

Promoting Student Completion One Class at a Time*

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Many colleges speak of the importance of increasing student retention and completion. Indeed, quite a few invest substantial resources in programs designed to achieve that end. Some even hire consultants who promise a proven formula for success. But for all that effort not much has changed in the rate at which students complete their degrees. Though some institutions have made progress, many have not.

That this is the case reflects a number of issues not the least of which is the continuing failure of institutions to improve student classroom experience; that experience which for most students is the primary experience of college and therefore the primary determinant of student success. Lest we forget, most students attend non-residential institutions and/or commute to college. Many work while in college, often full-time, and more than a few attend part-time. For them, indeed for most students, the classroom is the one, perhaps only, place on campus where they meet each other and the faculty and engage in formal learning activities. If they do not succeed in the classroom, often one class at a time, they do not succeed in college. Yet most efforts to improve retention and completion are located at the margins of students' educational life, rarely involve the faculty, and as a result rarely impact

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classroom practice. Therefore while it is true that retention programs abound on many of our campuses, most institutions have not taken student retention seriously.

What would it mean for institutions to take student completion seriously? First and foremost it would mean that institutions would stop tinkering at the margins of institutional educational life and make enhancing student classroom success the linchpin about which they organize their activities. Rather than beginning the conversation about improving student completion with the question “What programs should we employ?” institutions would first ask “What is the nature of the educational experience we want our students to have in attending our institution?” and in turn ask “What then should be the nature of the educational settings in which we place our students, in particular the classroom, that would give rise to that experience?” Only after answering those questions, would institutions then ask “What initiatives would we take and in turn programs would we employ to construct those settings that would yield the educational experiences for our students that we desire?”

What should these educational settings look like? What are the conditions within institutions, in particular in classrooms, that promote student success and in turn student completion? The good news is that we already know the answers to these questions. An extensive body of research identifies the educational conditions that best promote student success, in particular during the students' first year of college when student success is still much in question. Here the emphasis is on the educational conditions in which we place students rather than on the attributes of students themselves. Though some might argue otherwise, student attributes are, for the great majority of institutions, largely beyond

immediate institutional control. This is not the case, however, for the settings, in particular the classrooms, in which institutions place their students and ask them to learn. Such settings are already within institutional control, their attributes already reflective of decisions made and of actions taken and not taken in the past. They can be changed if institutions are serious in their pursuit of student completion.

Conditions for Student Success

Four conditions stand out as supportive of student classroom success, namely expectations, support, assessment and feedback, and involvement.

Expectations

Students are more likely to succeed in settings where expectations for success are clearly articulated and are high. Students need to know what is expected of them to achieve their goals. The information faculty provide students, formally and informally, about course requirements (e.g. assignments, examinations, projects) not only helps students frame realistic expectations as to the time and effort required for class success but also influences how they allocate their time to competing demands on their time.

Clarity of expectations is one thing; level of expectation is another. High expectations are a condition for student success, low expectations a receipt for failure. Simply put no one rises to low expectations. High expectations serve to motivate students and are associated with

higher levels of effort and in turn classroom performance. Students with higher expectations tend to perform at a higher level than students with low expectations even though their measured ability is the same. Unfortunately, it is too often the case that faculty expect too little of their students and construct classroom activities such require too little of their effort. In this regard it is telling that a study of first-year students in a national sample of four-year institutions reveals that their expectations for the degree of effort required for successful course performance decline over the course of the first year.

Support

It is one thing to hold high expectations; it is another to provide the types of support students need to achieve those expectations. Without support, academic, social, and in some cases financial, many students struggle to meet institutional expectations and succeed in college. As regards the classroom, no support is more important to student success than academic support. This is especially true for the many students who enter college academically under-prepared in particular during the first year of college when student success is still so much in question and still malleable to institutional intervention.

Academic support is most effective when it is connected to or aligned with students' daily learning needs in ways that enable students to utilize the support they receive to succeed in the classrooms in which they are enrolled. Such alignment, for instance through the attachment of academic support to specific courses, as is the case, for instance, for supplemental instruction, IBest, and basic skills learning communities, not only enables

students to more effectively utilize support in the places where they are asked to learn, but it also allows support to be contextualized to the specific learning tasks of the classroom. Regrettably, too many support activities such as learning centers are disconnected from the actual demands of the classroom. Though they may provide generic support, many students struggle to apply that support to the specific demands of the course in which the students are enrolled.

For some students, social support as might arise through advising and mentoring can also enhance retention and completion. Such support can provide not only timely advice but also the emotional wherewithal to continue when difficulties arise. This is especially true for first-generation, low-income, and underserved students who often have few resources to draw upon to meet the many challenges of college completion. For new students from underserved populations, ethnic student centers can also help because such centers can serve as secure, knowable ports of entry that enable new students to safely navigate the unfamiliar terrain of the institution.

Assessment and Feedback

Students are more likely to succeed in classrooms that frequently assess their performance and provide them, faculty, and staff alike, frequent feedback about their performance in ways that enable all parties to adjust their behaviors to better promote student success. Again, this is

especially true during the first year when students are trying to adjust their behaviors to the new academic demands of college life.

One of the purposes of classroom assessment is to create a classroom "feedback loop" that provides students and faculty with information needed to improve both teaching and learning. Faculty use feedback gleaned through classroom assessments of student performance to adjust their instructions to better promote student learning within the course. Students, for their part, use feedback from faculty to adjust their learning strategies and study habits to perform better in class. Frequent assessment and timely feedback helps establish a classroom environment in which students are not only more likely to adjust their behaviors over time but also think about what they are learning as they are learning. Such "critical" attention further promotes student learning and in turn retention and completion.

Assessment of student performance can be employed in what are referred to as "early warning systems" to alert the faculty and staff to student difficulties and in turn trigger the provision of academic support when it is called for. A critical feature of the effectiveness of such assessment is that it provides an early alert of student difficulties, the earlier the better. Such "early warning" matters because of what we know about the dynamics of student failure; namely that early difficulties if not addressed mount up over time so that students become discouraged and withdraw when they need not. The same can be said of the use of automated "clicker" response systems that provide faculty in class real-time data on student performance.

Involvement

Involvement, or what is now commonly referred to as engagement, also is a condition for student success. The more students are academically and socially engaged with faculty, staff, and peers, especially in classroom activities, the more likely are they to persist and graduate. Such engagements lead not only to social affiliations and the social and emotional support they provide, but also to greater involvement in learning activities and the learning they produce. Simply put involvement matters, especially during the critical first year of college when student membership in the communities of the campus is so tenuous.

To build engagement, institutions have turned to a variety of strategies such as the use of cohort models and learning communities that require students to progress through a program together or, in the case of learning communities, take courses together over a period of a semester or year. For their part, a number of faculty have turned to pedagogies that require students to be actively engaged in classroom learning activities. Unlike the traditional lecture where students are typically passive, especially in the many large first-year classrooms that dot the landscape of postsecondary education, pedagogies of engagement, such as cooperative learning, problem-based learning, and project-based learning, require students to be actively engaged in learning with other students in the classroom. In problem or project based learning pedagogies, students also have work together to solve problems or complete projects that frame the classroom curriculum. One of the many virtues of these pedagogies is that they require students to actively apply what they are learning in class to concrete problems or projects. As a result, students are more likely not only to retain what they are learning but also acquire critical skills so important to further learning.

To sum up, students are more likely to succeed when they find themselves in settings that provide clear and high expectations, provide needed academic and social support in ways that are aligned to the classroom, frequently assess their performance and provide frequent feedback, and actively involve them with other students and faculty, in particular in the classroom of the campus. The key concept is that of educational community and the capacity of institutions to establish educational communities in and around the classroom that actively involve students with other members of the institution.

Efforts to Enhance Classroom Effectiveness

Though still limited in scope, there are now a number of efforts that seek to reshape the college classroom experience by altering the way academic support is provided, improving the usability of assessment and feedback techniques, and restructuring patterns of student engagement in the curriculum and classroom. Several of these deserve special attention not only because of evidence that supports their effectiveness, but also because of their capacity to reshape the nature of classroom learning. ~~These embed basic skills within content courses, automate classroom assessment and early warning, link basic skills courses to content courses in learning communities, and develop programs that enable new faculty to acquire skills needed for successful classroom performance.~~

Embedded Academic Support in the Classroom

The Integrated Basic Education and Skills Training (I-BEST) program of the Washington

State Board of Community and Technical Colleges provides students academic support from basic skills instructors while earning credit toward a certificate or degree. As such, it challenges the conventional assumption that basic skill instruction should precede the beginning of college-level work. This is achieved through the collaboration of basic skills instructors and faculty who jointly design and teach college-level technical and vocational courses. As a result, students learn basic skills and program content at the same time from a team of faculty. Early results show that IBest students fare better on a variety of outcomes (e.g. credits earned, completion of workforce training), when compared with traditional students at the same proficiency level. While the program is more expensive to run, recent data show that students are nine times more likely to graduate.

Automating Classroom Assessment, Feedback, and Early Warning

There are a variety of assessment techniques that can be used to assess student learning and trigger academic intervention when necessary. Classroom assessment techniques like the “one-minute” paper and the “muddiest point” have been in practice for decades. What is new is the availability of technologies that provide for rich transactional data capture and the ability to automate high value, previously time consuming tasks whose level of effort required by faculty often stymied efforts at wide adoption.

Though frequently used by online institutions, such as Western Governors University, a number of brick and mortar institutions are also employing similar techniques. The *Signals* project at Purdue University, for instance, employs predictive analytics to identify students

who are “at-risk” of doing poorly in a course by analyzing data from mini-exams as well as how they use course materials on Blackboard. Once identified, the system alerts faculty and then emails the student, urging them to seek help via available resources, such as office hours, study materials, and various academic support services. Though used throughout the university, it has proven most effective for students in their first two years of coursework.

Student performance can also be assessed through the use within classrooms of personal response systems or “clicker” systems. Unlike asking students to raise their hands in response to a question, such systems provide faculty an easy way to pose multiple choice questions of students and immediately share and discuss student responses and clear-up, where appropriate student errors before moving on to other topics.

Basic Skills Learning Communities: Aligning Basic Skills to the Curriculum

Learning communities connect one or more basic skill or developmental courses, such as writing, to other content courses, such as history, so that the writing skills being acquired in the developmental course can be directly applied to a credit-bearing course in history. In other cases, basic skills learning communities also include a student success or counseling course. In this and other ways, learning communities, such as those at DeAnza College, Kingsborough Community College, and Valencia Community College, provide a structure that enables the institution to align its academic and social support for basic skills students in ways that enable students to obtain needed support, acquire basic skills, and learn content at the same time.

In their fullest implementation learning communities not only change the manner in which students experience the curriculum but also the way they experience learning. They do so by employing pedagogies of engagement, such as cooperative and problem-based learning that require students to collaborate and become accountable for the learning of the group and classroom peers. In this way, students share not only the experience of the curriculum, but also of learning within the curriculum. By asking students to construct knowledge together, learning communities seek to involve students both socially and intellectually in ways that promote cognitive development as well as an appreciation for the many ways in which one's own knowing is enhanced when other voices are part of that learning experience.

Enhancing Faculty Skills

These strategies as well as others that seek to enhance student classroom success ultimately depend on the skills of the faculty to effectively implement them. Yet the faculty who teach those classes, unlike those who teach in elementary, middle and high school, are not trained to teach their students. This is not to say that there are not many talented college faculty who bring considerable skills to the task of teaching students. There are. Rather it is to say that college faculty are generally not trained in pedagogy, curriculum, and assessment in ways that would enable them to be effective with their students, particularly with those who are academically under-prepared.

Colleges are, of course, not blind to the issue of faculty skills. For years they have invested in faculty development programs, yet little change is apparent because most programs are not well conceived, are voluntary in nature, and/or attract a small segment of the faculty. Fortunately this is beginning to change at a limited, but growing, number of colleges, such as Chandler-Gilbert Community College, Moraine Valley Community College, and Richland College. These institutions, among others, have established faculty development programs that require all new faculty to engage in activities in which they join a learning community to acquire the pedagogical, curricular, and assessment skills they will need to assist, in particular, students requiring basic skills instruction.

From Classrooms to College Completion

It is one thing to reshape classrooms to promote student classroom success; it is another to reshape institutions to promote college completion. Though student degree completion necessarily requires successful course completion, it also requires the construction of coherent pathways of courses that lead one to the other to timely degree completion. The key word is timely. To understand why this is the case calls for a little digression to a higher educational equivalent of Isaac Newton's First Law of Motion. That law states that an object at rest tends to stay at rest and an object in motion, that is acquires momentum, tends to stay in motion unless acted upon by an external force. The same can be said to apply to students, namely a student at rest tends to stay at rest and a student in motion, that is one who acquires credit momentum, tends to stay in motion unless acted upon by an external force. Student motion or more properly student credit momentum is key to student completion. The more

quickly students earn credits toward degree completion, the more likely they are to complete their programs of study. Since all students enter the first year of college essentially at rest, what matters is that students gain sufficient movement toward degree completion in the first year to continue to degree completion beyond the first year. In this regard the evidence is clear. Students in four-year institutions, for instance, who begin their second year having successfully completed all their first-year courses, are considerably more likely to go on to complete their degrees than those who do not.

The task facing institutions is not only to build effective classrooms, building blocks of college completion, but also arrange those classrooms in ways that facilitate student momentum toward degree completion. This is being done in a variety of ways. Some institutions are working to remove curricular roadblocks to student progress. Typically this is done by first carrying out an analysis of course data to identify which of those courses in the first and sometimes second year of study, deemed foundational to subsequent progress, have high failure rates. Having done so, institutions then direct their actions to the specific task of improving student success in those courses.

Second, institutions are beginning to reorganize the first year of college to better promote the earning of degree credits during that year. For the many students who begin college academically underprepared, this sometimes lead institutions, such as Tarrant County Community College, to replace their entry assessment test that results in the placement of students into different of levels of preparation and in turn into different levels of “basic skills” coursework with tests that identify different areas of student skills within

subjects that can be addressed through the use of smaller course modules. The use of modules rather than standalone courses allows many students to complete their basic skills requirements more rapidly. For other students who are identified as only one level below college work, some institutions, such as the Community College of Baltimore County, are employing accelerate learning programs that allow students to earn college credit while receive academic assistance. In this instance students who would otherwise be required to attend a non-credit basic skills course, enroll in a college-level course together with a supplemental study unit aimed specifically at helping students succeed in the college-level course to which the unit is attached.

Third, an increasing number of institutions are following the lead of the State of Washington's use of momentum point analysis to identify those points in the curriculum, referred to as momentum point, whose timely completion spell the difference between student progress to program completion and student failure. Once identified, institutions are then directing their actions to improve the rate at which student achieve and move beyond those critical points of achievement. One of the many benefits of doing so is that it breaks down the somewhat abstract task of promoting completion into smaller, more policy relevant, tasks of increasing student movement to and beyond those points so identified. Not surprisingly, for community colleges these points are most often the timely completion of basic skills requirements, the timely declaration of a field of study, and the earning of a given number of degree credits within a period of time.

Finally, a number of institutions, for instance those working with the Bill and Melinda Gates Foundation's Completion By Design initiative, are utilizing momentum point analysis to guide their restructuring of their curriculum to produce a more coherent set of course pathways that students would follow, one course to another, to more timely program completion. Doing so, however, requires not only the offering of courses on a more timely and consistent basis and the allocation of faculty to those courses, but also the careful alignment of those courses and support service to them so as to promote the successful completion of those courses so aligned one course at a time.

Closing Thoughts

Student success does not arise by chance. Nor does institutional success. It requires intentional, structured, and proactive actions that are systematic in nature and coordinated in application over the entire course of student experience. Regrettably too many institutions treat "retention" programs like vaccines as if one action, most frequently taken in the first year, will make students immune to the pitfalls to completion that await them in the future. Little wonder then that the gains in progression of many first programs seen in the second year slowly evaporate over the long-term.

At the same time, institutional success also requires that institutions invest resources in ways that promote both the sustainability of action and its capacity to scale-up across the campus. Too often programs start and stop, repeating a cycle of program adoption and termination that only serves to undermine the willingness of faculty and staff to engage in

future action. But even when programs endure, too often they are located at the margins of institutional life. Some students benefit, many others do not. Consequently they do little to alter the overall character of student experience, one that is primarily a reflection of student classroom experience. In this regard, it is telling that one of the very few programs that has thus far been able to scale-up within institutions, the Freshman Seminar or sometimes referred to as the Student Success Course, is most often the work of student affairs professionals and frequently seen as “non-academic” in nature.

To scale up we also must recognize, as Candance Thille, points out, that “merely tweaking longstanding strategies to achieve incremental improvement is no longer enough.” New approaches are called for that provide scalable processes that offer the possibility of significant improvements in student learning and completion. One such approach, she reports, is that which is taking place in Carnegie Mellon University’s Open Learning Initiative where insights from the science of learning are combined with advances in information technology and alternative models of course redesign to improve student learning. Working together with the Pittsburgh Science of Learning Center, predictive analytic techniques are being applied to the collection of real-time transactional student-faculty data to move us beyond “intuitive” judgments about what works to improve student learning to the empirical testing of theories of learning that speak to what works for what students in what settings. Only then can we identify scalable actions that can benefit all, not just some of our students.

The fact is that there is no magic formula, no secret strategy that institutions can draw upon to address the many issues that shape student completion in higher education. There are a variety of actions institutions must take. None, however, are more important than those that address student classroom success. We need recall that the object of our work is not simply that students are retained and graduate, but that they learn in doing so. Student education, not retention is the goal to which we must aspire. Indeed if there is a “secret” to student completion it is that institutions that are successful in promoting greater classroom success and the learning that follows, are also those that will retain more of their students to degree completion. At the same time, such institutions will also attract more students who are themselves more likely to complete their degree programs.