

Balancing “Portfolio as Test” with “Portfolio as Story”

Dr. Helen Barrett

REAL Electronic Portfolios

Reflection,
Engagement, and
Assessment for
Learning

Legacy from the Portfolio Literature

- Much to learn from the literature on paper-based portfolios
- As adult learners, we have much to learn from how children approach portfolios

“Everything I know about portfolios was confirmed working with a kindergartener”

The Power of Portfolios

*what children can teach us
about learning and assessment*

Author: Elizabeth Hebert
Publisher: Jossey-Bass

Picture courtesy of Amazon.com.



The Power of Portfolios

Author:
Dr.
Elizabeth
Hebert,
Principal
Crow Island
School,
Winnetka,
Illinois

Picture taken by
Helen Barrett at
AERA, Seattle,
April, 2001



From the Preface (1)

“Portfolios have been with us for a very long time. Those of us who grew up in the 1950s or earlier recognize portfolios as reincarnations of the **large memory boxes** or drawers where our parents collected starred spelling tests, lacy valentines, science fair posters, early attempts at poetry, and (of course) the obligatory set of plaster hands. Each item was selected by our parents because it represented our acquisition of a new skill or our feelings of accomplishment. Perhaps an entry was accompanied by a special notation of praise from a teacher or maybe it was placed in the box just because we did it.”



From the Preface (2)

"We formed part of our identity from the contents of these memory boxes. We recognized each piece and its **association with a particular time or experience**. We shared these collections with grandparents to reinforce feelings of pride and we reexamined them on rainy days when friends were unavailable for play. **Reflecting on the collection** allowed us to attribute importance to these artifacts, and by extension to ourselves, as they gave witness to **the story** of our early school experiences."



From the Preface (3)

"Our parents couldn't possibly envision that these memory boxes would be the inspiration for an innovative way of thinking about children's learning. These collections, lovingly stored away on our behalf, are the genuine exemplar for documenting children's learning over time. But now these memory boxes have a different meaning. It's not purely private or personal, although **the personal is what gives power to what they can mean.**"

Let's get personal... Think for a minute about:

Something about your **COLLECTIONS**:

Suggested topics:

- If you are a parent, what you saved for your children
- What your parents saved for you
- What you collect...
- Why you collect...

Some issues to consider

- What do your collections say about what you value?
- Is there a difference between what you purposefully save and what you can't throw away?
- How can we use our personal collections experiences to help learners as they develop their portfolios?

The power of portfolios [to support deep learning] is personal.

What is a Portfolio in Education?

A portfolio is a purposeful collection of student work that exhibits the student's efforts, progress and achievements in one or more areas *[over time]*.

(Northwest Evaluation Association, 1990)

What is a Portfolio in Education? (2)

The collection must include:

- student participation in selecting contents
- the criteria for selection
- the criteria for judging merit
- evidence of student self-reflection

(Northwest Evaluation Association, 1990)

NLII e-Portfolio Definition

- a collection of authentic and diverse evidence,
- drawn from a larger archive representing what a person or organization has learned over time
- on which the person or organization has reflected, and
- designed for presentation to one or more audiences for a particular rhetorical purpose.

"The Blind Men and the Elephant"

Thanks to Alan Levine



"The Blind Men and the Elephant"

- Eskimos having 49 different words for "snow"
- Those who don't live in that environment tend to see it all as the same cold white stuff
- Same goes with "portfolio"

Metaphors!

- Mirror, Map, Sonnet
- C.V. or Multimedia Resume
- Test
- Story
- <http://electronicportfolios.org/metaphors.html>

Purpose & Goals for the portfolio (Determine Content)

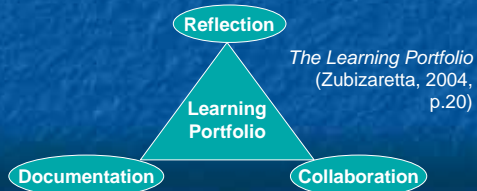
- Multiple purposes:
 - Learning/Process
 - Assessment
 - Marketing/Showcase

Think about the differences between:

- Learning Portfolio *and* Portfolio Learning
- Assessment Portfolio *and* Portfolio Assessment
- Portfolio = **Concept, Product, and Process**

Learning Portfolios

- *"know thyself" = a lifetime of investigation*
- *self-knowledge as outcome of learning*



Learning Portfolios

- Support reflection which is central to learning
- **Reflections**
 - The Heart and Soul of the Portfolio
- An electronic portfolio without reflection is just a
 - Digital scrapbook
 - Fancy electronic resume
 - Multimedia Presentation
 - Personal web site

Showcase Portfolios

- Marketing
- Employment
- Tell your story
- A primary motivator for many portfolio developers

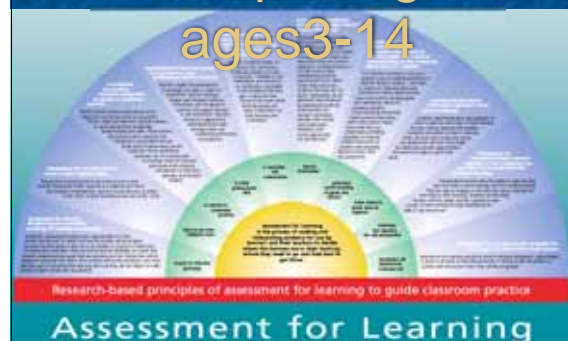
Assessment Portfolios

- A major movement in Teacher Education in U.S.
 - A major new commercial market
 - A primary motivator for organizations
- More later!*

A few thoughts about
Assessment -- What Type?

- Assessment OF Learning? or
- Assessment FOR Learning?

www.qca.org.uk
ages3-14



Principles of Assessment FOR Learning

- **Definition:**
Assessment for Learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there.

Overlap of Assessment Types*

The diagram consists of two overlapping circles. The left circle is labeled 'Assessment OF Learning' and the right circle is labeled 'Assessment FOR Learning'. The overlapping area in the center represents the intersection of the two types.

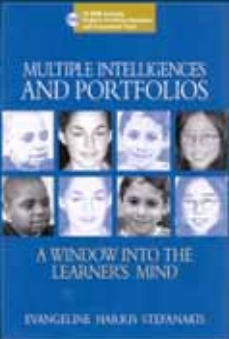
*Alberta Assessment Consortium

Portfolios used for Assessment OF Learning

- Purpose of portfolio prescribed by institution
- Artifacts mandated by institution to determine outcomes of instruction
- Portfolio usually developed at the end of a class, term or program - time limited
- Portfolio and/or artifacts usually "scored" based on a rubric and quantitative data is collected for external audiences
- Portfolio is usually structured around a set of outcomes, goals or standards
- Sometimes used to make high stakes decisions
- Summative - what has been learned to date? (Past to present)
- Requires Extrinsic motivation
- Audience: external - little choice

Portfolios that support Assessment FOR Learning

- Purpose of portfolio agreed upon with learner
- Artifacts selected by learner to tell the story of their learning
- Portfolio maintained on an ongoing basis throughout the class, term or program - time flexible
- Portfolio and artifacts reviewed with learner and used to provide feedback to improve learning
- Portfolio organization is determined by learner or negotiated with mentor/advisor/teacher
- Rarely used for high stakes decisions
- Formative - what are the learning needs in the future? (Present to future)
- Fosters Intrinsic motivation - engages the learner
- Audience: learner, family, friends - learner can choose



A Resource on K-12 Portfolios

- By Evangeline Harris Stefanakis
- Published by Heinemann
- Includes a CD-ROM with examples of student portfolios

Assessment for Learning Continuum - Enhanced

The diagram shows a horizontal axis from 'Learning' on the left to 'Accountability' on the right. Above the axis, 'Reflection' is written in a large, stylized font. Below the axis, 'Observation' is written in a similar font. Arrows point from 'Reflection' down to 'Self Assessment', 'Informal Feedback', 'Rubrics', and 'Performance Based'. Arrows point from 'Observation' up to 'Self Assessment', 'Informal Feedback', 'Rubrics', and 'Performance Based'. 'Standardized Tests' is positioned above the 'Accountability' end of the axis.

Stefanakis, Evangeline (2002) Multiple Intelligences and Portfolios. Portsmouth: Heinemann, p. 100.

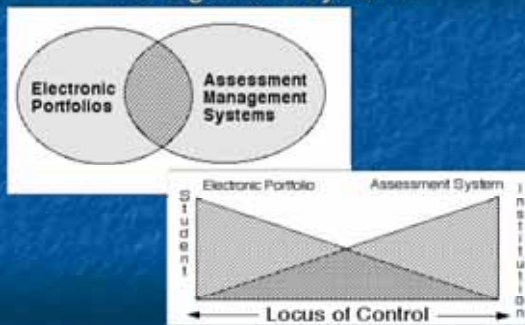
Which approach should you take?

- Are you looking for an **electronic portfolio...**
- Or an **assessment management system?**
- What's the difference?
Along a Continuum

Electronic Portfolio or Assessment Management System?

Electronic Portfolio	Assessment Management System
Multiple purposes: Learning, Assessment, Employment	Single purpose: Formative and Summative Assessment
Data structure varies with tools used to create the portfolio; common data formats (converted to HTML, PDF)	Data structure most often uses a relational database to record, report data
Primary type of data: qualitative	Primary type of data: qualitative and quantitative
Data storage in multiple options: CD-ROM, videotape, DVD, WWW server, LAN	Data storage primarily on LAN or on secure WWW server
Visual design and hyperlinks often under control of portfolio developer	Visual design and hyperlinks most often controlled by database structure
Learner choice of artifacts	Institutional choice of artifacts
Learner-Centered	Institution-Centered

Electronic Portfolio or Assessment Management System?



What is your portfolio?

- A standardized **checklist** of skills? (Positivist)
- OR
- A reflective **story** of deep learning? (Constructivist)

Tension between two approaches

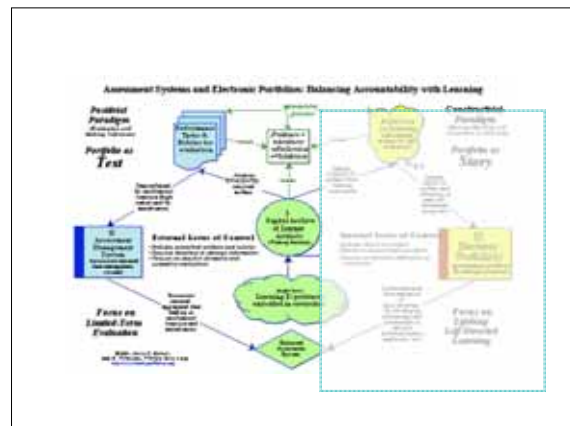
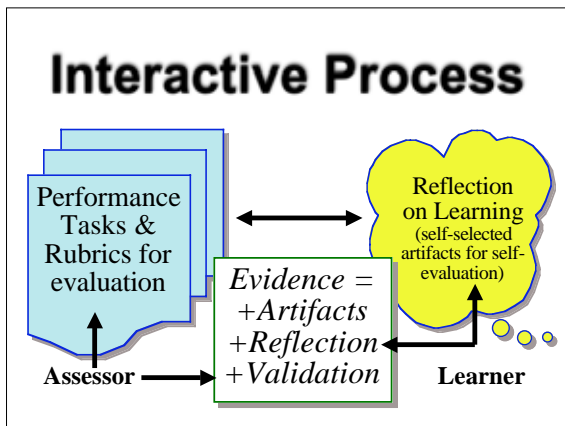
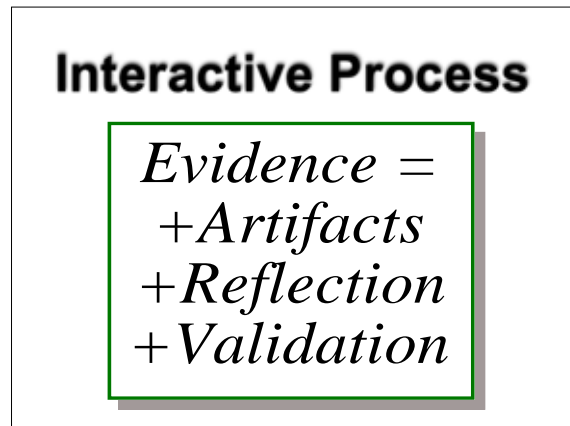
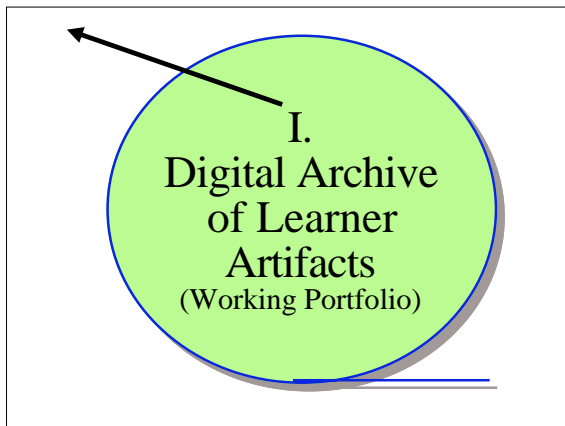
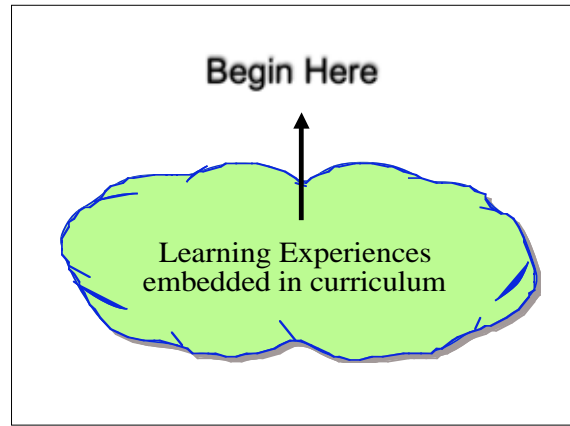
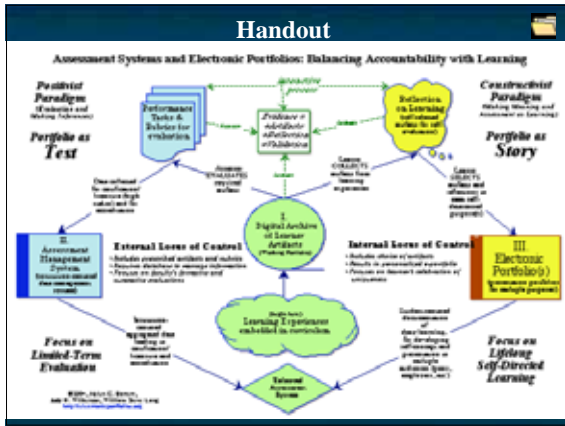
- “The two paradigms produce portfolio activities that are entirely different.”
- “The positivist approach puts a premium on the selection of items that reflect **outside standards and interests.**”
- “The constructivist approach puts a premium on the selection of items that reflect learning **from the student's perspective.**”

F. Leon Paulson & Pearl Paulson (1994)
 “Assessing Portfolios Using the Constructivist Paradigm”
 in Fogarty, R. (ed.) (1996) *Student Portfolios*.
 Palatine: IRI Skylight Training & Publishing

How can we address both types of portfolios?

Use three different systems that are digitally linked:

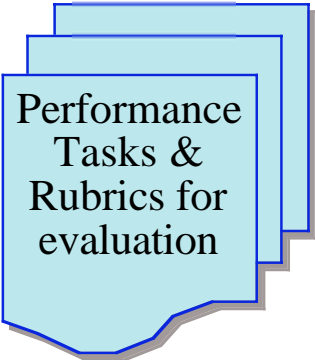
- I. A digital **archive** of a learner's work
- II. An institution-centered **database** to collect faculty-generated assessment data based on tasks and rubrics
- III. A student-centered **electronic portfolio**



**Positivist
Paradigm**
*(Evaluation and
Making Inferences)*

Portfolio as Test

**Assessor
EVALUATES
required
artifacts**



Performance
Tasks &
Rubrics for
evaluation

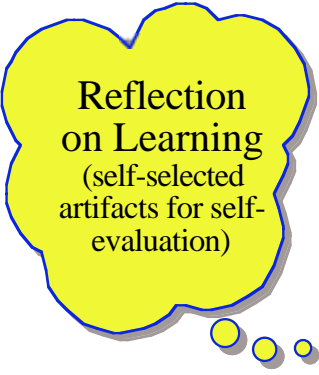
Data collected for
certification/
licensure
(high stakes)
and for
accreditation



II.
**Assessment
Management
System**
(institution-centered
data management
system)

Resulting in...

**Institution-centered
aggregated data
leading to
certification/licensure
and accreditation**



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

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



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

Resulting in...

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

***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:



Constructed Meaning

"The portfolio is a **laboratory** where students **construct meaning** from their accumulated experience."

(Paulson & Paulson, 1991, p.5)

Portfolio tells a Story

"A portfolio tells a story. It is the story of knowing. Knowing about things... Knowing oneself... Knowing an audience... Portfolios are students' own stories of what they know, why they believe they know it, and why others should be of the same opinion."

(Paulson & Paulson, 1991, p.2)

Portfolios tell a Story

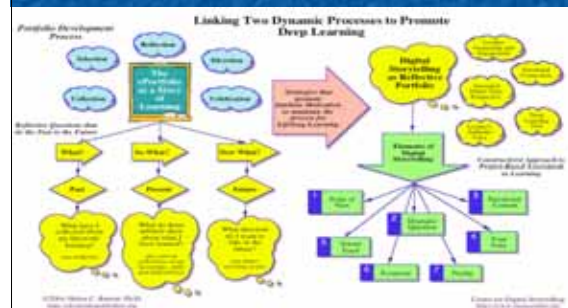
"A portfolio is opinion backed by fact... Students prove what they know with samples of their work."

(Paulson & Paulson, 1991, p.2)

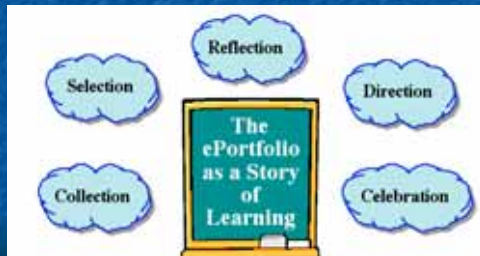
Linking Two Dynamic Processes to Promote Deep Learning

Portfolio Development Process
Digital Storytelling

ePortfolio as Storytelling



Portfolio Development Process

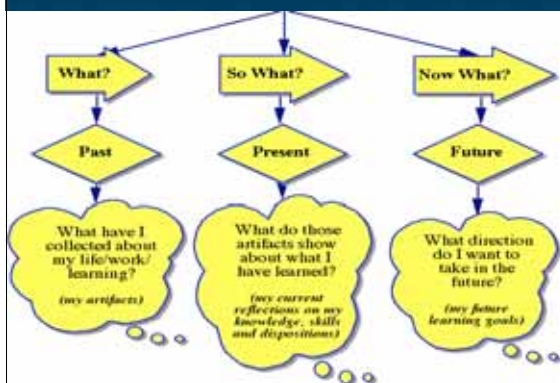


Portfolio Processes

Traditional + Technology

- Collecting
- Archiving
- Selecting
- Linking/Thinking
- Reflecting
- Storytelling
- Directing
- Collaborating
- Celebrating
- Publishing

Reflective Questions that tie the Past to the Future



Some concerns...

- Assessment for Learning
- Portfolios for Learning
- What about Motivation?

Components of Portfolio Development

- **Content**
- **Purpose**
- **Process**

Components of Portfolio Development

- **Content:**
evidence=
artifacts + reflections
+ validation

Components of Portfolio Development

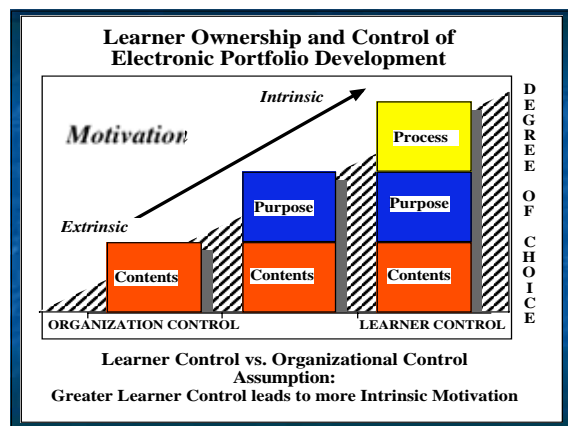
- **Purpose:**
the reason for developing the portfolio – includes audience
 - Learning & professional development - Process
 - Assessment (of and for learning)
 - Showcase (Employment/Marketing)

Components of Portfolio Development

- **Process:**
 - tools used
 - sequence of activities
 - rules
 - 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



A tale of two paper portfolios

- High School graduates in Washington state (and Utah, too!)
- High school freshman in NY
(Jim Mahoney, *Power and Portfolios* published by Heinemann)

What's the difference between those two stories?

- What are the variables that produce these extremes in attitudes toward ownership of portfolios?

Linked to...



Strategies that promote Intrinsic Motivation to maintain the process for Lifelong Learning

Digital Tools to Support Reflection:

- Online Portfolios
- Blogs & Wikis
- Digital Storytelling
- Games

"Blog" #1 word of the year*

- Merriam-Webster Inc announced its top 10 "words of the year" list, with the immensely popular "blog" taking the number one place.
- Compiles list each year by taking the most researched words on its various Web sites

** Internet Scout Report, December 3, 2004*

Portfolios provide Encouragement for Reflection

... provides both the discipline and the freedom of structure, allowing one to see one's own work. (Sonnet)

... provides the opportunity to assess one's own strengths and weaknesses through examination of a collection of samples, as well as to get feedback on one's performance from others. (Mirror)

... the process of self assessment leads one to setting goals for future development and professional growth. (Map)

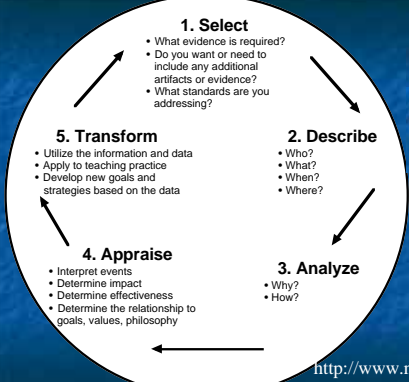
(Mary Diez, 1994)

Helping Students to Reflect

- Provide models and examples
- Begin with forms or prompts
- Move to journals/blogs
- Be careful that reflection in portfolios doesn't become an exercise in filling in the blanks on a web-based form.

North Carolina Reflection Cycle

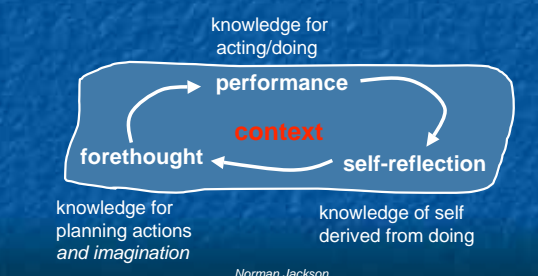
Self-Assessment: The Reflective Practitioner



- 1. Select**
 - What evidence is required?
 - Do you want or need to include any additional artifacts or evidence?
 - What standards are you addressing?
- 2. Describe**
 - Who?
 - What?
 - When?
 - Where?
- 3. Analyze**
 - Why?
 - How?
- 4. Appraise**
 - Interpret events
 - Determine impact
 - Determine effectiveness
 - Determine the relationship to goals, values, philosophy
- 5. Transform**
 - Utilize the information and data
 - Apply to teaching practice
 - Develop new goals and strategies based on the data

<http://www.ncpublicschools.org/pbl/pblreflect.htm>

How might an e-portfolio support development of personal knowledge?



knowledge for acting/doing

performance

context

forethought

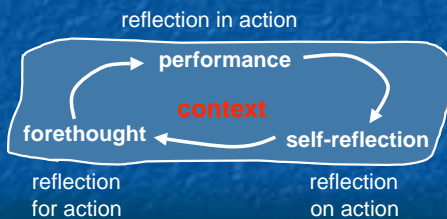
self-reflection

knowledge for planning actions and imagination

knowledge of self derived from doing

*Norman Jackson
Higher Education Academy, U.K.*

How might an e-portfolio support reflection and development of metacognition?



Norman Jackson
Higher Education Academy, U.K.

Digital Storytelling Process

- Learners create a 2-4 minute digital video clip
 - First person narrative
 - Told in their own voice
 - Illustrated by (mostly) still images
 - Music track to add emotional tone

Center for Digital Storytelling



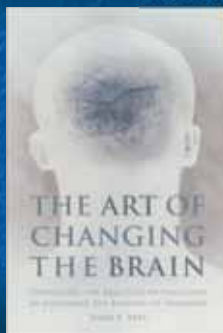
<http://www.storycenter.org>

Why include Digital Storytelling in ePortfolios?

Learner Motivation and Affect

Brain Research on Emotion in Learning

Resource on Biology of Learning



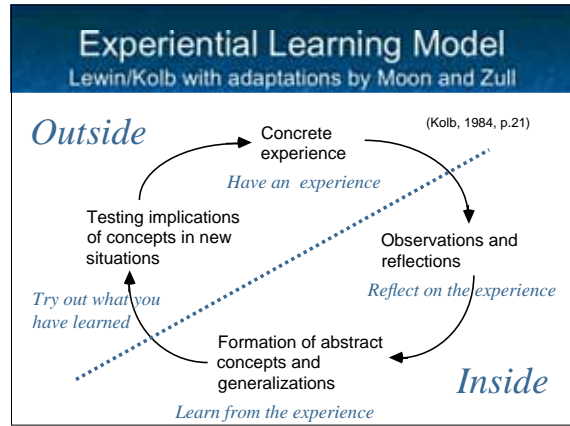
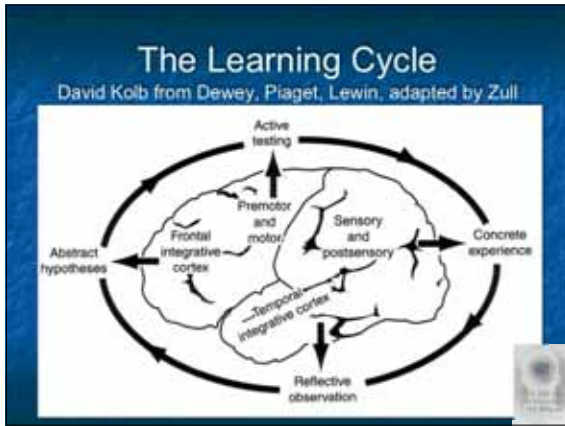
- Enriching the Practice of Teaching by Exploring the Biology of Learning
- James E. Zull
- Stylus Publishing Co.

The Learning Cycle

David Kolb from Dewey, Piaget, Lewin

- **Deep Learning** (learning for real comprehension) comes from a sequence of
 - Experience
 - Reflection
 - Abstraction
 - Active testing
- Zull: the learning cycle arises naturally from the structure of the brain (p.19)





- ### Reflection and Emotion
- James Zull
- Even if we experience something that has happened to us before, it is hard to make meaning of it unless it engages our emotions. (p.166)
 - Reflection is a search for connections. (p. 167)
 - Sleep researchers postulate that dreams help us make connections... We discover what is important to us, because we dream about what matters most. (p.168)
 - For comprehension we need time. (p. 168)

- ### Reflection and Emotion
- James Zull
- "Even if we were able to decrease our emphasis on speed and information and increase the possibilities for reflection, we still would have to give our students the kind of experience that would produce dreams-- **experiences that engage their emotions.**" (p.168)
 - "...our experiences must matter in our lives if we are to learn from them." (p.168)
 - "...it suggests how seriously we have to take emotion if we want to foster deep learning." (p. 169)

- ### My own story
- "One good example is worth 1000 theories"
 - The issue of time and learning - reaching another transition and decision point in a long career, reflecting on the milestones in my life
 - Play "choices"
-

- ### Storytelling as a Theory of Learning
-
- Two educators from New Zealand - staff developer and health educator
 - Relates storytelling to literature on learning and reflection
 - Provides stages of storytelling related to reflection



Links between Learning and Storytelling

Map of Learning (Moon, 1999)	Learning through Storytelling (McDrury & Alterio, 2003)
<ul style="list-style-type: none"> ■ Noticing ■ Making sense ■ Making meaning ■ Working with meaning ■ Transformative learning 	<ul style="list-style-type: none"> ■ Story finding ■ Story telling ■ Story expanding ■ Story processing ■ Story reconstructing

McDrury, J., Alterio, M. (2003) *Learning through Storytelling in Higher Education*. London: Kogan-Page, p.47

Storytelling = Narrative Inquiry

Mattingly in Schön (1991)

- Aristotle: narrative – natural framework for representing world of action
- Everyday sense-making role of storytelling
- Stories reveal the way ideas look in action
- Narrative provides explanation
- Motivation for telling stories: to wrest meaning from experiences

Storytelling as Reflection (Schön, 1988)

“...for storytelling is the mode of description best suited to transformation in new situations of action.”

Storytelling as Reflection

(Schön, 1988)

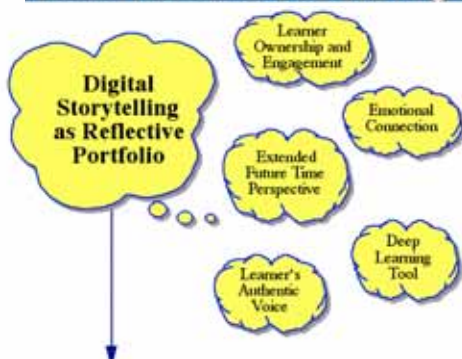
“Stories are products of reflection, but we do not usually hold onto them long enough to make them objects of reflection in their own right.”

Storytelling as Reflection

(Schön, 1988)

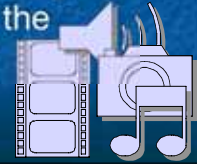
“When we get into the habit of recording our stories, we can look at them again, attending to the meanings we build into them and attending, as well, to our strategies of narrative description.”

Constructivist Approach to Project-Based "Assessment-as-Learning"



Learner Ownership and Engagement with Portfolio

- The tools should allow the learner to feel in control of the process, including the "look and feel" of the portfolio.



Deep Learning

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

Cambridge (2004)

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

Digital Paper or Digital Story?

Digital paper = text and images only
Digital story = tell your story in **your own voice**.

Multimedia = audio and video

Graduate Student Examples

- ...or you are a graduate student reflecting on what is drawing you into teaching
- Play "coming full circle"
- Play "a journey to the missing"



What's Your Story?

Richness not possible in print
Audiences worldwide but most likely small and intimate.

Digital Story as Legacy

Not just for professional development
Or skills-based portfolios

Digital Storytelling Becomes a Lifelong, Life Wide Skill

- **Digital Family Stories**
-from birth to end-of-life
- **Digital Family Stories**
-help people reflect on life transitions
- **Digital Family Stories**
-preserve multimedia memories as a legacy for future generations



Recommendations!

Unsolicited e-mail messages

From a Teacher Educator in Ohio

- This past quarter, I worked with my graduate students (all inservice teachers) on telling their "digital stories" of why they have stayed in teaching for so many years/or why they went into teaching, their thoughts on the future of education and their philosophy of teaching... Some of the stories were so passionate, I cried as I graded them. [In fact my whole hallway cried and laughed as we watched them.] Digital storytelling is a very powerful medium for expressing the art and passion of inservice teachers about their own teaching. It was one of the most fantastic experiences for my own "learning about my students" that I have had in recent years! We used Moviemaker and VideoStudio 8, one free and the other \$69, since we are doing all of this in an online environment and the teachers have to purchase their own software for the courses, the teachers loved it – and keep sending me ideas now of how they are going to use it in their own classrooms. Enjoy the digital storytelling – it is well worth the time!

From a Teacher Educator in Florida

- Each of my students this semester produced two digital stories, one focusing on their philosophy of teaching, and the other dealing with their field experience, We used PhotoStory 3 because it was a free Microsoft Download. I was most impressed with their efforts and they have told me it was a most meaningful activity.

Presentation online and stories are on my CD

- <http://electronicportfolios.org> and click **On-Line Publications**
"Electronic Portfolios as Digital Stories of Deep Learning"
- <http://electronicportfolios.org> and click **Recent Conference Presentations**
- My CD has examples of digital stories as well as hands-on activities to learn the process on Mac and Windows XP

My Final Wish...

May all your **electronic portfolios** become dynamic **celebrations** and **stories of deep learning** across the lifespan.

Dr. Helen Barrett

- Co-Director ISTE's Community & Assessment in PT3 Catalyst Grant
- Research Director, The REFLECT Initiative
- hbarrett@mac.com
- <http://electronicportfolios.org/>