

BUILDING A CULTURE OF INQUIRY:

Using a Cycle of Exploring
Research and Data to
Improve Student Success

Priyadarshini Chaplot

Kathy Booth

Rob Johnstone

THE RESEARCH AND PLANNING GROUP
FOR CALIFORNIA COMMUNITY COLLEGES

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the Research & Planning Group
for California Community Colleges

About the Authors

Priyadarshini Chaplot is the director of professional development and a senior researcher at the RP Group. She dually leads the design, implementation and evaluation of professional development opportunities that engage a variety of community college practitioners and actively participates in research projects on applied inquiry and student support. Previously, Ms. Chaplot served as the educational research assessment analyst at Mt. San Antonio College, where she partnered with faculty, staff and administrators to develop and assess student learning outcomes and connect these research findings to planning efforts in order to improve student success. Additionally, she served as an instructor teaching math and English in the Adult Diploma Program. Working in the California community college system for six years and in the field of education for over a decade, she is passionate about practitioner engagement, college reform and student success.

Kathy Booth is the executive director of the RP Group. Her work in the California community college system has included facilitating statewide meetings, creating practitioner-focused briefs on community college reform strategies, and envisioning professional development approaches that encourage practitioners to integrate research into institutional improvement efforts. Before joining the RP Group she worked with the @ONE Project, where she managed a fellowship program that enabled faculty to conduct research in their own classrooms and developed multi-day trainings on the use of technology to improve student success. Prior to this, Ms. Booth spent a decade working in the nonprofit sector including overseeing the nation's largest management and technology training program for nonprofits, conducting research on successful collaborations between artists and community development organizations, facilitating community planning processes, and leading organizational assessments. She is the author of two handbooks on building collaborations to further social change.

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

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BUILDING A CULTURE OF INQUIRY:

Using a Cycle of Exploring Research and Data to Improve Student Success

Introduction

Consider the following scenario—one common in many colleges across the country. Imagine that last year, your institution launched a learning community initiative with hopes of improving your students' engagement and success. Working in collaboration with other counselors and faculty members from various disciplines, you established and implemented a series of developmental education courses linked with discipline-based offerings. One year, many professional development activities and several student participants later, you are all now gathered to review the potential impact of this effort. Questions are swirling. Did students in learning communities have higher rates of completing the developmental education courses as well as the sequence? Was there greater persistence from term to term? Did they earn more credentials? How did they fare according to the courses' student learning outcomes?

Though there are many domains that can be investigated concerning student performance and success, preliminary findings of such high-impact studies seem to focus on the bottom line—whether the effort made an overall difference or not. In our scenario, early figures on the impact of the learning communities have come in lower than what you and the rest of your college expected. There is, at best, a marginal improvement in student performance. Upon hearing this discouraging news, some in the room voice the need to reconsider continuing the learning communities, citing the data as well as the difficulty in sustaining and institutionalizing these efforts. Others quietly nod their heads. You keenly remember the amount of promise and effort that went into this endeavor and feel uncomfortable disbanding the initiative. So, what do you do? How do you, as a team, review the data and make sense of the implications? How do you use that information to inform your next steps?

This inquiry guide aims to explore situations such as this one and offer a process of inquiry that can help colleges make high-impact decisions.

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.

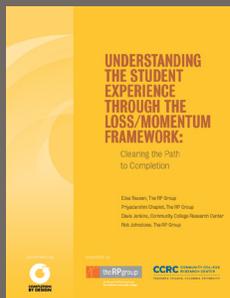
In addition to monetary funds to catalyze implementation of the proposals from the planning year, these colleges are receiving strategic support within their own cadre from a managing partner as well as focused technical assistance from a host of national partners. This support includes on-campus presentations, 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.¹ 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.

How Can You Use This Guide?

This inquiry guide introduces a framework for building a college's culture of inquiry. It is intended for practitioners and leaders interested in advancing the institution's ability to make better use of research and evidence to inform improvement efforts.

The guide begins with a brief discussion of why information alone is not sufficient to drive improvement efforts. Then, it characterizes a culture of inquiry and what role it plays in improving student outcomes. Finally, it offers a framework to strengthen a culture of inquiry at the institution. Discussion questions, examples and relevant resources are embedded to promote reflection, dialog and further exploration.

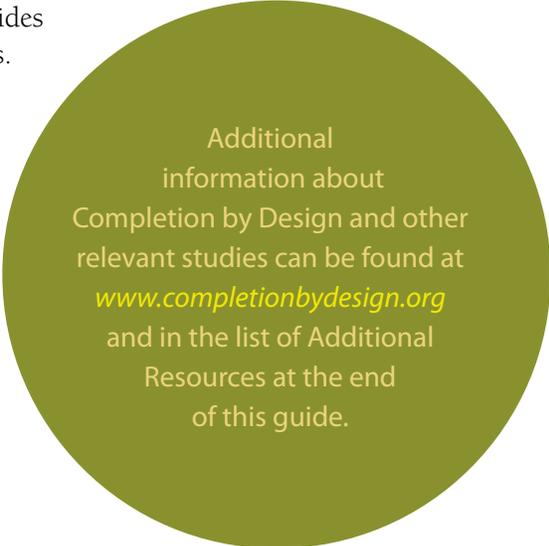
What Do Practitioners Say about Data?

Over the past few years, community colleges have made strides in building cultures of data and evidence on their campuses.

Through processes like program review, student learning outcomes, accountability reports and planning documents, facts and figures about various aspects of student outcomes and institutional performance are more abundant than ever. In many cases, such data revolve around institutional-level metrics such as productivity, efficiency, retention, graduation and transfer rates, which are all important elements to measure.

The most challenging next step is to move from a place where a lot of data is simply made available to a place where these data and analytics are used to produce insight and derive meaning that will ultimately help institutions transform their structures, approaches and student experiences to improve outcomes. While colleges are successfully tracking a wide variety of metrics, many have found it challenging to take this next step of analyzing the evidence and using it to inform decision making. In other words, colleges tend to be data-rich but insight-poor.

This challenge of “data-rich but insight-poor” was documented in a 2009 survey¹ of community college practitioners conducted by the Research and Planning Group for California Community Colleges (RP Group). One hundred and ten California community colleges responded to questions about what types of information were available, who had access to this information and how the information was used to inform action. Perspectives were gathered from high-level administrators such as chief executive officers, chief instructional officers, chief student services officers, chief business officers and institutional researchers, as well as on-the-ground leadership such as academic senate presidents, developmental education coordinators and student learning outcomes coordinators. The survey revealed an interesting finding: **the closer practitioners were in contact with students, the less likely they were to have access to or use data.**



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.

This is not surprising given that most of the standard college reports are designed to support administrative decisions such as which courses to schedule, identify if the institution is meeting accreditation standards or to document overall graduation and transfer rates. While such metrics are fundamental to assessing the effectiveness of an institution, it is difficult to meaningfully incorporate institutional-level data into discussions of student learning and progress, especially among faculty and student services professionals who are directly or indirectly supporting students. Additional research and data, such as attainment of intermediate milestones, student perspectives, employer needs and labor market outcomes, combined with faculty and student services expertise, may be able to effect greater action. In order to support stronger decision making, colleges need to look beyond their institutional databases.

The RP Group survey also found that most efforts to understand and act on information were concentrated at the top of the organization. However, practitioners at all levels of the colleges noted that there was not enough time or space to engage in data analysis or action. **When asked how to more effectively use data, community colleges prioritized creating opportunities to interpret and make use of the information.** In the eyes of these institutions, having access to data is just the first step for instigating improvement efforts, but it is not sufficient—in essence, “Data alone don’t drive decisions.”



DISCUSS

1. How are data and information used on your campus?
2. What types of information does your college currently collect?
3. How does your institution tend to use that information?
4. Who is most likely to work with this information?

What Is a Culture of Inquiry?

Routinely collecting information helps to build a culture of evidence, something that many community colleges have successfully done. Actively exploring and scrutinizing that information to understand its meaning and implications for practice can help to create a culture of inquiry. The catalyst for the concept of a culture of inquiry was the 2005 Lumina Foundation for Education research report by Alicia Dowd titled, “Data Don’t Drive: Building a Practitioner-Driven Culture of Inquiry to Assess Community College Performance.”² The RP Group expands on that concept and characterizes a culture of inquiry³ as:

- Leveraging a wide range of relevant data to support deeper learning, including bringing in practitioner and student perspectives
- Providing frequent opportunities for individuals to explore data together and engage in an open, honest and collaborative dialog on strengthening the institution and student outcomes
- Creating a safe environment for exploration, where information is not used to shame or punish and mistakes are seen as learning opportunities
- Emphasizing the collaborative and collective development of action steps
- Utilizing an ongoing process of exploration to expand a college’s collective knowledge base to better understand how to strengthen conditions for increased levels of student success

When a college is undertaking a broader reform effort, a culture of inquiry can be used to define a framework for action, cultivate the engagement of a broad range of practitioners and identify discrete action steps at various levels of the institution. For example, a college could focus campus-wide inquiry on narrowing equity gaps or a department could strategize curriculum redesign and/or student support to strengthen students’ ability to complete a credential.

Why Is a Culture of Inquiry Important?

Building and sustaining a culture of inquiry is crucial in our current community college environment. With shrinking higher education budgets and an increased focus on accountability, having a thorough understanding of students’ journeys through college is critical to enable both students and colleges to achieve their goals. Furthermore, practitioners require a better understanding of the needs and experiences of specific populations to ensure that community colleges retain their mission of promoting opportunity for all students. African-American, Hispanic and Native American students have lower success rates than whites and Asian-Americans. Additionally, growing poverty rates make it vital for students to complete college efficiently and enter the job market with a minimum amount of debt. Focusing institutional efforts, using evidence and engaging in ongoing dialogue will enable colleges to better understand how to change practices and strategically allocate resources in this context. Given these circumstances, building and sustaining a culture of inquiry has become essential in any effort to improve student learning outcomes.

Collecting data on student performance and institutional progress on an ongoing basis is the foundation for improvement, but these data alone will not lead to answers. This work needs to marry evidence with insight for three reasons:

1. Weaving data with the perspectives and deep subject-matter expertise of front-line professionals such as student services professionals and faculty will **strengthen understanding about what is happening and what needs to happen to advance student success**. Their daily interaction with students can help give meaning and nuance to the numbers.
2. By including practitioners in the process of defining problems and solutions, **improvement efforts will become truly institution-wide**. Rather than focusing effort on building buy-in for top-down approaches, cultivating a culture of inquiry means that those who work most closely with students are more likely to integrate new strategies into their daily practice and generate new ideas for how to make these strategies more effective.
3. Engaging the college community in examining what works and where to make improvements can **reignite optimism and excitement**. In a time when colleges have had to absorb demoralizing cuts to programs and turn away students, providing a space for collaborative problem-solving and information sharing can boost morale, energy and innovation.

Building a culture of inquiry to drive improvement is not a straightforward task. As individuals engage with the data and build action plans, it will become apparent that there are few silver bullets or self-evident answers. In fact, multiple solutions are usually necessary because more students are likely to be positively affected if a series of actions across the campus are integrated into a broader institutional vision. In addition, it is vital to create mechanisms for continuous feedback so that an iterative change process can happen in a more dynamic and responsive manner.

What Is the Applied Inquiry Framework?

Whether they are high-level institutional metrics about student success and institutional effectiveness or metrics closer to the student experience inside and outside the classroom, evidence can transform the direction of a conversation. The question is how can evidence be used to guide improvements in practice, particularly in efforts that are intended to implement large-scale changes? The Applied Inquiry Framework describes a process by which colleges can significantly redesign processes and outcomes. Developed by the RP Group, this framework is not meant to be directive or mechanistic; instead, it intends to organize a reasonable and realistic approach to engaging in meaningful, transformative inquiry.

The Applied Inquiry Framework, displayed on the next page, is centered on the cycle of evidence-based improvement—a five-stage process focused on situating data in a real, authentic and ongoing process to ask thoughtful questions and improve student outcomes (depicted in blue, following page). The five stages include:

Stage 1 – Define a Focus of Inquiry

Stage 2 – Gather Relevant and Meaningful Evidence

Stage 3 – Engage a Broad Range of Practitioners in Exploring the Evidence

Stage 4 – Translate Collective Insight into Action

Stage 5 – Measure the Impact of Action

This cycle is surrounded by a series of catalyzing principles that can affect how broadly practitioners are engaged in this process, how widely evidence is used and how deeply change can occur (depicted in green, following page). These principles include:

Catalyzing Principle 1: Provide the necessary leadership and investments to support inquiry and action

Catalyzing Principle 2: Value analysis, experimentation and innovation

Catalyzing Principle 3: Analyze college efforts through a framework of student pathways

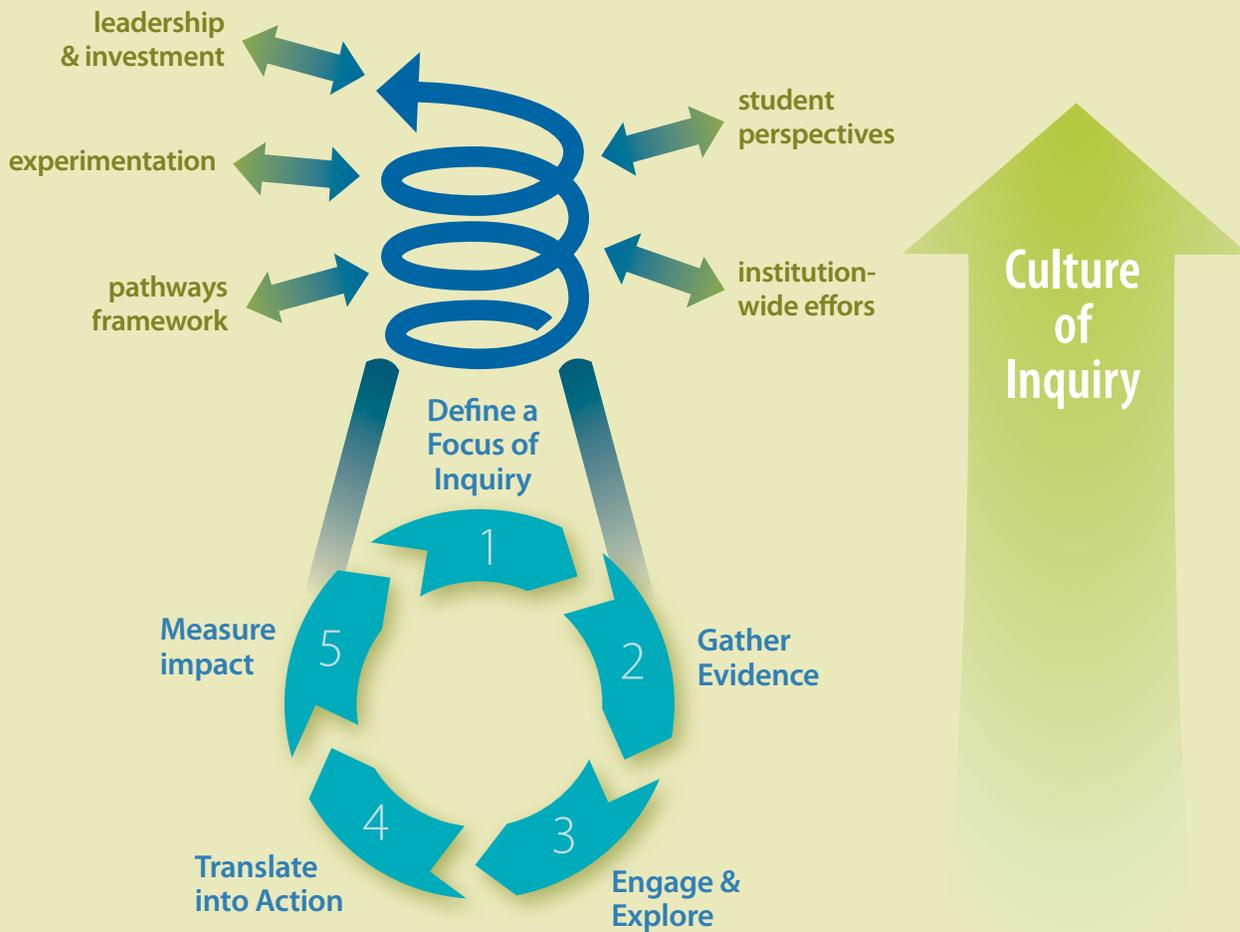
Catalyzing Principle 4: Integrate student perspectives into analysis and planning

Catalyzing Principle 5: Pursue and sustain institution-wide strategies for improvement

As also indicated through the upward spiral in this figure, this cycle is designed to be iterative. Through multiple repetitions of the cycle, practitioners can build a deeper understanding of their students' experiences, use it to inform decisions, strengthen the institution's culture of inquiry and ultimately lead to transformative change.

Although the framework speaks from an institutional standpoint, a culture of inquiry can start and advance at various levels of the institution. In addition to institutional-level priorities such as closing equity gaps and reducing time to degree or transfer, this framework can be used to restructure or improve efforts within departments and programs such as preparing students for college-level coursework, helping students identify a program of study and supporting students inside and outside the classroom.

The RP Group's Applied Inquiry Framework



The Five Stages of the Cycle of Evidence-Based Improvement

This section begins by describing each stage in the cycle of evidence-based improvement and then offers a summary of the five catalyzing principles in the applied inquiry framework. Discussion questions follow each description to facilitate reflection on how to use this framework in the institution's improvement efforts.

STAGE

1

Define a Focus of Inquiry

Define
a Focus

1

This stage involves focusing the inquiry on ways to improve student outcomes. Colleges can begin by identifying their most urgent question about students and how programs or services affect student performance and success. The outcome for this stage is a clear set of parameters that help the college to engage with a specific issue and shape future exploration and action planning.

For example, a college might prioritize determining ways to decrease the time through the developmental education sequence or create structures that encourage more students to pursue studies in science, technology, engineering and math. In our original learning community example, this stage would be characterized by the college's decision to improve developmental education outcomes.

Relevant evidence from multiple sources within and outside of the institution can help ensure that conversations explore factors that affect students' experiences. Consider utilizing the following sources:

- Student services program evaluation
- Classroom-based research
- Student focus group data
- Success data disaggregated by student demographics and outcomes
- Wage or labor market information
- Student learning outcomes assessment data
- Evidence of students' progress through intermediate milestones (e.g. % students who enter a program of study [i.e. concentrate] within one year and two years, % students earning 12 college credits in one year and 24 in two years)
- Examples of effective practices from other institutions



DISCUSS

Think about a student success issue on your campus and where it is likely that the institution would try out a large-scale change.

1. How do you know this is an issue? What information already exists about how this issue impacts students?
2. Who else needs to be at the table to further define and discuss this issue? How can you create early investment of critical stakeholders?
3. Where it is likely that the institution could design and root a large-scale change?

Gather Relevant and Meaningful Evidence



Gather Evidence

The review of evidence in the first stage helps to determine a focus for the inquiry as it relates to improving student outcomes. However, this process almost always generates a new series of questions and areas for further research. Stage 2 involves collecting high-quality, meaningful evidence at the student support, classroom, program, institutional and labor market levels that helps clarify a potential strategy to address the priority issue. It is helpful to identify what relevant information already exists, what additional information is necessary to address the question and the resources required to acquire the information and evaluate its feasibility. Through this stage, colleges can arrive at a deeper understanding of the factors influencing the priority area and possible strategies for addressing this issue.

Using the learning community example, this stage would be characterized by the college reviewing evidence about developmental education outcomes that would offer more nuance than overall success rates. At this point, the college would identify factors that appear to impede success, such as low levels of student engagement or disconnects between developmental education coursework and application of these skills in specific disciplines.

Some key considerations for this stage include:

- Ensuring that evidence is gathered at multiple points along a student's pathway through the college to provide a more nuanced understanding of the issue
- Reviewing existing data and identifying additional data to be gathered that address the focus of inquiry
- Determining the best modes for the delivery and presentation of the evidence to those who will be using the information to inform their actions
- Ensuring there is a strategy for sustained engagement to help practitioners understand the data



DISCUSS

For the critical student success issue that you identified in Stage 1, brainstorm the process by which you will gather meaningful evidence.

1. What additional data is necessary to understand the nuances of this issue? How can you access this information?
2. Who at the campus can help you gather and interpret this information?

Engage a Broad Range of Practitioners in Exploring the Evidence



Once the issue is defined in Stage 1 and further relevant data are gathered in Stage 2, the next step is to engage a variety of campus stakeholders in evidence-based discussions about how to make improvements in practice. These conversations can broaden and deepen the understanding of students' needs and having multiple perspectives at the table can strengthen those conversations.

In considering our learning community example, if practitioners engage in reviewing factors that impede or strengthen developmental outcomes, they can enter a learning community effort with a deeper understanding of how the intervention might address student needs and common sticking points. Therefore, if student engagement is a key factor, the college can ensure that it has emphasized this element in its professional development efforts, curricular design and evaluation plan.

A college can empower practitioners to engage in meaningful conversations by:

- Providing frequent opportunities in multiple venues for the college community to engage in evidence-based discussions about improvements in practice
- Infusing discussion of evidence into existing venues and processes to advance current conversations or rejuvenate a planning or change effort that might have stalled
- Involving a broad range of participants that cuts across institutional silos in these evidence-based conversations
- Helping faculty, staff and administrators become skillful and comfortable with critically analyzing qualitative and quantitative data

Public Agenda has developed three toolkits providing relevant tools and resources to support the effective engagement of stakeholders, with one toolkit focused on faculty involvement. See the "Additional Resources" section at the end of this guide for details.



DISCUSS

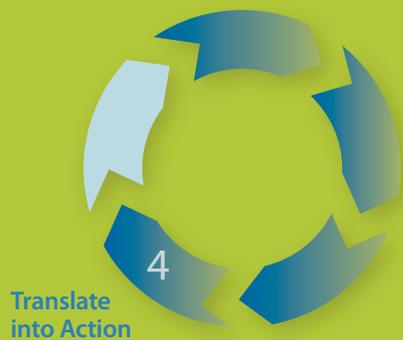
How will you engage practitioners in examining the more nuanced findings identified in Stage 2?

1. What venues already exist that could be used for these conversations?
2. How could you present the information so that it will be meaningful for the specific groups that you hope to engage?
3. How will you arrive at a decision about what action to pursue?

STAGE

4

Translate Collective Insight into Action



This stage entails implementing changes to practice and policy based on analyses and discussion of college evidence. To support transformative change, this implementation should include strong support from college leaders, rely on sustainable funding and engage a cross-section of stakeholders within the college. See the Catalyzing Principles box above for other key implementation factors. This stage aligns with the year of implementation described in the learning community example.

In this stage:

- Numerous coordinated [coherent] classroom, student support, departmental and program efforts are being implemented that are grounded in evidence and designed to help students overcome barriers to advancement
- Changes to practice are being implemented across institutional silos to integrate classroom and student services components

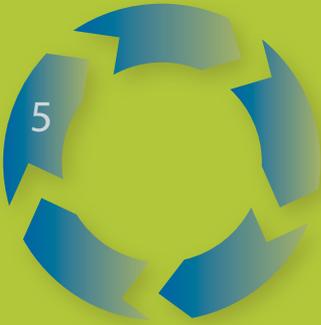


DISCUSS

1. How will you ensure that the changes are implemented in a way that supports transformation?
2. How will you manage change on an ongoing basis? Who will provide both strategic and operational leadership?
3. What supports and resources are required—for both the practitioner and student involved? Which of those resource requirements are one-time investments and which ones need to be sustained over time?
4. What types of feedback loops can you use to understand the impact of these changes during different phases of the implementation? How can you incorporate both practitioner and student feedback?

Measure the Impact of Action

Measure
impact



Once an effort is underway, data need to be gathered to determine the impact of the intervention. While high-level metrics such as transfer rates are important, additional information such as student progress toward key milestones, student feedback on ways to improve a program or service and analysis of impact by specific sub-populations can provide a more nuanced picture. Furthermore, this stage is characterized by frank discussions of the data to determine ways that this information can be used to support future interventions. Insight gained at this stage lays the foundation for future inquiry and can launch the next iteration of the inquiry cycle.

The example given at the beginning of this article—the point when data are being reviewed to determine how implementation should proceed—corresponds with this stage. However, a college using the Applied Inquiry model would use the initial findings to determine which elements of the program were successful and analyze which factors impeded the success of the effort. Rather than contemplating ending the experiment, the college would see failure as an opportunity to identify more effective strategies.

In this stage, colleges might look for the following when considering the impact of improvements made earlier in the cycle:

- Evaluation metrics that align with program goals and key strategies
- Opportunities for widespread discussion of evaluation findings
- An environment that fosters honest exploration of results and does not punish poor returns
- Institutional commitment to restructuring programs in response to evaluation findings



DISCUSS

1. How can you support an open, honest investigation of a program's success?
2. What types of information would enable practitioners to understand the impact of the program?
3. How can discussions be structured so that participants are able to explore less successful elements of implementation, and so that discussions of these outcomes can drive further improvement?

Catalyzing Principles for the Applied Inquiry Framework

The context in which evidence is reviewed and change is implemented can have a profound effect on the impact of this work. Specifically, inquiry is more likely to lead to wide-spread, sustainable action when the college:

- Provides the necessary leadership and investments to support inquiry and action
- Values analysis, experimentation and innovation
- Analyzes efforts through a framework of student pathways
- Integrates student perspectives into analysis and planning
- Pursues and sustains institution-wide strategies for improvement

Let's return to the learning community example presented in the introduction. If the college has only allowed for a small pilot, has not sufficiently funded the initiative to fully implement the effort and widely views failure as a reason to eliminate the program, our story ends here. However, if the institution is willing to adequately resource and thoroughly test new solutions, integrate a close look at students' pathways through the institution and include students' perspectives in designing and evaluating the learning community solution, this story could go a very different direction.

See the box on page 19 for more details about these principles.



DISCUSS

Identify a significant effort to improve student outcomes that is likely at your college.

1. Is this intervention designed for most students, or will it only work for a small segment?
2. Will student perspectives be brought into your college's data analysis and decision-making processes about this issue?
3. What financial, human and professional development resources will be committed to this effort?
4. Will the effort have the support of senior leaders, middle-level managers and practitioners?

Catalyzing Principles

Provide the necessary leadership and investments to support inquiry and action.

- Give faculty and staff the time and space for reflecting on evidence of what works to improve student outcomes and for developing action plans.
- Adopt innovations in a widespread manner so that they are not dependent on specific individuals.
- Evolve innovations in a sustained manner, using both formal and informal professional development opportunities.

Value analysis, experimentation and innovation.

- Share theories, implementation considerations and evidence about new approaches across the college.
- Encourage a deep investigation of the meaning of the data, including questioning the efficacy of established practices and exploring new avenues for addressing concerns.
- Thoroughly test new ideas, providing time and space for implementing innovations through a number of iterations.
- View failure as an opportunity for further learning, rather than as a disqualification from participating in improvement efforts.

Analyze college efforts through a framework of student pathways.

- Define the various pathways that students are taking through the institution.
- Determine the distribution of students among the most common trajectories, including entry points and end goals.
- Collect evidence on student performance at multiple points along the college's most common pathways.
- Determine which approaches will best support students along these common pathways.

Integrate student perspectives into analysis and planning.

- Capture the student experience through a variety of venues and methods such as committee membership, focus groups and engagement surveys.
- In addition to quantitative evidence, use qualitative evidence such as student surveys and focus groups to inform conversations about evidence and action planning.
- Invite students to the table as partners in data analysis and decision-making processes.

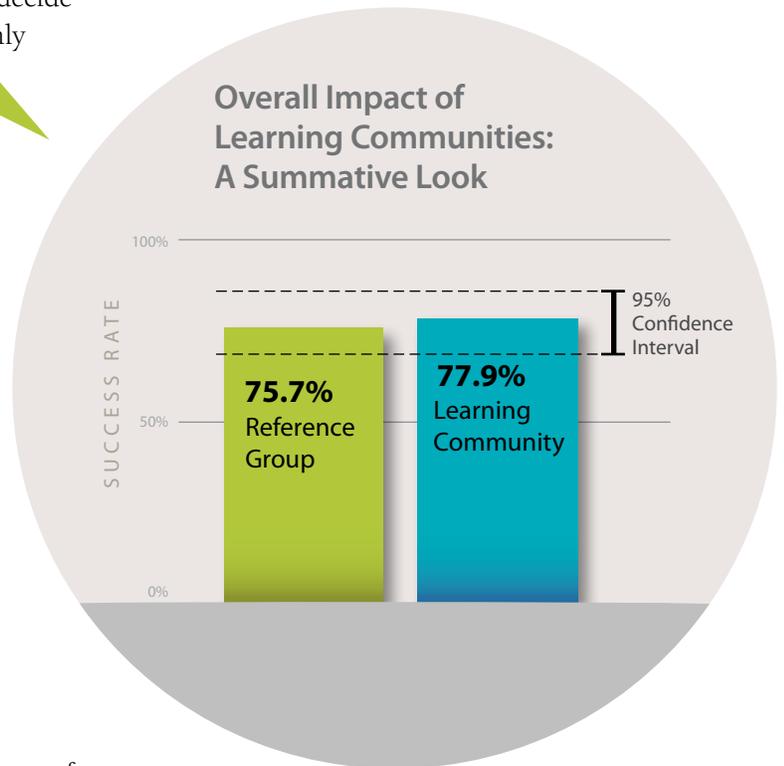
Pursue and sustain institution-wide strategies for improvement.

- Ensure faculty and staff feel ownership over improving students' ultimate outcomes (e.g., degree or certificate attainment).
- Proactively address ways to improve student outcomes and identify the information needed to shape innovation.
- Pursue targeted improvements on high-leverage points, devoting resources for a sustained period of time toward achieving this goal.
- Provide human and financial resources to expand sustainable innovations that lead to measurable improvement for the most students.

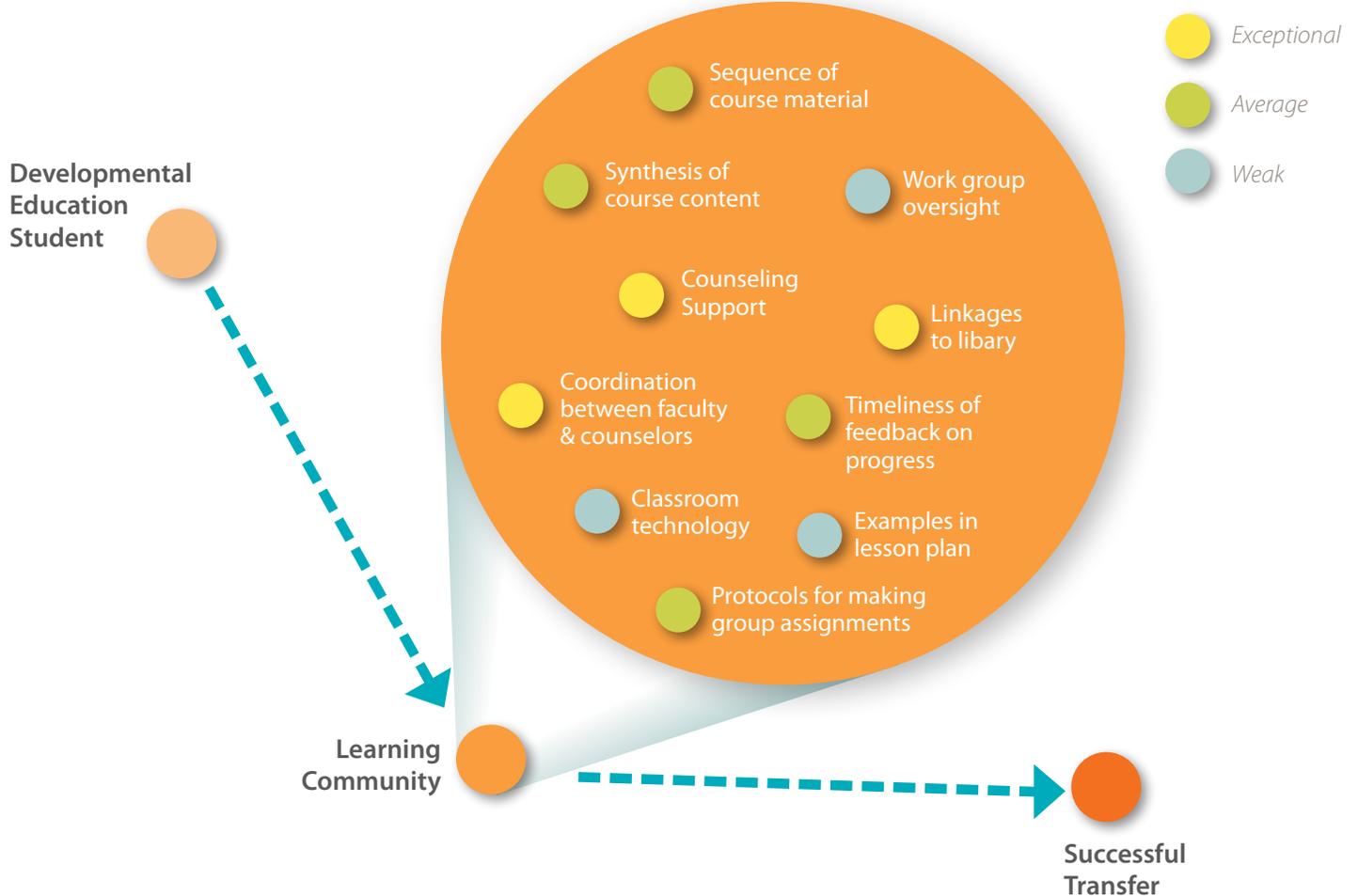
How does the Framework Help with the Learning Community Scenario?

So what should a college do if it receives disappointing data such as implying the mediocre impact of learning communities? The first thing that the institution needs to do is determine whether it has the right type of information to decide what to do next. If practitioners are only presented with the following simple bar graph that shows the overall success rates of learning community participants related to peers who did not participate in a learning community, further conversation becomes difficult.

Instead, if the college entered the learning community experimentation with a clear understanding that it was seeking to improve student engagement, it could instead consider a broader data set that addresses critical components of the learning community, such as coordination between faculty and counselors, the structure of group assignments, linkages to the library or use of technology. Unpacking the summative success rate into these data points can enable those involved with the learning community to determine what they can do within their capacity to improve the components that ultimately lead to stronger outcomes.



Elements of a Learning Community: A Formative Look



But what if the college in question did not begin its learning community experiment with a clear understanding of the developmental education problem that needed to be solved? Because inquiry is an iterative process, the good news is that the college can engage in this work at any point. The leaders of the pilot could identify existing information that might shed light on the learning community implementation, such as results from college-wide student engagement surveys or student services satisfaction surveys. The college could conduct follow-up surveys with students and practitioners to better understand the implementation of critical components of the pilot. If the group is not sure what questions to ask, it could review studies on learning communities to identify those components that are deemed strongest and investigate its own implementation of these effective practices.

Final Thoughts

The evolution from a culture of evidence to one of inquiry takes time and the journey is not necessarily smooth or linear. In

some ways, the question is the answer, and the deep and ongoing investigation of that question through collaborative engagement can strengthen knowledge around the issues and inform promising actions. Additionally, the evolution of a culture of inquiry is partially dependent on the degree of tolerance for ambiguity; most decisions made in the community college segment represent decision making under uncertainty. The process of inquiry strengthens the decisions by using the available evidence and engaging a variety of practitioners with unique perspectives and the deep subject matter expertise to support the interpretation of that evidence. This process provides a logical structure through which institutions can effectively meet their missions and create promising conditions to help students maximize their potential.

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

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.

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. The RP Group. (2009). *Basic Skills Outcomes Capacity Study: The Use of Evidence in California Community Colleges*. www.rpgroup.org/sites/default/files/BSOCUseofEvidenceBrief.pdf
2. Dowd, A. C. (2005). *Data Don't Drive: Building a Practitioner-Driven Culture of Inquiry to Assess Community College Performance*. www.luminafoundation.org/publications/datadontdrive2005.pdf
3. The RP Group developed this characterization of a culture of inquiry as well as derived the Applied Inquiry Framework from multiple project experiences over the past few years. These approaches are intended to facilitate the use of evidence as well as the dialog around its interpretation for the purpose of improvement. The RP Group acknowledges that related research may exist on the topic and aims to contribute to that body of work.



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.



For more information, contact

Dr. Rob Johnstone, Project Director at rjohnstone@rpgroup.org or
Priyadarshini Chaplot, Senior Researcher at pchaplot@rpgroup.org