

**Using Technology to Build Collective
Responsibility for Improving Student Learning:**

*Two Universities Collaborate To Develop One
Organizational Learning Environment*



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Presenters

University of Nebraska – Lincoln (UNL)

- Jeremy Penn, Assessment Associate for PEARL, Office of Undergraduate Studies
- Nancy Mitchell, Professor of Advertising

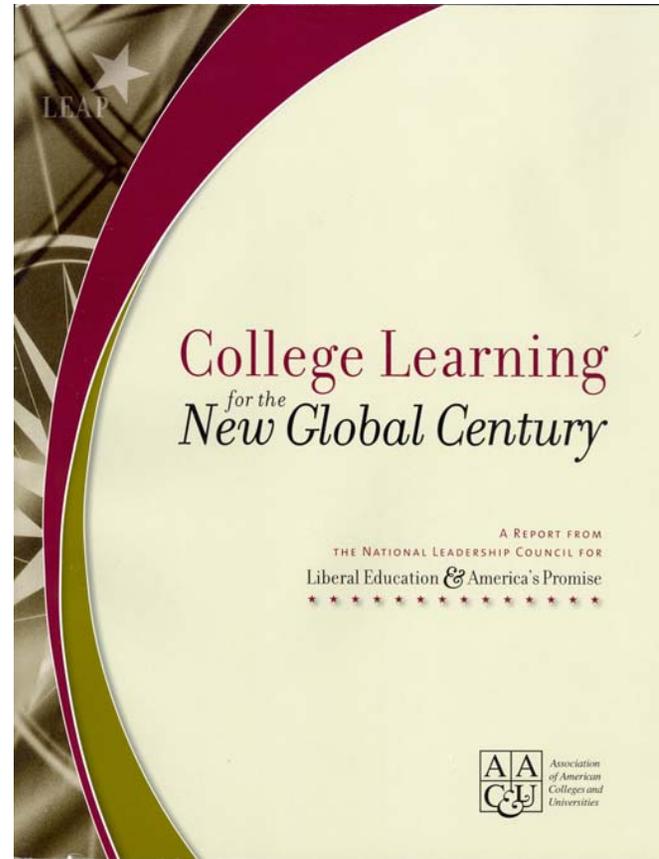
Colorado State University (CSU)

- Kim Bender, Director of Assessment



AAC&U's Challenge

“[U]se assessment to deepen learning and establish a culture of shared purpose and continuous improvement”
(p. 26).



Learning and Change

- Change can occur without learning
 - A “need to do something”
- Learning can occur without change
 - “walk the talk”

Organizational Learning

Brings change and learning together

Critical Components

Successful systems:

- Are imbedded in institutional culture
- Utilize existing structures
- Reward faculty engagement
- Generate efficiencies
- Emphasize improvement not accountability

Themes

- 1: Using Technology to Encourage Continuous Improvement Process and Collective Responsibility
- 2: Connecting Assessment to the Existing Institutional Culture to Affect Change from the Inside Out
- 3: Faculty members' roles and indicators of impact

Background

- “PRISM” or “PEARL”
- Florida Atlantic to Colorado State
- Colorado State and University of Nebraska-Lincoln partnership in 2004
 - Details on implementation: Jonson & Bender, 2007

PRISM Technical Details

- ColdFusion 7 on Windows 2003 Server
- Backend Microsoft SQL Server 2005
- Fit on a single CD

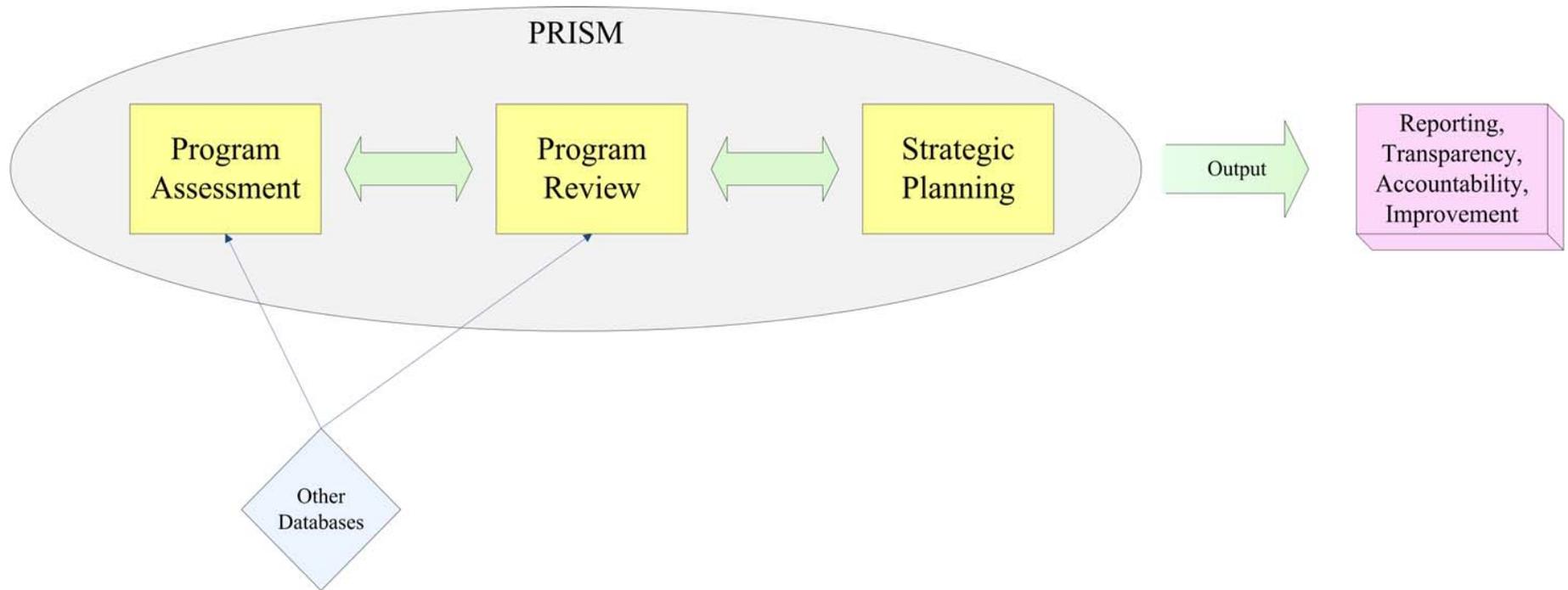
PRISM Technical Details

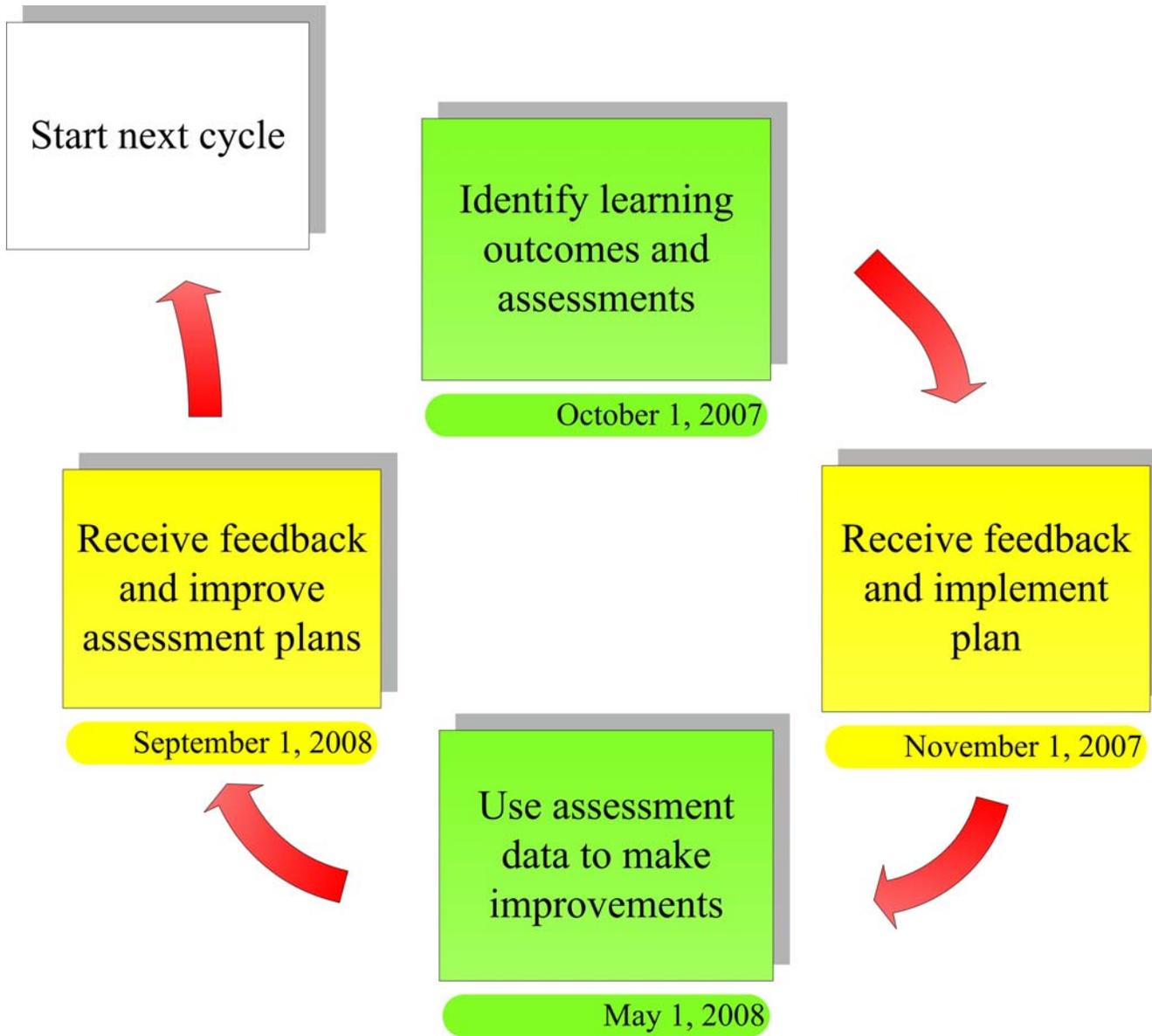
- Full code is about 60,000 lines
- Program assessment is 15,000 lines
- Windows XP is about 40,000,000 lines

Key Software Functions

- Reporting database over time
- Peer review mechanism for feedback
- Electronic summaries for writing reports
- Tracking through steps

Basic PRISM Framework





Program Assessment Example

Outcome 1: School of Natural Resources

Description & Methodology

By their senior year, natural resource majors will be able to write effectively and to communicate research results and opinions in a manner appropriate to an audience.

Peer Review

Peer Review Team Comments

[Excerpt] Outcome: Well-developed. The outcome is clear and uses active verbs to describe what students are to have learned. Are the papers intended to be written for any audience, or a specific audience? If it is specific, please clarify.

Response

Program Leader Response

Thank you for your comments. We have modified the outcome and...[program leader describes changes to other sections of the plan].

Results

Summary of Evidence and Results for Outcome 1

[Excerpt] We found that students taking upper division Natural Resources courses struggle with the writing of a well organized, logically presented paper. We also found that there were, at times, fundamentally different expectations for what constitutes “good writing” from the faculty members.

Use

Use of Evidence and Results for Outcome 1

[Excerpt] We are planning on using our results to apply for a local grant to fund a retreat and workshops on ways we can help students improve their writing.

Impact

- Software facilitated faculty members' investigation into student learning
- Change connected to learning
- Student learning more visible

Implications

- Could implement without technology
 - but would be much more difficult
- Do not overlook the “human side”
 - Build expertise incrementally over time

Benefits of Using Technology

- Manage reporting and feedback
- Link “upstream” and “downstream”
- Archive activities over time
- Enhance collaboration
- Create reports of activity

Theme 2

Connecting Assessment to
the Existing Institutional
Culture to Affect Change
from the Inside Out

Improving How Institutions Study Themselves

Most successful organizations today, regardless of the work they do, are trying hard to become effective ‘learning organizations’ that engage in an ongoing process of improvement by constantly evaluating their performance, identifying problems, trying various remedies, measuring their success, discarding those that do not work, and incorporating those that do. In theory, universities should be leaders in such efforts, since they have pioneered developing methods for evaluating other institutions in the society. In fact, however, they leave a lot to be desired when it comes to working systematically to improve their own performance. (Bok, 2006, p. 316).”

Connecting Assessment With Existing Academic Culture

- Philosophy of Truth-Making: The Testing of Ideas
- Learning Assessment Used as Instruction
- Assessment that Defines the Quality of Faculty Research
- Assessment that Defines the Quality Faculty Service

Connecting Assessment With Existing Academic Culture

- Connecting Assessment to Institutional Planning and Evaluation
- Organizational Learning Environments & the Collective Pursuit of Improvement
 - Department
 - College
 - Institution
 - Inter-Institutional
- Public Transparency & Leveraging Assessment Information

Connecting Assessment With Existing Academic Culture

- Continuous Improvement PROCESS and Its Measurement
- Mitigating the negative factors of higher education's organizational behavior
- Studying the impact of systems on the development of a faculty culture that values systematic improvement.
- NASULGC and AASC&U

Toward a Public Universities and Colleges Voluntary System of Accountability for Undergraduate Education

Theme 3

Faculty roles and indicators of impact on
faculty culture

PRISM Roles

Communicate, Advise, Share, Assist



Communicate, Coach, Lead, Organize, Assist



Steering
Committee

Peer
Reviewers
(Faculty)

Program
Leaders
(Faculty)

Program
Faculty

Students

More on PRISM Roles

- UNL
 - 19 peer reviewers
 - Over 50 program leaders
- Worked from the “ground-up”

Faculty Development

- Changing the culture
 - Less work, better data
 - Across disciplines
- Trained and oriented faculty
- Most importantly, the system encourages ongoing faculty growth through the feedback mechanism

Indicators of Impact at UNL

- Increase in:
 - Use of direct assessment methods
 - Complexity of outcomes (e.g., leadership, teamwork, etc.)
 - Use of results
 - Number of “well-developed” components as judged by Peer Reviewers

Impact on Culture

“Initially [faculty in my program] were reluctant [to participate]...we discussed that it was to be grass-roots, involve far more faculty in the process than just 1 or 2 members of the department, and how it really addressed issues we’ve been thinking about for 20 years, and it gave us a formal way to approach those [issues]. [That discussion] helped - it became a positive process within the department...it turned it around.”

Impact on Culture

Areas of Success

Inspired department interest and engagement

“PEARL helped me understand that assessment doesn’t necessarily interest faculty but using it as a tool to gain insights about and improve the curriculum does.”

Impact on Culture

“Every year we have a teaching retreat where we discuss issues that are troubling us, or hurdles that you want to get over in terms of curriculum development or renewal, and we’ve never had a structure for that. The PEARL website and that PEARL handbook was a huge help, people saw it and said, “wow this is really useful, there are some great tips in here””

Impact on Culture

...These are a bunch of soil scientists, plant genomics people and none of us really have any experience in putting our curriculum together let alone have any formal background in education. So it really helped us a lot...we had a tool, some structure we could put on the process that we really never had before and that's really what helped."

The Future

- Steps to join in partnership
- Future plans for developing the system

Audience Discussion

Questions

Thank you for attending!

References

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- Jonson, J., & Bender, K. (2007). Use and impact of a quality enhancement system: A tale of two universities. *A collection of papers on self-study and institutional improvement: Prepared for the 112th Annual Meeting of the North Central Association* (Volume 1), Chicago, IL, 65 – 68.
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For More Information

Download slides:

www.unl.edu/ous/pearl/conferences.shtml

UNL PEARL:

www.unl.edu/ous/pearl/pearl.shtml

CSU PRISM Transparency Site:

improvement.colostate.edu

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