

Adapt, Evolve or Become Extinct Making Educational Change Work FOR You

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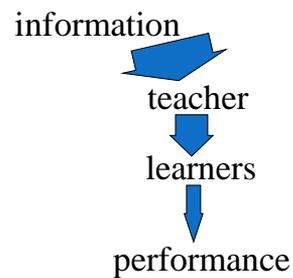


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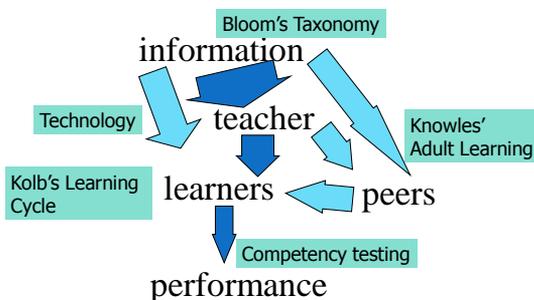
Educational Change

- Driven by findings from educational research
- Change is tough (Machiavelli)
- Understanding why the changes are desirable can reduce resistance

One Model of Education



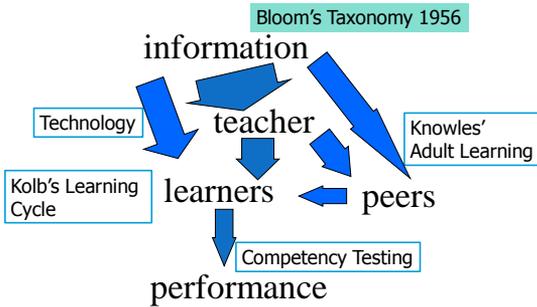
Educational Research has/is Changing Things



Seminar Outline

- Incorporating existing educational paradigms
 - Bloom's taxonomy
 - Knowles' Adult Learning Theories
 - Kolb's 4-Stage Learning Cycle
 - Role of competency testing
 - Impact of technology
- Implications for teaching
- Summary and discussion: Managing Change

Impact of Educational Research



Original Terms

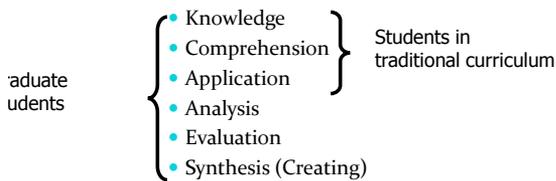
- Evaluation
- Synthesis
- Analysis
- Application
- Comprehension
- Knowledge

New Terms

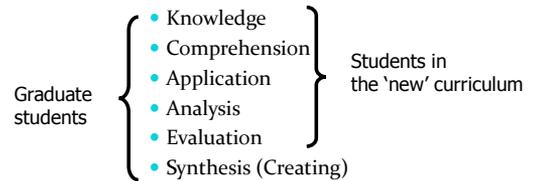
- Creating
- Evaluating
- Analysing
- Applying
- Understanding
- Remembering

(Based on Pohl, 2000, *Learning to Think, Thinking to Learn*, p. 8)

Bloom's Taxonomy for Pre-clinical Educators



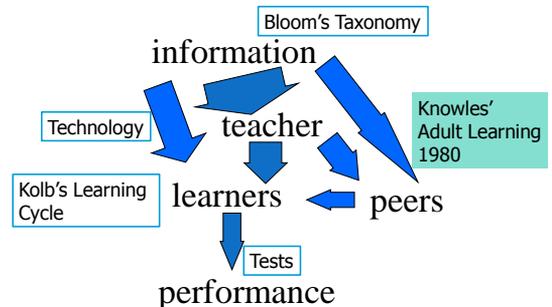
Incorporate Analysis and Evaluation



Educational Change 1: Incorporate Analysis and Evaluation Activities

- Classroom objectives must match program objectives
- Adjust your teaching activities to the needs of your learners

Impact of Educational Research



Classroom task

- Learn Turkish
 - Time constraint - 3 months
 - Purpose - Travel to scientific congress
- Think (1 minute by yourself)
- Pair (talk to your 'neighbors')
- Share (whole class discussion)

Pedagogical approach

- High School German
 - Drill vocabulary
 - Exam motivated
 - Grammar
 - Stimulus-response

Pedagogy	vs.	Adult Learners
External Authority Novice Passive External Exams	Motivation Environment Perspective Execution Evaluation	Internal Peers Experienced Active Internal

Unresolved issues

- Content vs. Depth
- Learning vs. Retention



If the goal of teaching is learning...



Note: There is NO research to support this theory

Active learning approaches

- Advantages
 - Promotes higher cognitive skills
 - Develop analytical skills
- Disadvantages
 - Depth, but not breadth, of material
 - Large time demands on faculty and students

Lecture

- Advantages
 - Emphasize important points
 - Introduce terms and concepts
 - Workload independent of class size
- Disadvantages
 - Student attention span < 50 minutes
 - Stenography, not thinking, in class
 - Little higher level processing

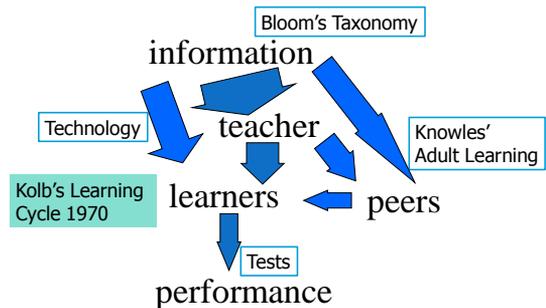
Small group approaches

- Advantages
 - Peer interactions
 - Depth of learning
 - Self-directed
- Disadvantages
 - Content can vary
 - Limited breadth of information
 - Little control of depth

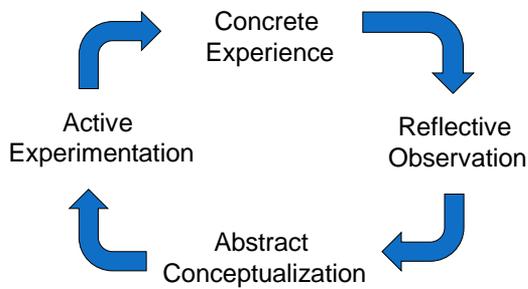
Educational Change 2: Diversify Your Teaching Skills

- Allows you to incorporate multiple approaches to teaching
 - Determine teaching goal
 - Select the correct tool for the job

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Kolb's 4-Stage Learning Cycle



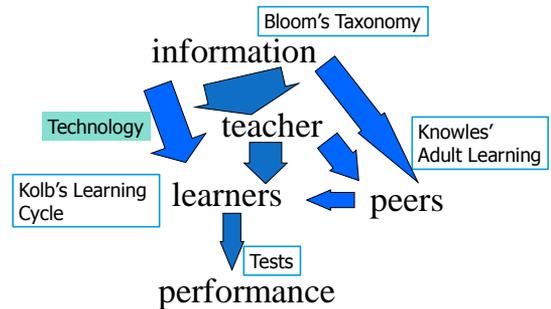
Educational Change 3: Become a 'Reflective' Practitioner

- The "Experience" only begins the process
- Education should offer opportunities to
 - Reflect on the experience
 - Consolidate and incorporate into existing knowledge
 - Apply new knowledge
- Model this behavior for your students

Educational Change 4: Align Goals, Competencies and Objectives

- Determine the educational objectives before making instructional decisions
- Activities and Evaluation also must match the goals, competencies and objectives

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The APS Archive of Teaching Resources

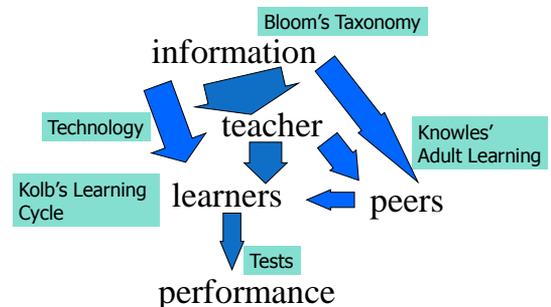
Millennial Learners

- As a group, create their own information
- Unlimited access to information
- “How to find information” is as important as the information
- Strong preference for dynamic, interactive media

Educational Change 5: Embrace Novel Technology

- Incorporate media
- Review for accuracy

Impact of Educational Research



Summary: Understand and Embrace Impending Changes

- Incorporate analysis and evaluation activities
- Diversify your teaching skills
- Become a 'Reflective Practitioner'
- Align goals, competencies and objectives
- Embrace technology

What has not changed: The role of the teacher in education

- Create an environment
- Provide direction
- Model behavior