

# Digital Storytelling (in ePortfolios) for Reflection and Deep Learning

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# The ePortfolio as a Story of Deep Learning

## Digital Storytelling as part of a Reflective Portfolio

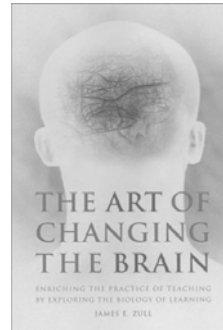
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## What is Reflection?

- Major theoretical roots:
  - Dewey
  - Habermas
  - Kolb
  - Schön
- Dewey: “We do not learn from experience...we learn from reflecting on experience.”

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## Resource on Biology of Learning



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

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## The Learning Cycle

David Kolb from Dewey, Piaget, Lewin

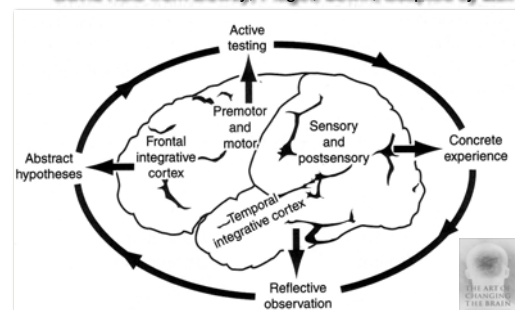
- **Deep Learning** (learning for real comprehension) comes from a sequence of
  - Experience
  - Reflection
  - Abstraction
  - Active testing
- Zull: the learning cycle arises naturally from the structure of the brain (p.19)

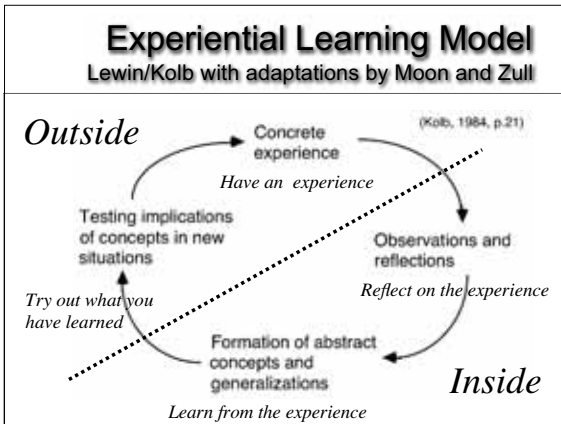


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## The Learning Cycle

David Kolb from Dewey, Piaget, Lewin, adapted by Zull





### Reflection and Emotion

James Zull

- Hard to make meaning unless it engages our emotions
- Reflection is a search for connections.
- Dreams help us make connections ... We dream about what matters most
- For comprehension we need time

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### Reflection and Emotion

James Zull

- Decrease emphasis on speed & information
- Increase possibilities for reflection
- Dreams = **experiences that engage their emotions**
- Experiences must matter
- Emotion = deep learning

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### Stories and Learning

James Zull

- Roger Shank: importance of stories in learning
- Stories engage all parts of the brain
- Learning deepest = engages brain
- Teachers and students should:
  - Tell stories
  - Create stories
  - Repeat stories

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### My own story

- 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"

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### Jennifer Moon's Definition

- Reflection is a form of mental processing – like a form of thinking – that we use to fulfill a purpose or to achieve some anticipated outcome. It is applied to relatively complicated or unstructured ideas for which there is not an obvious solution and is largely based on the further processing of knowledge and understanding and possibly emotions that we already possess (based on Moon 1999)

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## Moon on Reflection

- One of the defining characteristics of surface learning is that it does not involve reflection (p.123)
- Conditions for Reflection:
  - Time and space
  - Good facilitator
  - Curricular or institutional environment
  - Emotionally supportive environment

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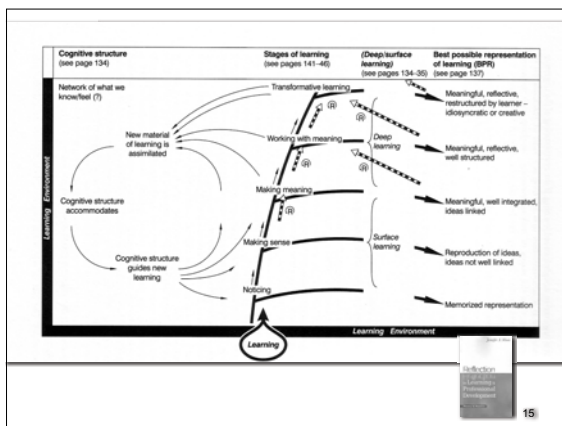
## Moon's Qualities of Tasks that Encourage Reflection

- Ill-structured, 'messy' or real-life situations
- Asking questions – no clear-cut answers
- Setting challenges can promote reflection
- Tasks that:
  - Challenge learners to integrate new learning into previous learning
  - Demand the ordering of thoughts
  - Require evaluation



pp.175-6

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## 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

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## Links between Learning and Storytelling

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

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

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## Reflective Process and Storytelling Stages

1. inner discomfort or surprise – “something” makes the experience memorable
2. events examined in detail – stories are shared, dialogue is formed
3. relates to outcomes – decision to change or gain knowledge through reflection

McDrury, J., Alterio, M. (2003) *Learning through Storytelling in Higher Education*. London: Kogan-Page, p.110-1

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## Storytelling = Narrative Inquiry

*Mattingly in Schön (1991)*

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

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## Story = Unpretentious Narrative

*Clandinin & Connelly in Schön (1991)*

- A fundamental method of personal growth
- **Reflection:** preparation for the future
- **Deliberation:** past considerations

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## Storytelling as Reflection

*(Schön, 1988)*

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

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## 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.”

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## 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.”

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## A Graduate Student's Letter to a Former Teacher

- Maybe you are a graduate student reflecting on what is drawing you into teaching (while displaying your photo portfolio)
- Play "Coming Full Circle"
- Or you are a teacher reflecting about teaching all of your students
- Play "Hakuin"



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## Constructed Meaning

"The portfolio is a **laboratory** where students construct meaning from their accumulated **experience.**"  
(Paulson & Paulson, 1991, p.5)

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## 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)

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## 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)

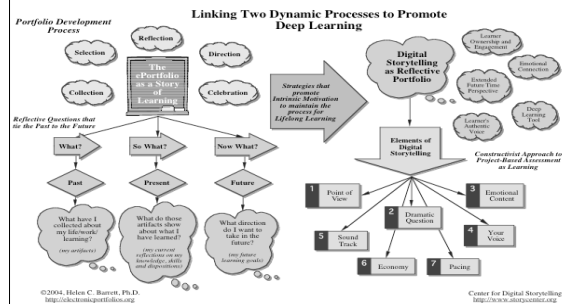
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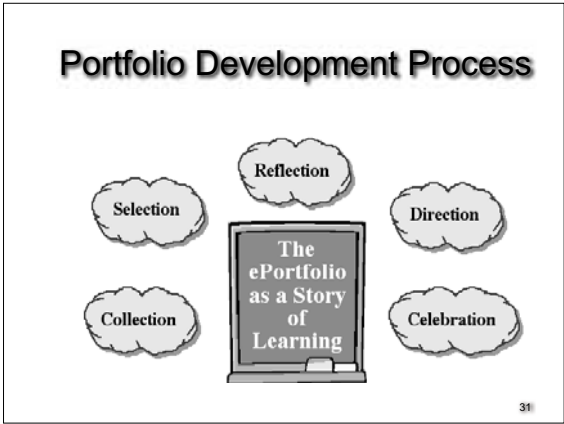
## Linking Two Dynamic Processes to Promote Deep Learning

## Portfolio Development Process Digital Storytelling

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## ePortfolio as Storytelling





- ### Portfolio Processes
- #### Traditional + Technology
- Collecting
  - Archiving
  - Selecting
  - Linking/Thinking
  - Reflecting
  - Storytelling
  - Directing
  - Collaborating
  - Celebrating
  - Publishing
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- ### Some concerns...
- **Assessment for Learning**
  - **Portfolios for Learning**
  - **What about Motivation?**
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- ### Components of Portfolio Development
- **Content**
  - **Purpose**
  - **Process**
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- ### Components of Portfolio Development
- **Content: evidence (artifacts + reflections)**
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## 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)

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## Components of Portfolio Development

### • Process:

- tools used
- sequence of activities
- rules
- evaluation criteria (rubrics)
- collaboration/conversation

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## Developmental Levels of Portfolio Implementation

### • Extrinsic Motivation

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

### • Mixed Motivation

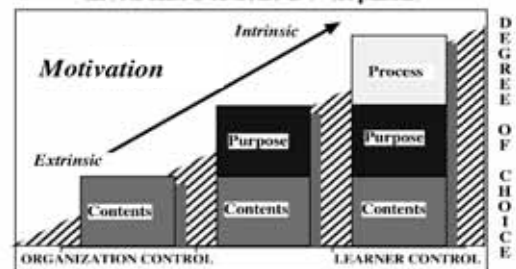
- learner ownership over one or two of the components

### • Intrinsic Motivation

- learner ownership of content, purpose and process

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## Learner Ownership and Control of Electronic Portfolio Development



Learner Control vs. Organizational Control  
Assumption:  
Greater Learner Control leads to more Intrinsic Motivation

## Helping Students to Reflect

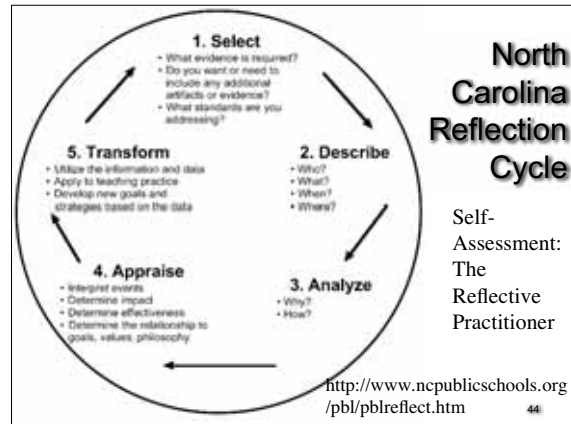
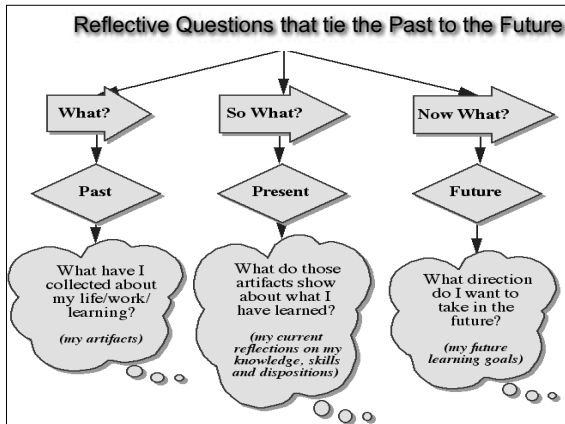
- Provide models and examples
- Begin with forms or prompts
- Move to journals/blogs
- Be careful that reflection in portfolios doesn't become an exercise in filling in the blanks on a web-based form.

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## Portfolios provide Encouragement for Reflection

1. ...provides both the discipline and the freedom of structure, allowing one to see one's own work. (Sonnet)
2. ...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)
3. ...the process of self assessment leads one to setting goals for future development and professional growth. (Map)

(Mary Diez, 1994)



**Writing a Reflection - 1**

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

- 1. Select:** What evidence/artifacts have you included?
- 2. Describe:** This step involves a description of the circumstances, situation or issues related to the evidence or artifact. Four "W" questions are usually addressed:
  - **Who** was involved?
  - **What** were the circumstances, concerns, or issues?
  - **When** did the event occur?
  - **Where** did the event occur?

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**Writing a Reflection - 2**

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

- 3. Analyze:** "digging deeper."
  - "Why" of the evidence or artifact
  - "How" of its relationship to teaching practice
- 4. Appraise:** *In the previous three steps, you have described and analyzed an experience, a piece of evidence, or an activity. The actual self-assessment occurs at this stage as you interpret the activity or evidence and evaluate its appropriateness and impact.*
- 5. Transform:** This step holds the greatest opportunity for growth as you use the insights gained from reflection in improving and transforming your practice.

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**Digital Tools for Reflection**

**Blogs and Wikis**

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**What is a blog?**

- Abbreviation for "web log" = online journal organized in reverse chronological order...the most recent entry on top
- Emerging into the mainstream in the last 18 months
- Very popular with adolescent girls
- Free, open source and commercial tools available

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## What is a “wiki”

- Hawaiian term for “quick”
- A tool for collaborative writing
- Anyone who reads a wiki page can click the EDIT button and add or edit text
- Another “older” technology that is emerging into common use.

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## Digital Tools for Reflection

## Digital Storytelling

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## 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

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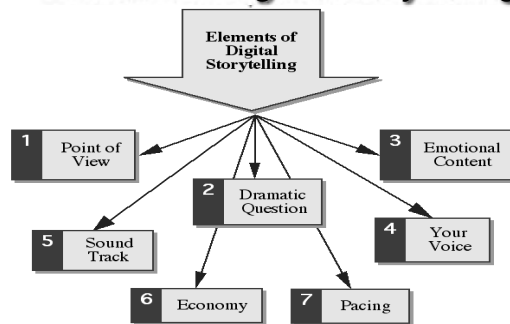
## What is Digital Storytelling?

- Created by a student teacher in her first digital storytelling workshop
- Play video



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## Center for Digital Storytelling



<http://www.storycenter.org>

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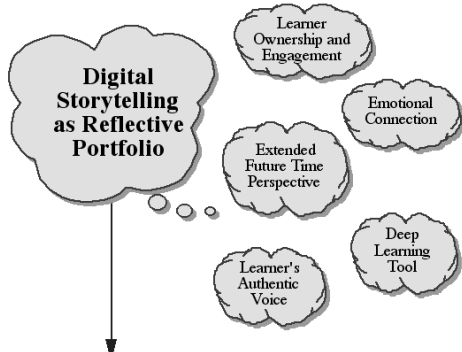
## Why include Digital Storytelling in ePortfolios?

## Learner Motivation and Affect

## Brain Research on Emotion in Learning

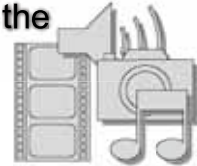
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## Constructivist Approach to Project-Based "Assessment-as-Learning"



## 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)

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## Voice = Authenticity

- multimedia expands "voice" in an electronic portfolio (both literally and rhetorically)
- personality of the author
- reflections unique
- writer 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

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## What's Your Story?

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

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## Digital Story as Legacy

Not just for professional  
development

Or skills-based portfolios

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## My Final Wish...

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

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