Setting an Agenda for Research on Electronic Portfolios: Past Practices and New Directions

Session 40.057

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Our Goals
- To share knowledge of existing research
- To formulate an agenda to guide future research
- To carry on a dialogue about directions for ongoing research
- To begin collecting data about electronic tools implemented in Teacher Education.

Issues to Consider
- Definitions
- Multiple Purposes
- Diverse Contexts and Process

Links to Papers & Presentations Online:
http://electronicportfolios.org/aera/
http://helenbarrett.com/aera/

Electronic Portfolio Tools Questionnaire Online:
http://survey.rockman.com/iste2/eportfolio.htm
Assessment Systems and Electronic Portfolios: Balancing Accountability with Learning

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Theoretical Frameworks & Definitions

Accountability System (based on Assessment Triangle)

Congruent with Conceptual Framework
- Create a system that is congruent with your underlying learning philosophy or conceptual framework
  - positivism vs. constructivism
  - psychometrics vs. hermeneutics
- portfolio as test vs. portfolio as story

Activity Theory
Implications for human-computer interaction

Which direction are we heading?
- Are we currently implementing electronic portfolios...
- Or assessment management systems?
- What’s the difference?
Along a Continuum
Contrasting Paradigms of Portfolios

- **Positivism**
- **Constructivism**


Tension between two approaches

"The two paradigms produce portfolio activities that are entirely different."

"The positivist approach puts a premium on the selection of items that reflect outside standards and interests."

"The constructivist approach puts a premium on the selection of items that reflect learning from the student’s perspective."


Research Questions

"It is important to recognize the dangers of the portfolio process--the possibilities for trivialization as well as mindless standardization."

(p.5)

How do we create an Institution-Centered Assessment and Accountability System…

Without losing the power of the portfolio as a student-centered tool for lifelong learning and professional development?

How do we maintain the authenticity of the portfolio process…

And help our teacher candidates develop the skills and attitudes necessary to implement this strategy with their own students once they have their own classrooms?

Why?

- Learner Ownership and Engagement with Portfolio
- Emotional Connection to Process
- Learner’s Authentic Voice
- Portfolio as Story
- Portfolio as Lifelong Learning/Professional Development Tool
- To support deep learning

Voice = Authenticity

- multimedia expands the "voice" in an electronic portfolio (both literally and rhetorically)
- personality of the author is evident
- gives the reflections a uniqueness
- gives the feeling that the writer is talking directly to the reader/viewer

Deep Learning

- involves reflection,
- is developmental,
- is integrative,
- is self-directive, and
- is lifelong


Barrett’s Hypotheses

- Tools
  to meet goals of balanced assessment and both paradigms
- Motivation
  so that learners will want to maintain their portfolios as a “living history of a teaching/learning life”
How can we address both types of portfolios?

Use three different systems that are digitally linked:

I. A digital archive of a learner’s work
II. An institution-centered database to collect faculty-generated assessment data based on tasks and rubrics
III. A student-centered electronic portfolio

Begin Here

Learning Experiences embedded in curriculum

Interactive Process

Evidence = Artifacts + Reflection + Validation

Interactive Process

Assessor

Learner

Evaluation = Artifacts + Reflection + Validation

Reflection on Learning (self-selected artifacts for self-evaluation)
Positivist Paradigm
(Evaluation and Making Inferences)

Portfolio as Test

Assessor EVALUATES required artifacts

Performance Tasks & Rubrics for evaluation

Data collected for certification/licensure (high stakes) and for accreditation

II. Assessment Management System (institution-centered data management system)
Resulting in…
Institution-centered aggregated data leading to certification/licensure and accreditation

Focus on Limited-Term Evaluation

External Locus of Control
- Includes prescribed artifacts and rubrics
- Requires database to manage information
- Focuses on faculty's formative and summative evaluations

Constructivist Paradigm
(Making Meaning and Assessment as Learning)
Portfolio as Story
Learner COLLECTS artifacts from learning experiences

Learner SELECTS artifacts and reflections to meet self-determined purpose(s)

Resulting in…
Student-centered documentation of deep learning,
for developing self-concept and presentation to multiple audiences (peers, employers, etc.)

Reflection on Learning
(self-selected artifacts for self-evaluation)

III. Electronic Portfolio(s)
(presentation portfolios for multiple purposes)

Focus on Lifelong Self-Directed Learning
Internal Locus of Control
- Includes choice of artifacts
- Results in personalized e-portfolio
- Focuses on learner's celebration of uniqueness

Both approaches result in a:
Balanced Assessment System

One final thought…
- Assessment of Learning
- Portfolios for Learning
- What about Motivation?

Components of Portfolio Development
- Content
- Purpose
- Process

Components of Portfolio Development
- Content: evidence (artifacts + reflections)

Components of Portfolio Development
- Purpose:
  - the reason for developing the portfolio – includes audience
    - Learning & professional development
    - Assessment
    - Employment
Components of Portfolio Development

- **Process:**
  - tools used
  - sequence of activities/rules
  - reflection
  - evaluation criteria (rubrics)
  - collaboration/conversation

Developmental Levels of Portfolio Implementation

- **Extrinsic Motivation**
  - institutional directed content, purpose & process – external locus of control

- **Mixed Motivation**
  - learner ownership over one or two of the components

- **Intrinsic Motivation**
  - learner ownership of content, purpose and process

Learner Ownership and Control of Electronic Portfolio Development

My Final Wish…

May all your electronic portfolios become dynamic celebrations of learning across the lifespan.

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