

# CHARTING THE COURSE



Planning Efficient and Effective Approaches to Assessment and Evaluation

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## A Quality Evaluation System

- Comprehensive
  - Evaluates the most critical determinants of success of each area of the mission
- Valid
  - Aligned with vision, mission, goals, plan
  - Measures what is intended
  - Has appropriate consequences
- Reliable
  - Reflects the performance, not measurement error
- Constructive
  - Leads to continuing improvement
- Feasible and Timely



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## Quality By Design

- Design models in the literature:
  - Arreola RA. *Developing a Comprehensive Faculty Evaluation System*
  - Collins W. *Methodology for Designing a Program Assessment System* in Beyerlein et al., *Faculty Guidebook*
  - Miller BA. *Assessing Organizational Performance in Higher Education*



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## Backward Design Methodology

- A Systematic Methodology:
  - Provides structure
  - Yields quality outcomes
  - Aids communication
- Three Stages:
  - Assessing the mission
  - Defining quality
  - Creating and using measures of performance

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## Assessing the Mission

- Description of each area of the mission - scope and goals
- Stakeholders' Interests
- Inputs - people, money, tools
- Processes – administrative, educational, scholarly, practice
- Outcomes – reports, learning, satisfaction, change, sanctions



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## Defining Quality

- Choose what to evaluate:
  - What accounts for 80% of the quality in each area of the mission?
- Identify quality criteria
  - Systematically, from the perspective of the most critical stakeholders

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## Criteria for Dean

- Criteria are contextual
  - Need to look from the perspectives of critical stakeholders

Students	Faculty	Provost
Communicator	Visionary	Leader
Responsive	Communicator	Team builder
Mediator	Mentor	Fund raiser
Role model	Facilitator	Manager
Empathic	Advocate	Quality oriented
Visible	Ethical	Fiscally responsible

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## Table of Measures

Area	Criteria	Instrument	Standard	Who
Teaching	Expertise Instructional design Instructional delivery Evaluation Management	Student surveys	At least ¾	Department chair
		Course Evaluation Report (with rubric) Peer SII	Level 3 (of 4)	Faculty member
			Continuous improvement	Peer mentor
Research	Goals Preparation Methods Communication Critique	Peer reviews from grants and submitted publications	Etc.	Etc.

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## Implementation

- Distributed accountability
  - Specified in table of measures
  - Follow up
- Documentation systems
  - TracDat
  - ?
- Full circle
  - Using the data
  - Modifying the instruments and system with lessons learned

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**What's Worked**

- SUNY Buffalo
  - Building a culture of assessment in faculty and students
  - Developing a long-term plan systematic and integrative process (2000-present)
  - Sticking with it!

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**Building a Culture – Lessons Learned**

- Faculty Development Workshops and programs on assessments in both departments
- Taking small steps – “Start low and go slow” (but not too slow)
- Continue to read and learn
- Thinking with the end in mind for short and long-term educational goals
- Build a team of supporters
- Continue to articulate the goals
- Stay Positive - Keep your chin up!

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**Process Based: Modified Logic Model**

<p><b>WHAT ARE THE GOALS?</b></p> <ul style="list-style-type: none"> <li>What are your resources and inputs available?</li> <li>What are the type of activities that you can do?</li> <li>What are your outputs and short-term outcomes?</li> <li>What are the long-term impacts?</li> </ul>	<p><b>EVALUATION</b></p> <ul style="list-style-type: none"> <li>Two Components           <ul style="list-style-type: none"> <li>Formative: How well are the processes working?</li> <li>Summative- How well have the expected outcomes been achieved?</li> </ul> </li> </ul>
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**An Example: Evaluations, Focus Groups and Surveys**

<p><b>WHAT ARE THE AVAILABLE RESOURCES?</b></p> <ul style="list-style-type: none"> <li>New availability of course/instructor on-line evaluations</li> <li>Previous designed curricular outcomes surveys based upon CAPE Guidelines (prior to the new AACP surveys)</li> <li>Students</li> </ul>	<p><b>WHAT ACTIVITIES CAN WE DO?</b></p> <ul style="list-style-type: none"> <li>Improve quality of the questions for the course and instructor evaluations?</li> <li>Develop guidelines and centralize the evaluation process</li> <li>Establish a process of semester student focus groups</li> <li>Implement new curricular outcomes surveys</li> </ul>
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**Processes and Outcomes**

<p><b>OUTPUTS AND SHORT TERM GOALS - FORMATIVE ASSESSMENT</b></p> <ul style="list-style-type: none"> <li>Best practices for faculty members to encourage meaningful student participation in course and instructor evaluations.</li> <li>Optimize the best process for which students will/should be involved in focus groups.</li> <li>Build student/faculty interest and involvement in focus groups</li> <li>Identify means to get most student involvement in curricular outcomes surveys.</li> </ul>	<p><b>LONG-TERM IMPACTS AND SUMMATIVE ASSESSMENT</b></p> <ul style="list-style-type: none"> <li>Actual incorporation and utilization of course and instructor evaluation results in course/curricular improvement.</li> <li>Long-term view and utilization of student focus group comments in curricular improvement.</li> <li>Triangulation of curricular outcomes surveys with student focus groups and curricular mapping.</li> </ul>
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### Challenges and Opportunities

- Resources available for assessment and how to achieve the goals.
- Being willing to get involved initially – takes time, patience and determination.
- Training of individuals to assist in key assessment programs with time.
- Continue articulating the advantages and what we are learning from the processes and outcomes for assessment.

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### What's Worked

- University of Pittsburgh
  - Student Learning Outcomes: Assessment Matrix
  - Long Range Plan 2012:
  - Progress At a Glance (PAGE)

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### Student Learning Outcomes

- 13 Curricular Outcomes
  - 6 General Outcomes
  - 7 Practice Outcomes
- Direct and Indirect Measures
- Annual Updates to Provost's Office
  - Tied to University Accreditation by Middle States
- Interface Between Curriculum Assessment and Curriculum Committees

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## Excerpt from Assessment Matrix

Learning Outcomes <i>What will students know and be able to do when they graduate?</i>	Assessment Methods <i>How will the outcome be measured? Who will be assessed, when, and how often?</i>	Standards of Comparison <i>How well should students be able to do on the assessment?</i>	Interpretation of Results <i>What do the data show?</i>	Use of Results/Action Plan <i>Who reviewed the finding? What changes were made after reviewing the results?</i>
Patient Assessment	<u>Direct</u> Case analysis notes	100% of evaluated case analysis notes score $\geq$ 80%.	P1, Silver Scripts: 95% scored $\geq$ 80%. P2, APC 1: Case #1: 85% scored $\geq$ 80%; Case #2: 90% scored $\geq$ 80%. P-3 APC 2: 97% scored at or above 80%.	The CAC referred findings to the CC with recommendation to consider a rubric to facilitate case grading. Consider distribution of grading rubric to students prior to activity.
	<u>Direct</u> Blood pressure measurement	80% correctly measure systolic and diastolic BP within 5mm Hg.	P1: 90% correctly measured BP within 5 mmHg. P2: 95% correctly measured BP within 5 mmHg .	Data reviewed by CAC. No specific action recommended to CC. Monitoring will continue.

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## Curricular Changes

The CAC referred findings to the Curriculum Committee with recommendations to consider a standardized rubric to facilitate case grading. Further monitoring of performance and recruitment of additional data sources is planned. Consider distribution of grading rubric to students prior to activity.

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## Curricular Changes

Faculty will be engaged in discussions to develop a consistent grading rubric for oral presentations in earlier professional years to reinforce these skills in addition to assessment of scientific knowledge.

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### Curricular Changes

Based upon previous assessment data, instructors increased minimum competency standards to 80% of two consecutive examinations for this year. Students were able to meet the higher targets for each examination.

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### ACPE ETR...

Use of the Assessment Matrix, initially designed for use in Middle States accreditation in 2007, has proven to be a valuable tool for identifying strengths and areas in need for improvement.

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### Long Range Plan 2012 Mission

The School of Pharmacy is committed to improving health through **excellence**, **innovation**, and **leadership** in education of pharmacists and pharmaceutical scientists, in research and scholarship, in care of patients, and in service to our communities.

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**Long Range Plan 2012  
Strategic Outcomes**

- Educating the Next Generation of Pharmacists and Pharmaceutical Scientists
- Advancing Human Health through Research
- Enhancing the Health of the Community through Partnerships
- Enhancing Our Capabilities through Increased Efficiency and Effectiveness
- Securing an Adequate Resource Base

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**Progress At a Glance (PAGE)  
School of Pharmacy: June 22, 2009**

- / Long-Range Plan did not exist or item not part of the Long-Range Plan
- Introduced to the Long-Range Plan
- Not addressed that year
- ✓ Completed, implemented, maintained and does not begin again next year
- Intervention or change in plan needed
- Satisfactory Progress

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Objective #/ Measure #	Measure	Target	FY02	FY08	Status Indicator
<b>National Leader in Pharmacy Education</b>					
PharmD Program Excellence					
2/2f	NAPLEX pass rate, first attempt	≥ 95%	96.4%	100%	■
Innovation and Leadership					
4/4d	Faculty grants related to teaching/assessment (#)		0	3	■
<b>Research School of Distinction</b>					
Excellence					
22/22a	Ranking based on NIH funding	Top 10	6	15	■
<b>Securing an Adequate Resource Base</b>					
Faculty Excellence					
4/4,6b	Board certified (#)		15	23	■

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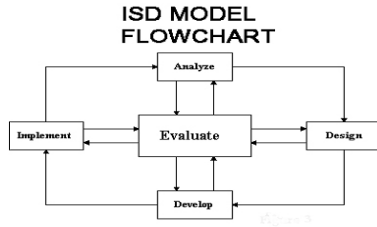


# Instructional System Development

Seawright & Williams BYU  
AEA Annual Meeting, Portland, OR Nov 2006

The ADDIE model

Slide courtesy of  
Dr. Larry  
Seawright, BYU




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# Doing the Poka Yoke!

- Poka-yoke (ポカヨケ, Poka-yoke) – pronounced “POH-kah YOH-keh” – is Japanese term that means “mistake-proofing” – avoiding (yokeru) inadvertent errors (poka).
- A behavior-shaping constraint, or a method of preventing errors by putting limits on how an operation can be performed in order to force the correct completion of the operation.
- The concept was formalized and the term adapted by Toyota as part of their production system.
- Originally described as Bake-yoke (“fool proofing” or “idiot proofing”) later changed to milder Poka-yoke

Source: <http://en.wikipedia.org/wiki/Poka-yoke>. Accessed June 24th, 2010

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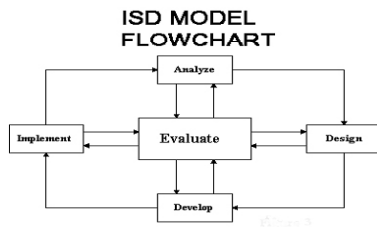
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# Can We Poka Yoke Education?

Seawright & Williams BYU  
AEA Annual Meeting, Portland, OR Nov 2006

The ADDIE model

Slide courtesy of  
Dr. Larry  
Seawright, BYU




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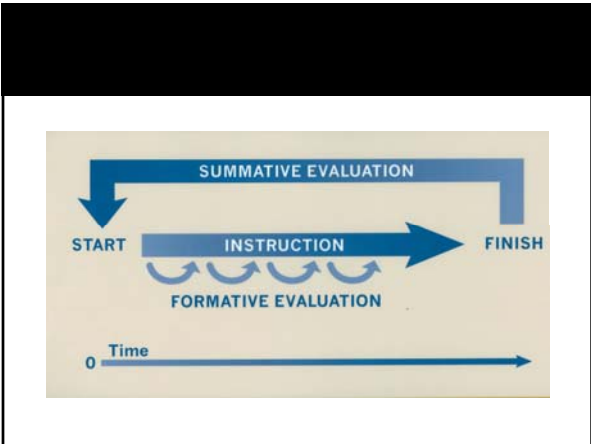
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### Student Focus Groups for Formative Evaluation of Instruction.

Objectives:

- Provide course coordinators (and instructors) with student feedback in order to make adjustments to enhance the learning experience while instruction was "in-progress".
- Permit current students to experience and benefit from the results of their feedback.
- Facilitate a broader communication among students and faculty regarding our curriculum and our teaching and learning endeavours.
- Assess the feasibility and usefulness of student focus groups as a means to provide formative evaluation of instruction.

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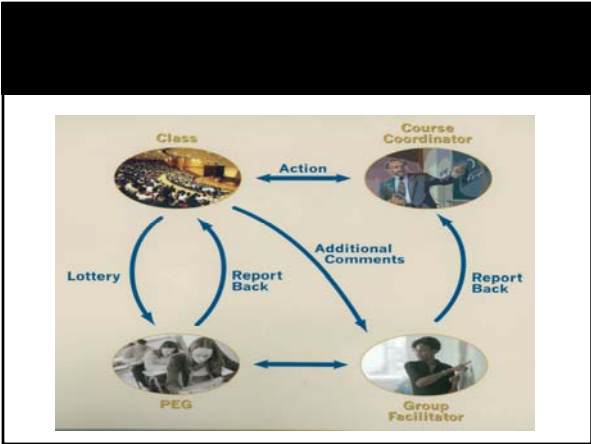
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### Result and Conclusions:

Feasibility –

- On average, each PEG meeting required 5.5 hours of staff time. Time spent on preparation was probably reasonable but the time spent on meeting follow-up was extensive and probably not cost-effective. Given available resources, running the PEG across four program years concurrently was too ambitious.

Representation –

- 74 % of the students indicated that they recall receiving the PEG summary reports when distributed to their class (14% could not recall). The majority of these individuals indicated that they read all the reports (54%) or at least some of the reports (40%). While the majority of students were in general agreement with the issues raised by the PEG, approximately 13% of respondents felt that the issues “rarely” or “never” reflected their own experiences or opinions.

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### Value – Students

- The majority of students “strongly agreed” (54%) or “agreed” (33%) with the statement that they “valued my participation in the PEG process this year.”
- “I feel that it was a very positive experience and I am very glad that I was part of it. I feel that it had a positive impact on us (students) and the faculty! Thank you!!”*
- Some were less supportive of the approach.
- “The idea of PEG has much potential, but students in our year have this sense of entitlement, and so, as it is right now, PEG will never fly because of its format. All PEG did was provide a faculty sanctioned forum for students to whine in. These complaints were then jotted down and sent out for faculty members and students to read. How is this progress? ... some of the issues raised in PEG meetings were juvenile and would be non-issues in any other faculty.”*

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### Value –Course Coordinators

- PEG process was of “moderate” value. To some degree, the value attributed by course coordinators/instructors may have been reflective of their experience in academia.
- “It was valuable to know, especially as a new faculty member developing a new course that the students were happy with how my course was going. It gave confidence that I was on the right track. I really appreciate the immediate feedback.”*

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## Usefulness of feedback

- As a result of the PEG feedback, the most common changes were to the format of lecture notes/teaching methods/styles. At best however, feedback was used only occasionally to make immediate adjustments to address student concerns.
- "I do not agree with making adjustments based upon 1 or 2 focus groups. If comments are the same from year to year then I agree with adjustments being made." (Faculty member)*
- "Our course...has 5 instructors, so changes due to the PEG will always be behind." (Faculty member)*
- "The problem is the process in that a lot of the changes we were suggesting were ones that couldn't really be changed for the current term. The suggestions the PEG groups make should be considered when determining changes for future terms and years of the courses." (PEG participant)*

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## Unintended Positive Consequences

- Better feedback.
  - "I think that the feedback was more thorough because we were giving feedback as the class was unfolding. When you're giving feedback at the end of term, it's hard to remember stuff that happened in September unless it was an absolute disaster and really stuck in your mind."*
- Feeling valued.
  - "I did notice that some instructors really did take our opinions and concerns to heart and attempted to adjust the course. This was empowering as it made me feel as though we really do matter (such a favourable change from a very large program)."*

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## Unintended Negative Consequences

- Evaluation Fatigue
  - "I feel that I am not alone in saying that we (faculty) are tired of being evaluated. (just like the students are). We have the PEG process, the course evaluation and the teaching evaluation. How much evaluation do we need? I think the students are over-evaluated, so how much weight should we be putting into their feedback when we don't know how seriously they are taking the process?" and "Lastly, I just want to add that I think we are asking for too much input from students about our curriculum. No wonder they feel they can tell us what they don't like about it (in a non-constructive way)....we keep asking for it!"*

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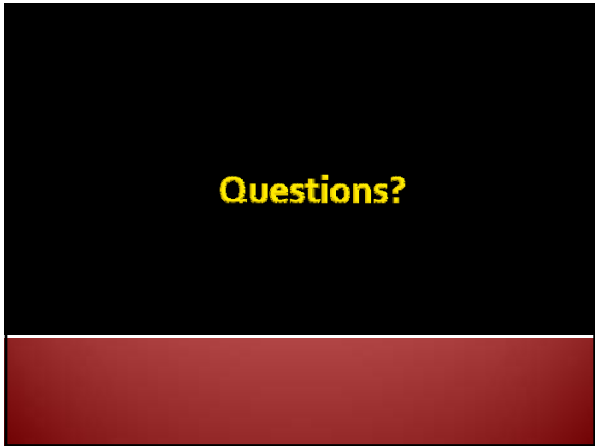
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