

# Introduction to teaching focusing on learning

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# How were you taught?

- ✦ How did you learn best?
- ✦ What hindered your ability to learn some subjects?



# Many instructors use teacher centered approaches

- ✦ Instructional method is often lecture and students are required to read texts
  - Students need to memorize large amounts of material
  - Multiple choice testing to assess student recall of information
- ✦ Faculty members think these methods are fine
  - But are they really acceptable?

What is wrong with traditional ways  
of teaching?

Think- pair - share



# Why teaching centered approaches are not fine

- ✦ Students fail to become engaged with the material
- ✦ Memorize materials often without meaning or understanding
- ✦ Do not remember material they learned earlier
- ✦ Cannot apply concepts to solve problems
- ✦ With technology people have huge amounts of information available

# What to do about this situation?

- ✦ Students fail to become engaged with the material
- ✦ Memorize materials often without meaning or understanding
- ✦ Do not remember material they learned earlier
- ✦ Cannot apply concepts to solve problems
- ✦ With technology people have huge amounts of information available

# Faculty are resistant to change their instructional methods

- ✦ Many disciplines are content-rich  
Perception that content coverage is very important
- ✦ Courses, content are prerequisites for more advanced courses
- ✦ Pressures for professional program accreditation lead to traditional teaching methods

Faculty need to know and accept the advantages of learning centered approaches before they will change their teaching



# Learning centered teaching

- ✦ It is an approach to teaching that focuses on student learning
  - rather than on what the teacher is doing
- ✦ Changes the focus from what the teacher does to student learning
- ✦ Learning centered teaching is not one specific teaching method
- ✦ Many different instructional methods can use a learning centered approach

Why learning centered approaches should be implemented?



# Students/graduates of learning centered programs

- ✦ Know why they need to learn and how to learn
- ✦ Have self awareness of their learning abilities and their process of gaining it
- ✦ Are responsible and are prepared to become informed citizens
- ✦ Can retrieve & evaluate information
- ✦ Use knowledge to solve problems
- ✦ Can communicate their knowledge in real settings

Blumberg (2004) Beginning journey toward a culture of learning centered teaching. *J of Student Centered Learning*. 2(1), 68-80.

# Why implement learning centered teaching?

- ✦ Research shows that learning centered teaching leads to
  - Increased student engagement with the content
  - Increased student learning and long term retention

✦ Educators are under increasing pressure to use learning centered teaching

# Support for why educators need to implement learning centered teaching

Comes from numerous sources:

- ✦ Learning theories
- ✦ Research on student learning and student engagement
- ✦ Accreditation requirements for professional programs and college accreditation agencies

# Classic Learning theories support learning centered teaching

✦ Stresses importance of active engagement and social interaction in the students' own construction of knowledge

– Piaget, J. (1963). *Origins of intelligence in children*. NY: Norton.

– Bruner, J. (1966). *Toward a theory of instruction*. Cambridge, MA: Harvard University Press.

– Vygotsky, L. S. (1978). *Mind in society: The development of higher mental process*. Cambridge, MA: Harvard University Press.

# Research literature supports learning centered approaches

- ✦ With learning centered approaches:
  - Students have increased motivation for learning
  - Greater satisfaction with school
- ✦ These outcomes lead to greater achievement


Johnson, W. D. (1991). Student-student interaction: The neglected variable in education. *Educational Research*, 10(1), 5-10.

Maxwell, W. E. (1998). Supplemental instruction, learning communities and students studying together. *Community College Review* (Fall)

Slavin, R. E. (1990). *Cooperative learning theory, research and practice*. Needham Heights, MA: Allyn and Bacon.

# Research literature supports learning centered approaches (continued)

- ◆ Compared to traditional educational programs, learning centered teaching leads to better:
  - retention rates
  - prepared graduates



Matlin (2002). Cognitive psychology and college-level pedagogy. In Halpern, & Hakel (Eds.), *Applying the science of learning to university teaching and beyond*. Jossey-Bass.

Sternberg & Grigorenko (2002). The theory of successful intelligence as a basis for instruction and assessment in higher education. In Halpern & Hakel. *Applying the science of learning*

# Regional accreditation standards are focusing on learning outcomes

- ◆ Accreditation agencies expect institutions to assess student learning outcomes
  - Assessment of student learning outcomes are fundamental to the accreditation process
- ◆ Focus on assessment of student learning is congruent with learning centered teaching

<http://www.msche.org/publications/characteristics>,

Middle States Commission on Higher Education. (2003) Student Learning Assessment

# How does learning centered teaching contrast with traditional teacher directed approaches?

✦ Think pair share

A silhouette of a runner in a starting crouch on a track, positioned to the left of the main text block.

Next identify that the following slides give a series of contrasts these are taken from Blumberg, P. (2004). Beginning journey toward a culture of learning centered teaching. *Journal of Student Centered Learning*, 2(1), 68-80.

# Learning centered approaches

- ◆ Student learning driven
- ◆ Educational objectives determine instructional format
  - Planned alignment
- ◆ Faculty design learning environments, facilitate active learning

# Traditional approaches

- ◆ Teacher driven
- ◆ Traditional class structures determine instructional format
  - Arbitrary alignment
- ◆ Instructor as content expert conveys material

## Learning centered approaches

- ✦ Adaptation of teaching to accommodate needs of diverse students
- ✦ Students are actively engaged in their learning process
- ✦ Engaged students foster deep learning

## Traditional approaches

- ✦ Instruction tends to be 1 size fits all, students must adapt to system to succeed
- ✦ Students often are passive receivers of information
- ✦ Often learn through memorization, perhaps without meaning

## Learning centered approaches

- ◆ Evaluation promotes learning, improvement provides feedback and results in competency decisions about students

- ◆ Adaptation to accommodate individual differences

## Traditional approaches

- ◆ Evaluation is separate from learning and is used to provide feedback & make grade distinctions among the students

- ◆ Grading along bell shaped curve- some students fail

# Outcome indicators that should occur with learning centered approaches

- ✦ Students take responsibility for their own learning
- ✦ Assessment is part of the learning process
- ✦ Critical thinking, integration, values, knowledge are assessed
- ✦ Students are active users of knowledge to solve problems, develop further learning in the discipline
- ✦ Students become self-directed, lifelong learners

Blumberg (2004) J of Student Centered Learning

# What do you think? Should/Can all courses be learning centered?

Considerations:

- ◆ Nature of content
- ◆ Class level
- ◆ Class size
- ◆ Other factors



# Myths about learning centered teaching

- ✦ Can only be implemented in small classes
- ✦ Can only be implemented in upper level or graduate classes
- ✦ Reduces the content covered
- ✦ Reduces the rigor of the courses
  - When students engage in active learning the course gets dumped down

Blumberg, P., & Everett, J. (2005). Achieving a campus consensus on learning-centered teaching: Process and outcomes. *To Improve the Academy*, 23, 191-210.

# Transitioning to learning centered teaching

- ✦ Your own teaching may be so unlike what is described as learning centered that you may be overwhelmed with how enormous transformation task would be
- ✦ Teaching using learning centered practices require development of new skills and attitudes
- ✦ Transitioning to learning centered teaching takes time and effort
  - But it is worth the time and effort

# What will help you implement learning centered teaching?

- ✦ Further education about what is learning centered teaching
  - Courses can be learning centered without sacrificing content and rigor
  - There are many different ways to implement learning centered teaching
- ✦ Easier and more practical to make incremental, transformative changes



# A continuum from teacher centered to learning centered

- ✦ Teacher centered and learning centered teaching are not a either/or situations, but a series of continua
- ✦ Courses can be at different points along the teacher-learning centered continua
- ✦ I will be giving you examples of series of continua at end of session

# According to Weimer (2002) there are 5 practices that need to change to achieve learning centered teaching

- ✦ The functions of content
- ✦ The role of the teacher
- ✦ The responsibility for learning
- ✦ The processes and purposes of evaluation
- ✦ The balance of power

# An example

✦ Within this workshop we will focus on:

- 1 practice area of the processes and purposes of evaluation, and
- 1 component of this practice area



# The Processes & Purposes of Evaluation

1. Integrated Assessment
2. Formative assessment with constructive feedback
3. Peer and self assessment
4. Multiple opportunities learn and demonstrate mastery
5. Students encouraged to justify their answers
6. Students and teachers agree on feedback timeframes
7. Authentic assessment is used throughout

# Sample rubric for 1 aspect of assessment

Criterion↓ Level of standard →	Employs learning centered approaches	Higher level of transition	Lower level of transition	Employs teacher centered approaches
The purposes and process of evalua- tion	Students have various opportuni- ties to learn from their mistakes, then can demon- strate mastery	Students can demon- strate mastery after making mistakes in $\geq 2$ situations	Regular (~2) assess- ments but no opportun- ities for students to demon- strate that they have learned from their mistakes	Minimal (1-2 times) assess- ment of student learning; no opportuni- ties for students to demon- strate mastery

# Comprehension Check: A course grading scheme

- ✦ 2 non-cumulative exams = 20% each\*
- ✦ Integrative final = 30%
- ✦ Critical summary of the literature on a specific topic chosen by the student = 20%
- ✦ Class participation = 10%

\* can take a make-up exam to improve grade on the first non-cumulative exam.

– Make up exam is given 1 week after students receive grade on the test

# Small group activity (~15 minutes)

Using the brief example given on how students are graded, in small groups, complete the attached worksheet

- ✦ Decide what projected level of learning centered practice is reasonable for the next this course is taught
- ✦ Answer the questions, especially focusing on how can the barriers be overcome and how would success be measured
- ✦ Develop a plan for making this grading scheme more learning centered-
  - Be creative, think of alternative ways to assess students

Discuss solutions with the larger group


# Rubrics on 5 practice areas

1 rubric for each practice area

- ✦ The functions of content
- ✦ The role of the teacher
- ✦ The responsibility for learning
- ✦ The processes and purposes of evaluation
- ✦ The balance of power

Courses can be at different points on each practice criterion on each rubric

# Uses of the worksheets

- ✦ Plan enhancements to existing teaching practices
  - ✦ Develop strategies for incorporating new teaching practices
  - ✦ How to plan incremental and achievable changes toward learning centered teaching
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# Desirable to have a unified learning centered approach

- ✦ Holistic integration of key instructional characteristics or components and desired outcomes
- ✦ Use of individual learning centered techniques may be a good beginning toward becoming learning centered

