Turning Data into Meaningful Action

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Background and Description
Questions

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

1. Creating collaborative dialogue
2. Fostering agreement on key challenges and opportunities
3. Linking ideas to action
4. Engaging the campus at higher levels
5. Encouraging thoughtful experimentation
6. Building robust formal and informal information pathways
7. Developing greater appreciation for relevance of research to college issues
Components and Strategies
Guided Inquiry

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?

MOVING FORWARD
What are the strengths and weaknesses of the processes you’ve described?
I. Research That Drives Change

Action-oriented approach and planning model:

- Founded on collaborative dialogue
- Free of unnecessary complexity
- Focuses on finding the story buried in the findings
- Identifies a very discrete set of possible actions
- Devotes greater attention on how to share the message with the college community
Linear Model for Research

Primary Responsibility

- Faculty/Staff
- Researcher

Key Features
- Request-driven
- Highly delineated tasks
- Emphasis is on generating metrics
Collaborative Model for Research

Key Features
- Dialogue-rich
- Joint process
- Development of data story key priority

Faculty/Staff
Researcher
Joint Activity

Ongoing Reflective Dialog on Student Success
II. The Institution and Collaboration

**Traditional Model**

- Diversity defined in terms of position, department, gender, ethnicity, etc.
- Encourages conventional approaches and is often subject to groupthink
- Supports the development of routine approaches

**Inquiry-Driven Model**

- Diversity defined in terms of point of view and experiences
- Supports and encourages independent thinking
- Encourages a culture of experimentation
Guided Inquiry

INSTITUTIONAL SNAPSHOT

In terms of the various frameworks illustrated, how would you describe your institution at this time?

MOVING FORWARD

What is one area of growth toward an inquiry-based model that you would like to see developed?
III. Researcher as Narrator

- Researcher is less a collector of data and more a narrator of the institution’s story who can:
  - Couch explanations in memorable and compelling format
  - Set up collaborative dialogue that focuses on action
  - Encourage data users to move from asking for key findings to asking for a compelling story
IV. Crafting the Message

Strategy 1: Distilling the Message

- Don’t spend too much time explaining the research process. This can distract audiences from the research findings.
- Create a single and simple take-away message that becomes the anchor for all other supporting information.
- Vet the research findings to a group of subject matter experts in advance of presenting the information to a broader audience to help uncover core take-away messages.
IV. Crafting the Message

Strategy 2: Framing the Story

• Memory and motivation are enhanced when information is conveyed in a story format, rather than as data points, because stories provide a framework for the information.

• Stories should:
  • Have a simple core message,
  • Be concrete and free of abstractions
  • Be credible
  • Point to clear and specific actions
  • Fit the organizational culture
Guided Inquiry

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?

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 Findings

Strategy 1: Graphs, Graphics & Visuals

- Avoid using a table when the information can be presented graphically.
- Express time-series information graphically.
- Highlight what elements you want readers to focus on when using a table.
- Use colors to link related information.
- Place all technical information in an appendix.
- Limit yourself to one message per visual and highlight that message.
V. Visually Representing Findings

Strategy 2: Techniques for Adding Emphasis

How do we tend to interpret visual information?

**Static**

- Vertical Bar Graph: Orange is bigger

**Dynamic**

- Horizontal Bar Graph: Orange is growing faster

*Initial Perception*
V. Visually Representing Findings

Techniques for Adding Emphasis

How do we tend to interpret visual information?

**Vertical Bar Graph**
- Two populations, more females than males

**Pie Chart**
- A single population composed of more females

- Initial Perception

**Exclusive**

**Inclusive**
The Single Slide Story
V. Visually Representing Findings

Context for building an Enrollment Strategy: The landscape has changed.

- Strategies that worked here
- Computer Science Dept Enrollments
- Overall College Enrollment
- Evolving Strategic Priorities: (Managing Growth) (Managing Decline) (Building Momentum)

Our strategy must consider that:
1. Recruitment strategies have changed at tech companies.
2. IT graduates are now more likely to find jobs with traditional companies.
3. Incoming students may have a different mix of motivations/expectations.
V. Visually Representing Findings

78% of first-time students are assessed into pre-transfer courses

<table>
<thead>
<tr>
<th>Fall-to-Spring Persistence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not take a Basic Skills Course their first term</td>
</tr>
<tr>
<td>Do take a Basic Skills Course their first term</td>
</tr>
</tbody>
</table>

First-Time Students Assessed into a Pre-Transfer Course

*Pre-transfer in this context refers to non-transferable courses in Math, English or Reading.*
VI. Dissemination Strategies

Strategy 1: Output Format

- **Internal Leaders and Policy-makers:**
  - a one-page executive summary of outcomes
  - a short series of slides highlighting outcome
  - a single slide story

- **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)
VI. Dissemination Strategies

Strategy 1: Output Format

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

External 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)
VI. Dissemination Strategies

Strategy 2: Venues

- Design Charrette
  - Discuss research question, design and data collection
- Reflection on Findings
  - Prioritize the findings and map a list of key messages derived from the research
- Story Development
  - Engage subject matter experts to develop the story: history, issues, messaging
- Validate the Message
  - Test the message and visuals with a diverse group of people
- Share the Story
  - Disseminate, share and discuss the stories found in the data
VI. Dissemination Strategies

Strategy 2: Venues
VI. Dissemination Strategies

Strategy 3: Pathways

- Include a fact of the day about the target research on the printed agenda for major meetings.
- Incorporate success measures in promotional materials.
- Circulate a one-paragraph summary of an interesting research finding throughout the college once week/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.
VII. Closing the Loop

Strategy 1: Focus on Goal/Anticipate Next

- Link research outcomes to a common message/goal:
  - Choosing a theme that reinforces previous findings and builds anticipation for what is to follow
  - Include comments and feedback from discussions
  - Remind audience of previous findings and use as the foundation for the new discussion
Strategic 2: Research Themes

- **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
### Exhibit A

**Percent of Students Successfully Completing the Algebra Sequence within 2 to 5 Years**

<table>
<thead>
<tr>
<th>Initial Placement</th>
<th>2 Years</th>
<th>3 Years</th>
<th>4 Years</th>
<th>5 Years</th>
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<tbody>
<tr>
<td>Pre-Algebra</td>
<td>2.3%</td>
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<td>5.4%</td>
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<tr>
<td>Elementary Algebra</td>
<td>15.5%</td>
<td>19.1%</td>
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<tbody>
<tr>
<td>Pre-Algebra</td>
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<td>21.9%</td>
<td>23.2%</td>
<td>23.7%</td>
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<tr>
<td>Elementary Algebra</td>
<td>Math 111</td>
<td>11.8%</td>
<td>16.2%</td>
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<tr>
<td>Intermediate Algebra</td>
<td>Math 120</td>
<td>57.0%</td>
<td>58.8%</td>
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</tr>
<tr>
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### Example

#### Exhibit B

The simple introduction of colors to the same table.

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Example

Exhibit C

Inquiry Guide - p. 25

Includes both color and a simple graphic to visually illustrated the college’s basic skills course sequence.

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Guided Inquiry

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?

MOVING FORWARD

What strategies can you apply to enhance the presentation of information at your institution?
Evaluation
Sample Evaluation Tools

**Short Surveys**
To gauge how well the desired message was communicated after a presentation.

**Brief Sets of Questions**
To measure effectiveness of communications.

**Structured Communications**
To surface unanswered questions and obstacles or for acting on a research finding.

**Cultural Assessment Surveys**
To measure change in acceptance and use of data decision-making at all levels.

**Routine Profiling**
To track the volume and type of requests coming to the research office.

**Internal Web Traffic**
To track use of research postings and other data sources posted on website.
Develop an Action Plan - Your Turn!

- 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?
BRIC TAP Inquiry Guide Series

1. Assessing Student Learning Outcomes
2. Using an Equity Lens to Assess Student Learning (CUE Module)
3. Assessing Strategic Intervention Points in Student Services
4. A Model for Building Information Capacity and Promoting a Culture of Inquiry
5. Assessing and Planning for Institutional Effectiveness
6. Assessing Basic Skills Outcomes
7. Maximizing the Program Review Process
8. Turning Data into Meaningful Action
9. Research and Assessment for Noncredit Institutions

http://www.rpgroup.org/content/BRIC-inquiry-guides
The RP Group
www.rpgroup.org

The BRIC Initiative
http://www.rpgroup.org/projects/BRIC.html

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