

# Assessing Learning in a GEP Program:

A Course-embedded Assessment Process

Denise Young Martha Marinara Kuppalapalle Vajravelu



### Today's Presentation

- Profile of the University of Central Florida
- Overview of the assessment program
- History of GEP program assessment at UCF
- GEP: Assessment of Composition
- GEP: Assessment of Math
- Plans for Improvement
- Q & A



### The University of Central Florida

- Established in 1963 in Orlando Florida: Metropolitan Research University
- Grown from 2,600 to 36,000 students in 38 years
  - 30,000 undergraduates and 6,000 graduates
- Doctoral intensive
  - 76 Bachelors, 57 Masters, 3 Specialist, and 19 PhD programs
- Second largest undergraduate enrollment in state
- Approximately 900+ faculty and 3500 staff
- Six colleges and two schools
  - Arts and Sciences, Business Administration, Education, Engineering and Computer Science, Health and Public Affairs, Honors, Optics, and Hospitality Management



## Key Characteristics of an Effective Assessment Environment

- Sincerity and integrity
- Usefulness
- Clarity of purpose
- Commitment and leadership
- Enthusiasm for improvement
- Systemic involvement
- Support infrastructure



## Evidence of SUCCESS

- Sincerity means people trust the process
- Usefulness means people use the process
- Clarity means people understand the process
- Commitment means people believe the process works to their advantage
- Enthusiasm means the process has helped people
- Systemic means everyone is using it
- Support means people are not on their own



## One Composition Program's Assessment Story

Why we decided to conduct our assessment process the way we did

Martha Marinara
Director of Composition
University of Central Florida



## Philosophies of Educational Assessment

Ann Filer, <u>Assessment</u>: <u>Social Practice</u> and <u>Product</u>, London:Routledge, 2000

- Technical theories focus on achieving given ends as objectively as possible
- Maintain meritocratic systems, legitimizing educational "gatekeeping" as well as its own systems
- Assessment system that tends to be selfreferential

- Postmodern theories accept that assessment fulfills a range of political and social functions
- Examines assumptions regarding educational assessment
- Assessment system that is self-reflective



### Focus of Program Review

- Intellectual work with which faculty engage their students
- Review of student learning that demonstrates effective professional practices
- Faculty who teach writing should be key players in the assessment process



### Conversations and Reflections On Assessment

- Questions our values concerning writing and the teaching of writing
- Will and should effect the courses being assessed
- Will influence staff development and GTA Mentoring
- Will promote conversation about the program throughout the program



## Step One: Develop a Mission Statement

- What we thought we found important about writing
  - Rhetorical Knowledge
  - Critical Thinking
  - Process
  - Conventions of Academic Writing
  - Research processes and documentation
  - Diversity, justice, social awareness



## Composition Program Mission Statement 2000-01

First-year composition introduces students to the skills necessary for critical literacy. Students will be expected to practice and revise their writing in contexts that mirror tasks they will perform throughout their academic and professional lives.



## Step Two: Method

- Bad News: We would have to conduct an assessment every academic year
- Good News: Because we have to conduct an assessment every academic year, we don't have to assess everything at once
- Program is very large--close to 3500 students; 28,000 papers; 112,000 pages every semester--assessment had to be "doable"



#### More Method

- Seven Composition Instructors agreed to evaluate 300+ "Memoir" essays and drafts
- Met and agreed on criteria for assessment and what those criteria are or "look like" in students' writing
- Composition Director and Chair of Assessment Committee developed rubric
- Meeting/Workshop to assess rubric and develop degree of inter-rater reliability



## Step Three: Now What? Or now that we know this, what do we know?

- What we learned
- What we changed already
- What we will/may do differently in the future-Transformative and selfreflective functions of assessment



#### What We Learned

- More emphasis needs to be placed on prewriting and inventive techniques
- More instruction on the use of dialogue, scene vs. summary, and description needs to be added to workshops on narrative technique
- More discussion on how instructors evaluate "significance" as an issue of audience needs to take place in the classroom



### What We Changed Already

- Adjuncts and instructors who participate in a daylong assessment each semester are given a stipend.
- Composition Director instituted a rotating system to assess each of the ENC 1101 and ENC 1102 core assignments separately, thereby giving the committee the opportunity for a more detailed assessment.



### Changes (Continued)

- Staff development workshops have been established to increase instructors' awareness of current pedagogical techniques, technologies, and texts. These workshops are completely internal; instructors from the program have led the workshops.
- The workroom has become more of a resource center as it is now stocked with texts and materials for further staff development.
- Work has begun on a web page that will act as a resource, a discussion board, and a space to publish instructors' best teaching practices.



# What we will/may do differently in the future

- Portfolio evaluation
- Assess pre-writing strategies (right now we only evaluate drafts and final essays)
- Collaboration with other programs on campus
- Make working on the Assessment Committee more attractive--larger stipend, possibilities for research, engagement in program changes



## Assessment Plan for College Algebra

Kuppalapalle Vajravelu
Professor and Associate Chair
Department of Mathematics
Professor of Mechanical, Materials and
Aerospace Engineering
University of Central Florida



## Step one: Develop a mission statement

- Why College Algebra course is important?
  - Basic algebraic skills
  - Functions and graphs
  - Logical skills in problem solving
  - Solving word problems



### College Algebra - GEP

#### **Mission Statement 2001-2002**

Each year, the College Algebra program is to provide about 2,500 students from all academic programs with sound algebraic skills and to prepare them for drawing and identifying the graphs of functions, as well as foster logical skills and the kind of initiative and independence that are useful in everyday problem-solving.



# Step Two: Method of Assessment and Objectives

#### **Objective 1**

75% of the students will attain the knowledge of solving quadratic equations correctly (That is, students will be able to understand the algebraic skills needed to analyze the three different cases of distinct, repeated and complex roots).



## Method of Assessment and Objectives (Continued)

#### Objective 2

75% of the students will attain the knowledge of understanding and solving the word problems arising in every day life (for example, problems dealing with areas, compound interest, work done).



## Method of Assessment and Objectives (Continued)

#### **Objective 3**

75% of the students will attain the knowledge of drawing and identifying the graphs of exponential and logarithmic functions.



### Methods for Objectives

The College Algebra committee collected the data on solving quadratic equations and analyzed the data at the end of the Spring semester 2001 (from all College Algebra sections, about 800 students, taught during the semester).

- 1a). Please see attached Final Comprehensive Exam questions 32 and 29.
- 1b). Please see the attached Computer Assisted Personalized Approach (popularly known as CAPA) questions 11 and 12 in Set 2.



## Methods for Objectives (continued)

- 2a). Please see the attached Final Comprehensive Exam questions 20 and 21.
- 2b). Please see the attached Computer Assisted Personalized Approach (popularly known as CAPA) questions 6 and 7 in Set 2.
- 3a). Please see the attached Final Comprehensive Exam questions 28 and 37.
- 3b). Please see the attached Computer Assisted Personalized Approach (popularly known as CAPA) questions 2 and 18 in Set 9.



## Step Three: What we Learned/Outcomes

#### Outcome 1

Data was collected from 800 College Algebra students on their ability to solve quadratic equations.

- a). The criterion was met with a
- 75.39% success rate.
- b). The criterion was met with 89.43% success rate.



## What we Learned/Outcomes (Continued)

#### Outcome 2

Data was collected from 800 College Algebra students on their ability to solve everyday word problems.

- a). The criterion was met with a
- 81.43% success rate.
- b). The criterion was met with a 89.43% success rate.



## What we Learned/Outcomes (Continued)

#### Outcome 3

Data was collected from 800 College Algebra students on their ability to identify the graphs of exponential and logarithmic functions.

- a). The criterion was met with a 78.72% success rate.
- b). The criterion was met with a 93.85% success rate.



#### Future Plans

In 2002-2003 we are planning to assess other topics in College Algebra, such as inequalities, systems of equations, and asymptotes.



#### Conclusion

- GEP one of our greatest assessment challenges
- Coordination for GEP assessment moved from College of Arts &Sciences to Academic Affairs
- GEP Committee will build new model (rotation? critical thinking? core areas?)
- Emphasis on skills expected of all graduates



## Audience's Preference?

- Questions & answers?
- Discussion?
- Sample problems?