

PRINCIPLES OF REDESIGN:

Promising Approaches
to Transforming
Student Outcomes

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About the Authors

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Elisa Rassen is a consultant whose practice specializes in helping nonprofit organizations improve opportunities and outcomes for vulnerable populations. She has worked as a writer for the RP Group on a number of projects that translate emerging concepts and research in higher education for community college leaders and practitioners. Ms. Rassen also works with nonprofits across the country to link their missions with fund development strategies and secure support from foundations, corporations, and government agencies. Previously, as the Grants Manager at national environmental education organization NatureBridge, Ms. Rassen raised over \$6 million in a two-year period to enable underserved youth to experience that natural world. Additionally, as the Institutional Advancement Coordinator at City College of San Francisco, she raised over \$14 million in four years in support of STEM education, career/technical education, support services for struggling student groups, and more.

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Rob Johnstone leads the RP Group's national programs and provides strategic consulting & technical assistance that help community colleges across the country improve student completion outcomes. Through his work on projects such as the RP Group's Bridging Research, Information and Culture (BRIC) Initiative, the Gates Foundation's Completion by Design initiative, and the Aspen Prize for Community College Excellence, he has catalyzed the evolution of college cultures that use inquiry, research and evidence at the practitioner level to create the conditions for change. Dr. Johnstone has over a decade of experience as a Director, Dean, and Vice President of Instruction in community colleges in California, and brings a practitioner's experience and perspective to bear on complex structural issues. Dr. Johnstone also served as a strategic consultant in industry prior to his work in higher education, where he specialized in working with companies on how to utilize information and analytics to more purposefully manage customer relationships.

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- Community College Research Center (CCRC)
- Public Agenda
- WestEd
- Jobs for the Future
- JBL Associates

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- The Aspen Prize for Community College Excellence - www.aspeninstitute.org/policy-work/aspens-prize/about
- Bridging Research, Information & Cultures (BRIC) – www.rpgroup.org/projects/BRIC.html
- Student Support (Re)Defined - www.rpgroup.org/projects/student-support
- Hewlett Leaders in Student Success - www.rpgroup.org/hewlettleadersinstudentsuccess

While this work has been supported by our partners, projects, and funders, these guides represent the RP Group's interpretation of these issues. Questions about these guides should be directed to Dr. Rob Johnstone at rjohnstone@rpgroup.org or Priyadarshini Chaplot at pchapl@rpgroup.org of the RP Group.

PRINCIPLES OF REDESIGN:

Promising Approaches to Transforming Student Outcomes

Introduction

Community colleges across the country are working hard to help their students succeed. With increasing demands for accountability from the public and state governments, many colleges are feeling the pressure to make changes—now. Even more importantly, practitioners want their students to be successful so they can reap the benefits of their educational achievements: associate’s degree holders earn 33% more than those with a high school diploma and bachelor’s degree holders earn 70% more.^{1,2}

Many colleges have been frustrated with the limited results stemming from past efforts to promote student success. With new approaches to improvement emerging and waning every few years, and expanding expectations contrasting with shrinking college budgets, many leaders and practitioners have become rightfully skeptical of the very idea of “change.” Too often, community colleges have begun to feel like enormous battle ships—no matter who is in charge and what changes are made, the ship is too big to move more than a degree or two from its original course.

In the face of these challenges, this guide offers a distillation of eight core principles of redesign that any community college leader or practitioner can use to begin thinking about change through a different lens. Based on research and practice conducted and observed by organizations such as Community College Research Center (CCRC), Jobs for the Future (JFF), WestEd, Public Agenda, the Research and Planning Group for California Community Colleges and the Bill and Melinda Gates Foundation, these principles reflect a fresh approach to thinking about student outcomes: one that looks at the institution from the students’ perspective and asks colleges to align structures, systems, programs and services in a coherent way.

How Can You Use This Guide?

The “principles of redesign” listed here offer guidance in a comprehensive rethinking of community colleges’ most fundamental challenges. Rather than looking to add on interventions that would nibble at the edges of deep-seated issues, this guide provides an opportunity for practitioners at all levels to consider fundamental change in their classrooms, programs of study, departments, divisions and institutions. None of these principles offer quick fixes to long-standing problems; instead, they offer an opportunity for community college leaders and practitioners to see their work in a new light, opening up doors to a new level of student success.

Principles of Redesign

- Principle 1:** Accelerate entry into coherent programs of study
- Principle 2:** Minimize time required to get college-ready
- Principle 3:** Ensure students know the requirements to succeed
- Principle 4:** Customize and contextualize instruction
- Principle 5:** Integrate student support with instruction
- Principle 6:** Continually monitor student progress and proactively provide feedback
- Principle 7:** Reward behaviors that contribute to completion
- Principle 8:** Leverage technology to improve learning and program delivery

For each principle of redesign, we begin with a discussion of the principle itself, offering insights and innovative concepts for thinking about student success. Then, we give an example of how the principle has been implemented at a community college. Later, we explore common conversations about each principle and include suggestions for how one could advocate for change within these situations. Finally, we offer a series of discussion questions that will guide community college leaders and practitioners in exploring together what redesign at their own institution might look like.

Built from a diverse base of research and experience (described further below under *What Are Principles of Redesign?*), the principles of redesign address key challenges faced by community colleges across the country. However, it is important to note that these principles cannot speak to the unique experiences of each and every college; instead, they help rethink the obstacles to student success found at a great many, but not all, institutions. The examples provided show the ways in which some colleges have put these principles into action, but represent only some of many approaches to implementing the principles of redesign. To successfully use this guide to enact meaningful change, community college leaders and practitioners will need to work together collaboratively in thoughtful inquiry to identify how to best put relevant principles to use at their particular institution.

Additional information about *Completion by Design* and other relevant studies can be found at www.completionbydesign.org and in the list of Additional Resources at the end of this guide.

What is Completion by Design?



**COMPLETION
BY DESIGN**

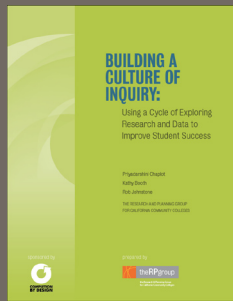
Completion by Design is a five-year initiative sponsored by the Bill & Melinda Gates Foundation. Through this project, cadres of community colleges within three states—Florida, North Carolina and Ohio—are working to increase the ability of students to succeed by developing coherent pathways of study. Completion by Design has identified three key completion goals on which to focus: earning certificates and degrees, transferring to four-year institutions and raising their value in the labor market.

The aim of the initiative is to raise community college completion rates for large numbers of students while containing college costs, maintaining open access and ensuring the quality of college programs and credentials. The Completion by Design initiative provides each cadre with grants as well as a broad range of technical assistance and other supports. These supports include assistance in data gathering and use; cost and productivity gains; research about implementation options; change management including policy change; and faculty engagement.

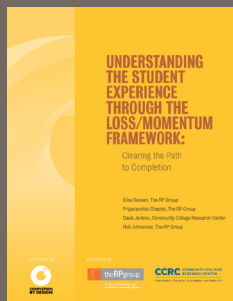
In addition to monetary funds to catalyze implementation of the proposals from the planning year, these colleges are receiving strategic support within their own cadre from a managing partner as well as focused technical assistance from a host of national partners. This support includes on-campus presentations, workshops and within-cadre convenings from national assistance partners such as the RP Group, Public Agenda and Columbia University's Community College Research Center (CCRC). In addition, the national assistance partners work with the Foundation as well as each other to engage colleges in the implementation strategy while maintaining a focus on practitioner engagement. This engagement focuses on such issues as exploring and integrating research evidence into strategy, engaging in difficult conversations around the implications of implementation and empowering practitioners to visualize the changes in their own work as a result of the implementation. Equipped with such varied support, these cadres work collaboratively to review, rethink and ultimately, redesign their organizational systems to raise student completion rates. Instrumental in this redesign process is the act of student-focused inquiry that the cadres will use to fundamentally rethink their systems. This activity requires administrators, faculty, student services professionals and students to:

- Construct thoughtful questions to better understand the student experience
- Face realities about the status quo
- Collect and examining various types of data
- Interpret the evidence among colleagues
- Collectively engage in passionate discourse on how to interpret this evidence and use it to inform action

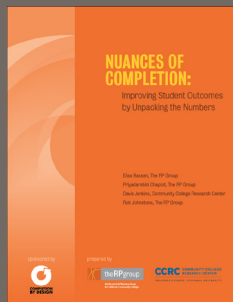
In completing each of these critical steps, colleges are evolving from institutions that work with cultures of evidence to institutions that work with cultures of inquiry.³ In order to bring these concepts to other colleges around the country, a set of four inquiry guides documenting these approaches and insights has been developed:



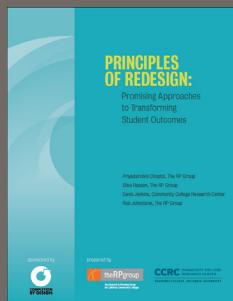
Building a Culture of Inquiry: Using a Cycle of Exploring Research and Data to Improve Student Success explores the concept of a culture of inquiry and introduces a framework to strengthen a college's ability to better use research and evidence to inform improvement efforts.



Understanding the Student Experience Through the Loss/Momentum Framework: Clearing the Path to Completion introduces an approach to examining students' own experiences at community college, identifying factors that catalyze and impede student progress and using these insights to address opportunities to improve student outcomes.



The Nuances of Completion: Improving Student Outcomes by Unpacking the Numbers examines the hidden complexity of completion outcome data and offers an approach to teasing out the complex factors that affect student completion in order to boost student success.



Principles of Redesign: Promising Approaches to Transforming Student Outcomes presents eight core ideas to help colleges address the fundamental challenges to student success.

What Are Principles of Redesign?

A Different Way to Think About the Educational Experience

This guide discusses eight principles of redesign. Each principle focuses on a different aspect of the educational journey, but they all have one thing in common: the eight principles discussed in this guide reflect a different way to think about the educational experience. They are as follows:

Principle 1: Accelerate entry into coherent programs of study⁴

Principle 2: Minimize time required to get college-ready

Principle 3: Ensure students know the requirements to succeed

Principle 4: Customize and contextualize instruction

Principle 5: Integrate student support with instruction

Principle 6: Continually monitor student progress and proactively provide feedback

Principle 7: Reward behaviors that contribute to completion

Principle 8: Leverage technology to improve learning and program delivery

Currently, most community colleges let students lead the way in their educational journey. Under the current culture, students are afforded an enormous freedom of choice, which many practitioners see as a positive component of the current system. However, students are left on their own to navigate an extremely complex system. If they wish to receive guidance on the tremendous number of choices available to them, they have to know enough to seek it out. Not only do students have to take the initiative when it comes to asking for help, they have to know where to go and who to ask. More importantly, students have to figure out for themselves the very questions that need asking. Considering that so many students are categorized as “not college-ready” when they arrive at community college, it is ironic that we require them to be such sophisticated users of the system in order to succeed.

To explore looking at the educational experience from the students' point of view in more depth, check out the inquiry guide, *Understanding the Student Experience Through the Loss-Momentum Framework: Clearing the Path to Completion*⁵

These principles of redesign ask community college practitioners and leaders to fundamentally change their perspective on how community colleges approach their work, by looking at every system, process, program and course from the point of view of the students. Each principle speaks to a different component of the college journey and identifies how to shift college cultures from placing the bulk of the responsibility for success on the student to one founded on proactive guidance and structure for both students and practitioners. Although some principles focus on big-picture changes across the institution, many also empower practitioners at any level to make meaningful changes in their own arenas. Ultimately, each principle provides an opportunity to see an old problem from a new point-of-view, and to change the default mode to setting everyone up for success.

Where Do the Principles Come From?

The principles in this guide draw from both decades of research and direct experience with community colleges across the country. Some of these approaches have been implemented in a variety of contexts and their efficacy has been well-documented, while others are promising practices that are currently being evaluated. Although the wisdom that informs these principles spans numerous organizations and individuals, there are three sources that have most directly informed the principles discussed here.

One of these primary sources is WestEd, a research, development and service agency based in San Francisco, California. WestEd works with schools, education agencies, policymakers and other stakeholders across sectors on research and evaluation projects that promote excellence, equity and improved learning for youth and adults. In 2011, WestEd partnered with the Gates Foundation, the Completion by Design initiative, the Community College Research Center, the RP Group and others to gather information about key design principles that support college efforts to substantially increase student completion. Building on the breadth and depth of knowledge among the partnership, WestEd developed the guide, *Design Principles for Effective Completion Pathways in Changing Course: A Guide to Increasing Student Completion in Community Colleges*.

The Community College Research Center (CCRC) has also played a critical role in the research that underlies both the design principles discussed in *Changing Course* and the principles of redesign in this guide. CCRC researchers have conducted extensive studies and synthesized the broader research literature to identify strategies that have the potential to improve student success on a scale needed to meet national goals for increased postsecondary attainment. Their work has provided evidence to support Completion by Design's central approaches. For a list of CCRC studies and research syntheses that contributed to the creation of the principles of redesign, please see the "Additional Resources" section at the conclusion of this guide.

Finally, direct engagement with the community colleges participating in the Completion by Design initiative has also informed the principles of redesign. As leaders and practitioners at these institutions have explored their own data, engaged their practitioners and developed implementation plans, their conversations have strengthened the crafting and refining of these principles.

The Process of Change

To implement these principles, many community colleges will need to shift not just the institution's culture, but activities as well. This can be a challenging task, as both leaders and practitioners are likely to have a wide range of opinions on the best route to improving student outcomes. In order to facilitate productive conversations, it will be important to cultivate opportunities for open, honest and collaborative conversations. These conversations can occur in existing venues (e.g., department meetings, professional development days or committee meetings) and be linked to existing efforts such as developmental education improvement efforts. Most importantly, they should include diverse voices within the institution and be framed as an institutional priority.

While reading through each of the principles of redesign, it is helpful to ask the following overarching questions:

- Who needs to be at the table to discuss the proposed change? Instructional faculty, student service professionals, presidents and vice presidents, deans and department chairs, institutional research staff, information technology staff and students themselves all have a role to play in bringing about scalable and sustainable reform.
- How can the institution shift from relying on isolated or small-scale interventions to enacting systemic change?
- Which existing efforts at the institution can be leveraged to produce system-wide reform?
- How should efforts to improve student success be prioritized? Consider the scope of the potential impact as well as the difficulties in changing some areas of the institution over others.
- What resources (e.g. monetary, human and/or technological) are necessary to implement these changes?
- How can professional development activities be designed and implemented to match these needs?

PRINCIPLE

1 Accelerate Entry into Coherent Programs of Study

Many students arrive at college uncertain about what they want to do with their lives. These students are likely to begin taking a smattering of courses, hoping that they will figure out what they want to study. Students whose academic preparation has not made them college-ready can spend years in generalized developmental English and math courses before they pick a focus area. However, research strongly indicates that the sooner students select a program of study the better their chances are of earning a credential, transferring to a four-year institution and/or increasing their labor market value.⁶

“Coherent” programs are structured so that each course contributes in a logical and sequential way to the skills and knowledge that students need to pursue a career or advanced study in a given area.

LEARN MORE ABOUT THIS PRINCIPLE

A new report from WestEd, *Providing Structured Pathways to Guide Students Toward Completion*, offers examples of how some colleges are seeking to provide more structure and guidance to students’ selection of a program of study. The report also includes suggestions from community college leaders about implementation challenges, and sample engagement questions to help involve faculty and staff in discussions.⁸

Early Introduction to Programs of Study

There are a variety of steps that colleges can take to move students more quickly into a field of study they find engaging and motivating. For students who are college-ready but unfocused, a requirement that they work with an advisor or counselor on creating an educational plan early in their college career can have a powerful impact.⁷ With students in developmental education, grounding their coursework in a program of study can help them build a broader range of skills right away. For example, materials can be contextualized or students can be exposed to workplace experiences early on in their educational experiences.

Coherent and Structured Programs of Study

In addition to speeding up the process of connecting students to a specific program of study, it is important that those programs of study be both structured and coherent. Imbuing a program of study with these qualities requires close collaboration between instructors. “Coherent” programs are structured so that each course contributes in a logical and sequential way to the skills and knowledge that students need to pursue a career or advanced study in a given area. Key components of coherent and structured programs of study include a series of courses that build the skills needed for advanced study and/or employment, clear start and end points, transparent requirements and a shared understanding of and access to students’ progress towards their goals.

To create this coherence, faculty and administrators must work deliberately and collaboratively on providing students with a unified learning experience. To accomplish this, courses within the program of study must be well-aligned, with faculty across the program sharing an understanding of how courses relate to one another and build toward a desired outcome—typically a certificate or degree, transfer to four-year institution and/or students’ increased value in the labor market.

A “structured” program of study has a clear start and end point as well as a specific set of requirements and courses. This includes a clear “start point” to ensure that both students and the college know when students are part of a program of study and what progress has been made toward that educational goal. Some colleges create systems that track a student’s course-taking behavior to identify that student as part of a particular program of study. The “end point” of a program of study can be a credential, transfer or increased labor market value in the field.

In addition to clear start and end points, structured programs have fully transparent sequences of courses, including identified prerequisites, so that students know what classes to take and when to take them in order to reach the end goal. To ensure clarity for students in this area, the sequence of courses must be clear to the faculty and staff as well, so they can collaboratively inform the course content as well as create a schedule that ensures the availability of courses in the appropriate sequence.

Principle 1 in Action

At City University of New York’s (CUNY) The New Community College, students must attend full-time in the first year. With advising services embedded into the curriculum, students are required to declare a major toward the end of that year. At that time, students can choose from six programs of study: Business Administration, Health Information Technology, Human Services, Information Technology, Liberal Arts and Sciences and Urban Studies. Key information provided to students about each program of study includes:

- An overview of the major
- A list of general requirements, program-specific requirements, and up to five electives, with links to details about each course

- A sample two-year schedule, broken out by semester
- A description of relevant transfer options, along with a link to the appropriate four-year college in the region
- An overview of related career options available for those with an associate's degree in the field, as well as those with a bachelor's degree and a master's degree

In addition, each of these areas of study has been designed to be fully aligned with upper-division, bachelor's degree programs at CUNY in the related fields as well as careers that have high-growth potential in the region.

But What About....?

Application of this principle is easiest to see in career/technical education fields, where the objective of the program of study is well-defined and limited in scope. But how would this work in a field like the humanities, in which related career options are less clear? Moreover, why limit students' elective choices—doesn't that just put boundaries around their innate curiosity and interest in learning, things that colleges should be cultivating instead of discouraging?

Cultivating curiosity is indeed a worthy goal. Unfortunately, giving students a limitless amount of choice often turns out to be more confusing and overwhelming than inspirational. In the RP Group study, Student Support (Re)defined, students themselves said that fostering motivation was the most important thing colleges could do to facilitate success. How to do this? According to students, they are more able to stay motivated when colleges help them develop a clear educational plan and monitor their progress.⁹

While it would not be helpful for colleges to prescribe one educational pathway for every single student, with no deviations allowed, neither do colleges want to leave students adrift in a field of endless choices with no guidance. Instead, colleges would truly be working in the best interests of the students if they provided opportunities for structured choices. Once a student selects a field of interest, colleges can shepherd them into a guided educational experience, one that clearly lays out what needs to be done, when it needs to be done and what happens next.

Furthermore, some may argue that creating structure is easier when students are fully focused on their educational goals and devoting all of their time to achieving them, like the full-time students at CUNY. However, providing structure and direction is perhaps even more critical for part-time students because they do not have the luxury of focusing 100% on their educational goals. These students will benefit enormously from knowing exactly what is required of them at every step on the pathway to success, along with understanding how much progress they have made toward those goals.



Discuss

1. When does a student at your college learn about the various programs of study at the college? What steps do you think students would need to take to get this information? How might you and your colleagues enhance access to key information at different points along the educational pathway?
2. What guidance is provided, inside and outside the classroom, that can help a student select a program of study based on their interests, skill-level and long-term goals? How do students learn about what will be required of them in the program they select?
3. Select a program of study at your institution and look at its schedule. Do students know which courses to take and in what order? Are the necessary courses available when students need them? If not, which stakeholders could work together to address these issues?

PRINCIPLE

2 Minimize Time Required to Get College-Ready

Practitioners at almost every community college are familiar with how difficult it can be for students to progress from developmental education to college-level and transfer-level courses. Millions of students who enroll in community college, excited to start the next stage of their education, find that they are one, two or even three levels below “college-ready” and must spend anywhere from one semester to several years completing remedial coursework. At times, these students lack only a handful of discrete skills, but there is no way to learn those concepts without taking an entire semester or more of developmental

education classes. Too many stall out during this phase, particularly when the curriculum emphasizes repeated practice of foundational skills that are disconnected from future programs of study or real-world applications.¹⁰

For students who do need remediation, colleges can help students cultivate foundational skills in a way that still enables progress in their program of study through contextualized math, reading, writing or English as a Second Language (ESL) classes.

LEARN MORE ABOUT THIS PRINCIPLE

To increase alignment between students' actual skill level and placement practices, colleges have begun exploring a range of holistic assessment processes. Read more in *Where to Begin? The Evolving Role of Placement Exams for Students Starting College*.¹² WestEd's *Acceleration in Developmental Education* provides an overview of key strategies community colleges are using to reduce the amount of time students spend in remediation. The report offers links to acceleration models currently in use as well as suggestions for launching discussions about this topic among practitioners.¹³

What makes things even more challenging for developmental education students is that placement and assessment processes may not be reliable measures of students' actual level of academic preparation.¹¹ Standardized placement tests may be imprecise predictors of future academic performance and often students do not prepare for the assessment and fail to fully represent their skills and knowledge base. At some colleges, these students cannot retake the assessment test for an entire year. In the face of all of these challenges, it is critical that colleges act to minimize the amount of time it takes for students to begin college-level coursework.

Approaches to Accelerating College-Readiness

There are numerous ways that colleges can approach this important task. One method would be for the college to reconsider their assessment and placement processes, looking for ways to implement a holistic approach to evaluate students' academic preparation. Additionally, colleges can provide information to ensure that students understand the important implications of assessment testing; furthermore, colleges can provide opportunities for students to prepare for placement tests.¹⁴

For students who do need remediation, colleges can help students cultivate foundational skills in a way that still enables progress in their program of study through contextualized math, reading, writing or English as a Second Language (ESL) classes. While designing a contextualized basic skills program for every single discipline would likely be unrealistic, many colleges can reasonably consider a contextualized approach for clusters of related disciplines. Moreover, if students enrolled in these courses can earn credits toward a credential or transfer, they will benefit from both enhanced interest in the subject and increased motivation to cross the finish line.

Finally, some colleges have used a modular approach to targeting the specific skills and knowledge that students lack. A typical course might cover 15 different skills, and each student must progress through each and every skill. If the course is broken into modules, on the other hand, students can focus on building the specific skills that they lack without spending more time than necessary on topics they have already mastered.

Colleges can further reduce students' time in developmental education courses by creating customized interventions that provide students with the specific help that they need. Allowing students to progress based on demonstrated competencies rather than seat time could substantially speed up entrance into a program of study. Finally, providing remediation simultaneous to college-level coursework, rather than sequentially, would allow many students who are close to being college-ready to launch immediately into their chosen educational pathway.

Principle 2 in Action

At Long Beach City College in California, the college found that the standardized placement test the college used to determine new students' level of academic preparation was in fact a weak predictor of students' actual performance in foundational skills courses. In English, 60% of students placed into developmental education courses had earned A's or B's in the same subject in high school. Meanwhile, 35% of the students who placed into transfer-level English had actually earned C's or lower in the same subject during high school. Even more disturbing, 53% of these students went on to fail those transfer-level English classes, a much higher rate than the college's average.

After careful review of five years of data on student progress and achievement in foundational skills courses in local high schools, beginning in fall 2012 the college

decided to augment its placement process by using students' high school grades. An initial assessment of the results suggests that doing so has quadrupled the number of students placed directly into transfer-level English and almost tripled the number of students placed in transfer-level math. Moreover, the college reports that these students completed the courses at rates indistinguishable from, and in many respects better than, students who had been placed into the classes using traditional assessment methods.

But What About....?

While minimizing the time students spend becoming “college-ready” is important, it’s equally important to not simply lower standards for what “college-ready” means. No community college wants to allow students to earn credentials and transfer to four-year institutions while remaining poorly prepared for employment or future study. In addition, implementing approaches like holistic assessment can require a financial investment at a time when most colleges are watching every dollar in their budgets.

That said, millions of students are currently spending more time in developmental education than they need to in order to build the skills and knowledge for future success. This impacts not only students, but colleges as well; retention, persistence and success rates among these students are often quite low which leads to lost revenue for the institution. Furthermore, the prevailing approach to developmental education disproportionately disadvantages lower-income African-American and Latino students, who are more likely to be placed at the lowest levels of developmental education and are very unlikely to complete the sequence and pass a college-level course.¹⁵ As such, colleges that work to reduce the amount of time students spend in developmental education can both open the door to students’ pursuit of their passions and benefit from increases in student success.



Discuss

1. What are the assessment and placement processes at your college? Has the college examined the relationship between assessment/placement results and students’ performance in their courses? If so, what were the results? If not, how might you and your colleagues go about this kind of evaluation?
2. How does your institution work with its feeder high schools to help potential students understand the impact of and prepare for the assessment test? How could you and your colleagues enhance this work?
3. How long do developmental education students at your institution typically spend in remedial courses? How many of them make it to college-level coursework in a field of interest? What do these numbers look like when you filter them based on demographic factors? How might you and your colleagues go about shortening the time it takes to become college-ready?

PRINCIPLE

3

Ensure Students Know the Requirements to Succeed

Principle 3 focuses on ensuring that students are fully equipped for success. From preparing for placement tests, to selecting a program of study that is right for them, to understanding how to put together the right schedule for that program, there are many key moments during which students need help making the right choices. Colleges that leave students to navigate the complexities of the educational experience on their own too often find that students get lost in the maze of community college systems.

Colleges can communicate clearly and frequently the exact requirements to earn a certificate or degree in each program of study; exactly what classes to take, in what order, over what period of time. By making sure this information is readily available to not only students but also all faculty and staff, colleges can assist each student in finding the best pathway to completion.

Enhancing Students' Understanding of the Ingredients of Success

LEARN MORE ABOUT THIS PRINCIPLE

Current community college culture expects students to track down information and manage it on their own. This principle suggests shifting the cultural expectations so that the college can partner with the student and provide guidance in navigating the educational experience. 2013 Aspen Prize winner *Walla Walla Community College* in Washington provides an example of how this partnership can be implemented.¹⁶

There are a number of steps that college practitioners can take to better inform students of what they need to do in order to succeed, thereby facilitating students' progress toward credentials and transfers. First, as described above, colleges can ensure that students fully understand the assessment and placement process, including the profound importance of the placement test as well as how to best prepare for it. Next, colleges can communicate clearly and frequently the exact requirements to earn a certificate or degree in each program of study; exactly what classes to take, in what order, over what period of time. By making sure

this information is readily available to not only students but also all faculty and staff, colleges can assist each student in finding the best pathway to completion. Finally, as students move forward in their programs, colleges can further provide frequent and easily accessible opportunities for students to assess their progress toward their goal of choice.

An educational plan offers a discrete tool to accomplish the changes described above. At many colleges, however, students must initiate the process of creating an educational plan which requires a level of awareness and knowledge that many students lack. Moreover, even when an educational plan is created, it is often a singular event rather than an iterative tool for planning and tracking progress. Many students create an educational plan with a counselor or advisor and never refer to it again; plans change, schedules change and goals change, all without being reflected in the educational plan.

To change this, colleges can take the opportunity to use the educational plan to truly map out and monitor each student's journey. By checking in with students periodically about their plan, perhaps one semester, one year and/or two years later, counselors or advisors can stay informed about that student's progress on their pathway. Moreover, the most effective educational plans are ones that students themselves can use to assess their own progress.

Principle 3 in Action

At Santa Fe College in Florida, students use two online systems to gain a better understanding of each step toward their educational goal. First, students work with college personnel to create an electronic educational plan; then, they use the Degree Audit system to track progress toward their goal. Students are also required to look at Degree Audit before registering for classes each semester and the combination of these two programs lets students know:

- Exactly what courses are needed for which programs
- When a course they have selected is not part of their plan and will not count toward financial aid eligibility
- Whether specific courses will count toward transfer to various four-year schools
- How to build a schedule that both supports their plan and responds to their particular preferences

Through these systems, students are aware at all times of their progress toward identified goals and are able to make adjustments as needed. The college is also able to offer positive feedback to students as they achieve certain milestones; for example, students who complete the developmental education sequence receive an email congratulating them on their achievement. With both the college and the students referring back to, adjusting and making real use of the educational plan, all participants in students' success can be equipped with the necessary information to make that success a reality.

But What About....?

For many community colleges, making a switch to a system like that of Santa Fe College might feel like a big leap from where they are now. Programs like Degree Audit require a new investment of resources, both to purchase these systems and to map the dozens of programs of study that most colleges offer.

Indeed, moving from the current system, which places the bulk of the responsibility with the students to track down and manage information, to one like that of Santa Fe College, would be a significant effort for some colleges. However, it is difficult to create any meaningful change without resources, human or financial, and college leaders and practitioners will have to decide where to focus their energy and discretionary dollars. Rather than looking at short-term costs only, colleges can weigh the increased revenue from improved retention, persistence and completion rates that might offset the initial investment in new technology.

Regardless of how a college chooses to tackle this challenge, the biggest adjustment necessary for the change described in Principle 3 is cultural, not financial. When administrators, faculty and staff across the college shift from expecting students to fend for themselves to providing proactive and comprehensive guidance, the college will have already made substantial progress in helping students succeed.



Discuss

1. Currently, how do your students obtain the necessary information about requirements for achieving their educational goals? How might you and your colleagues make it easier for students to both obtain and make use of that information at your institution?
2. What are the broad pathways taken by students at your institution? What are the specific pathways within particular programs of study? If you do not have this information, how might you and your colleagues work together on mapping out students' journeys to completion?
3. What existing systems (technological or otherwise) could you and your colleagues leverage to help students better understand the requirements for success and their progress status?

PRINCIPLE

4 Customize and Contextualize Instruction

As noted briefly earlier, one of the challenges students face in developmental education is that it typically lacks connection to the world outside the classroom. Often developmental courses use the “drill and practice” technique to help students build small sub-skills. This approach leaves many students without any understanding of why learning these skills can be important or how they can be used in advanced study or careers. Furthermore, this pedagogical approach often fails to cultivate in students the advanced conceptual skills needed for success in a program of study. As such, many students struggle to complete college-level courses.¹⁷

Principle 4 focuses on strengthening the learning experience—while particularly applicable to developmental courses, the principle holds true across all types of learning.

First, instructors can use program-specific content to make developmental education both relevant and engaging. This does not necessarily mean that every developmental English class is fully aligned with a particular discipline or field. Instructors can use examples from a cluster of disciplines relevant to the students in the course; class exercises and homework assignments can use experiential learning to help students to use developmental skills in real-world contexts connected to their area of interest; and guest speakers can help students make connections between what they are working on in developmental education and their future studies or careers. Regardless of how instructors approach contextualization, it presents a powerful opportunity for ongoing communication and collaboration with discipline faculty. By working together, instructors across college-level and pre-college courses can find ways to inspire students and show them that even in developmental education, students are making progress toward their end goals.

Instructors can use program-specific content to make developmental education both relevant and engaging. By working together, instructors across college-level and pre-college courses can find ways to inspire students and show them that even in developmental education, students are making progress toward their end goals.

LEARN MORE ABOUT THIS PRINCIPLE

To read about 11 different contextualized teaching and learning practices told from the faculty/program director perspective, peruse *Contextualized Teaching & Learning: A Faculty Primer*.¹⁸

Principle 4 in Action

At Los Medanos College (LMC) in California, math faculty members weave real-world contexts throughout the college's Elementary and Intermediate Algebra courses. Instructors use this contextualization to help students deeply master core math concepts as well as answer the question frequently heard in foundational skills courses: "When will I ever use this?" In addition to connecting math concepts to life outside the classroom, LMC faculty members also work hard to connect key math concepts to one another so that topics are not taught in isolation.

A LMC instructor describes what this contextual approach looks like:

Proportionality is [a topic that is] often covered in a single section and then not tied to anything else. In our activities proportionality is connected to linear functions that are introduced in the context of money with students taking a trip to Mexico. They look at exchange rates online and determine how many pesos they would get for a given number of dollars. That moves quickly into investigation of the relationship of sales tax to price—a proportional relationship that is based on geographic location. Then we look at data connected to Environmental Protection Agency (EPA) ratings for cars such as fuel usage versus distance. We do a graphical analysis based on an EPA data model and come up with a linear equation that describes the relationship of fuel use for different cars. We look at scenarios for different peoples' lives to determine what [kind of car] would make sense based on their [personal] context.¹⁹

But What About....?

Some practitioners find that contextualization limits students' knowledge of a particular subject area. If students learn math only as it relates to welding, for example, then they are being deprived of a real understanding of math that can cut across fields and prepare them more broadly for the rest of their lives. Contextualization, however, does not necessarily translate to limited understanding. A well-contextualized course will continue to build students' skills in all facets of a subject; the only difference from a traditional course is that students are shown how those concepts work in real life. Moreover, by engaging students in a subject as it relates to a field that inherently interests them, instructors will be able to deepen their participation in the course and commitment to building skills that they know will serve them long after earning a college credential.

Some practitioners are also concerned about the institutional impact of contextualization—no college wants to end up with 40 different versions of developmental math. Some schools address this issue by looking at the most popular majors or CTE programs and creating a small number of contextualized courses related to those fields. In addition, contextualization does not have to be overly specific; there is no need for a writing course contextualized for registered nurses, another for licensed vocational nurses and another for certified nursing assistants. Colleges that contextualize to general fields or interest areas will be able to reap the benefits of enhanced student engagement and learning without overwhelming faculty and students with too many

options. Finally, an individual course can include a range of contextual approaches that connects students to a wide variety of fields.

Ultimately, the success of contextualization is in large part contingent on interdisciplinary partnerships; it is only through substantive collaboration between basic skills instructors and discipline-specific instructors that developmental education courses can effectively use context to enhance student motivation and learning.



Discuss

1. Consider the developmental education courses at your college. Do they offer students opportunities to explore their fields of interest or understand how basic reading, writing and math relate to their programs of study and/or future careers? Why or why not?
2. Envision contextualizing one of your developmental education courses. Which faculty would need to collaborate on this effort? How could they go about working together? What decisions would they need to make, and what information would they need to share?
3. Where are faculty already working together to link curricula or to integrate hands-on learning (e.g., learning communities or service learning)? How could these efforts be expanded?

PRINCIPLE

5

Integrate Student Support with Instruction

Students who are least engaged in the educational process tend to not take the extra step of seeking help with their coursework—whether they are not motivated to ask for help, they don't know who to ask, or they don't even know what help they need, the end result is the same.

Support services are one of the most crucial components of student success in open-access institutions; from counseling to tutoring to financial aid advising, students at all levels need assistance in navigating the college and succeeding in their courses. Most colleges have both structural and cultural divisions between instruction and student services: faculty and staff report to different administrators, and instructional support is rarely well-coordinated with classroom pedagogy. While these divisions may exist for practical reasons, the lack of integration results in limiting how well colleges can support their students.²⁰

Another major challenge in the area of student services is that, as we have seen in other areas, it is mostly incumbent upon the students themselves to seek out support. The burden of asking for help, as well as knowing whom to ask and how, is placed on students who are often least prepared to effectively navigate college

systems. Additionally, some colleges have a handful of mandatory elements, such as a required orientation. However, many of these orientations present an overwhelming amount of information in a single shot; moreover, the information provided about support programs may not connect to what the student is experiencing right then and there. On the whole, as we have seen in other areas, students are left to decide for themselves when they do or do not need extra assistance. Because of this, it is the successful students who are most likely to seek out support from tutors, learning centers, or Supplemental Instruction. Students who are least engaged in the educational process tend to not take the extra step of seeking help with their coursework—whether they are not motivated to ask for help, they don't know who to ask, or they don't even know what help they need, the end result is the same.²²

LEARN MORE ABOUT THIS PRINCIPLE

A new report from WestEd, *Integrating Student Supports and Academics*, provides examples of how community colleges are making support services an integral part of students' college experience.²¹

Bringing the Forces of Instruction and Support Together

Principle 5 examines this need for integration of instruction and supportive services in a way that serves all students. One approach to this is for practitioners to build supports such as advising and study skill-building directly into instruction in the classroom, such as through learning communities and summer bridge programs. While it would be difficult to ensure that every student participates in these types of interventions, there are specific components of these approaches that could be replicated in other programs. For example, ongoing, iterative collaboration between instructional and student services faculty enables proactive support for students, including interventions before students have begun an often-irreversible slide toward failure.

Students can also benefit significantly from mandatory participation in a wider array of support programs, whether that includes orientation, student success classes, counseling sessions, tutoring or other available assistance.²³ Mandating engagement in these services shifts the responsibility of asking for help away from those who are already struggling most and towards the college that knows which supports can benefit all students.

Principle 5 in Action

At Florida's Valencia College, practitioners have taken a creative approach to building bridges between instruction and support services. For example, numerous developmental education instructors team-teach classes with Student Success instructors, a semester-long course in which students create personalized educational plans and develop organizational skills. In addition, many developmental education faculty are integrating study skills into all of their courses.

Furthermore, the college has mandated that students demonstrating the need for developmental education in at least three categories participate in a student success class. Finally, the college encourages students to attend four Developmental Advising sessions that address topics such as connecting degree requirements to registration, building an educational plan and financial planning and literacy.

But What About....?

The idea of revising the structure of the college to facilitate an integration of student services and instruction can seem daunting. To implement this principle, however, it is not necessary for a college to overhaul its entire educational system. Instead, opportunities for links between student services and instruction can be created in individual courses or specific departments. If practitioners find that this approach is positively impacting student achievement, then an expansion can be explored with college administrators.

Another common objection to this principle is a concern that many practitioners share: we can only do so much for these students—at some point they have to take responsibility for their own success. It is easy to see why many may feel this way; after all, the community college cannot hold the hand of every student. However, while colleges cannot take on one-on-one intensive coaching for every student, they can increase opportunities for students who have difficulty asking for help, for whatever reason, to still get the support they need to succeed. Doing so will not only benefit students, but colleges as well.



Discuss

1. When your students need support, how do they find it? In which cases do students self-identify and in which cases are students identified for additional support? How might you and your colleagues make it easier for students who are reluctant to ask for help, or unaware of where to find it, get the assistance they need?
2. Currently, how are student services and instruction connected at your college? How can your institution's assessment, advising, financial aid and other support services be better connected to the work inside the classroom?
3. How could integrating student services and instruction help your students? Who would need to work together at your college to begin this kind of work?

PRINCIPLE

6

Continually Monitor Student Progress and Proactively Provide Feedback

Currently, most community colleges proactively contact students on one or two occasions during their academic career. When students are nearing completion, they typically receive a letter about what is required of them to file for graduation. The other time students are contacted is if they are placed on academic probation. At both of these moments in the educational journey, the college is not in a position to do much to influence student outcomes one way or another. Particularly for students being placed on academic probation, it is often too late to intervene and help them recover academically.

Regular contact with students at all levels of progress and success could allow the college to help orient the student to each phase of the educational journey and alert him or her to upcoming milestones or benchmarks.

Keeping Track of Students Along the Way

Principle 6 asks colleges to keep track of how students are progressing toward their goals and take the initiative to offer feedback to both reward successes and offer support to struggling students before it is too late. For example, colleges could provide positive reinforcement to students who complete the developmental education sequence, commit to a program of study or complete a certain number of units. Even simple outreach and recognition of these moments could encourage students to keep moving toward the next milestone. Moreover, regular contact with students at all levels of progress and success could allow the college to help orient the student to each phase of the educational journey and alert him or her to upcoming milestones or benchmarks.

LEARN MORE ABOUT THIS PRINCIPLE

Learn how the 2013 Aspen Prize winner *Walla Walla Community College* in Washington promotes advising for all students, engages the support of faculty as advisors and uses an online portal to empower students in tracking their own progress.²⁴

Principle 6 in Action

Sinclair Community College in Ohio has developed an online software program called My Academic Plan (MAP)²⁵ that allows students to work with advisors to collaboratively create, monitor and revise personalized academic plans for short and long-term educational goals. The use of this software proactively empowers students to succeed in a number of ways, including:

- Enabling students and advisors to jointly design a personalized and efficient academic plan
- Linking the academic plan to core components of the educational experience that are typically housed in different areas throughout the college, such as the course catalog, schedule of classes, registration, advising guidelines and transfer requirements
- Allowing both the student and the college to track the student's progress along the academic plan easily and at any time
- Sending alerts when a student is “off-plan”, such as when a student fails to register for a course during the appropriate term or registers for a course not included in the plan
- Providing students status updates and notifications through the website or mobile devices

Through these features, MAP makes relevant information easily accessible and greatly facilitates both the students' and the institution's supporting the achievement of educational goals.

But What About....?

Many community college leaders and practitioners might feel that an investment in this kind of technology is simply too expensive for budgets that are already under extreme stress. Moreover, counselors at most colleges are already overloaded, struggling to keep up with existing student demand. How can they possibly add more contact with students when it is already so difficult to sustain the existing level of counseling?

As with some of the other principles in this guide, implementation of Principle 6 might require reallocation of time and/or resources. Although community college budgets are under pressure, investment in student success “pays off” when more students stay enrolled and completion rates increase.

Moreover, using technology to monitor student progress and provide feedback could just as easily save time and money. Colleges can use existing systems to trigger customized emails to students based on their progress and in doing so reduce the need for face-to-face meetings that often need to occur when a student is in trouble. And as described earlier, an approach as simple as mandating the use of educational plans and building in follow-up with students can have a profound impact on student success.



Discuss

1. What current communication channels exist between your college and your students—how do they find out about their progress toward their educational goals? What additional intersections would be worth exploring?
2. What opportunities exist at your college to track and advise students on their progress towards their educational goals? If students must monitor their own progress, what tools are available to help them do so?
3. How do you and your colleagues determine if students need instructional supports, counseling or other interventions to support their progress? How do you evaluate if a student is on track to meet their educational goals?

PRINCIPLE

7 Reward Behaviors that Contribute to Completion

Most community college practitioners are familiar with consequences. Students who do not complete their assignments or attend class fail the course; students who fail too many courses are put on academic probation. However, it is rare that colleges dole out “consequences” for actions or achievements that contribute to completion. With Principle 7, there is another opportunity to look through a new lens by considering rewarding students for doing the right thing instead of simply punishing them for doing the wrong one.

There are a number of milestones for colleges to choose from as indicators of progress and achievement, such as completion of general education requirements, completion of the developmental education sequence or completion of the core components of a program of study.

Opportunities to Support Success

There are many ways that colleges can offer incentives to students to help them remain motivated and continue to succeed. Typically, students who have accumulated a certain number of units receive priority registration; in order to encourage successful behaviors, colleges can reserve these kinds of “advantages” for students who have achieved key milestones in their educational journey.

Whichever achievements a particular college prioritizes, rewarding “good behavior” helps students set small goals and lets them know that their successes along the way are meaningful. Even a letter of recognition or acknowledgment from the institution of a student’s successful completion of a milestone could make a student feel accomplished and motivated to continue to achieve, as we saw at Florida’s Santa Fe College, which sends a congratulatory e-mail to students who complete the developmental education sequence. There are a number of

LEARN MORE ABOUT THIS PRINCIPLE

A number of colleges have experimented with using financial aid as a way to incentivize student behavior. *Performance-Based Scholarships: Emerging Findings from a National Demonstration* describes results in three states that were studied by MDRC, and implications for credit attainment and getting students to attend full-time.²⁶

milestones for colleges to choose from as indicators of progress and achievement, such as completion of general education requirements, completion of the developmental education sequence or completion of the core components of a program of study.

In addition to these incentives, colleges can provide modest monetary rewards. Some institutions offer small scholarships to students who achieve certain milestones. Schools can also reward students who complete a certain number of units in a predetermined period of time by paying for their remaining units. Colleges can also offer a scholarship toward students' transfer to in-state schools.

Principle 7 in Action

Valencia College in Florida, discussed in Principle 5, has developed a scholarship program that rewards students financially for engaging in activities that make a positive contribution to their academic success. In the Roadmap to Success Scholarship Program, students who earn 500 points by completing a set of pre-identified activities throughout the term are awarded a \$500 scholarship. Mandatory activities include:

- Completion of the college's Student Success course with a grade of C or higher, with higher grades earning students more points
- Completion of relevant developmental courses with a grade of C or higher, again awarding students more points for higher grades
- The creation of an educational plan
- Participation in the Developmental Advising sequence (described earlier in Principle 5)

Students can earn additional points by engaging in the scholarship program's optional activities, including:

- Meeting with a Career Center Advisor
- Participation in tutoring sessions
- Membership in a college club or organization
- Serving as an official Valencia Volunteer

Once a student earns a total of 500 points, the college rewards his/her efforts with a \$500 scholarship.

But What About....?

The idea of rewarding students for positive behaviors and intermediate milestones may not sit well with some community college practitioners. Is this bribing students to do well? And where is the money for rewards supposed to come from?

However, implementing this approach allows the institution to clearly communicate to students which actions will move them toward their educational goals. In addition, offering encouragement provides colleges the opportunity to interact with students in a positive way, one that reinforces the ingredients to a successful educational experience. Finally, the most compelling incentives can be non-monetary; colleges can identify the type of rewards they think are most appropriate to catalyze student achievement.



Discuss

1. What incentives currently exist for students at your institution to perform various activities (e.g., register on time, attend orientation sessions, complete an educational plan or complete their developmental education sequence)?
2. What are possible monetary and non-monetary incentives that could support student progress and achievement of key milestones at your institution?
3. What kind of positive interactions does your college have with students? When students reach important milestones, does anyone know it?

PRINCIPLE

8

Leverage Technology to Improve Learning and Program Delivery

The use of technology in education has gained a lot of attention in recent years. Some are excited about opportunities to streamline the learning process, while others are dismayed at the idea of students sitting in front of computer screens instead of engaged in an interactive learning process.

Using Technology to Streamline and Improve

While technology in education has earned some mixed reviews, it does offer a number of opportunities to community colleges. Technology-enabled courseware can enable instruction to become more customized. In addition, as noted earlier, technology can be used to provide students, instructors and student service personnel with timely information about the student's progress. Often a well-conceived investment in technology can reduce costs in areas such as administrative functions, as well as instruction and student services.

LEARN MORE ABOUT THIS PRINCIPLE

For more examples of how technology can be integrated into student success efforts, read *Using Technology to Impact Student Retention at Montgomery Community College*.²⁷

The most critical component of Principle 8 is not the use of technology in and of itself—as many practitioners have seen first-hand that the use of technology can be an advantage or a drawback. However, if community college leaders and practitioners together conduct a careful assessment of how systems, programs and services can be effectively streamlined, a thoughtful investment in technology can improve functions across the institution, enhance student learning and ultimately facilitate student success.

If community college leaders and practitioners together conduct a careful assessment of how systems, programs and services can be effectively streamlined, a thoughtful investment in technology can improve functions across the institution, enhance student learning and ultimately facilitate student success.

Principle 8 in Action

California's South Orange County Community College District uses a "Sherpa Recommendation Engine" to help its students find the right path through community college. This online system functions much like Netflix and Amazon.com when the sites make recommendations for products customers might like based on previous purchases.

With Sherpa, students are referred to resources they might need based on basic information about their educational progress. For example, a new student might be shown a link to the college's online orientation page; a student with a 3.5 grade point average might be referred to the school's honors program; or a student with a low grade point average might be shown options for different tutoring programs. In this way, the college tailors information to each student's state and status along the educational pathway, helping to provide students with tailored information that they need to succeed.

Since launching the Sherpa program, the district continues to refine and improve it. Recently, students who were placed on academic probation received "nudges", which included both an email and the placement of a task on their personal to-do list with instructions on how to get off probation. Within two months of implementing this new component of Sherpa, the number of students on probation was reduced by 70%. Now the district is in the process of creating positive nudges for students who have succeeded in removing themselves from probation status as well as for students who have improved their by a full point or more.

But What About....?

As noted earlier, the use of technology in education can be controversial, and there is an up-front investment involved. Indeed, there are a number of challenges in introducing technology to a community college system, ranging from ongoing funding to providing adequate support to training both students and college personnel to use these new tools.

However, every community college in the country is already using technology in some way to facilitate the functioning of the institution, whether it is online registration or tracking student academic achievement. Furthermore, many colleges are already exploring ways to use technology to streamline work in order to address budget challenges. If a college is able to build from lessons learned from these technology roll-outs and undertake a thoughtful and inclusive process to identify how technology can help address the specific needs of the institution, then its chance of being a fruitful investment increases dramatically.

Even if your college is not ready to commit substantial resources to new technology at this time, it can be worthwhile to find out about new resources that are becoming available to address issues such as educational planning and technology-enhanced instruction. By planning ahead and gathering diverse feedback, institutions can lay a foundation now for the use of technology to benefit students in the future.



Discuss

1. What existing technologies at your institution can be used or modified to support proposed changes? What new technologies are needed? Who at your college could be working together to identify the ways in which technology could improve systems and student learning?
2. Can you identify an area where technology could be integrated into your work? What are the advantages to and challenges of using technology in this context? What would the return on investment be?
3. How are students at your institution currently using technology in their educational experience? What is the impact of that technology use?

Final Thoughts

The eight principles discussed in this guide are not solutions to all of community colleges' challenges. Rather, they each provide an opportunity for colleges to consider and explore new approaches to fundamental problems. Together, the principles reflect a view of the community college from the perspective of the students and encourage colleges to be intentional and proactive in encouraging student success.

For some readers, implementation of even one of these principles might feel beyond his or her grasp—for someone who is not a college president and cannot immediately allocate millions of dollars to a new initiative, what can be done? In fact, there are numerous ways to implement the ideas consonant with these principles without significant financial investment. Even if this means starting on a small scale, demonstrated incremental successes can draw broader attention and pave the way for larger change.

Ultimately, institution-wide adoption of any of these principles will require a coalition of leaders and practitioners—even the highest level administrator cannot enact the kind of fundamental reform called for by these principles of redesign on her or his own. A collaborative group that brings together top-level administrators, mid-level administrators, on-the-ground practitioners from both instruction and student services and students can together generate the innovative ideas, implementation buy-in and resources needed for scalable and sustainable reform.

Additional Resources

Completion by Design

This website shares information about the Completion by Design initiative, including its approach, tools, news, participants, partners and resources.

www.completionbydesign.org

Completion by Design Knowledge Center

This searchable database catalogs foundational and emerging research and planning documents to support colleges through the stages of planning, decision making and implementation of reform efforts.

<http://knowledgecenter.completionbydesign.org/knowledge-center>

Completion by Design Inquiry Guides

This set of four inquiry guides documents the approaches and insights gleaned from the planning phase of the Completion by Design initiative.

- *Building a Culture of Inquiry: Using a Cycle of Exploring Research and Data to Improve Student Success* explores the concept of a culture of inquiry and introduces a framework to strengthen a college's ability to better use research and evidence to inform improvement efforts.
- *Understanding the Student Experience Through the Loss/Momentum Framework: Clearing the Path to Completion* introduces an approach to examining students' own experiences at community college, identifying factors that catalyze and impede student progress and using these insights to address opportunities to improve student outcomes.
- *The Nuances of Completion: Improving Student Outcomes by Unpacking the Numbers* examines the hidden complexity of completion outcome data and offers an approach to teasing out the complex factors that affect student completion in order to boost student success.
- *Principles of Redesign: Promising Approaches to Transforming Student Outcomes* presents eight core ideas to help colleges address the fundamental challenges to student success.

www.rpgroup.org/content/inquiry-guides

Community College Research Center (CCRC) Studies and Research Syntheses

- Edgecombe, N. (2011). *Accelerating the academic achievement of students referred to developmental education* (CCRC Working Paper No. 30, Assessment of Evidence Series). New York, NY: Columbia University, Teachers College, Community College Research Center.

- Hodara, M., Jaggars, S.S., & Karp, M.M. (2012). *Improving developmental education assessment and placement: Lessons from community colleges across the country* (CCRC Working Paper No. 51). New York: Community College Research Center, Teachers College, Columbia University.
- Jenkins, D, & Cho, S.W. (2012). *Get with the program: Accelerating community college students' entry into and completion of programs of study*. (CCRC Working Paper No. 32). New York: Community College Research Center, Teachers College, Columbia University. (Revised January 2012).
- Jenkins, D. (2011). *Redesigning community colleges for completion: Lessons from research on high-performance organizations* (CCRC Working Paper No. 24, Assessment of Evidence Series). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Karp, M. M. (2011). *Toward a new understanding of non-academic student support: Four mechanisms encouraging positive student outcomes in the community college* (CCRC Working Paper No. 28, Assessment of Evidence Series). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Perin, D. (2011). *Facilitating student learning through contextualization* (CCRC Working Paper No. 29, Assessment of Evidence Series). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Scott-Clayton, J. (2011). *The shapeless river: Does a lack of structure inhibit students' progress at community colleges?* (CCRC Working Paper No. 25, Assessment of Evidence Series). New York, NY: Columbia University, Teachers College, Community College Research Center.

<http://ccrc.tc.columbia.edu/>

Assessment of Evidence Series

Gathered and synthesized by the Community College Research Center, this large body of research evidence showcases concrete evidence-based recommendations and strategies to practitioners, policymakers and researchers in the following eight major topic areas that may improve the success of community college students.

- Developmental assessment and placement
- Developmental acceleration
- Developmental mathematics pedagogy
- Contextualization of basic skills instruction
- Online learning
- Non-Academic support
- Institutional and program structure
- Organizational improvement

<http://ccrc.tc.columbia.edu/research-project/assessment-of-evidence.html>

Changing Course: A Guide to Increasing Student Completion in Community Colleges

Developed by WestEd, this guide summarizes key design principles for improving completion rates in order to assist community college practitioners in rethinking and redesigning their systems, programs and instruction.

Resource: http://knowledgecenter.completionbydesign.org/sites/default/files/changing_course_V1_fb_10032011.pdf

Changing Course: A Planning Tool for Increasing Student Completion in Community Colleges

Developed by WestEd, this tool offers additional information and strategies, including a series of self-reflective questions to assist colleges in planning their own approaches to improving college completion.

http://knowledgecenter.completionbydesign.org/sites/default/files/changing_course_tool_10032011.pdf

Game Changers Series

Prepared by WestEd, this series includes the following three reports that highlight current efforts and suggested reforms aimed at increasing completion rates:

- *Providing Structured Pathways to Guide Students Toward Completion*
This report outlines issues related to the creation of more structured student pathways.
- *Acceleration in Developmental Education*
This report shares the value of acceleration and highlights key principles of successful acceleration models.
- *Integrating Student Supports and Academics*
This report explores how the integration of student supports and academics can build a more seamless and engaging learning experience for students.

www.wested.org/cs/we/view/spl/185

Stakeholder Engagement: An Overview

Developed by Public Agenda, these materials provide a frame for understanding public engagement and provide a philosophy, best practices and general tools consistent with this technique. This toolkit includes:

- *Principles of Conflict Resolution*
This guide provides a brief overview of conflict management techniques, identifying the popular styles.
- *Public Engagement: A Primer from Public Agenda*
A primer introducing Public Agenda's public engagement philosophy and practices.

<http://knowledgecenter.completionbydesign.org/binder/440/stakeholder-engagement-overview>

Stakeholder Engagement: Facilitation Toolkit

Developed by Public Agenda, this toolkit supports the facilitator and recorder in their work in designing and implementing conversations of engagement. This toolkit includes:

- *Campus and Community Conversations: Working Together for Community College Success*
A step-by-step planning guide on seven key principles for building effective dialogues around improvement efforts
- *Completion by Design Facilitator & Recorder Training, July 25–26, 2011, Miami Dade College*
A guide for facilitators and recorders in group decision-making processes
- *Completion by Design Facilitator's Handbook*
A ready-made reference guide to support Completion by Design facilitators
- *The Recipe for a Great Moderator: A Self Assessment Tool*
This self-assessment tool provides moderators a series of criteria on which they may rank their performance.

<http://knowledgecenter.completionbydesign.org/binder/244/stakeholder-engagement-facilitation>

Stakeholder Engagement: Faculty Buy-In

Developed by Public Agenda, this toolkit focuses on how to engage faculty buy-in through facilitated conversations. The toolkit includes:

- *Changing the Conversation about Productivity: Strategies for Engaging Faculty and Institutional Leaders*
This Public Agenda report explores how to more effectively engage faculty in reform efforts.
- *Engaging Adjunct and Full-time Faculty in Student Success Innovation*
This publication identifies the principles and practices that best support effective faculty engagement.
- *Internal Stakeholder Engagement Workshop Toolkit*
This toolkit is designed to support cadres' and colleges' efforts to more effectively engage key internal stakeholders during the final quarter of the Completion by Design (CBD) planning year.
- *Planning Guide: Campus and Community Conversations*
This planning guide provides a comprehensive overview to Community Conversations.

<http://knowledgecenter.completionbydesign.org/binder/441/stakeholder-engagement-faculty-buy>

Building Research, Information and Cultures Inquiry Guides

Developed by the RP Group, this set of ten inquiry guides support needs of various college constituency groups – faculty, student services professionals, institutional researchers and administrators – in areas of inquiry-based practice at the institution.

- *Assessing Student Learning Outcomes*
- *Assessing Basic Skills Outcomes*

- *Research and Assessment for Noncredit Colleges and Programs*
- *Improving CTE Programs with Data and Evidence*
- *Assessing Strategic Intervention Points in Student Services*
- *Using an Equity Lens to Assess Student Outcomes*
- *Maximizing the Program Review Process*
- *Assessing and Planning for Institutional Effectiveness*
- *A Model for Building Information Capacity and Promoting a Culture of Inquiry*
- *Turning Data into Meaningful Action*

www.rpgroup.org/content/BRIC-inquiry-guides

Endnotes

1. US Census Bureau. (2009). *Current population survey, annual social and economic supplement*. Washington, DC: Author.
2. NCHEMS. (2011). *Difference in median earnings between a high school diploma and a bachelor's degree*. www.higheredinfo.org/dbrowser/index.php?measure=83
3. Chaplot, P., Booth, K., and Johnstone, R. (2013). *Building a Culture of Inquiry: Using a Cycle of Exploring Research and Data to Improve Student Success*. Berkeley, CA: The Research and Planning Group for California Community Colleges. www.rpgroup.org/sites/default/files/CbD-Building.pdf
4. "Program of study" can also be referred to as "course of study," "educational goal," or simply "major".
5. Rassen, E., Chaplot, P., Jenkins, D., and Johnstone, R. (2013). *Understanding the student experience through the loss-momentum framework: clearing the path to completion*. Berkeley, CA: The Research and Planning Group for California Community Colleges. www.rpgroup.org/sites/default/files/CbD-Understanding.pdf
6. Jenkins, D. & Cho, S. (2012). *Get with the program: Accelerating community college students' entry into and completion of programs of study*. New York: Community College Research Center, Teachers College, Columbia University. <http://ccrc.tc.columbia.edu/publications/get-with-the-program.html>
7. Bailey, T.R. & Alfonso, M. (2005). *Paths to persistence: An analysis of research on program effectiveness at community colleges*. New York: Community College Research Center, Teachers College, Columbia University. www.luminafoundation.org/publications/PathstoPersistence.pdf
8. Dadgar, M., Venezia, A., Nodine, T. and Bracco, K. R. (2013). *Providing structured pathways to guide students toward completion*. San Francisco: WestEd. www.wested.org/cs/we/view/rs/1280
9. To read more on student perspectives, visit www.rpgroup.org/projects/student-support
10. Levin, H. & Calcagno, J.C. (2007). *Remediation in the community college: An evaluator's perspective*. New York: Community College Research Center, Teachers College, Columbia University. <http://ccrc.tc.columbia.edu/publications/remediation-evaluators-perspective.html>
11. Scott-Clayton, J. (2012). *Do high-stakes placement exams predict college success?* New York: Community College Research Center, Teachers College, Columbia University. <http://ccrc.tc.columbia.edu/publications/high-stakes-placement-exams-predict.html>
12. Burdman, P. (2012). *Where to begin? The evolving role of placement exams for students starting college*. Boston: Jobs for the Future. www.jff.org/publications/education/where-begin-evolving-role-placement-exam/1452

13. Dadgar, M., Venezia, A., Nodine, T. and Bracco, K. R. (2013). *Acceleration in developmental education*. San Francisco: WestEd. www.wested.org/cs/we/view/rs/1281
14. Venezia, A. & Nodine, T. (2010). *One shot deal? Students' perceptions of assessment and course placement in California's community colleges*. San Francisco: WestEd. www.wested.org/cs/we/view/rs/1051
15. Hern, K. (2010). *Exponential attrition and the promise of acceleration in developmental English and Math*. Faculty Inquiry Network. www.rpgroup.org/sites/default/files/Hern%20Exponential%20Attrition.pdf
16. Aspen Institute. (2011). *College Excellence Program: Walla Walla Community College*. Washington, DC: Author. www.aspeninstitute.org/policy-work/aspen-prize/WallaWallaCommunityCollege
17. Grubb, N. (2012). *Basic skills education in community colleges: Inside and outside of classrooms*. San Francisco, CA: Jossey-Bass Publishers.
18. Baker, E.D., Hope, L., Karandjeff, K. (2009). *Contextualized teaching & learning: a faculty primer*. Oakland, CA: The Research and Planning Group for California Community Colleges.
19. Ibid.
20. Weissman, E., Cerna, O., Geckeler, C., Schneider, E., Price, D.V., & Smith, T.J. (2009). *Promoting partnerships for student success: lessons from the SSPIRE initiative*. MDRC. www.mdrc.org/promoting-partnerships-student-success
21. Dadgar, A., Nodine, T. and Bracco, K. R., and Venezia, A. (2013). *Integrating Student Supports and Academics*. San Francisco: WestEd. www.wested.org/cs/we/view/rs/1296
22. Cox, R.D. (2009). *The college fear factor: how students and professors misunderstand one another*. Cambridge, MA: Harvard University Press.
23. The Research and Planning Group for California Community Colleges and the Center for Student Success (2007). *Basic skills as a foundation for success in the California community colleges*. Berkeley, CA: Author. www.rpgroup.org/content/poppycopy
24. Aspen Institute. (2013). *College Excellence Program: Walla Walla Community College*. Washington, DC: Author. www.aspeninstitute.org/policy-work/aspen-prize/2013-aspen-prize/2013-aspen-prize-finalists/walla-walla-community-college
25. Sinclair Community College's My Academic Plan. www.sinclair.edu/semesters/map/index.cfm
26. Patel, R. and Richburg-Hayes, L. (2011). Performance-based scholarships: Emerging findings from a national demonstration. (Testimony submitted to the Advisory Committee on Student Financial Assistance, October 3, 2011.) New York, NY: MDRC. Retrieved from <http://www.mdrc.org/testimony-performance-based-scholarships>
27. Schwartz, C. M., Barron, M. L, and Mauger, A. (2010). Using technology to impact student retention at Montgomery Community College. Educause Review Online. www.educause.edu/ero/article/using-technology-impact-student-retention-montgomery-county-community-college



COMPLETION BY DESIGN

Completion by Design is a five-year Bill & Melinda Gates Foundation initiative that works with community colleges to significantly increase completion and graduation rates for low-income students under 26 while holding down costs and maintaining access and quality. The Gates Foundation has awarded competitive grants to groups of community colleges to help transform their students' experience.



the Research & Planning Group
for California Community Colleges

Based in Berkeley, CA, the **Research and Planning Group for California Community Colleges (RP Group)** strengthens the ability of California community colleges to undertake high quality research, planning and assessments that improve evidence-based decision making, institutional effectiveness and success for all students.

CCRC COMMUNITY COLLEGE RESEARCH CENTER

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Housed at Teachers College, Columbia University, the **Community College Research Center (CCRC)** is the leading independent authority on the nation's nearly 1200 two-year colleges. CCRC conducts research on the major issues affecting community colleges and contributes to the development of practice and policy that expands access to higher education and promotes success for all students.



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