A STRATEGIC IMPLEMENTATION PLAN FOR GATEWAY COURSES: OUR MORAL & PROFESSIONAL COMMITMENT

Conference on Gateway to Completion

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Academic success
- Developmental and general curriculum courses
- Academic supports
- Study skill & cognitive assessment
- Test-taking skills
- Active learning strategies

Transition Into the First Year of College
- Intrusive advising and mentoring
- College course analysis and time management
- Information and computer literacy
- Co-curricular experiences
- Analytics and Assessment

Assessment and Self-Discovery
- Learning styles
- Non-cognitive and environmental factors
- Career exploration and Decision-making
- Active learning strategies
Examined the structural relationships of 4 constructs on academic performance and persistence for Summer Bridge Learning Community (vs. non-SBLC). Constructs included: 1) student background, 2) academic confidence, 3) desire to finish college, 4) intent to transfer (Fayetteville State University).

Finding: a significant direct effect of academic confidence on academic performance was found for SBLC members.

Teaching for Retention

Teaching for Student Outcomes
- Cognitive Outcomes
- Content
- Grades
- Other Goals (Academic + Nonacademic)
  - Competency Testing
  - Placement Testing (2+2)

Teaching with Support Services
- Tutoring
- Advising
- Mentoring
- Connection to Centers (Learning, Writing)
- Academic Affairs + Student Affairs Interface
- Connection to Developmental Programs

Faculty Development (Incentives)
BOTTLENECKS IN GATEWAY COURSES

Accounting – debits
Biology – cell division
Chemistry – molarity
Physics – vectors
Psychology – Classical vs. Operant Conditioning
Geology – hydraulic flow gradient
  Engineering – Statics and Dynamics
Philosophy – conceptual relationships among varied philosophical positions
Languages – verb tenses
Statistics – concept of variance
Identify a bottleneck in a Gateway Course in your discipline
Role of Prior Knowledge

When designing instruction in STEM and NON-STEM disciplines the following four questions should be considered:

1. What breadth and depth of prior knowledge do your students have?

2. Do they understand where your discipline fits in with all the other disciplines which they are taking classes (if appropriate)?

3. How much do they know about the other related disciplines?

4. What kind of connections do they have to make between what you are teaching and those other disciplines in order to succeed in learning in your class?
Faculty Problems With Students Who Exhibit Diverse Skill Levels Which Suggest Academic Difficulty

- Does not determine problems of students until too late. Why?
  - Instructor is content-centered and not student-centered
  - Little or no classroom assessment occurs other than with tests or quizzes
  - Does not know when or where student “bottlenecks” occur
Faculty Problems With Students Who Exhibit Diverse Skill Levels Which Suggest Academic Difficulty

Cont.

- Provides inappropriate feedback when
  - Questions are asked (doesn’t discern student difficulty from question)
  - Even if problem is detected still provides student with inappropriate feedback
Periodically, I would like to gather information from you about my presentation of the lecture. This information will help me to make necessary adjustments for improvement and will suggest what affects your learning in a positive way. Your responses are not connected to your course grade or any type of evaluation.

1. Identify the aspects of the lecture which seem:
   a) Most appealing to you
   b) Most relevant or familiar to you
   c) Most organized to you

2. A "bottleneck can be thought of as any point or points in a lecture where the student begins to have conceptual difficulty understanding what's going on. A "bottleneck" can be a term, a concept, a theory, a problem to solve, and etc.

Identify any bottlenecks which have occurred for you during this lecture. If possible, after each bottleneck that is identified suggests why you think it is occurring. For example, maybe you haven't had enough background information or the theory wasn't explained clearly, etc.
8 Variables that Correlate with Minority Persistence

- Parents’ feelings about education
- Student’s appraisal of his/her ability
- Social relations
- Respect for others
- Do you prefer to work alone/with others
- Father’s and Mother’s occupation
- Home security
- Evidence of leadership (especially in the community)
Sources of Anxiety for Minority Males

- Identity Development
- Environmental Stressors
- Problem-focused Coping
- Emotion-focused Coping
- Persistence/Dropout Fears
- Separation from Established but Dysfunctional Social/Psychological Anchors
- Real and Perceived Racism
- Unrealistic Perception of Self
Factors which effect effort

1. Level of confidence
   - Intensity of effort
   - Level of concentration
   - Willingness to make reasonable risks

2. Perceptions of failure (especially unexpected failure)

   A. Confident students
      - Encounter failure
      - Attribute it to lack of effort
      - Hence work harder

   B. Students who lack confidence
      - Encounter failure
      - Attribute it to lack of ability
      - Decrease amount of effort invested

Key: Deliberately control expectations
DEEP THINKING AND DISCUSSION

Imagine that at your institution you had unlimited resources to create the OPTIMAL success model for underrepresented students and students of color?

What suggestions would you make?
What criteria would you use?
What thoughtful questions would you ask?
How do you know the conversation has become too shallow?
Can you move your group forward when they bog down?

Try to focus on very specific conversations that stay away from generalities and emotional statements. Try to couch an emotion into something objective that can be measured or changed.
1) What are the two (2) primary factors that influence(d) your choice of an academic major?

2) What are the major financial stressors that affect your academic life and your out-of-class engagement?

3) In general, when you are in the classroom what matters most in terms of learning?

4) What was the first signal that you may be having difficulty with some aspect of college? How did you respond to that?

5) Are you uncomfortable using technology in academic courses? What is the source of your discomfort?

6) Which statement is generally true for you:
   Students study hard but are not rewarded with good grades.
   Students get good grades whether they study hard or not.
EXAMPLE: ADDRESSING THE PROBLEM OF REMEDIATION

STEM Transfer Program – Santa Barbara City College (serves 150 low-income minority students)

- Utilize academic plans that move students from basic skills through transfer to four-year colleges
- Students work in mentored cohorts
- Students get intensive counseling and tutoring
- Students arrive on time for class and prepared
- Students practice writing lab reports
- Students must take a prescribed set of courses in the order that their advisers recommend
Which of the Following Impact Your Course Grading?

- Your philosophy of teaching and teaching excellence
- The model of student learning that informs your teaching
- Your knowledge of the profiles or characteristics of the learner
- Your knowledge of varied learning environments
TEACHING GOALS INFLUENCE DECISIONS ABOUT GRADING

TEACHING FOR:

1. KNOWLEDGE OF COURSE CONTENT
2. LEARNING OBJECTIVES/OUTCOMES (Bloom’s Taxonomy)
3. COGNITIVE OR INTELLECTUAL OUTCOMES (Critical Thinking)
4. CLASSROOM OUTCOMES (TEAMWORK, ETC.)
5. NONACADEMIC OUTCOMES (COMMUNITY ENGAGEMENT)
6. SKILL COMPETENCIES (WRITING, READING, SPEAKING, ETC.)
7. UTILIZATION OF ACADEMIC SUPPORTS
8. GRADING OUTCOMES (C-WALL COURSES)
WHEN I TEACH A COURSE ON ABNORMAL PSYCHOLOGY I INCLUDE THE FOLLOWING:

Clips from the following TV shows:

a) Criminal Minds (schizophrenia, psychopaths, personality disorders)

b) Hoarding (obsessive-compulsive disorders)

c) Discovery Channel (eating disorders, body-image)

Clips from the following movies:

a) Last King of Scotland (paranoid delusions)

b) Seven Percent Solution (Sigmund Freud meets Sherlock Holmes)

c) Menace to Society (sociopaths)
Active Learning Strategies That Enhance Lectures
(Charles C. Bonwell)

1. Provide a preview of information prior to explanation
   a) Example: Overview or graphic organizer

2. Organize information sequentially

3. Assess student learning periodically
   a) Example: CAT’S or Bottleneck Assessment

4. Signal transitions between information
   a) Example: Ask students to summarize/synthesize information previously presented

5. Use multiple examples
   a) Have students brainstorm examples without comment from the instructor. Students then brainstorm list of examples

6. Stress important points during explanations
   a) Example give quiz and ask students who developed incorrect answers why they thought answers made sense

7. Provide brief pauses at appropriate times students can use the time to
   a) Assess previous lecture,
   b) Ask critical questions
   c) Write a reflective statement that focuses on the material presented
Sequential Calculation of Problems

- Generally, what am I looking for?
- What information is available to me?
- Is this a problem in which I have to do a simple calculation?
- How many different calculations do I need to do?
- Do I need to recall (from memory) a formula?
- Do I need to recall a principal?