

BRIC Technical Assistance Program

Inquiry Guide Assessing Basic Skills Outcomes

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Bridging Research
Information & Culture

An initiative of the Research & Planning Group
for California Community Colleges

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Preface

Overview of the Bridging Research, Information and Culture (BRIC) Project

BRIC is a Hewlett Foundation funded project with a general goal to help community college faculty, staff, and administrators discover or recapture passionate, thoughtful inquiry and then use it to help students. The project hopes to encourage more people to ask a wider collection of questions, and then to use their evidence and conclusions to enhance the broader student experience at their college. One tool to promote this goal is the RP Group's collection of inquiry guides such as the one you are currently reading.

The BRIC Inquiry Guides

Collectively, the guides developed for BRIC provide a set of tools to address different areas of the college and the activities outlined in the BRIC Framework below. Where BRIC is able to serve schools directly through its Technical Assistance Program (TAP), these guides will be bolstered by facilitated conversations on the college campus during technical assistance site visits. For colleges that we are not able to serve directly through TAP, these guides can be used by the colleges to start their own campus conversations about these critical issues.

The guides have been designed to respond to the needs of college constituency groups—faculty, staff, institutional researchers, and administrators—in all areas of inquiry-based practice, including data collection and interpretation, data usage, research, planning, and evidence-based decision-making. The guides recommend best practices and strategies to promote increased and authentic use of inquiry and evidence, with suggestions for potential directions for processes, procedures, standards, and protocols. One important observation is that colleges will need to find their own fit between their campus culture and the set of possible approaches outlined in these guides. The suggestions made here are done in a spirit of collaboration and with an understanding that there are a range of tools and approaches that can result in the successful evolution of a culture of inquiry.

BRIC Framework

Institutional Domains –

What areas of the college and activities does BRIC hope to impact?

The BRIC Framework provides an organizational structure for responding to the various areas of data and information usage within a college in the following five broad domains:

- **Evaluation and Assessment:** The bundle of activities, skills, and practices a college uses to assess student learning and practices leading to student success.
- **Planning and Decision-making:** The practices a college uses to make decisions, evaluate effectiveness, and create short and long-term plans.
- **Communication:** The mechanisms and approach a college implements to communicate information at all levels and to all constituents.
- **Organizational Structures:** The processes, procedures, and policies that provide a frame or structure for college practices.
- **Culture and Climate:** The spoken/unspoken, accepted/unaccepted guidelines for behaving in a college and creating an environment that is conducive to collaboration and to effective teaching and learning.

Expected Outcomes –

What does BRIC hope to achieve?

The following five overarching outcomes are the goals of BRIC. The college will:

- **Develop Actionable Data** by applying evaluation and assessment techniques, practices, and models that are grounded in good assessment principles and result in evidence that is used to help students succeed.
- **Interpret Data through Discussion** by using research evidence and assessment data in meaningful and thoughtful discussions that leads to a wider variety of improved program interventions and classroom teaching and learning strategies.
- **Facilitate Dialogue** by employing facilitation skills in discussions of institutional research and assessment with an increased number of participants from all college constituency groups.
- **Integrate Data into Institutional Processes** by creating integrated planning strategies that are equity focused and have well-defined links to budget and other core decision-making processes.
- **Build an Inquiry-Based Practice** by developing an infrastructure for a culture of evidence that promotes thoughtful, evidence-based collaborative inquiry as a normal, ongoing activity.

Background

Most educators can immediately remember the names and faces of students who benefited from an experience at their colleges. Most of all, they remember the students' individual stories of achievement against all odds. However powerful these narratives may be, they rarely demonstrate a standard of measurement that would define effective practices. So while these individual stories should be part of the landscape of any programmatic evaluation, less anecdotal and more quantifiable evidence is increasingly expected for grants, state reporting, and internal review.

This inquiry guide is designed to assist in the development of evaluation tools for the implementation of basic skills innovations and strategies. This booklet addresses ways to promote inquiry and dialogue, develop a comprehensive research agenda, and foster a results-driven evaluation plan to promote the success of innovations that impact basic skills improvement.

Description

This guide is designed to model some ways of measuring the impact of interventions that are already underway, while also addressing ways of identifying indicators for interventions that are not yet implemented. Like any action agenda, the research design and implementation phases are recursive rather than linear, but this diagram represents the steps described in the guide. The guide provides indicators and models that can help to more formally shape the discussion about student success already taking place in California community colleges.



Impact

In 2007, “Basic Skills as a Foundation for Student Success in the California Community College” (the “Poppy Copy”) provided a roadmap for effective practices in basic skills programming. More importantly, the Basic Skills Initiative promoted a moral imperative to community colleges to improve both the conditions and opportunities for success for all students, but especially for the increasing number of students who begin their college experiences without the skills necessary to be successful. The concentration of that interest and effort has resulted in a vast array of changes all directed at improving student achievement. This guide provides some strategies to examine the impact of those institutional, programmatic, curricular, and pedagogical efforts. Further, this guide provides some directions for promoting ongoing discussion about student achievement and what it means at an institutional, classroom, and student level. If the Basic Skills Initiative set California community colleges on a pathway directed towards improving student achievement, then this guide helps educators gauge where they are on the journey and which milestones still lie ahead.

Components & Strategies

I. DESIGNING RESEARCH STRATEGIES

In the perfect world, the first step to evaluating any basic skills program or elements would be to develop the research discussion before the implementation of programming specifics begins. Quite often, however, we find ourselves in the situation that we are evaluating programs after they have begun implementation. The techniques described below remain valuable in this situation.

In order to effectively evaluate the efficacy of any new initiative, research design frameworks or evaluation agendas can be simplified into two basic questions:

1. What is the intended outcome of the program or innovation?
2. What evidence exists to demonstrate that the intended effect has been achieved?

Strategies and ideas for designing research and assessment

1. Begin with an exploration of baseline data about the student population, including characteristics and behaviors that correlate with success and achievement. Examine issues like course-taking behavior, curricular barriers, and the correlation between achievement and other experiences.
2. Ensure that the evaluation plan is openly discussed in the college's basic skills or student success committee groups. If possible, the research office should be represented in these groups and report on the advancement of the committee's goals and plans.
3. Ensure that the research design includes questions related to the intended outcome and all possible evidence points before the study of the results begins.
4. Develop a plan whereby results are gathered and evaluated periodically by all stakeholders so that the innovation or strategy can be updated as needed or the research design can be modified to address new inquiry.

Guided Inquiry

- 1 **Institutional Snapshot:** What are the characteristics of basic skills students at your college? What types of research have been conducted on basic skills programs?
- 2 **Moving Forward:** What types of information could research gather to more effectively evaluate basic skills programs and student success?

II. IDENTIFYING POSSIBLE EVIDENCE

Data resources for evaluating basic skills interventions can vary widely. While static measures like course completion rates, grade point averages, and success and retention rates can be valuable sources of information, other measures like student participation levels in specific activities, student learning outcomes assessment results and surveys, qualitative assessments about students' perceptions, and longitudinal behavioral and achievement studies can help enhance the evaluation of an intervention.

Strategies and ideas for using data elements

1. Begin disseminating data impacting student success within the campus community. A discussion about assessment and achievement needs to be supported by facts. In many campus cultures, urban legend has evolved into fact. Sharing and discussing baseline data can be an important first step to developing a culture that is inquiry-based and data-informed.
2. Plan careful evaluation of both placement assessment measures and curriculum design as important aspects of advancing student achievement goals. This is especially critical in the foundation disciplines of English, ESL, math, and reading, since both placement assessment measures and curriculum design are such central aspects of basic skills improvement. The evaluation of the effectiveness of the assessment instrument and multiple measures can be informed with the following strategies:
 - Compare course success or achievement with students who assess into a particular course with those students who rejected the advice provided during assessment. Significant differences may indicate issues with curriculum alignment, assessment alignment, or instructional inconsistency.
 - Compare students' entrance and exit skills within the course sequence to ensure consistency and logic. Examine the research findings to ensure that students are moving through the sequence at similar rates and consider ways to improve the pipeline.
 - Evaluate students' course-taking behavior, especially courses that have a direct impact on student success.

The continuation of discussions about the curriculum rubric created as part of the CB-21 Coding Project, which addressed the designation of courses that are below transfer-level, is a useful forum for these issues. More information regarding CB-21 Coding and the curriculum rubrics facilitated by the Academic Senate can be found here:

<http://www.cccco.edu/ChancellorsOffice/Divisions/AcademicAffairs/BasicSkillsEnglishSecondLanguageESL/ReferenceMaterials/CB21RecodingProject/tabid/1686/Default.aspx>

Guided Inquiry

- 1 Institutional Snapshot: How effective is the placement testing process at your college? Do you feel that it helps students to determine the best courses to take? How could this process be improved?**
 - 2 Moving Forward: What kinds of information would help to evaluate the impact of placement testing on student performance? How could this information be incorporated into curriculum design?**
3. Classroom assessment has long been an elemental part of effective instructional design. Each aspect of the instructional design process—presentation, appreciation, practice, and demonstration—is a potential subject for evaluation and research. One of the underlying tenets of the entire BRIC project is that this classroom-based research may very well have the most leverage and greatest opportunity for improving student success.
- Utilize any assessment method used for student learning outcomes to evaluate the effectiveness of instruction and/or curriculum: pre and post testing, portfolios, common examination questions, etc. Cross and Angelo’s (1993) “Classroom Assessment Techniques” might also be used for this purpose including but not limited to the following: the one-minute paper, summary activities, opinion polls, journals, modeling, questioning activities, and application cards.
4. Participation in various interventions represents another way to measure the efficacy of a practice. Many colleges have implemented events or services outside of the classroom to improve basic skills achievement. Beyond minimal participation, some colleges have excavated this further to examine the influence of sub-activities to measure the impact of various interventions.
- Identify levels of participation using unique student identifiers and correlate it with success and/or achievement indicators like course success, program or course completion, or degree or certificate obtainment through a contrast with a statistically appropriate peer group who did not participate.
 - Identify levels of non-participation and compare them with the goals or the scale of the need to determine the pathways to build an intervention to capacity. If participation in an intervention

suggests improved success, then scaling it to meet the need becomes a potential next step.

- Correlate participation in specific interventions with increases on other successful behaviors.
 - Consider ways to evaluate students' attitudes and perceptions toward participation or non-participation in the planned intervention.
 - Establish ways to develop research around individual aspects of the intervention (i.e., a component of a first year experience program, a workshop in a learning center, etc.).
5. Beyond the immediate limits of any basic skills intervention, it is also important to consider ways to measure how students that begin in foundation or basic skills levels move through the sequence into other levels or aspects of college programming or academic readiness. At the same time, be prepared to measure success in a number of ways, taking into account student goals that may be immediate rather than long-term.
- Track students who assess into basic skills levels and track their progress into program completion, transfer, graduation, or certificate completion.
 - Track students who begin in basic skills or foundation levels and participate in academic achievement organizations like Honors.
 - Pursue longitudinal cohort data to measure programming differences over time.

One possible tracking model can be found in Leinbach and Jenkins' article (2008) outlining "milestone" and "momentum points" along the continuum of the students' experience. This study tracks a student cohort over five years and identifies points of access that suggest future success or achievement. This model is widely applicable to other institutions. The study can be found here:

<http://ccrc.tc.columbia.edu/Publication.asp?uid=570>

Guided Inquiry

- 1 Institutional Snapshot: Are you aware of any milestones or momentum points that seem important to students' progress through the basic skills sequence?**
- 2 Moving Forward: Identify the cohorts that would be most useful to track among your college's basic skills populations.**

6. Tracking actively enrolled students will probably be the focus of any research agenda, but another aspect of assessing overall college influence on a basic skills agenda is to examine levels of non-participation in college activities. Understanding the reasons why students do not engage is often just as important as proving that engagement improves success.
- Consider evaluating the numbers of students who do not participate in all aspects of the matriculation process (i.e. following placement advice, development of an education plan, or orientation events).
 - Consider evaluating the numbers of students who begin the matriculation process (assessment or counseling) and then fail to enroll.
 - Consider evaluating the numbers of students who do not participate in college activities that develop strategies to improve participation based on the level of the need (e.g., tutoring, supplemental instruction, or academic workshops).
 - Consider whether adequate sections or college activities are available to accommodate all of the students who assess with those needs.

Guided Inquiry

- 1 Institutional Snapshot:** What types of activities tend to have low participation rates at your college? Why do you think students choose not to participate?
- 2 Moving Forward:** How could your college gather information about participation that goes beyond the numbers to students' perceptions? If you were to evaluate specific components of an intervention, what would you focus on?

III. INCORPORATING DATA INTO DECISION-MAKING – “CLOSING THE LOOP”

There is a significant distinction between using data to justify a decision and using data to renew and invigorate a decision-making process. In order to fully incorporate data into the dialogue, stakeholders should be an instrumental element in the development of questions that drive the research agenda, and the results should be shared continuously with both the stakeholders and the larger campus community. This may be achieved as follows:

1. Assign responsibility for tracking the conversation or inquiry so that questions can be continuously answered and addressed with levels of research.
2. Consider the development of a comprehensive research model that ties the projects and discussions into a cohesive vision. That vision could be based on a series of thematic issues or related projects with compatible outcomes or goals.
3. Develop a systemic way of sharing information within the stakeholder group as well as with the campus community.
4. Develop strategies for information dissemination to foster continuous dialogue regarding setting priorities, developing new programs, exploring new interventions, or scaling existing interventions.

Guided Inquiry

- 1 **Institutional Snapshot:** Describe your institution’s basic skills programs in general. What research data are routinely gathered in support of the efficacy of these programs? How is it presented? How is it used?
- 2 **Moving Forward:** Given the unique characteristics of your institution and your answers to the questions above, how might your college most effectively structure its program review process?

Practical Application

Santa Ana

Santa Ana College's Freshman Experience Program (FEP) focuses on learning communities developed through compatible skills development and thematic curricular relationships. The program is designed to support the success of incoming students, who are often unfamiliar with the cultural capital of higher education. The instructors supporting the cohort provide a team approach, coordinating assignments and class activities. The program supports approximately 300-500 incoming students each year, and program participants are 10% more likely to succeed and persist in subsequent terms when compared to their non-participating peer groups.

Chabot College

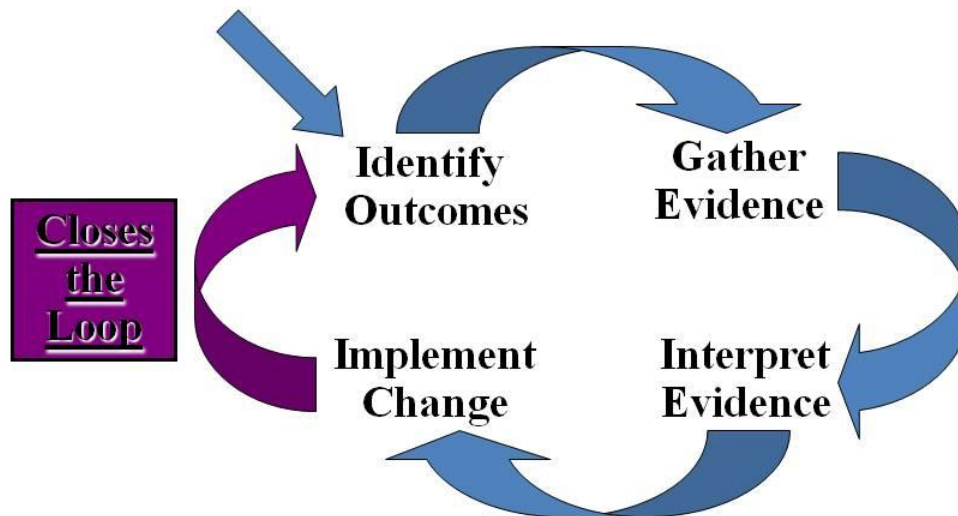
Springboard to Transfer was designed to help more students make it through the English curriculum. In response to a degree of alarm over the declining numbers of students who were prepared to transfer, some of the English faculty developed a cohort model to accelerate three levels of English instruction for participants. The Chabot faculty refer to the purpose of the intervention as a way to bridge the "sustainability gap," or a way to streamline the time necessary to develop critical skills. Research indicates that students who participated in the cohort compared to non-participating students were at least 10% more likely to complete the course and continue into the next level. Initial studies also examined the demographic features of the founding cohort to ensure that they were not uniquely predisposed to succeed. These studies indicate that the founding cohort was more diverse and younger than their comparison group of non-participants. Even with these features, the participants in the learning community distinguished themselves with higher overall achievement measures in success, persistence, and retention than their counterparts.

Chaffey College

Since 2005, the Chaffey College Success Center network has carefully tracked student participation in a variety of curricula designed to augment classroom instruction. These include directed learning activities, learning groups, and workshops. Before students engage in any Success Center activity, they must identify the course connected with the Center visit, as well as which curriculum they will access. These data reveal that students who primarily participate in workshop activity have more than a 25% increase in success; whereas students who participate in directed learning and learning groups improve success by approximately 17%. While both levels of activity represent a demonstrable improvement in overall success, the improvement rates that correlate with the workshops have caused the Centers to increase workshop offerings by 200% to expand opportunity in a practice that so significantly improves student achievement.

Evaluation

Like any assessment endeavor, the research devoted to basic skills improvements and interventions is likely to cultivate as many questions as it answers. Even so, the process by which inquiry is developed and a research agenda is established is fundamental to any college's ability to address the needs of underprepared students with a comprehensive plan, rather than a series of unconnected speculations and strategies. The key to the success of the process is the development of inquiry-based planning, which then leads to a re-evaluation and adjustment process of promising practices. Even strategies that show promise can be revised and improved. Additionally, the evaluation cycle should include questions about what students who are not succeeding are doing or avoiding—thus the inquiry will not be limited to a discussion about what behaviors or activities will help promote success. As the inquiry cycle continues, every promising road will only illuminate another set of paths to consider and pursue.



Guided Inquiry

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- 2 Moving Forward:** Given the unique characteristics of your institution and your answers to the questions above, how might your college most effectively structure its program review process?

Links to Other Guides

This inquiry guide focuses specifically on techniques and strategies for assessing basic skills programs. Clearly these efforts are a piece of a much larger puzzle of campus-based inquiry. Many of the other inquiry guides listed on the next page will also inform inquiry into basic skills programs. Specifically, the “Turning Data into Meaningful Action” guide would help basic skills practitioners take the results of their basic skills research and translate these findings into action. The “Using Equity as a Lens to Assess Student Learning” would help practitioners address the ever-present equity issues in basic skills. Finally, the “A Model for Building Information Capacity and Promoting a Culture of Inquiry” guide would assist practitioners in creating an infrastructure that can help shepherd the inquiry process in basic skills and throughout the campus.

BRIC TAP Inquiry Guide Series

1. Assessing Student Learning Outcomes
Primary Audience: *Instructional Faculty*
2. Using an Equity Lens to Assess Student Learning
Primary Audience: *Instructional Faculty, Student Services Staff*
3. Assessing Strategic Intervention Points in Student Services
Primary Audience: *Student Services Staff*
4. Assessing Institutional Effectiveness
Primary Audience: *Institutional Researchers and Administrators*
5. Assessing Basic Skills Outcomes
Primary Audience: *Instructional Faculty*
6. Maximizing the Program Review Process
Primary Audience: *Instructional Faculty, Institutional Researchers*
7. Turning Data into Meaningful Action
Primary Audience: *Institutional Researchers*
8. A Model for Building Information Capacity and Promoting a Culture of Inquiry
Primary Audience: *Administrators, Institutional Researchers*