

BRIC Technical Assistance Program

Inquiry Guide

Turning Data into
Meaningful Action

bric

Bridging Research
Information & Culture

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

June 15, 2010
www.rpgroup.org

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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.

Description

This inquiry guide aims to facilitate message building. It provides a series of templates, approaches, and strategies for packaging research outcomes into coherent action-oriented messages in ways that increase awareness and motivate change. The procedures and tactics highlighted in this guide provide a set of tools to help improve the information flows among practitioners, leaders, and managers at every layer of the organization. These tools do not develop improved research designs or methodologies, but rather build a common framework and language that generates thoughtful conversation, broadens understanding, and deliberately prompts users of information to act on evidence. To those ends, we outline processes that use these tools as vehicles to trigger collaborative dialogue and encourage broader input into the knowledge generating process. While the content of this module is founded on current research in behavioral psychology, cultural anthropology, and complexity science, the techniques themselves are grounded in the practical and tangible.

Background

Community colleges today are faced with a series of important questions:

1. How can data and research create lasting change?
2. What data have we already collected that might help the college make better decisions?
3. In what ways should data be communicated to the college stakeholders?
4. In what ways have the data been fully integrated in college planning and decision-making?

The last ten years have witnessed a dramatic rise in the volume of data captured and managed by community colleges. The output generated by college research offices has provided administrators, faculty, and staff with a wealth of information previously unavailable. However, despite this access to more information, colleges have been reluctant or unable to analyze much of the new knowledge and insights created by the research office. More importantly, this wealth of data rarely prompts the thoughtful discussions, interventions, and new innovations this information might suggest. Indeed, in many colleges, much of the information necessary to drive change has already been produced, but sits dormant in binders on so many shelves.

In truth, for many colleges today, the success of most interventions designed to improve organizational performance and student success relies primarily on implementing what is already known, rather than discovering the unknown. Furthermore, much of the knowledge needed to move the institution forward resides largely in the expertise and experiences of faculty and staff, a research pool outside the grasp of most institutional databases and often too quickly dismissed as something lesser than hard evidence. To create an environment that fosters ongoing innovation, institutions must broaden the domain of the research function to include all the intellectual capital residing in the college. This guide not only describes research in this broader context, but also identifies methods for improving the communication of this information. This communication moves beyond the common conversations between researcher and faculty, to include the entire institution—connecting administrators, faculty, and staff in addition to connecting the college and outside stakeholders.

The biggest challenge for colleges in this emerging world—and one on which the college's success increasingly hinges—is the communication of what is already known in ways that resonate with users and suggest specific actions. This growing emphasis on action suggests that old models of knowledge management and communication—models designed to house data, develop reports, and build digital networks—may be inadequate to provide instructional faculty, student service practitioners, and managers with the focused answers they seek in order to build and improve programs and to engineer transformations. To facilitate these processes, this inquiry guide identifies methods for improving the communication and understanding of complex information and introduces formats that better leverage the collective wisdom of the institution to provide clear pathways for positive change.

Impact

Many of the benefits of improving the quality of information flows and communication within an organization are readily apparent because they create a greater awareness of key issues, increase an exchange of ideas, and generate fewer surprises. The benefits associated with robust flows of *actionable information* are more significant because they can lead to steady and sustained improvements in organizational performance. The techniques embedded in this guide focus on the development of actionable messages that impact the organization in multiple ways, such as:

- Creating collaborative dialogue on positive change
- Fostering agreement on key challenges and opportunities
- Linking ideas to action
- Engaging the campus at higher levels
- Enhancing thoughtful experimentation
- Building more robust formal and informal information pathways
- Developing greater appreciation of the relevance of research to college issues

Components & Strategies

The framework we have developed provides all data users with a structured approach to 1) transforming research findings into coherent action-oriented messages and 2) constructing dissemination strategies that extend the reach of that message. This approach identifies a set of practical steps that help extract meaning and relevance from an often complex and ambiguous set of research findings. We begin with the development of both an appropriate data-users' perspective and a framework that supports engagement and action.

Guided Inquiry

- 1 Institutional Snapshot: How would you describe the information flow at your college? What is the catalyst for research at your college? How is research shared? In what ways is research used to guide institutional planning?**
- 2 Moving Forward: What are the strengths and weaknesses of the processes you've described in your answers to the question above?**

I. RESEARCH THAT DRIVES CHANGE

In this guide we are describing a new planning model, an action-oriented approach. An institution developing this model will begin to re-structure research processes to focus attention on message development, group processing, and presentation. This new focus on interpretation, synthesis, and story development creates a set of practical recommendations and as a result, it uses data more efficiently to chart a process for change.

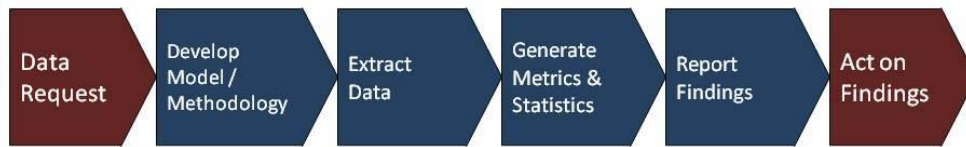
The graphics on the next page illustrate two models of institutional research, with the first emphasizing a traditional, linear approach and the second relying more heavily on collaboration, joint interpretation, and synthesis. It is this second model that forms the basis for the action-oriented approach presented here.



Linear Model of Institutional Research

Primary Responsibility

- Faculty/Staff
- Researcher



Key Features:

- Request-driven
- Highly delineated tasks
- Emphasis is on generating metrics



Collaborative Model of Institutional Research

Primary Responsibility

- Faculty/Staff
- Researcher
- Joint Activity



Key Features:

- Dialog-rich
- Jointly-driven processes
- Priority on the development of the data story

II. THE INSTITUTION AND COLLABORATION

This action-oriented approach requires building effective collaboration structures. The lessons in this guide are premised on a philosophy that a learning college is judged less by its problem-solving abilities and more by its devotion to inquiry about problems for which there may be no clear solutions. Building effective systems that support thoughtful and collaborative dialogue necessitates designing group structures that support high levels of cognition, coordination, and cooperation.¹ The illustration below describes the characteristics of the more inclusive and action-oriented framework described in this guide.

Frameworks for supporting collaboration & dialog	
Traditional Model	Inquiry-driven Model
1. Diversity defined in terms of position, department, gender, ethnicity, etc.	1. Diversity defined in terms of cognitive ability, point of view, and experience
2. Encourages conventional approaches and is often subject to groupthink	2. Supports and encourages independent thinking
3. Supports incremental change	3. Encourages a culture of experimentation and transformational change

Clearly the general conditions necessary to support collaborative dialogue in any institution include a diversity of ideas, a respect for independent thinking, and a pervasive culture of curiosity.

In this inquiry guide we discuss processes that develop the optimal conditions for turning data into action. These processes can build on the institution's strengths and provide strategies for assembling and managing focused action groups—those groups and venues that not only capture the collective wisdom of the community but also orient it toward a set of specific actions.

Guided Inquiry

- 1 Institutional Snapshot: In terms of the frameworks illustrated above, how would you describe your institution at this time?**
- 2 Moving Forward: What is one area of growth toward an inquiry-based model that you would like to see developed?**

¹ Surowiecki, James; *The Wisdom of Crowds* (2005).

III. THE RESEARCHER AS NARRATOR

In this transformation, the researcher becomes less a collector of data and more a narrator of the institution's story. Being an effective researcher increasingly requires developing narrative competences². An effective researcher is not one who simply explains information correctly, but one who couches explanations in a memorable and compelling format that sets up collaborative dialogue that is focused on action. A group's response to even the most compelling data is often more related to how the information is presented and explained than to the informational content of the data itself. The narrator model encourages data users to move from asking for the key findings in the research to asking for the compelling story supported by the evidence. This subtle shift in perspective can often significantly extend the reach and impact of research messages.

² Pink, Daniel,H., A Whole New Mind (2006).

IV. CRAFTING THE MESSAGE

The key to creating effective communication channels is crafting a message that resonates with listeners. Messages that are memorable, concrete, and directed towards explicit actions are more likely to be remembered, retold, and reflected upon. In this section, we introduce several strategies and procedures that data users can use to transform complex information into clear, crisp, and targeted messages.

Crafting the Message Strategy 1: Distilling the Message

One of the biggest challenges in conveying the conclusions that emerge from a complex research project is the “noise” created by the chronology explaining how the research process proceeded from beginning to end. While such information is an important component of the researcher’s scholarship and must be captured and documented, such detailed and nuance-heavy approaches often inhibit reflection and change. Messages must be distilled and stripped of their complexity if they are to build momentum across the institution. When encountering complex information, audiences have a strong need to package what they hear into succinct phrases and messages that are often at odds with the actual or true underlying message inherent in the data. Often it is worth the time and effort to distill your findings into a single and simple take-away message. That core message becomes the anchor for all other supporting information and is best remembered by members of the institution.

For example, a study into the sources of variation in course sequence completion rates might lead to the development of fifteen to twenty tables that show how sequence completion rates vary by student gender, age, ethnicity, unit load, grade received, etc. This information can be very useful for providing a comprehensive picture because it allows users with different backgrounds and insights to see patterns meaningful to their area of expertise. When possible this information should always be compiled and made available to the campus community.

However, there are limits to the amount of information an audience can absorb, whether in a presentation or written report. An audience that is bombarded with data, however relevant and useful, can be easily overwhelmed by the volume. In most cases a few insightful folks might see the big picture message lurking amid the volume, but it’s likely that many will struggle to find a clear message, particularly one that points to action.

A solution here is to vet the research findings in advance of presenting the information to a broader audience. In situations where a research investigation yields a wealth of metrics, it is important to sit down with a smaller group of content experts to hash through the findings and determine the primary take-away message from the research (these venues are discussed in detail in the section on dissemination strategies). This group can help to identify core messages—ideas or findings that support action, fit in the college culture, and hopefully build on momentum associated with previous successes. This group can also evaluate how the data fits into ongoing conversations about key issues and action areas and determine if further analysis can be conducted within the data set to address these concerns.

Distilling the findings into a core message is rarely a clean and simple exercise. But when the college is presented with compelling research findings that potentially have big picture implications, it's always worth the effort of sitting down with colleagues and determining core message or discussion points that can be drawn from the data.

Crafting the Message Strategy 2: Framing the Story

Research in cognitive science tells us that human memory and motivation is enhanced whenever information is conveyed through a story format. In many ways the human mind is hard wired to seek out narrative. When facts and findings are presented as data points, they typically fail to engender reflection in listeners who don't share the expertise and technical background of the researcher. Framing research outcomes within a story or narrative gives that information a structure that better preserves the integrity of the message and on average engages people at a deeper level than a table of percentages or a list of findings.

Specifically, messages framed as stories are particularly effective at conveying ideas and information when they:

- Contain a simple core message
- Are concrete and free of abstractions
- Point to clear and specific actions
- Fit the organizational culture

Guided Inquiry

- 1 Institutional Snapshot: Describe examples of data or research presentations that were particularly effective in moving your institution forward. What were the characteristics of those presentations that made them effective catalysts for change?**
- 2 Moving Forward: What recent data or research presentations have the greatest potential as catalysts for change? How might you frame a story around those data?**

V. VISUALLY REPRESENTING THE FINDINGS

Data, research, or the messages conveying them do not always stand on their own. For these messages to resonate across the institution they must have elegant cues that prompt their telling. Graphics and visuals are powerful cues for advancing messages. We begin this section by providing insights from research in cognitive science that explain how individuals respond to and interpret information presented in specific visual formats. We introduce guidelines on how to choose graphics and visual tools to best reinforce desired messages, and conclude by outlining an approach for developing a single visual that sums up the core message and serves as a framework for follow-up dialogue.

Visually Representing the Findings Strategy 1: Graphs, Graphics, and Visuals

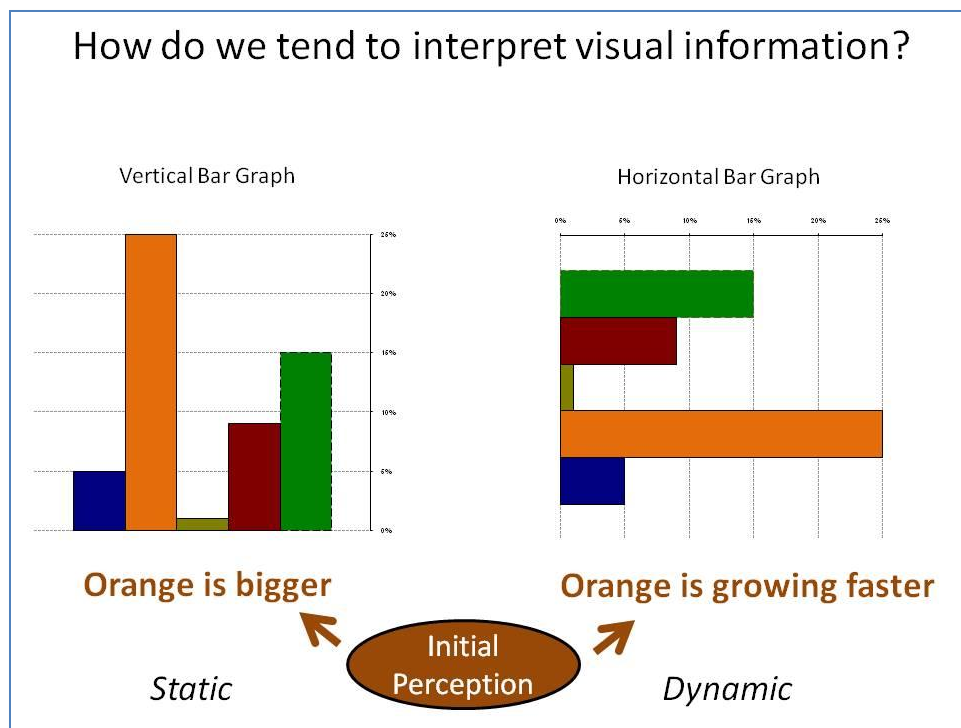
Tables and graphs are among the standard tools in a data presenter's toolkit and yet so often they are underused (and sometimes misused) as vehicles to help convey information. While the nature of a data request or its outcome may dictate how data are to be displayed (e.g., a report that must include long tables and statistics to support the overall scholarship of the work), certain graphical tools and visuals can greatly improve audience retention and understanding when presenting information to those who must use and act on the information. Here are a few general rules:

- Try to avoid using a table when the info can be presented graphically (or use both)
- Express time-series information graphically
- Highlight what elements you want readers to focus on when using a table
- Use a visual to convey sequence completion information
- Use colors to link related information
- Place ALL technical information in an appendix (referenced in footnotes)
- Limit yourself to one message per visual and highlight that message

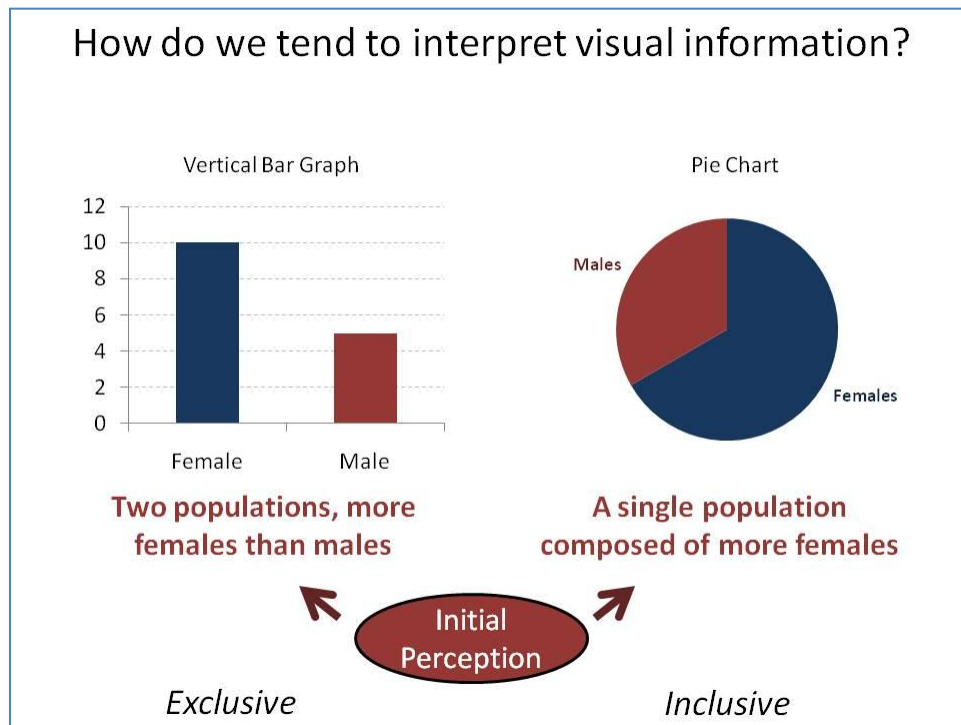
Visually Representing the Findings Strategy 2: Techniques for Adding Emphasis

Often the table, graphic, or description used to highlight an important finding fails to adequately convey the crucial information it describes. Research in behavioral and cognitive psychology provides insights into how the brain reacts to certain visual cues. When you construct presentations of information, you can reinforce the natural preferences audiences have for certain information formats.

Consider the bar chart example shown below. The two charts use the same color scheme to convey the same information; the second chart is simply a 90 degree flip rotation of the first chart. Yet, viewers tend to interpret the vertical chart as conveying a message about relative size; orange is bigger, larger, taller, etc. When information is presented using the horizontal bar chart format, readers tend to have a different reflexive interpretation. The horizontal profile tells the story that orange is growing faster than the rest. When using a graphic to show a trend, you can select the format that places emphasis on the most important dimension—relative size or relative speed.



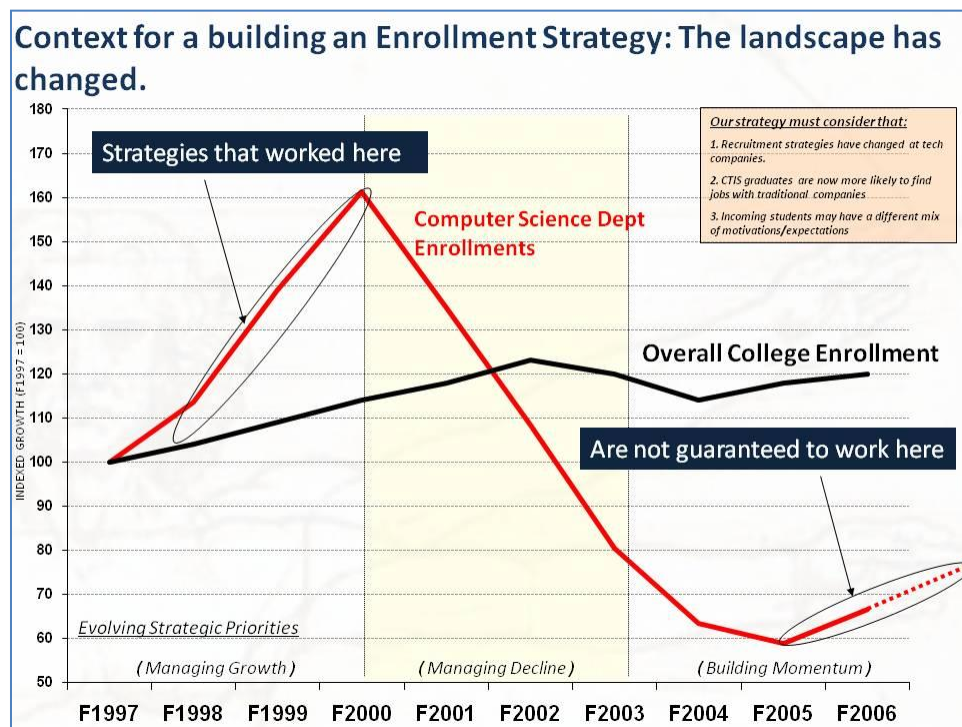
In this next example, there are two approaches for graphs that show the relative size of two populations. By placing the groups in separate bars, the chart on the left triggers most readers to view the two groups as separate populations. Contrast that with the pie chart, which conveys the same information about relative size. However, in this case, most readers will view the scenario as a single population inhabited by two groups. Pie charts provide a more appropriate format for messages that stress inclusivity or group cohesion.



Visually Representing the Findings Strategy 3: The Single Slide Story

When pursuing an intervention or strategy it often helps to have a summary that serves both as a story cue and a framing device that symbolizes the situation and the goal of the research. This can be accomplished by creating a carefully thought out graph or image that encapsulates key information.

Consider the story being told in the slide below. In this case, a computer science department at a California community college was deliberating on how best to plan for a period of expected growth. Early conversations focused on replicating strategies that had worked during the period of accelerated growth in the late 1990s. However, some of the faculty questioned the merits of adopting old approaches given the drastic reshaping of the business landscape following the dotcom crash. They felt any decisions about future programming or planning would benefit from further reflection and dialogue. This slide was used to trigger a conversation about how to think about the future. It was circulated among all faculty and staff in the department and quickly became a reference point for conversations on planning. It is unlikely that even the most elegantly worded memo would have been as successful in developing a shared appreciation for the department's history and establishing a common starting point for planning discussions.



Guided Inquiry

- 1 **Institutional Snapshot:** What current research at your institution might be effectively presented in Single Slide Stories?
- 2 **Moving Forward:** Identify several research questions that you would like answered through a Single Slide Story.

VI. DISSEMINATION STRATEGIES

Effectively conveying complex information is as much about process as it is about content. In organizations founded on robust collaborative decision-making, the process of conveying information leads to dialogue that stimulates new learning. This dialogue and inquiry are fundamentally important to both communicating ideas and providing ownership of goals. Effective dissemination strategies include the tools necessary to convey concepts as well as the venues in which those ideas are vetted and reflected upon. While there is no one-size-fits-all solution to guide the development of this content and these processes, there are choices that create a mutually reinforcing dynamic between them.

Dissemination Strategies Strategy 1: Output Format

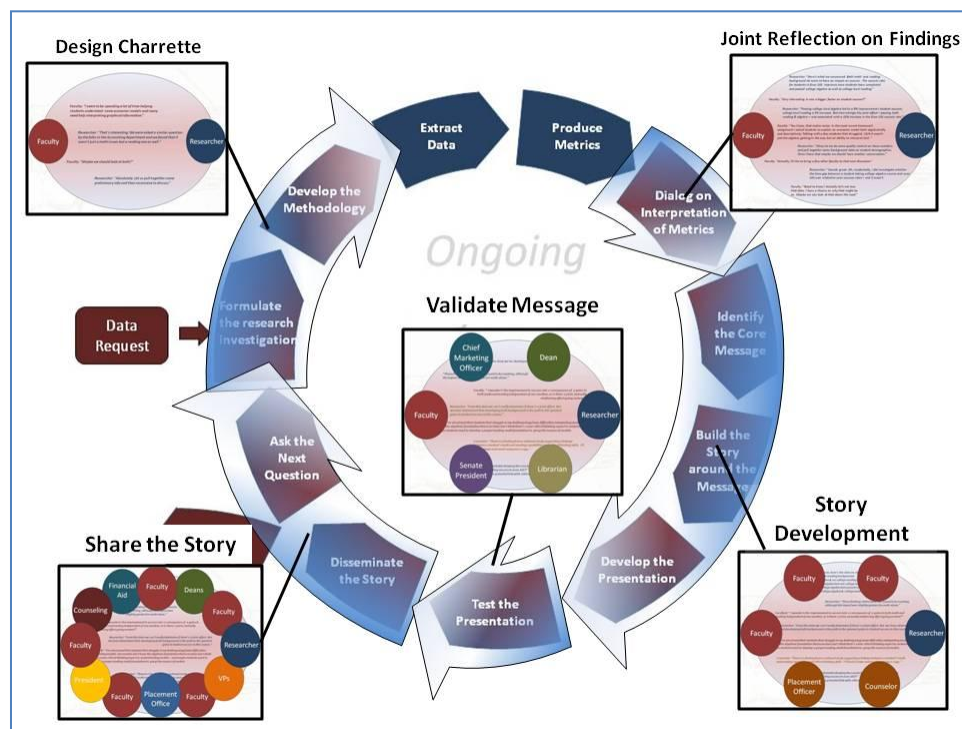
The decisions governing the choice of what output format should be used to convey the findings of a research investigation are often determined by a calculus of choices—the researcher’s available time, past training, and comfort level with a particular format, as well as audience characteristics, organizational culture, and the scale and scope of the underlying research. However, when the primary goal is to convey a clear action-oriented message, certain models and formats tend to have greater impact on certain audiences in certain environments. A few general rules on matching output format to audiences:

- For an audience of internal leaders and policy makers:
 - a one-page executive summary of outcomes
 - a short series of slides highlighting outcome
 - a single slide story
- For internal practitioners and responders:
 - a four- to five-page summary of outcomes including a list of data sources as well as a summary of the methodology
 - a short presentation describing the process and outcomes
 - a single slide story
 - if the content is complex, possibly a voice over video of the presentation (fifteen minute limit)
- For external research colleagues:
 - a full report, including a detailed description of the methodology
 - a more thorough presentation of process and findings
 - in both, maintain emphasis on the outcomes not the process or methodology
- For external audiences of leaders and policy makers:
 - one page summary
 - short presentation
 - a single slide story
 - short voice over video of a condensed version of the presentation (five minute limit)

Dissemination Strategies Strategy 2: Venues

For the best results, all people affected by the research are involved in nearly every step of the research process,³—and most importantly in the dialogue surrounding the interpretation of findings. Different people interpret identical information in very different ways. Identifying the appropriate venue and properly facilitating the discussions on data are key to making sure that the message delivered is the one being received. Properly structured, these discussions can become important disseminating tools, particularly among those responsible for implementing any findings. The dialogues in these venues inform the shape and position of the message for greater resonance and they increase the likelihood that the desired message is the one passed along to colleagues and coworkers.

These venues naturally emerge from the collaborative research model and their configuration will depend on what best fits the college history and culture. One approach that has demonstrated some success is to structure the joint research process around five separate venues.



First, the *Design Charrette* is where the researcher meets with faculty and staff to discuss the nature of the initial research questions, identify what data will need to be collected, determine how it will be captured, and isolate any constraints and limitations associated with the approach.

³ Upcraft, Lee, M., Schuh John, H., Assessment in Student Affairs (1996).

Once the data has been collected and statistical output generated, the same group meets again for a conversation about the findings. This **Reflection on Findings** centers on the prioritization of findings and thinking about their potential implications. This discussion might lead to a second round of research as ideas are refined and new and promising avenues of investigation are identified. If so, the group would reconvene to discuss and reflect on the second round of research. The purpose of this second gathering is to map out a short list of key messages derived from the research and further solidify a sense of shared ownership about the findings.

After the findings have gone through the reflection conversation, the content is ready for development into a story. The **Story Development** discussion requires a broader set of content experts. In addition to the original research team, this group should include those who are likely to be involved in any downstream intervention or innovation and have an intimate understanding of the issues, history, and challenges associated with the domain of activity identified in the research. This group will examine the findings, work to identify the core message, and develop the story and presentation that will be disseminated to the broader college community.

Once the story has been crafted it is wise to convene a group to **Validate the Message** of the presentation. It's not uncommon for the Story Development team, because they are so close to the details, to lose some perspective on the big picture idea. So it is generally good practice to test the message and any visuals with a diverse group of individuals who can bring a wide range of perspectives to the findings. This group need not be large in size so long as it is composed of individuals from different areas of the institution, both in content expertise and process knowledge. This venue is an often rare opportunity to expand the engagement of the research process beyond the list of usual suspects and widen the reach of the inquiry process.

Once the story has been tested and any necessary modifications have been made to the presentation the next step is to **Share the Story**. This entails a series of dialogues and discussions where the story is disseminated throughout the institution. Typically the presentation is shared at the college's many council and committees, but it's also important that the message be shared in venues that aren't subject to rigid membership boundaries. If the message is one that merits a significant intervention or rethink on the part of the institution, there is great value in sharing the story in college-wide forums. Sharing in broad forums helps break down barriers and can work to build greater cohesion around the issue.

During this story sharing phase it's also important to look for clues as to next steps. In most cases good research triggers many follow-on questions. These college-wide discussions may open up opportunities to build on the research. As discussed in the next section, weaving connections across research activities goes a long way in improving the reach and retention of any set of messages.

Dissemination Strategies Strategy 3: Pathways

Even the most heroic effort to reach every member of an institution with a story is sure to come up short. Workloads often prevent interested people from finding the time to participate in discussions and peak load cycles can effectively eliminate large swaths of the institution from conversations for months at a time. However, that doesn't mean that it's impossible to extend the reach of your research to every interested party. It is estimated that up to 70% of workplace learning is communicated through informal channels.⁴ An effective strategy to communicate information intended to motivate action should take advantage of these informal pathways whenever possible. Here are a few examples:

- Include a fact of the day about the target research on the printed agenda for every major meeting
- Incorporate success measures in promotional materials
- Circulate a one-paragraph summary of an interesting research finding throughout the college once a week or month
- Summarize and circulate a few interesting bullet points from a relevant national research study
- Post single slide research stories in public areas and places where faculty and staff congregate and/or on the college website
- Reserve five minutes at the close of college planning meetings for discussion of a college success metric

⁴ Kotter, John, P., *Leading Change* (1996).

VII. CLOSING THE LOOP

One of the biggest challenges with building momentum around even the most compelling evidence is a loss of urgency and context. Facts and findings blur together, people get distracted by other events, messages lack coherence or point to multiple goals. The methods explained in this strategy help keep people on track and moving in the same direction towards a specific goal.

Closing the Loop Strategy 1: Focusing on this Goal and Anticipating the Next

One strategy for maintaining momentum is explicitly linking research outcomes to a common message or goal. It is not enough to remind people of an important piece of evidence. The investigation team also needs to weave each related finding into a tapestry of evidence that keeps everyone oriented toward a common goal. This linking of research outcomes is facilitated by choosing a theme that not only reinforces previous findings but also builds anticipation for what is to follow. Each presentation of data and each report should include revisions based on comments and feedback garnered from each discussion and each step of the process. This responsiveness builds collective ownership of the research and serves as a launching point for next steps. Similarly, before presenting new material, it is often helpful for audiences to be reminded of previous research findings to which they have been exposed so that becomes the foundation for any new information to be introduced. The approach provides more cohesiveness to the research and reinforces the collaborative nature of the research process.

Closing the Loop Strategy 2: Research Themes

Another effective strategy for building momentum is using themes to link interrelated research projects to broader college objectives. Themes are best developed with input from faculty and staff and the theme creation process is important for making sure the themes resonate with information users. The themes then become the shell that houses messages sharing similar ideas. A few examples of research themes include:

- Innovation – messages that support further experimentation and risk taking
- Continued excellence – messages that reassure and provided clear direction to the next outcome target
- Transformation – messages that support the development of completely new approaches and programs
- Foundation Building – messages that point to the development of plans and processes

Practical Application

Choosing the right information format has a significant impact on how easily information is understood. The examples below give you a chance to see for yourself. Each exhibit contains identical data related to basic skills sequence completion rates, but each presentation of that information has been modified in both color and graphical elements.

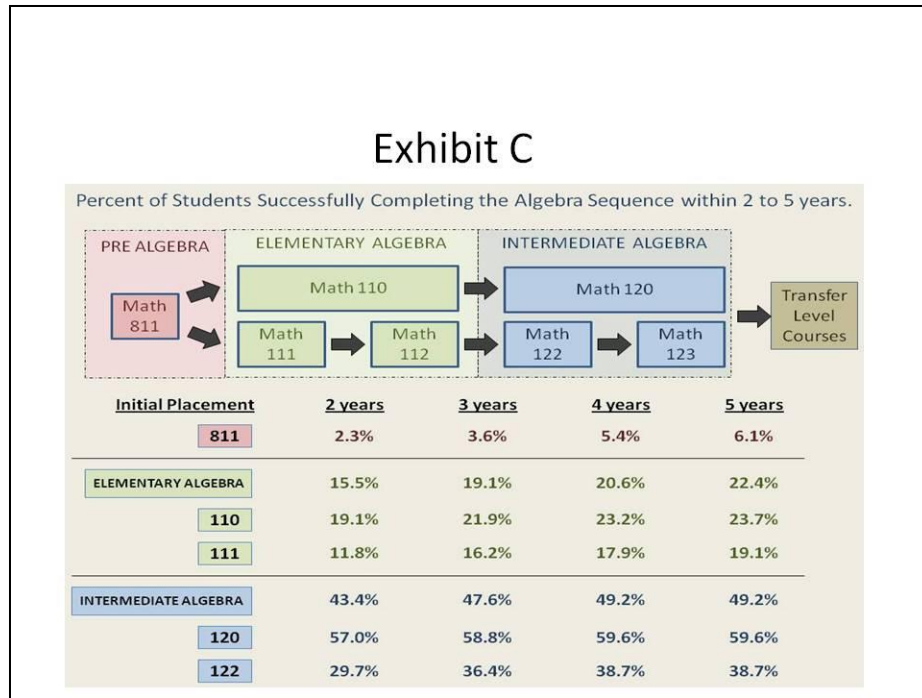
Exhibit A: A standard table format

Percent of Students Successfully Completing the Algebra Sequence within 2 to 5 Years					
Initial Placement		2 Years	3 Years	4 Years	5 Years
Pre-Algebra		2.3%	3.6%	5.4%	6.1%
Elementary Algebra		15.5%	19.1%	20.6%	22.4%
Intermediate Algebra		43.4%	47.6%	49.2%	49.2%
Initial Placement	Course	2 Years	3 Years	4 Years	5 Years
Pre-Algebra	Math 811	2.3%	3.6%	5.4%	6.1%
Elementary Algebra	Math 110	19.1%	21.9%	23.2%	23.7%
Elementary Algebra	Math 111	11.8%	16.2%	17.9%	19.1%
Intermediate Algebra	Math 120	57.0%	58.8%	59.6%	59.6%
Intermediate Algebra	Math 122	29.7%	36.4%	38.7%	38.7%

Exhibit B: The simple introduction of colors to the same table.

Percent of Students Successfully Completing the Algebra Sequence within 2 to 5 Years					
Initial Placement		2 Years	3 Years	4 Years	5 Years
Pre-Algebra		2.3%	3.6%	5.4%	6.1%
Elementary Algebra		15.5%	19.1%	20.6%	22.4%
Intermediate Algebra		43.4%	47.6%	49.2%	49.2%
Initial Course Placement		2 Years	3 Years	4 Years	5 Years
Math 811		2.3%	3.6%	5.4%	6.1%
Math 110		19.1%	21.9%	23.2%	23.7%
Math 111		11.8%	16.2%	17.9%	19.1%
Math 120		57.0%	58.8%	59.6%	59.6%
Math 122		29.7%	36.4%	38.7%	38.7%

Exhibit C: Includes both color and a simple graphic to visually illustrated the college's basic skills course sequence.



Guided Inquiry

- 1 Institutional Snapshot:** Does the change in formats change your perception of the findings? Which of these formats is most conducive to discussion? In what ways if any, do these exhibits reflect those that you have seen?
- 2 Moving Forward:** What strategies can you apply to enhance the presentation of information at your institution?

Evaluation

As part of this guide, we introduce methods for gauging the impact and success of these techniques. Evaluation is a key component to this inquiry guide, not simply as a means of measuring impact, but as a tool for refining procedures and improving the fit of these techniques to your particular college setting. Done properly, the evaluation process actually improves the effectiveness of the approaches outlined in the guide. The evaluation metrics include measures that convey among data-users the degree of awareness of key messages in the data, the degree of dialogue triggered by the information, and the extent to which the information is used as the basis for discussion about change. We also provide measures that help determine the effectiveness of various venues in disseminating messages derived from research findings.

A few examples of evaluation tools are:

- Short surveys after presentations to gauge how well the desired message was communicated
- Brief sets of questions regarding the effectiveness of communications to requesters after research services have been provided
- Structured and deliberate communications designed to surface unanswered questions and obstacles to acting on a research finding
- Cultural assessment tools including surveys that measure an increased acceptance and use of data in decision making at all levels
- Routine profiling of the volume and type of requests coming to the research office
- Tracking internal web traffic to posted research findings and data sources

Developing an Action Plan

Based on your responses to the Guiding Questions in each section of this guide, develop specific steps you could take to improve the translation of data into action at your institution. Consider each of the strategies for turning data in to actionable information.

- How can you develop a research framework that supports collaboration and dialog?
- How can you craft the message to galvanize action toward a goal?
- How can you package the findings to best reinforce desired messages?
- How can you disseminate information about the findings to the entire institution?
- How can you gather feedback and comments on the findings, revise the presentations, and move the institution further towards its goals?
- How can you craft the presentation so it presents a compelling story?
- How will you evaluate the effectiveness of your presentation? How will you gather feedback?

Identify a timeline for this action plan and assign tasks to specific members of the community as appropriate.

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*