Presentations by Colin Madland

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Last updated: 2022-05-16

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OTESSA22 - Assessment and Digital Technology in Higher Education

Introduction

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Presented Online at OTESSA22, May 17, 2022

> I acknowledge that the land where I currently live and work remains the traditional, ancestral, and unceded land of the `syilx` (silks) people, whose historical stewardship of and connections to the land continue to today. I am grateful to be an uninvited guest on this land. To learn more, please visit the Westbank First Nation website.

Background

Scriven, 1967

> Scriven, M. (1967). *The methodology of evaluation.* In B. O. Smith (Ed.), *Perspectives of curriculum evaluation.* Rand McNally

- distinction between `formative` and `summative`

Bloom, 1968

> Bloom, B. (1968). Learning for Mastery. Instruction and Curriculum. Regional Education Laboratory for the Carolinas and Virginia, Topical Papers and Reprints, Number 1. *Evaluation Comment, 1*(2), 12.

- Incorporated `formative` and `summative` distinction into his ideas about `mastery learning`

Figure 1: Figure 1. Author's bicycle overlooking Okanagan Lake.

Mislevy, 1994

Mislevy, R. J. (1994). Test theory reconcieved. *ETS Research Report Series, 1994*(1), i–38. https://doi.org/10/gjm236

- test theory is machinery for reasoning from students' behavior to conjectures about their competence, as framed in a particular conception of competence."(p. 4).

Black and Wiliam, 1998

Black, P., & Wiliam, D. (1998). Assessment and Classroom Learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7–74. https://doi.org/10/fpnss4

- major review of the literature on `formative assessment`

- describe formative assessment as encouraging gains in achievement that were

  `> among the largest ever reported for educational interventions (p. 61)`

Pellegrino et al., 2001

Pellegrino, J. W., Chudowsky, N., & Glaser, R. (2001). *Knowing What Students Know: The Science and Design of Educational Assessment*. National Academies Press. https://doi.org/10.17226/10019

- "a process of drawing reasonable inferences about what students know on the basis of evidence derived from observations of what they say, do, or make in selected situations" (p. 112)

- "reasoning from evidence" (p. 43)

Assessment Triangle

Cognition

- a cognitive model of the domain

Observation

- a performance task used to gather data regarding learner achievement

Interpretation

- an inference or judgement of the learner's achievement in relation to the model of the domain

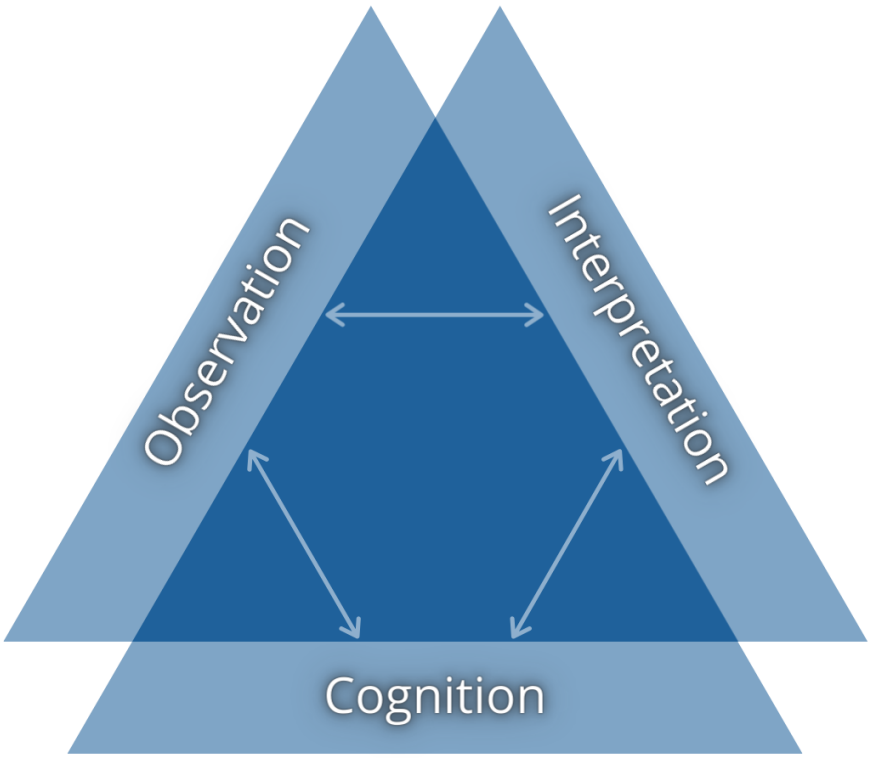

Figure 2: Figure 2. Assessment Triangle from Pellegrino et al. (2001)

Approaches to Learning

Biggs, 1993

Biggs, J. B. (1993). From Theory to Practice: A Cognitive Systems Approach. *Higher Education Research & Development, 12*(1), 73–85. https://doi.org/10/ccdmd9

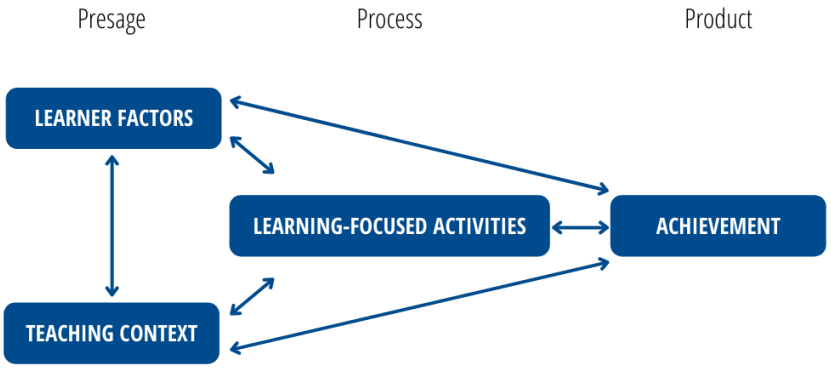

Figure 3: Figure 3. 3-P Model of Teaching and Learning adapted from Biggs (1993)

Presage

- factors that precede learning activities
  - learner factors
    - prior knowledge
    - educational experience
    - affective states
    - wellness (physical & mental)
  - teacher factors
    - vertical & horizontal discourses (Bernstein, 1999)
    - institutional policies
    - department norms
    - educational experiences

Process

- learning focused activities
  - reading, writing, discussing, building, creating, synthesizing, researching, sharing, debating, publishing…
- surface approaches
  - using low-level cognitive skills when high-level cognitive skills are required
- deep approaches
  - using high-level cognitive skills for tasks which require them

Product

- learner achievement of outcomes (intended or emergent)
- fed back into the system
  - informs learners and instructors

Conceptions of Assessment

Brown, 1994; 1996

> Brown, G. T. L. (2004). Teachers' conceptions of assessment: Implications for policy and professional development. *Assessment in Education: Principles, Policy & Practice, 11*(3), 301–318. https://doi.org/10.1080/0969594042000304609
>
> Brown, G. T. L. (2006). Teachers' Conceptions of Assessment: Validation of an Abridged Version. *Psychological Reports, 99*(1), 166–170. https://doi.org/10/bf67hf

- general mental structure, encompassing beliefs, meanings, concepts, propositions, rules, mental images, preferences
  - improvement of teaching and learning,
  - school accountability,
  - student accountability, or
  - treating assessment as irrelevant.

Fletcher et al., 2012

> Fletcher, R. B., Meyer, L. H., Anderson, H., Johnston, P., & Rees, M. (2012). Faculty and Students Conceptions of Assessment in Higher Education. *Higher Education, 64*(1), 119–133. https://doi.org/10/ctccpq

- instructors were more likely than learners to view assessment as consistent and trustworthy methods to understand and improve learning

- learners were more likely to have negative views of assessment and viewed it as a measure of student and institutional accountability.

Earl, 2013

Earl, L. M. (2013). *Assessment as learning: Using classroom assessment to maximize student learning (Second edition)*. Corwin Press.

- Assessment *OF* Learning
  - summative
- Assessment *FOR* Learning
  - formative
- Assessment *AS* Learning
  - metacognitive

Approaches to Assessment

Assessment in Higher Education

bearmanSupportAssessmentPractice2016 **?**; **?** ## Technology-Mediated Assessment {-}

Research Directions

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