awarded two major federal grants in one year totaling \$14 million has required CNR to dig deep into what works and what doesn’t. “We’re not where we should be and we have not been afraid to say that,” Fontoura explains. However, there is a steadfast commitment to Mission that drives success and innovation. She further emphasizes that faculty and staff members at CNR are excited about the proposed initiatives, are ready to build on proven methods that have been successful, and are set to adopt innovative practices that are sure to help our students succeed. That is what will help foster momentum for change.

Why You Should Watch this Project

The College of New Rochelle is working to establish a library-driven approach to helping adult learners succeed, which will include real-world research experiences that can better equip students for their intended careers. It appears to be provide a very integrated model for meeting the academic and professional needs of adult learners. We look forward to seeing the early results.

Northeastern Adds Learning Laboratory to Increase STEM Retention

By Lisa Cook, Academic Impressions

With job growth in STEM fields predicted to increase at three times the rates of other fields of study, Northeastern University (Boston, MA) plans to expand support for students pursuing a bachelor's degree in STEM disciplines. At Academic Impressions, we're especially intrigued by the learning laboratory component of this FITW-funded project because, if successful, the laboratory will help identify models for academic intervention that increase STEM graduation rates for nontraditional students. Northeastern is especially focused on finding low-cost ways to deliver STEM education to students online or via blended courses, while providing the academic support that will make the most significant impact. Here's a first look at their initiative.

Building on Past Success

Building on the success of its current [Fast Track](#) program, Northeastern plans to use its \$3.9 million grant to enroll 200 to 250 community college transfer students in STEM programs while testing various components of academic support for them over the course of their degree. The Fast Track program helps nontraditional students transferring in with some college credit to complete their degree in 18 months. The program features:

- Robust career advising embedded in the program, with everything in the program built with an eye on where students are headed
- Co-op and experiential project-based work to give students real-world experience and skills

The co-op is a signature Northeastern program in which full-time students engage in experiential, project-based learning that provides real-world experience. Northeastern's College of Professional Studies also offers online experiential learning to imitate these experiences for part-time students, who can also integrate the project-based work into their current workplace.

[The Lowell Institute School](#) will build on the successful work that Northeastern has done with Fast Track and online experiential learning and add a learning laboratory where faculty and professionals from industry can collaborate in testing evidence-based models for improving retention and student success for students in STEM disciplines, with a particular focus on under-represented students.

The Lowell Institute Innovation Incubator

This laboratory is the Lowell Institute Innovation Incubator. "What excites me most about this initiative is we've got somewhat of a blank slate," explains Kevin Bell, College of Professional Studies Executive Director of Curriculum Development and Deployment. The FITW grant money allows them to look at all aspects of the educational experience, working with people who will be completely new and can be completely focused on this project.

The Innovation Incubator will test interventions involving gamification, as well as adaptive and experiential learning, with the goal of increasing retention, degree completion and lowering the cost of delivery to non-traditional students who have some college experience and want

to pursue a bachelor's degree. The incubator will pay special attention to the intrinsic motivations of students from underserved communities who are taking online courses. Successful interventions will be embedded in the curriculum and expanded to other courses.

Keys to Success

In reaching out to both enroll and better support nontraditional students, one key challenge facing Northeastern faces is aligning this focus on nontraditional students with its reputation as a highly selective private university.

"How do we explain why is Northeastern doing this?" Bell says. "Northeastern has risen rapidly in the rankings as a national, high-profile elite institution and now we're saying there's this Lowell thing that's driven and led by Northeastern but it's really looking to engage a community that has not to many people been an obvious focus." And yet, the project speaks to one of Northeastern's long-standing core values; "providing opportunities to those who strive to overcome disadvantages and show great promise for future success.

A second challenge is keeping students engaged and focused amidst the many other obstacles adult learners face. "You're talking about students who have a thousand reasons to not complete, and we're giving them one to complete which is, 'This is good for you, it will help you in your career, stay with us,'" Bell explains. The ability to test, fine tune, and retest multiple projects involving student engagement and interventions is why the Innovation Incubator will be so critical.

Bell's recent research has included collaboration with practitioners piloting serious gaming initiatives, including hero's journeys where the student places her- or himself at the center of a narrative filled with mnemonic devices. Elements such as appropriate level of challenge, immediate corrective feedback and serendipitous "awards" or simply praising recognition, are all elements that cross over from good (traditional) instruction that can be accentuated in the online environment.

Why You Should Watch this Project

The Lowell Institute's learning laboratory is a uniquely focused research initiative to identify those interventions that increase student success while lowering the cost of course delivery. We'll be watching closely and are excited to see what they learn about engaging working adults pursuing STEM degrees in online and hybrid environments.

Retaining First-Gen Students at UNC-Chapel Hill

By Lisa Cook, Academic Impressions

Percentages of first-generation students are rising at many institutions, and the University of North Carolina at Chapel Hill is taking an especially comprehensive approach to academic support for this growing and often challenged demographic. At AI, we're looking forward to watching their FITW-funded project develop over the next four years; if successful, it will provide other institutions with one possible model for a holistic and effective approach to supporting and retaining first-generation students.

Here's a first look at the challenge UNC-Chapel Hill is up against and how they're innovating to address it.

The Challenge

At UNC-Chapel Hill, 20 percent of undergraduates are first-generation students who are half as likely to graduate college as their peers. First-generation students who transfer from a community college or major in a STEM field are at an even greater risk of dropping out.

"While nearly half of new transfers to Carolina express interest in majoring in STEM fields when they arrive, only a much smaller fraction actually manage to do so," explains Cynthia Demetriou, the university's director of undergraduate retention and executive director of the Finish Line Project.

Because many first-generation students face a range of barriers to success, from cultural differences, competing work and family responsibilities, and lack of family support to insufficient academic preparation, UNC-Chapel Hill's Finish Line Project will need to tackle the retention issue from several directions – and not just from the viewpoint of one office on campus.

The Initiative

UNC's Finish Line Project, funded by a \$3 million First in the World grant, aims to improve retention for first-generation undergraduates by combining curricular innovations like redesigned STEM courses, transition courses to prepare students for UNC's academic expectations, and intensive academic advising that begins before a student enrolls and continues throughout a student's time at the university.

Abigail Panter, psychology professor, senior associate dean for undergraduate education, and the grant's principal investigator, emphasizes, "We're approaching the support of first-generation students from many different angles." Specifically, the university is looking to add:

- Curriculum mapping of community college STEM courses with UNC science courses
- Gateway STEM course redesign to better engage first-generation students on real-world problems
- Proactive, intensive advising and academic coaching throughout college
- Individual and group tutoring in STEM content areas
- Student Success seminars (e.g., transition courses, including Navigating the Research University, Learning to Learn, a Junior Transfer Seminar in which students complete a research project and present their results)
- Faculty learning communities and professional development opportunities

Academic coaching is a key element of the initiative because it helps students set goals and shows them the roles and responsibilities of being a student. UNC's ultimate goal is to have everyone on campus work from an academic coaching perspective, even if an individual works in other capacities. It's one example of culture change they want to see across the entire institution. And when coaching becomes an approach that all faculty and staff are trained to use when working with undergraduates, that is both a more effective approach and a more cost-effective approach than hiring separate academic coaches.

Keys to Success

This won't be a simple effort. To succeed, UNC-Chapel Hill will need to:

- Engage faculty collaboratively in the work of gateway course redesign, rethinking pedagogy, and academic coaching
- Design the added elements - such as transition courses and academic coaching - in ways that are sustainable and will last beyond the four years of the grant

ENGAGING FACULTY

To engage faculty deeply, UNC is developing faculty learning communities and the Finish Line Project includes partnership with UNC's Center for Faculty Excellence. The objective is to empower faculty to rethink how courses can be structured to meet the learning needs of a diversifying student body. This is a process that has to be owned by the faculty themselves.

"We're allowing these discussions to happen within departments and encouraging faculty to talk with each other," Panter notes. Inviting faculty to brainstorm how to modify their pedagogy allows you to harness the collective brainpower of the institution to develop the best solutions—rather than imposing solutions from the outside.

"How a class is structured, especially in the sciences, can easily influence whether a student enrolls in the next course and has a positive view of the entire field of science or that discipline in science," Panter adds. "Somewhere along the line, we really have to question why students are not wanting to stay in the sciences, what we are doing, what our model is, and what models attract talented students."

The Finish Line project will encourage collaboration throughout the institution—not just between faculty.

"Every person that has an interaction with an undergraduate student has the potential to influence whether or not that student will continue to persist here."

Cynthia Demetriou, UNC Chapel Hill

PLANNING FOR THE LONG TERM

Long-term sustainability will be vital to the success of the Finish Line Project is embedding sustainability, so the project's leaders are planning from the outset to design and structure the new activities in ways that will allow them to last after the grant funding ends.

"We're working on how do we change the infrastructure so it will persist," Panter says. For example, to keep the transition courses sustainable, UNC-Chapel Hill is planning to build the teaching component of the courses into positions that already exist on campus.

Why You Should Watch this Project

If successful, the Finish Line Project will serve as a viable and holistic model to help institutions position their growing populations of first-generation students for success without increasing expenses.

Increasing Transfer and Completion Rates through Regional Partnerships in the SUNY Oswego Area

By Lisa Cook, Academic Impressions

Although the State University of New York at Oswego already has a strong collaboration with area community colleges, SUNY Oswego has noticed a gap in the number of students moving from two-year to four-year schools. In this north-central region of New York, three community colleges and a community organization partnered with SUNY Oswego to narrow that gap.

Their goals are to increase retention and completion rates both two-year and four-year institutions, encourage more students to transfer to a four-year institution and complete a bachelor's degree, and strengthen regional economic development in the process. The hope is that this model will provide a sustainable example of how collaboration, aligned coursework and community support can improve degree attainment on multiple levels.

The Transfer Gateways and Completion Program

Leaders at SUNY Oswego are partnering with Onondaga Community College, Mohawk Valley Community College, Cayuga Community College, and the community organization [On Point for College](#) to use the \$2.88 million FITW funding to improve degree attainment through the Transfer Gateways and Completion program. Program components include:

- Aligned coursework and seamless transfers between the community colleges and SUNY Oswego in targeted degree programs
- Academic and non-academic advising and support

- A specially designed course for transfer students that includes academic counseling and financial aid to prepare students for the four-year experience
- Dual enrollment in a partner community colleges and at SUNY Oswego
- A professional skills course to prepare students for internships, co-ops, work-based learning, or placement in the workforce

The community organization On Point for College will provide academic and personal financial counseling throughout the program. On Point's "campus angels" will stay with students from the time they start thinking about college until they get a job, explains Lorrie Clemo, SUNY Oswego's provost and vice president for academic affairs. That additional advising and support is essential for student success.

The program, which will serve approximately 1,175 students, largely from first-generation, low-income and underrepresented backgrounds, will also encourage community college students to aim for a bachelor's degree and help them transfer to SUNY Oswego or other four-year institutions. All three community colleges are located within an hour's drive of SUNY Oswego, which was an important accessibility consideration for this rural portion of New York State.

Keys to Success

Coordinating efforts between the institutions consistently and effectively will be critical:

- Faculty members will meet face-to-face to review and collaborate on curriculum between the institutions.
- All institutions need to be able to access student records and transcripts electronically for a regular review.

The shared data needs to inform academic advising—for example, by identifying mixes of courses that tend to work well for students—and mixes that don't. Another example: the data has already shown SUNY Oswego that the longer students delay taking the required math course, the harder it becomes for them to graduate. Knowing this, they can design advising interventions to encourage students to take the math class early.

Finally, it will be key to meet as much of students' financial need as possible and provide financial literacy advising.

Why You Should Watch this Project

These institutions are partnering “to make our region stronger,” Clemo says, and we are excited about their commitment to improving the quality of life for the region with a model that we hope proves to be successful, cost-effective and sustainable.

Learning Communities to Study First-Gen Student Success at Western Michigan

By Daniel Fusch, Academic Impressions

Andrea Beach, Western Michigan University's director of faculty development, is the recipient of a \$3.2 million First in the World grant. WMU [has announced its intent](#) to use the grant to help develop a "culture of degree completion and success," and I was excited to learn more about what that meant -- in very practical terms.

Building on the Kalamazoo Promise

First, a bit of the background story: In 2005, Kalamazoo, Michigan created the "Kalamazoo Promise," a fund intended to expand access and student success, and to foster local community and economic development. The fund covers tuition and fees for students graduating from Kalamazoo public schools. "The thought," Beach explains, "was to remove what is seen as one of the primary barriers to student success in college: finances."

But the students who are coming to WMU now are still struggling academically -- and socially. As many studies have demonstrated, financial need is not one of the only primary barriers to student success, particularly for first-generation students from lower-income backgrounds and from underperforming school districts. Addressing the other, non-financial barriers requires culture change within the institution. "What do we need to change to support students who are coming to us from the backgrounds that the Kalamazoo Promise represents?" Beach and her colleagues are asking. "Many of these students are not as adept at navigating the culture or the processes of the university."

"We keep asking students to adapt to the university; what are we doing as a university to adapt to the students' needs? The philosophy of access has grown over the past 20 years among universities; access is a fundamental philosophical underpinning of higher education. But we haven't changed our thinking about what success means. Access without support isn't really access."

Andrea Beach, WMU

To address this, Western Michigan University has brought together a project team -- and is using the grant funds to hire a full-time project manager to guide the team (all of the team members are assigned to the project only part-time; they each have other jobs at the institution) and to place student groups in one of two supplemental mentoring programs that the university will pilot and test.

Beach describes these supplemental mentoring programs as the first step in what is intended to be an effort at institution-wide transformation.

Program 1: Connecting Students to Professional Opportunities

The first mentoring strategy involves placing first-generation, Kalamazoo Promise students with mentors from the local business community, whose role is to provide:

- Opportunities for career exploration
- Perspective on the relevancy of course content
- A relationship with a professional who is vested in the student's academic career

"What does professional work look like? Where am I going after I get this degree? The mentors will help students explore answers to these questions," Beach notes.

There has been a lot of talk recently about the "skills gap" that employers have noted in college graduates; at AI, we speculate that the kind of mentoring relationships WMU hopes to create may help address both issues -- the skills gap, and student persistence and advancement to a career.

Program 2: Embedding Students in Professional Learning Communities and Active Research

The second approach will be to build professional learning communities consisting of students, faculty, staff, and administrators. In these learning communities, students will be coequal participants in active research projects identifying and studying barriers to student success and persistence. The intent will be for students themselves to take an active part in identifying changes that the university can make to better support student success.

The project also takes a university's key strength -- learning and study -- and directs that strength toward solving the institution's own challenges:

- What does the university need to change, in order to be truly inclusive and supportive of all students regardless of their background?
- To quote Tinto, how can the university adapt to make student success the "lynchpin" around which the institution organizes everything it does?
- How can the institution identify its "islands of innovation" that currently operate within separate silos, and bring them together?

"Student success is our outcome, but what we propose for getting there is an institutional transformation project. We're not talking about adding a learning management system or adding a new program here or a new program there. We're talking about pulling together all the people who care about this and using the learning community model to study how we can transform the university to improve student success."

Andrea Beach, WMU

The new learning communities will be built on a model already tested through WMU's successful "Everybody Counts" learning communities, which have brought together a diversity of students, faculty, and staff to study issues of race and racism, gender, and disability on campus. Beach calls this a "model for breaking silos down," and stresses the importance of having more than the usual suspects at the table. "We want faculty, academic advisors, we could include dining hall workers... we want people from all levels of the university involved, coming at this challenge of student success."

And that is where Beach sees the greatest potential for the impact the new initiative could have, not just at WMU but for other institutions, too.

“We will run these learning communities for the several years of the grant. At the end, we hope to say to other regional universities, ‘Here is a model for studying yourself and for changing your own institution without spending millions of dollars.’”

Andrea Beach, WMU

Therein lies the challenge, of course. Implementing mentoring and learning community programs does not need to be expensive, but studying their implementation and effects within a quasi-experimental research design is costly. Fortunately, WMU’s Center for Research on Instructional Change in Postsecondary Education, or CRICPE, of which Beach is a co-director, was developed to take on this kind of research. The center brings together scholars from across all disciplines within the university to pursue funded research projects that require multidisciplinary perspectives and expertise.

At AI, we’re going to be very interested in watching the progress of this initiative over the next several years -- and finding out what they learn!