From Epistemology to Curriculum Design: Contrasts in Approaches to OBL

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Big principles of OBL

• William Spady’s (1988) definition
  – Clarity of focus
  – Expanded opportunity
  – High expectations
  – Design down

• Why is the notion of OBL so controversial?
• Key role of epistemology
  – What counts as knowing?
  – What counts as learning

• View of learning- - - -Design of curriculum
  - - - -Development of assessment
  - - - - Determination of culture
Epistemology of intelligence vs. an Epistemology of mind

• Wolf et al. (1991)
  – two views of learning
  – two strong poles in education since the early 20th century.

• Shepard (2000)
  – two paradigms of educational practice
    • 20th Century “dominant paradigm”
    • “Emergent paradigm”
Epistemology of intelligence

• What is learning?
  (Wolf et al.’s description)
  – Acquisition of information and skills as decontextualized “bits” of knowledge
  – In a linear sequence
  – Guided by a belief that the rate of progress is fixed
Behaviorist learning theory

• Shepard’s analysis of the 20th Century Dominant Paradigm as behaviorist in its:
  – Conceptualization of learning as the accumulation of atomistic bits of knowledge
  – Tightly sequenced and hierarchical approach
  – Limited transfer (each objective taught separately)
  – Use of motivation based on positive reinforcement of many small steps
Implications for curriculum

• Wolf et al. talk about a “scalar curriculum”
  – Simple tasks are gatekeepers for more complex work
• Shepard describes “the curriculum of social efficiency”
  – Carefully specified educational objectives based on job analysis
  – Science of exact measurement, precise standards
  – Differentiated curriculum based on predicted social roles
  – All follow same path to outcomes
Implications for assessment

• Wolf et al. describe a “culture of testing”
  – Focused on decontextualized “bits” of knowledge
  – Using standardized tests constructed so that only a few can score high

• Shepard
  – Scientific measurement
  – Tests isomorphic with learning
Implications for culture

• Wolf et al.
  – Emphasis on sorting students by rank
  – Isolation

• Shepard
  – Scientific management of schools like factories
  – Utilitarian content, antagonism toward academic content, except for elite few
An example of this approach
• CBTE movement in the U.S. (University of Houston, University of Toledo, and others—1970’s and early 1980’s)
  – “Specified exactly what students need to do to be effective teachers. . .”
  
  CLEAR FOCUS and DESIGN DOWN

  – Had an elaborate set of criteria for each requirement (of thousands)  HIGH EXPECTATIONS

  – Used an individualized approach, which led to complex record keeping, extended time

  EXPANDED OPPORTUNITY
• THE CBTE movement was an administrative nightmare
  – Thousands of competencies
  – Individualized learning plans for students demanded more time than faculty were willing to devote.
• Standards-based teacher education is facing some of the same issues
Critiques – clear focus

• Benefits
  – What students need to do is very clearly spelled out
  – Teachers can crystallize their real intentions
  – Provides clear direction for planning

• Problems
  – But what they are to do may be narrow, fragmented, and atomistic
  – The view of knowledge is instrumentalist
  – Individual student inquiry, speculation, and creativity is limited
  – The affective dimension of education may be devalued
Critiques—expanded opportunity

• Benefits
  – May eliminate permanent failure

• Problems
  – But places enormous demands on teachers to individualize instruction
  – May discriminate against capable students
Critiques—high expectations

• Benefits
  – Facilitates process of evaluating students
  – All held to the same standard

• Problems
  – But the standard may not be consistently high, given narrow, fragmented “bits”
  – Focus on outcomes trivializes curriculum content
Critiques—design down

• Benefits
  – Helps the teacher to select appropriate content, methods, resources, etc.

• Problems
  – Focus on outcomes denies the value on processes of learning and teaching
  – Instrumentalist view of knowledge violates the epistemology of the structure of certain subjects and disciplines
  – May sidestep the key issue of values in the curriculum
• Most of the critiques of outcome-based approaches are tied to the “epistemology of intelligence/culture of testing”

• Now, a look at the alternative view. . .
Epistemology of mind

• What is learning?
  (Wolf et al.’s description)
  – Sustained performances of thought
  – Collaborative interactions of multiple minds and tools as much as the individual possession of information
  – Occurring in qualitative and uneven shifts of understanding
  – The individual’s understanding of how to apply what he or she knows
Cognitivist and constructivist learning theory

• Shepard’s analysis of the emergent paradigm:
  – Intellectual abilities are socially and culturally developed
  – Learners construct knowledge and understandings within a social context
  – New learning is shaped by prior knowledge and cultural perspectives
  – Intelligent though involves “metacognition” or self monitoring of learning and thinking
Implications for curriculum

• Shepard describes a “reformed vision of curriculum”
  – Guided by a belief that all are capable
  – Providing challenging subject matter aimed at higher order thinking/problem solving
  – Linking learning in and out of school
  – Socializing students into the discourse and practices of academic disciplines
  – Providing equal opportunity for diverse learners
  – Fostering important dispositions and habits of mind
  – Enactment of democratic practices in a caring community
Implications for assessment

• Wolf et al. describe a “culture of assessment”
  – More complex performances
  – Collaborative elements
  – Assessment as *contributing to learning*

• Shepard
  – Challenging tasks to elicit higher order thinking
  – Focus on learning processes as well as outcomes
  – An ongoing process, integrated with instruction
  – Students active in evaluating own work
Implications for culture

• Wolf et al.
  – Collaboration, not only between instructors, but between students and instructors, students and students
  – Respect for capabilities/possibilities of all minds

• Shepard
  – Creation of a learning culture
  – Valuing of individual differences, cultural differences
An example of this approach

- Alverno College’s “ability-based” approach to education identifies eight abilities (complex combinations of knowledge, skill, attitude, value, and disposition), taught across the curriculum, integrated with disciplines.

- Abilities
  - Involve the whole person
  - Are teachable
  - Can be assessed
  - Transfer across settings
  - Are continually re-evaluated and re-defined
Alverno’s abilities

- Effective communication
- Analysis
- Problem solving
- Valuing in decision-making contexts
- Effective social interaction
- Developing a global perspective
- Effective citizenship
- Aesthetic engagement
Key principles

• Educators are responsible for making learning more available by articulating outcomes and making them public. CLEAR FOCUS
• Education goes beyond knowing to being able to do what one knows.
• Abilities need to be defined in a way that our teaching of them can be developmental. EXPANDED OPPORTUNITY
• Designing for learning involves integrating abilities with disciplines and across disciplines
  DESIGN DOWN
• Abilities must be carefully identified and compared to what contemporary life requires
• Assessment is integral to learning
  HIGH EXPECTATIONS
• Essential to learning and assessment are
  – Public, explicit outcomes/criteria
  – Performance
  – Feedback
  – Self assessment

• The effectiveness of assessment for everyone involved depends on the existence of a total dynamic system that contribute to the coherence and continuous improvement of the curriculum—a CULTURE of assessment
Critiques – clear focus

• Benefits
  – Provides clear direction for students
  – Provides clear direction for planning
  – Helps teachers to crystallize their real intentions
  – Encourages inquiry, speculation and creativity
  – Deals with complex outcomes

• Problems
  – Faculty are obliged to make explicit the meaning of the disciplines—central concepts, tools of inquiry, values, and ongoing controversies
Critiques – expanded opportunity

• Benefits
  – Supports learning through multiple means
  – Allows capable students to take learning as far as they are able

• Problems
  – Still places demands on teachers to address needs of individuals, particularly through the provision of helpful feedback
Critiques – high expectations

• Benefits
  – Facilitates process of evaluating students
  – All held to consistently high standards
  – Standards are linked to disciplinary expectations

• Problems
  – May call for “radical revision of assessment”
  – Faculty role in assessment calls for additional development of expertise
  – Faculty role in assessment may shift balance in what faculty do with their time
Critiques – design down

• Benefits
  – Helps the teacher to select appropriate content, methods, resources, etc.
  – Integrates many aspects from processes, to values, to disciplinary approaches

• Problems
  – In effect, involves “multiple simultaneous reforms”
  – Faculty role in design of learning may require additional development of expertise
  – Communication across faculty may be a burden
• The majority of critiques of outcome-based education following the “epistemology of mind/culture of assessment” focus on
  – The work of faculty
  – The development of appropriate expertise in faculty
  – The development of a culture to support the work and development of faculty
Conclusion

• OBL is strongly impacted by the epistemology underlying it

• Beliefs about learning impact the design of curriculum and assessment and the development of culture

• Ultimately, a faculty needs to determine how best to implement OBL to achieve the goals it has for student learning


