

Michelle D. Cook  
Baker Council Presentation  
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## Introduction

### *Self*

Good morning, my name is Michelle Cook, doctoral student in Educational Leadership and Policy Studies at Iowa State University. I have been collaborating on this project, Continuous Program Improvement Through Outcomes Assessment: The Undergraduate Curriculum, since August of 2002. I am pleased to represent the co-principal investigators: Dr. Russ Mullen, Dr. Lance Gibson, Ms. Sherry Pogranichniy, Dr. Tom Polito, and Dr. Mary Wiedenhoeft.

### *Project*

The overall objective of this project is to make the Iowa State University Agronomy Department a leader among Land Grant Institutions and departments at Iowa State University in the use of outcomes assessment for educational program improvement. We set out to accomplish this objective through developing and initiating a systematic and continuous approach for outcomes assessment of the Agronomy undergraduate degree program. This is a two-year funded project that when completed should allow the department to engage in a process to continually improve the undergraduate curriculum and students' learning.

### *Presentation*

This morning, there are three overarching ideas that will guide my presentation: 1) the major focus of this project is developing a student outcomes assessment plan or process; 2) the plan will need to be embedded, continuous, and systematic rather than separate and episodic; and finally 3) in order for this work to be sustained, department

student outcomes assessment will need support. I will begin with a brief definition of student outcomes assessment followed by a description of the project background, activity highlights, strengths, and challenges.

### *Student Outcomes Assessment Definition and Project Background*

Student outcomes assessment is defined by Palomba and Banta (1997) as the “the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development” (p. 4). Prior to the inception of this project, the department had identified learner outcomes in the areas of technical knowledge, professional skills, holistic perspective of agriculture, ethics/values, and diversity. In addition, a revised curriculum based on the new learner outcomes and student expectations was developed. However, there were no established procedures to measure students’ achievement of the outcomes, nor a process to discuss and use assessment results to revise and improve the curriculum. Thus creating the need for this project and the following project activities.

### **NEXT SLIDE**

#### Project Activities

#### *Measures*

There are two specific measures that I will highlight in my presentation: curriculum map and alumni, employer, and faculty, survey.

*Curriculum map.* Undergraduate teaching faculty were asked to identify the departmental learner outcomes addressed in each course they taught, describe specific assignments and/or experiences used to achieve each learner outcome, and discuss measures used to assess each learner outcome. The information was organized in a database that resulted in a curriculum map indicating where outcomes are being met in

the curriculum. The map will be shared with undergraduate teaching faculty through a half-day workshop in May and will lead to a discussion among faculty about possible curriculum and learner outcome changes. The next phase of this project will be to ask faculty to report results of these embedded measures and document course and or teaching method changes based on those results. We are attempting to minimize the add-on perception by seeking ways to assess learner outcomes through direct measures, already embedded within course. The primary goals are to make outcomes assessment part of the work that faculty are already doing and to create a cycle of improvement, linking student learning to the classroom.

*Alumni, employer, and faculty survey.* Late last summer, all recent Agronomy graduates (fall 2000 to spring 2002), their first supervisor, and undergraduate teaching faculty were surveyed. The primary purposes of this study were to gather curricular feedback from alumni, employers, and faculty on the importance of the departmental learner outcomes, assess strength of initial alumni performance in these areas, and identify potential learner outcomes critical in the future. Those results will be shared next month first through the Teaching Panel and then to other interested audiences. Preliminary results have already been used to develop a faculty development series that will be described next.

Recognizing that my time in the department was limited to two years, much of my energies have been focused on faculty development from three perspectives, departmental progress, project leader growth, and scholarly contributions.

#### Faculty Development

##### *Departmental Progress*

We have sought to equip undergraduate teaching faculty to participate and support department student outcomes assessment efforts. Last May, we offered a half-day workshop to introduce undergraduate teaching faculty to the concept of embedding departmental learner outcomes in their courses and course syllabi.

Building upon that workshop and assessment results, last fall, we secured additional monies from the Iowa State University Center for Teaching Excellence to fund faculty development seminars on designing course assignments and experiences to help students achieve specific departmental learner outcomes. Using preliminary results from the Alumni, Employer, and Faculty Survey, we purposefully focused on those outcomes that had a high importance and lagging performance. For example, one of the outcomes identified as important, yet alumni performance was lagging was debate issues in a professional manner. To address this need, a few weeks ago, we brought in Dr. Jean Goodwin, Iowa State University Assistant Professor to facilitate a workshop for undergraduate teaching faculty on using debate to promote and assess learning. As a follow-up to the workshop, we will work with those in attendance to develop an assignment and/or experience to help students improve their ability to debate issues in a professional manner and to assess student achievement of the outcome. Our goal is to directly connect results from the survey to improved learning experiences for students in the classroom.

#### *Project Leader Growth*

The principal investigators, the group who will mostly likely continue to champion departmental student outcomes assessment after the project funding as ended, have attended and participated in both on-campus and off-campus student outcomes assessment training.

*Scholarly Contributions*

We are also engaging and contributing to the larger discipline of agronomy and the field of assessment. In November, myself and the principal investigators were invited to participate in a resident education symposium on student outcomes assessment at the American Society of Agronomy meetings in Denver. Our symposium paper was revised and has been submitted to the Journal of Natural and Life Sciences Education for an upcoming special edition on student outcomes assessment. The group also presented four posters highlighting departmental student outcomes assessment efforts.

In June, project co-leader Mary Wiedenhoef and myself will present at the American Association for Higher Education (AAHE) Assessment Conference, one of the premier national assessment meetings. The focus of the presentation will be to demonstrate how we used survey results to create a faculty development series to improve the undergraduate curriculum.

**NEXT SLIDE****Strengths**

I would now like to highlight what I see as three strengths of this project and its sustainability.

*Core Group of Interested Faculty*

First, we have a core group of interested faculty. This includes the project co-leaders as well as other faculty in the department who have devoted their time and energies to provide both data and feedback; attend faculty development workshops and training related to student outcomes assessment; serve on departmental student outcomes assessment committee or working group; and report results and innovative practices at local, state, regional, and national professional meetings.

*Embedded Processes*

Second, we have several embedded processes that serve as both a means to support and sustain departmental student outcomes assessment. The department can utilize pre-existing committees and meetings such as the Teaching Panel and faculty meetings to keep student outcomes assessment a prominent issue. Accreditation can also serve as a reminder to keep student outcomes assessment in the forefront. However, we want to maintain a greater emphasis on creating a cycle of improvement rather than focusing primarily on accountability to an external agency.

*Administrative support*

Third, department administration has been very supportive of student outcomes assessment and faculty participation in these efforts. This support is a vital and necessary component.

**NEXT SLIDE****Challenges**

I see three main challenges to the sustainability of this project.

*Culture Change*

Researchers always measure the effect of an applied treatment on a test plot. In a like manner, we should expect teachers to measure the effect of teaching methods on students' learning. Teaching and student learning have not always been approached in this way. The process we are creating should promote a culture where Agronomy faculty share results and experiences with colleagues, continuously improve assignments and experiences for students, and document results and revisions.

*Perceptions*

The perceptions of time and administrative mandate are possibly the greatest challenge to this effort. To address these challenges, we have sought to make this endeavor part of the work that faculty are already doing and put much of the focus on creating a cycle of improvement, rather than reporting to an administrative or external authority. Although accountability is important, what we really want is to faculty to engage in this process. In other aspects of their scholarly work, faculty investigate research problems. On the same token, we want to make it acceptable and even expected that faculty will investigate a problems related to their students' learning. Perhaps even expanding their view of scholarship to include teaching and learning.

#### *Continuous Resources*

Although I feel that we have made strides through this project, there is a reality that it does take resources in order to pursue student outcomes assessment. Resources, along with responsibility and rewards, is one of the three Rs identified by Palomba and Banta (1999) to overcome faculty resistance to student outcomes assessment. I would recommend that these resources focus primarily on individual and small group faculty consultation, faculty member(s) to champion these efforts, and department specific faculty development.

#### Conclusion

As a reminder, the three guiding issues that I addressed this morning are as follows: the focus of this project is developing a plan or process, much of my energies through June will be directed towards developing this plan or process, much of the work thus far will serve as a model of how this plan can be enacted, we anticipate a draft proposal will be presented to the undergraduate teaching faculty at the retreat in May which will then be revised and sent through the proper channels for approval; in order to

address challenges to this project, this process or plan will need to be embedded, continuous, and systematic rather than separate and episodic; and in order for departmental student outcomes assessment to be sustained, it will need support. Each of these issues will be more fully addressed in the outcomes assessment plan as well as the end of project report. Thank you for your attention and support of this project.