

BRIC Technical Assistance Program

Inquiry Guide

A Model for Building
Information Capacity
and Promoting a Culture
of Inquiry

bric

Bridging Research
Information & Culture

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

June 15, 2010
www.rpgroup.org

Table of Contents

Preface	3
Background	5
Description	6
Impact	7
Components & Strategies	8
I. Processes & Procedures	8
II. Research Agenda	10
III. Action Research Approach	11
IV. Information Sharing & Data Facilitation	13
V. Outcomes Reporting	15
Practical Application	16
Evaluation	17
Frequently Asked Questions	18
BRIC TAP Inquiry Guide Series	20

Primary Author

Cathy Hasson, Director, Institutional Research & Planning, San Diego
Community College District

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

In a climate where we are asked “What are students learning?” and “How do we know?” it is essential that an institution not only gather evidence but also create a culture that values curiosity, questions, and robust conversations about data. In a sense, today’s colleges are asked to provide systematic mapping of their students’ journeys, documenting specific landmarks and milestones along the way.

This inquiry guide responds to the need to systematically improve information capacity—which, in essence, is the institutional ability to identify, request, gather, disseminate, analyze, and transform data into information. The suggested strategies in this guide also support a culture of inquiry in which groups from across the campus participate in shared discussions that are meaningful, reflective, and dynamic. This guide is intended to engage all constituency groups (faculty, staff, institutional researchers, and administrators) in the effective use of data and in promoting a culture of collaborative inquiry.

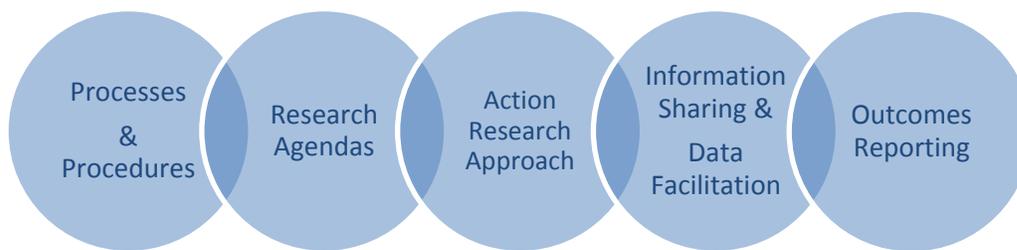
The strategies offered in this guide respond to three specific groups of challenges that continue to impact student learning and institutional effectiveness:

1. Building an evidenced-based infrastructure to help manage the myriad requests for data and information, while maintaining the quality and integrity of the information.
2. Keeping up with the increasing demand for data and information resulting from heightened accountability mandates and the growing need and interest to link data to resource planning and decision-making.
3. Turning data into action by making data accessible (available, applicable, and user-friendly) to all constituency groups, and by helping to make sense of the data so that action may be taken.

The model described in the guide provides a set of strategies and activities that provide guidelines for institutions to adapt as they see fit. It is important to note that a key component for building information capacity that is not discussed in this guide is the use and application of information technology (e.g., data sets, data warehousing, and enterprise resource planning systems). The complexity and unique set of challenges surrounding information technology requires a separate and in-depth discussion. Although this key infrastructure topic should be included in the overall discussion of building information capacity, it will not be discussed in this guide.

Description

In this guide, you will find a model for developing and implementing a sustainable evidence-based infrastructure. This infrastructure will help facilitate the use of institutional research data and information. You will learn how to organize the institution for efficiency and to maximize resources used for processing data. As a result, you will be able to spend more time facilitating data-driven discussions. You will also learn how to nurture a culture of collaborative inquiry, one which not only supports active reflection on outcomes and but also creates active and continuous improvement. The model uses five critical building blocks or components, each linked to the other and each incorporating opportunities for collaborative inquiry.



The **Processes and Procedures** component provides guidelines and structures that lend themselves to a cohesive process for facilitating the use of data and information.

The **Research Agenda** component provides a way in which to organize data and information so that the institution measures its priorities and strategic goals or initiatives.

The **Action Research Approach** describes a method of research, evaluation, and assessment that allows for thoughtful, reflective, and collaborative ways in which to perform the tasks necessary for developing research questions, analyzing data, and turning data into action.

The **Information Sharing and Data Facilitation** component suggests essential structures for building a culture of evidence and inquiry and offers some strategies for sharing information and for facilitating data-driven discussions.

The final component, **Outcomes Reporting**, focuses on closing and expanding the information loop by offering ways to report on action resulting from the effective interpretation and application of data.

Impact

This infrastructure will help facilitate the use of institutional research data and information, since information cannot exist in a vacuum. It must be evaluated, discussed, analyzed, and applied if it is to be of any use. Having an infrastructure with clear processes, procedures, and protocols allows constituencies to understand not only what is expected but how to actively participate in the research process. The importance of an infrastructure cannot be overemphasized. Without one, lines of communication can prevent or delay the application of data and information. Lack of a formal structure may also create perceptions that data are not available, non-transparent, or inaccurate, all of which hinder the process of building a culture for collaborative inquiry. Moreover, the process of developing an infrastructure in and of itself affords the college important opportunities to dialogue and explore collectively by identifying challenges and gaps, sharing ideas and solutions, collaborating across disciplines and departments, and ultimately organizing, prioritizing, and planning for the future of the college using shared evidence.

Guided Inquiry

- 1 How would you describe the institutional capacity at your college today (e.g., organization of your research office, process for requesting data and information, how data and information are used)?**
- 2 How would you describe the culture of inquiry at your college today (e.g., how are requests for data and information determined, are faculty from across disciplines looking at and using data collectively along with support staff)?**
- 3 How would you describe the data and information usage at your college today (e.g., at what levels of the institution are data and information being used and for what purpose)?**

Components & Strategies

I. PROCESSES AND PROCEDURES

The first component in the model is the processes and procedures. These essential processes and procedures will build a cohesive process for facilitating the use of data and information, addressing the following issues:

- 1) Building an infrastructure to manage the demand for research
- 2) Providing timely information for planning and decision-making

Strategies and Ideas for Implementing Processes and Procedures

1. A **formalized research committee** or other group whose purpose is to develop, implement, and evaluate research processes and procedures, as well as communicate and assess research requests based on pre-established criteria. This can be very helpful in keeping the flow of requests moving and fulfilled. Such a committee or group should be a shared governance body so that information about research processes and procedures may be shared and vetted as needed. The research committee may also be responsible for developing college-wide processes and procedures for requesting and using data and information, and for sharing key research reports with stakeholder groups (see sample *Research Committee Mission and Goals* in Ancillary Materials).
2. **Data request procedures, forms, and criteria for prioritizing requests** help to communicate not only the process for accessing data but also the expectations for using this information. The procedures, forms, and criteria may be posted on the college website. Requests may be routed to the institutional researcher who will share them with the college's research committee or other shared governance committee to prioritize and link requests to other college activities or initiatives and to prioritize (see sample *Research Request Form* and *Criteria for Prioritization* in Ancillary Materials).
3. A **guide for accessing and using data and information** may be developed and shared with all constituency groups, then posted on the college website (see sample *Guidelines for Information and Research Usage* in Ancillary Materials). This guide may require signatures of not only the data requestor but of the requestor's supervisor (e.g., dean or vice president) to help ensure that the request is linked to other college or department activities or initiatives.

Guided Inquiry

- 1 Which group on campus has been or could be identified as a “Research Committee” and how might this fit into your shared governance structure?**
- 2 If there is not a research-focused group or committee on campus, who might be involved in creating such a group?**
- 3 What are some of the processes and procedures for accessing and using data and information that your college currently has in place? Where do you see any gaps in them?**

II. RESEARCH AGENDA

The second component in the model is the research agenda. A research agenda responds primarily to the challenge of building a research infrastructure and managing the need for data and information. A research agenda is typically a document that outlines data and information needed to measure the progress of a particular goal, intervention, or strategy.

A research agenda is a useful organizing tool that helps connect and balance information so that the research provides a comprehensive analysis of the data gathered. It can also be a powerful communication piece, affording multiple opportunities for dialogue and for building and sustaining a culture of inquiry. If the college chooses to develop a college-wide research agenda, it can be aligned to institution-level goals, which will give the college a way in which to measure and track progress toward achieving these goals. Smaller or more narrowly focused research agendas are also useful (e.g., a basic skills research agenda) and would follow the same principles outlined under the *Strategies and Ideas for Implementing a Research Agenda* section.

Strategies and Ideas for Implementing a Research Agenda

1. **Identify a group** (e.g., college research committee or other shared governance committee) to shepherd the development and implementation of the research agenda. Determine which goals or strategic priorities the research agenda will address and begin identifying existing data and information that might be used to evaluate progress and/or effectiveness of the target goals or priorities. Determine the gaps in the data and information and then identify additional research needed. Record the goals/priorities plus related key performance indicators (e.g., success, access, and productivity), along with the required evaluation data and a timeline (see sample *College Research Agenda* from Ancillary Materials).
2. **Share the research agenda** with the various shared governance groups to obtain feedback, inform constituencies, and support the process of collaborative inquiry. Continue to review and adjust the research agenda regularly (e.g., each spring) so that the data and information from the agenda reflect any changes in the goals or priorities. Use the development, review, and refinement of the research agenda to spark opportunities for rich discussion with multiple constituency groups about the nature of the goals or priorities, the target or desired performance of the goals, the data and information needed to assess the goals, as well as strategies or interventions for achieving these goals.

Guided Inquiry

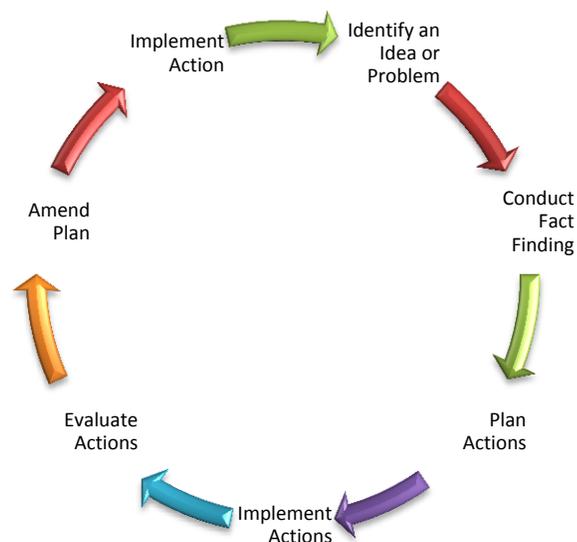
- 1 **Which plans or initiatives would benefit from a research agenda? How might your campus go about creating a research agenda?**

III. ACTION RESEARCH APPROACH

The third component in the model is an approach to research, evaluation, and assessment that responds primarily to the need for linking data to planning decisions, thus turning data into action. Action research is a collaborative inquiry process that provides a way in which to address research and information needs and the use of data via thoughtful, reflective, and collaborative interactions. All potential phases that comprise a research activity (i.e., needs assessment, designing research, data gathering and evaluation, and planning interventions) should lead to action that is based on the evidence produced. This data-to-action approach requires a clear understanding of educational practices and the environment in which these practices exist. This is a collaborative inquiry process that requires continuous feedback from multiple constituency groups so that adjustments may be made along the way and the process can be shaped as needed.

Strategies and Ideas for Implementing an Action Research Approach

1. Establish a **cyclical process of continuous investigation**, planning, and action. In Kurt Lewin's *Action Research Spiral*, research is recursive, shaped by feedback and new information. It begins with identifying an idea or problem that would be better understood if some data and information were provided. It then moves to the researching of the idea or problem through fact finding which allows for better analysis, and eventually to determining or planning and implementing appropriate action. Once actions are taken, they are evaluated and if necessary, action plans are amended or new actions are identified and then implemented. The actions may either continue to be evaluated and/or new ideas or issues may surface, requiring the cycle to begin once again.



2. Use a set of **structured questions or inquiry guides** to help facilitate action research discussions. These guides may be developed by the

institutional researcher or by an action research team whose focus is on assessing a particular problem and using data to make action-oriented decisions. The guides should provide prompting or thought-provoking questions that attempt to deeply explore issues from a variety of perspectives (see sample *Action Research Guided Discussions* from Ancillary Materials).

It should be noted that the success of an action research approach often depends on the environment in which it operates. Colleges may use the action research approach and its strategies to build a climate of trust and collaborative inquiry, which will eventually become more effective once dialogue and discussion around data become the norm.

Guided Inquiry

- 1 Who/which group(s) could provide leadership in facilitating an action research discussion?**
- 2 Which opportunities for data-driven discussions might you use to engage multiple constituency groups on your campus?**
- 3 What are some possible topics that an action research team on your campus might focus on?**

IV. INFORMATION SHARING AND DATA FACILITATION

The fourth component in the model—information sharing and data facilitation—responds primarily to the challenge of turning data into action. Sharing data and information widely and often helps to build a culture of evidence and collaborative inquiry. Through careful facilitation of discussions and coaching by data and subject matter experts, data can be transformed into actionable information.

Strategies and Ideas for Implementing Information Sharing and Data Facilitation

Create a variety of channels to provide information so that you can maximize the impact on planning and decision-making. For example, delivering information via a website is an effective way to reach a wide range of constituencies. However, online information is less likely to be used to facilitate planning or improvement discussions than information that is delivered via a facilitated briefing or action research meeting.

DATA INTEGRATION STRATEGY MATRIX

SCOPE	High	<ul style="list-style-type: none"> • Website Postings • Research Office Newsletter 	<ul style="list-style-type: none"> • Action Research Teams • College Research Committee • Sharing of Actions Taken on Data
	Low	<ul style="list-style-type: none"> • Informational Sessions • Presentations • Technical Assistance Meetings 	<ul style="list-style-type: none"> • Briefings • Data Integration Workshops • Research & Assessment Methods Workshops • Research Agenda Development and Implementation
		Low	High
		IMPACT	

The *Data Integration Strategy Matrix* above provides examples for sharing information and facilitating data usage. The vertical “scope” axis charts the extent to which strategies for sharing data and information reach various groups of people or individuals on campus. A lower scope would indicate that the data and information may reach small or targeted groups of people (e.g., accreditation committee or basic skills committee members). A higher scope strategy would indicate that the data and information may reach a wider audience or group of people on campus (e.g., all faculty, staff, and administrators or all governance groups). The horizontal “impact” axis charts the effect that strategies for using data and information have on institutional effectiveness. A lower impact strategy may not affect change or improvement but may still generate interest enough to begin collaborative discussions and inquiry related to planning and decision-

making. A higher impact strategy would yield collaborative discussions and inquiry that shape planning and decision-making (e.g., decisions regarding interventions and implementation strategies, as well as cyclical processes for planning, doing, studying, and acting on strategies).

Guided Inquiry

- 1 What are some of the strategies your college is currently using to share and use data and information?**
- 2 What are some other strategies that might be used to expand the opportunities and engage more people on your campus?**

V. OUTCOMES REPORTING

The last building block in the model is the outcomes reporting component, which also addresses turning data into action. This important component focuses on closing and expanding the research, planning, and action loop. It ensures that action is taken on data and information and that this action prompts more questions for continuous planning and improvement.

Strategies and Ideas for Implementing Outcomes Reporting

1. **Establish a systematic way in which to report progress of goals/priorities** using the information from the research agenda. This may be a high-level report that includes indicators and measures (see sample *Outcomes Report* from Ancillary Materials) or it may be a report on specific activities and interventions. Ideally, the report would provide trend information (e.g., a five-year analysis), as well as benchmarks (e.g., five-year averages) for comparison and goal setting purposes.
2. **Provide a venue for benchmarking** in which best practices can be discussed and shared, and performance targets established. For example, if you have an existing research-focused committee on campus, this group would be a likely group to review and identify performance targets for institutional effectiveness indicators (e.g., thresholds or benchmarks for college-wide success and retention rates).

Guided Inquiry

- 1 What type of outcomes reporting format might work at your college? Who would be responsible for collecting and reporting the information? How frequently would this be done?
- 2 What are some internal and external benchmarks that might be used in your college's outcomes report?

Practical Application

This model has been successfully implemented at numerous colleges in various stages of development of their information capacity and infrastructure. At each of these colleges, the opportunity for dialogue throughout the development and implementation process was seen as an opportunity to shift existing practices to more open, transparent, and self-reflective explorations of ways to improve or sustain practices. On-going discussions became the norm for the colleges and eventually the model became embedded in the daily conversations and planning activities of these institutions. The time that this took varied from campus to campus, but the cultural shifts suggest that the process was as important as the outcome.

Also central to the model was the designated core group (e.g., college research committee) that led the development and implementation. This group would typically grapple with the details and strategies needed to develop, share, and implement the model. This group was also responsible for taking information to governance groups for input and feedback during the various developmental stages of the model. Because the development and implementation of the model usually represented a shift in the way in which planning and decision-making occurred, it required the support and understanding of the institution's positional and non-positional leaders, as well as their skill and interest in managing change. For more information on particular challenges and solutions these colleges experienced, please see the Frequently Asked Questions section of this guide.

Evaluation

The development and implementation of this model may be evaluated for effectiveness in several ways. We recommend continual formative evaluation (used to assess on-going progress or learning for the purpose of providing mid-course corrective feedback), as well as milestone summative evaluation (used to evaluate completed activities or learning and to inform decisions regarding readiness for the next step/role/learning experience). Both will be valuable for continuous improvement. Below is a sample of possible evaluative measures for the implementation of the model.

Processes and Procedures

- Perceptual study (e.g., focus group) regarding access to data and information
- Checklist of number of distribution points for research forms, processes, procedures, and protocols

Research Agenda

- Number of topical research agendas including college-wide and college initiatives (e.g., Basic Skills Initiative)
- Inventory of requested and completed research to assess quantity and scope

Action Research Approach

- Number of people within each constituency group involved in action research teams
- Attitudinal survey regarding collaborative inquiry

Information Sharing and Data Facilitation

- Scope and depth analysis on the discussions around data using a rubric as measured by various shared governance committees
- Tracking of data and information sharing/facilitation via a *Data Integration Strategy Matrix* or other such record of activities

Outcomes Report

- Outcomes report on actions taken on research
- Description of usage of data and information for planning and decision-making

Guided Inquiry

- 1 Which of the options described above might be easily integrated into your research infrastructure?
- 2 What are your next steps in creating a vibrant culture of inquiry at your institution? Who will be involved?

Frequently Asked Questions

1. *What is information capacity?*

Information capacity refers to the institutional capacity for requesting, managing, and transforming data into information so that it may be used for multiple purposes (i.e., evaluating and determining new or improved interventions for student success). The underlying assumption is that colleges are open systems influenced by multiple internal and external factors. By implementing a system for managing the information capacity, the college may respond to the increasing and changing demand for information in a more flexible and fluid manner.

2. *What is a culture of inquiry?*

A culture of inquiry refers specifically to the institutional capacity for supporting open, honest, and collaborative dialogue focusing on strengthening the institution. In a culture of inquiry there is easy access and widespread sharing of information, as well as multiple opportunities to discuss the information within and across constituency groups. The purpose of the inquiry is to collectively explore deeper issues at the college and to determine shared right action. Collaborative inquiry takes many forms and is embedded throughout all aspects of the planning or decision-making cycle.

3. *What's the difference between a culture of evidence and a culture of inquiry?*

A culture of evidence refers to the availability of data and information for the purpose of planning and decision-making. This implies that there is supporting evidence for decisions. However, this does not imply that there are collaborative or reflective discussions around the data nor that shared action is taken on the data.

4. *What is an action research approach?*

An action research approach is a data-to-action approach which requires a clear understanding of educational practices and the environment in which these practices exist. This is a collaborative inquiry process that requires continuous feedback from multiple constituency groups so that adjustments may be made along the way and the process can be shaped as needed. The approach is frequently led by an action research team who determines a topic or issue to explore.

5. ***We don't have a research committee and our research office is staffed with only one person. How can we implement the Information Capacity Model with these limited resources?***

A shared governance group or committee can help to shepherd the process for developing and implementing improvements in your college's research and information infrastructure. This group would serve as the core group responsible for sharing information with other constituency groups in an effort to engage the larger college community and determine appropriate strategies and procedures.

6. **How can a research committee that only meets once or twice a year help to address the continuous flow of requests for data from the college and external agencies?**

A research committee can develop an annual college-wide research agenda to in anticipation of these requests, getting them prioritized and in the research projects queue.

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*