

Assessing Graduate Programs in Doctoral Research Universities

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Workshop 19

2006 Meeting, SACS Commission on Colleges
Orlando, Florida December 10, 2006

Guidelines for this Presentation

- Please silence or turn off cell phones.
- We will leave time at the end for general discussion, please feel free to raise questions at anytime during the presentation.
- We are very interested in your participation.

Presentation Disclaimer

- Smorgasbord approach – not everything will be appropriate for all (pick & choose).
- Don't try to do it all at once.
- Don't expect to get it right the first time.
- Tailor your approach to the culture and climate of your institution.

Workshop Objectives

By the end of today's workshop, participants should be able to:

- Articulate the linkage between graduate program assessment and the overall process of institutional effectiveness;
- Define faculty expectations for graduate students, and distinguish them from operational objectives;
- Articulate the concept of and importance of an assessment plan;
- Articulate a taxonomy of graduate assessment approaches and specific methods for graduate assessment; and
- Analyze and suggest improvements to a graduate program's assessment efforts.

Language

- At William and Mary, language was a sticking point when we started discussing institutional effectiveness. Suggestions:
 - Feel free to develop and use your own terms
 - Keep it consistent across the institution
 - Produce and maintain a glossary of terms

Group Exercise: Departmental Climate Assessment

- What information about a department would you like to know?
- How might you get that information, and from whom?
- How would you share information within the department, and how would you use it to implement any changes deemed necessary?

Why Assess Graduate Programs?

- We are all interested in the quality and improvement of graduate education.
- “To change or improve an invisible system, one must first make it visible”
 - Schilling and Schilling, 1993, p. 172.
- To help satisfy calls for accountability
- **Accreditation requirements for Institutional Effectiveness**

Graduate Effectiveness

Principles of Accreditation,

Comprehensive Standards 3.6.2:

“The institution ensures that its graduate instruction and resources foster independent learning, enabling the graduate to contribute to a profession or field of study.”

Assessment in Graduate Programs

- “We are educating the next generation of experts in our disciplines. We should be curious about how we are educating those future experts and the pedagogy that underlies that education.”

- Peggy Maki (2006)

National Research Council and Council of Graduate Schools

- **NRC 2006 Assessment of Research Doctoral Programs**, the latest study is currently underway and it offers an 'interesting' example of program assessment.
- Also see: **Council of Graduate Schools'** policy statement "Assessment and Review of Graduate Programs" (2005 ed.) for cohesive recommendations on graduate review and assessment.

Institutional Effectiveness: A Definition

- “The heart of any definition of **institutional effectiveness** remains the ability of an institution to match its performance to established purposes as stated in its mission.”

- Peter Ewell

Institutional Effectiveness...

- Raises the unit of analysis through assessment of student learning and support service functioning at the **unit** level to the **institution** level via
 - Linked levels of institutional planning;
 - Linked levels of reporting on results; and
 - Linkage among processes of planning, assessment, and resource allocation.
- Includes assessment of activities throughout the institution: Instruction, research and public service, administrative services, and educational support services.

Promoting IE



So What Do We Need to Do?

- Do our departments have a clear purpose statement linked to institutional mission?
- Do we have assessment plans to evaluate the effectiveness of our degree programs?
 - **Do our degree programs have clearly defined faculty expectations for students?**
 - **Are they published and are they measurable or observable?**
 - **Do we obtain data to assess the achievement of faculty expectations for students?**

So What Do We Need to Do?

(Cont.)

- Do we document that assessment results are used to change or sustain the excellence of program activities and further student gains in professional and attitudinal skills and experiences?
- Based on assessment results, do we reevaluate the appropriateness of departmental purpose as well as the expectations for students?

The amount of work needed to develop a successful institutional effectiveness process (or satisfy accreditation requirements) is proportional to the number of **'No'** responses to the above questions.

IE Chart

Process of Institutional Effectiveness (PIE)

1.) Overarching Mission of the Institution

2.) Purpose or Primary Function of the Unit or Program

3a.) Faculty Expectations state the desired **student learning** results associated with the unit's or program's purpose.

3b.) Operational Objectives state the desired **operational results** of the unit's purpose or function.

4.) Practices or experiences that are performed relative to the 'faculty expectations' or 'operational' objectives.

5.) Standards or processes for measuring obtainment of desired expectations and/or objectives.

6.) Collection of data to measure obtainment of desired expectations and/or objectives.

7.) Evaluation of findings and recommendations for change when necessary or actions to sustain excellence.

Operational Objectives

- Increase the number of quality applicants to the program.
- Increase yield rates.
- Decrease program time-to-degree.
- Increase the number of research proposals.
- Increase faculty salaries relative to peers.

Faculty Expectations

Faculty expectations (or student learning outcomes) are directly related to student learning experiences within the degree program.

Common Faculty Expectations at the Graduate Level

Students will demonstrate **professional** and **attitudinal** skills, including:

- Oral, written, and mathematical communication skills;
- Knowledge of concepts in the discipline;
- Critical and reflective thinking skills;
- Knowledge of the social, cultural, and economic contexts of the discipline;
- Ability to apply theory to professional practice;
- Ability to conduct independent research;

Common Faculty Expectations at the Graduate Level (continued)

Students will demonstrate **professional** and **attitudinal** skills, including:

- Ability to use appropriate technologies;
- Ability to work with others, especially in teams;
- Ability to teach others; and
- Demonstration of professional attitudes and values such as workplace ethics and lifelong learning.

Case Study

- See case study handout
- Doctoral program in Physics at Muggy Research University (MRU)
- First time through their assessment process
- Data in hand: What now?
- You are the consultants!

Case Study: Debriefing Questions

- What do you see in the results?
- Do you see linkage between the assessment information and the objectives and expectations?
- Considering the program purpose, objectives, and expectations for learning, what should they do next time?
- How would you describe the plan that this department used to guide the graduate assessment activities?

Develop an Assessment Plan

Desirable characteristics for assessment plans: (Palomba and Palomba, 1999)

- Identify experiences and assessment procedures to address learning expectations;
- Use procedures such as sampling student work and drawing on student experiences where appropriate;
- Include multiple measures;
- Describe the people, committees, and processes involved; and
- Contain plans for using assessment information.

Focusing Efforts

It is important to achieve a **strategic focus** for the program, decide what knowledge, skills, abilities, and experiences should characterize students who graduate from a program...

Don't Overdo It!



What is Important to Measure?

To decide this, it is first vital to ask:

- What are our strong areas?
- What are our limitations?
- What do we want to accomplish in
 - Education of students?
 - Research?
 - Service?

Words to Remember When Starting an Assessment Plan

- The process **must** be meaningful to faculty.
- It may be best to tackle the modest expectations first.
- Assessment plans should recognize that students are active participants and share responsibility for their learning experience along with the faculty and administration.
- It takes a long time to do assessment well, so be patient and be flexible.
- The overriding goal is to improve educational programs, not to fill out reports or demonstrate accountability.

Intermission



CONSULTING

IF YOU'RE NOT A PART OF THE SOLUTION,
THERE'S GOOD MONEY TO BE MADE IN PROLONGING THE PROBLEM.


The Shift to Student Learning in the Research University

- “The shift to student learning poses many questions:
 - Can we change the structure of higher education so it measures students' progress by their learning achievements rather than by how long they sit in a classroom?
 - Is our curriculum structured and coordinated in such a way that facilitates interdisciplinary thinking?
 - Can we more fully exploit technology to enhance student learning at less cost?
- The answers to all of these questions are much easier if we focus on learning outcomes.”
 - Harvey Perlman, Chancellor,
University of Nebraska-Lincoln (2004)

Why Describe Faculty Expectations for Students?

- To focus on student learning as core to educational mission
- To emphasize collective ownership and intentionality in design and delivery of curriculum
- To inform and motivate students
- To build and sustain program excellence over time through a process of institutional effectiveness
- To involve faculty completely in the process of institutional effectiveness and use evidence (not anecdotes) to improve student learning
- To meet external standards for accountability

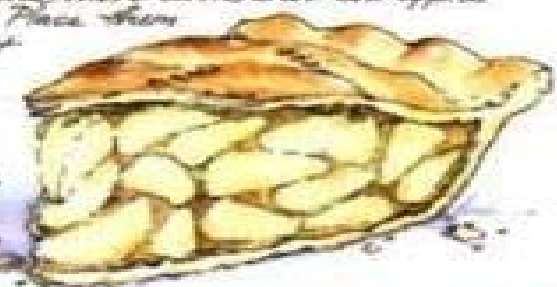
First, a Tasteful Context...



Apple Pie

- PIE DOUGH
- 5-6 cups APPLES
- $\frac{1}{2}$ - $\frac{3}{4}$ cup SUGAR
- $\frac{1}{2}$ tsp SALT
- $\frac{1}{2}$ tsp CINNAMON
- 1-1 $\frac{1}{2}$ Tbsp CORNSTARCH
- $\frac{1}{2}$ Tbsp BUTTER
- 1 Tbsp LEMON JUICE

Line a 9-inch pie pan with crust. Peel, core and slice apples. Combine sugar, salt, cinnamon and cornstarch and sift over the apples. Only very tart apples need more sugar. Very juicy apples need more cornstarch. Stir apples gently until well coated. Place them in layers in pie shell. Dot apples with butter, and sprinkle with lemon. Cover pie with crust and prick with fork. Bake at 450° for 10 minutes. Reduce heat to 350° and bake 37-45 minutes or until golden brown.



Describing Expectations for Apple Pie...

- What are our expectations for a great apple pie and what criteria would we use to ascertain if our expectations are met?
- What would be some good methods for us to check and see if our expectations are being met?
- What point(s) would be a good time to do so?
- What would we call success? What would it look like?

Describing Our Pie Expectations...

- What's one criterion for a good pie?
 - It's baked all the way through.
- How can you tell if it's baked?
 - Direct method: taste test
 - Indirect method: color of crust.
- When would we check this out?
 - End of baking cycle.
- What would success look like?
 - First bite melts in mouth (direct measurement).
 - Crust is golden brown color (indirect indicator).

From Pie to Students: Describing Faculty Expectations

- Think in terms of end results. What should students be able to know, do, or value when they finish the program?
- How would we know they know? What criteria would we use to form a judgment?
- What method would we use to see if our expectations have been met?
- When would we conduct measurements?
- What level of performance would we call a success?

Faculty Expectation Example: Master's in Music Composition

- **Expectation:** Master's composition graduates will synthesize the musical language of 20th Century composers in their work.
- **Some possible sources of evidence:** student portfolios, course portfolios which include student work
- **Possible ways to measure:** 3 faculty raters use a simple rubric designed for this purpose to rate student work - collected in student and/or course portfolios
- **When to Measure:** end of 1st year; master's performance of their works at end of 2nd year.
- **Possible Standard for Success:** successful synthesis (defined in rubric) of harmonic, rhythmic, formal and scalar materials into student's compositional vocabulary. Evidence may include student work from selected courses, culminating experiences (e.g., exam/performance).
- **Possible Uses of Results:** an instructor redesigns an assignment, the faculty restructures the sequencing of courses (adds a new course), the dean allocates resources for software or even a new faculty line.

Developing Faculty Expectations

Top down or Bottom up (Palomba and Palomba, 2001)

- Top Down – As a group of scholars, decide what are the important learning expectations for the program.
- Bottom Up – Identify the primary learning expectations of the courses in the program and use this list to develop overarching program expectations.

Your Turn!

Develop Faculty Expectation

- Get together in your small groups.
- With your group, develop a faculty expectation related to communication skills.
- Consider: What dimensions of communication are important?

Principles of Graduate Assessment

- Decide what is important to measure.
- Clearly differentiate levels of expectations among degree types (i.e., master's, first professional, doctoral level).
- Make assessment responsive to more individualized nature of programs.
- Assessment of real student works is preferable; students already create many of the products we can use for assessment! (see rubric example in appendix)

Principles of Graduate Assessment (continued)

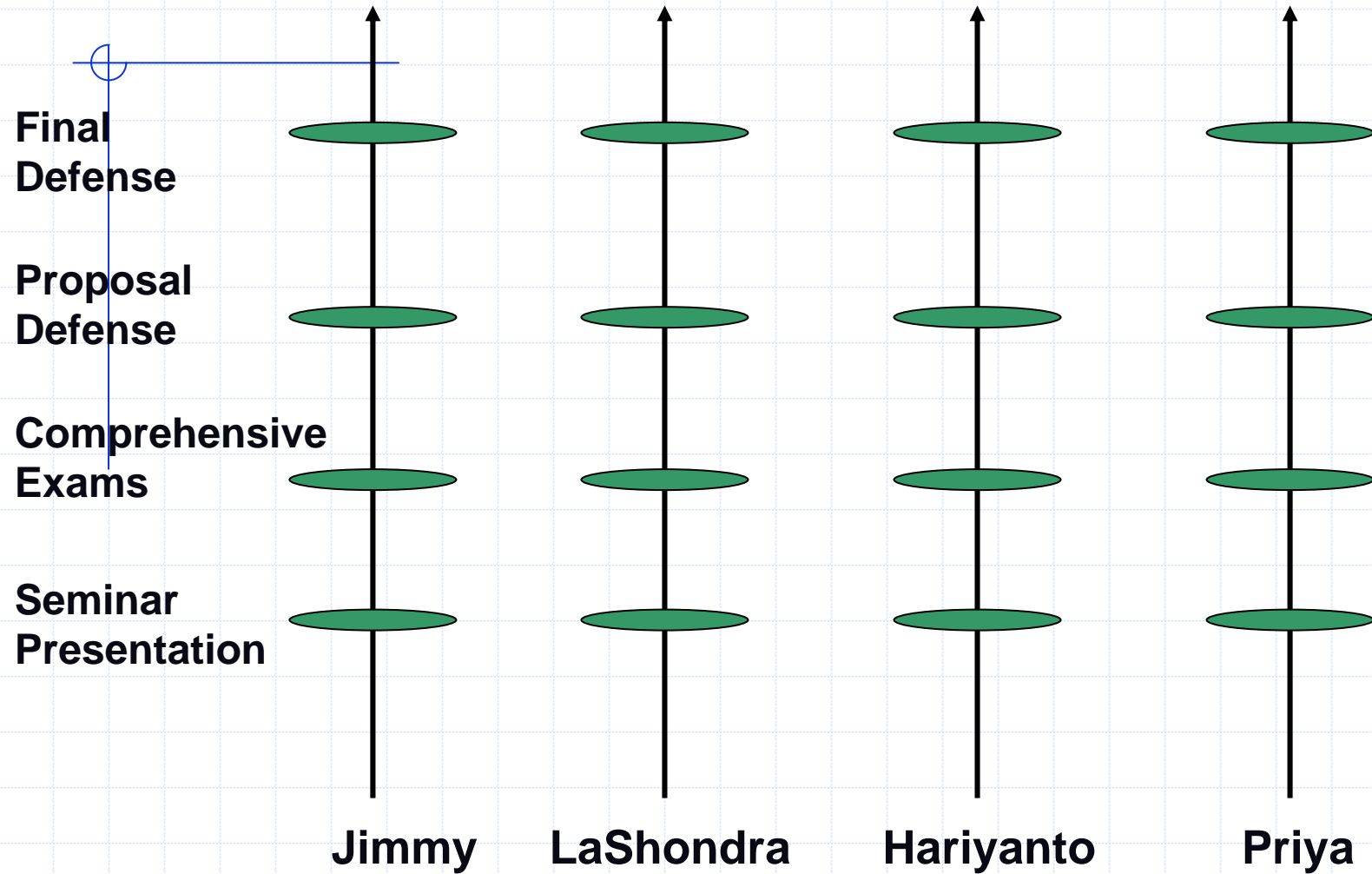
- Use natural points of contact with program processes for assessment.
- Often the most useful comparisons are those made to the program itself over time.
- Use assessment both as an evaluative and a self-reflection tool.
- Triangulate data collection: assessment is at least a three-legged stool.

Framework for Graduate Assessment

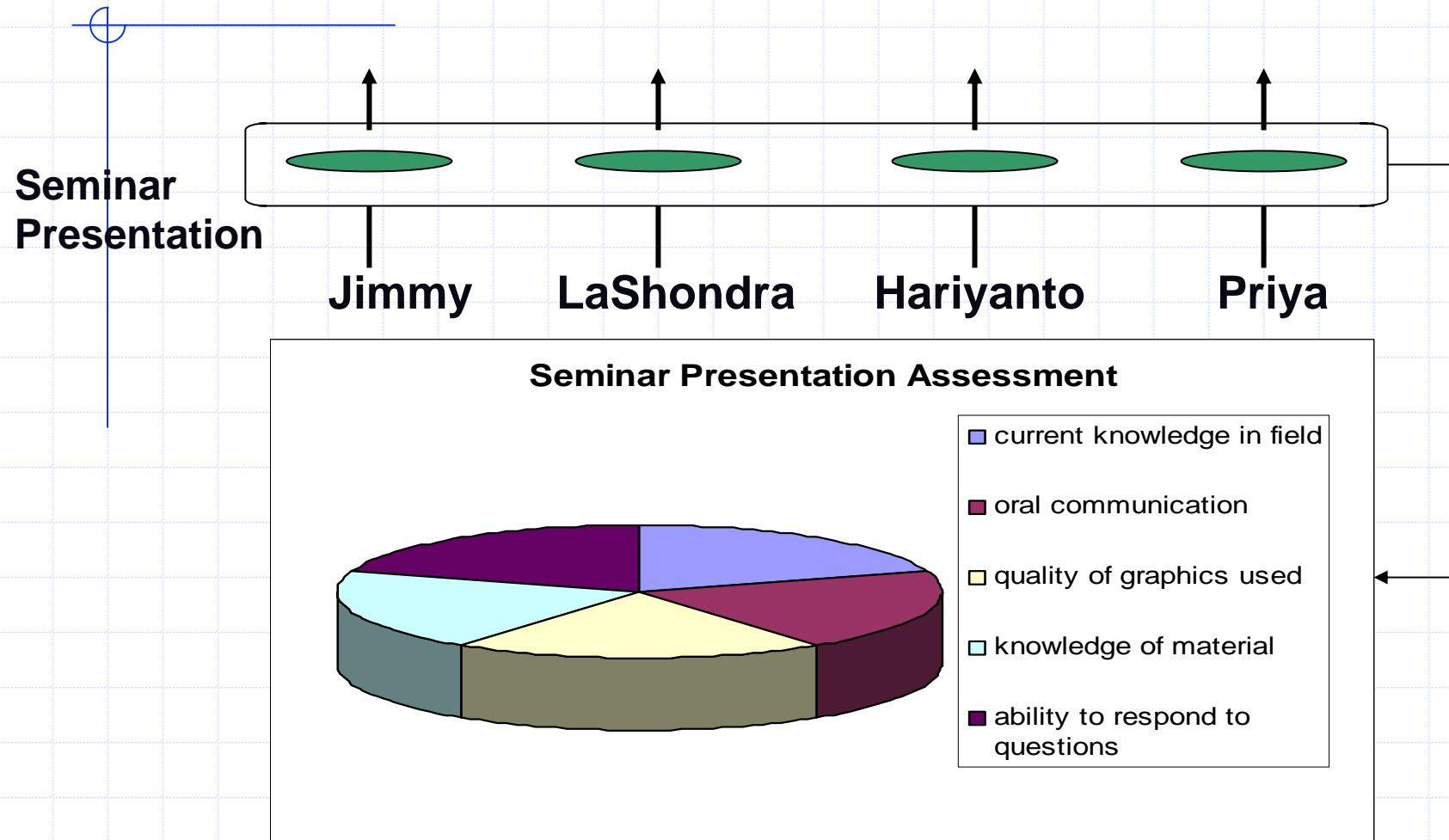
Use multiple data sources:

- Actuarial Indicators
- Attitudinal Measures
- Direct Measures
- Productivity Measures

Using Student Works for Assessment



Using Student Works for Assessment



Program Activities and Assessment Options to Consider

- Departmental seminar: presentation evaluation form (see example)
- Coursework: portfolio, presentations, project/paper evaluation by raters, 360^o teamwork evaluation form, simulation
- Comprehensive exams: rubric (see example)
- Internship: checklists, behavioral assessments, supervisor evaluation
- Thesis/dissertation proposal: rubric (see example)
- Thesis/dissertation defense: rubric
- Program exit: exit survey, exit interview
- Long-term follow-up: alumni survey; periodic request for vitas; citation indices

One Example: Graduate Medical Education

- ACGME has defined standards (competencies) and required skills associated with each broad competency.
- Matrix lists suggested best methods for assessment.
- Individual programs determine when to best conduct assessments, and how to use information for continuous improvement.
- See www.acgme.org/Outcome/, also in the workshop appendices

UA Law School: Assessment Plan and Results

- Law School assessment plan: (also see appendix) http://uaops.ua.edu/right_arm.cfm?col=9&dpt=114
- Measurable student learning outcomes for each degree program.
- Assessment results: Measures used and detailed results of assessments are provided for all degree programs.
- Unit improvements: tremendously detailed and rich picture of how the Law School is actively using assessment to maintain and enhance the excellence of its programs. Highly varied across the three programs examined. An example for others to follow.

Your Turn!

Develop Assessment Plan

- What method(s) would we use to see if our expectations have been met?
- When and where would we conduct assessments?
- What would our standards be?
- How would we use results for adjustments?

Summary

- Regional accreditation often requires assessment of graduate programs.
- Make it relevant to the program and faculty.
- Keep it simple and focused.
- Consider different assessments for each stage of student progress.
- Start now: it takes several years to fine tune.

Summary (Cont.)

- Needed to Succeed:
 - The department must want to do this process.
 - The department must use the information collected.
 - The institution must use the information collected.
 - **The process must be meaningful to faculty.**

Sample Forms and Rubrics; and References

- See sample rating forms and rubrics for graduate assessment
- See references in back of handout

Session Evaluation

- What one aspect was the most useful to you?
- What one aspect most needs improvement, and what kind of improvement?
- Other suggestions?



Thank You!

Questions? Contact us!

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