REFLECT Initiative
Researching Electronic Portfolios: Learning, Engagement, Collaboration through Technology

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Why The Reflect Initiative?
- Empirical evidence on effectiveness of e-portfolios in secondary schools
- Use portfolios to complement standardized tests
- Conduct a meta-study made of many smaller studies

The Goal:
- To collect data and draw conclusions about the impact of electronic portfolio on:
  - student learning
  - Motivation
  - Engagement
  …in secondary schools

What participants receive:
- Free web-based software for all student participants
- Free regional workshops (Aug-Sept. 2005)
- Onsite visits (one a year)
- Online professional development for all teacher participants

Goals of the REFLECT Initiative

The overarching goal of The REFLECT Initiative is to collect data and draw conclusions about the impact that electronic portfolios have on student learning, motivation, and engagement and how teaching practices and strategies change with electronic portfolio integration.

The REFLECT Initiative will study issues related to portfolio learning and reflection. The data collected will provide research-based evidence on the effect portfolios have on student learning, motivation, and engagement. To that end we will seek to identify what conditions facilitate and encourage students to care about their work and be proud of it. Can the project identify the conditions necessary to motivate students to maintain their portfolio as a record of their growth over time and as a story of their learning?

Some Key Research Questions
- How do e-portfolios provide evidence of deep learning?
- Under what conditions can e-portfolios be successfully used to demonstrate assessment for learning and assessment of learning?
- Under what conditions do students take ownership of their e-portfolios?
- What are the benefits of developing e-portfolios as perceived by students, teachers, administrators, and/or parents?
- What are perceived obstacles to implementing e-portfolios with secondary school students and how can they be overcome?
- How do paper portfolios differ from e-portfolios?
The Vision of REFLECT

To provide the teachers with the training and the students with the tools:

• To tell their stories with pride!
• To put heart and soul and voice into their portfolios!

How Were Schools Chosen?

• Schools submitted a proposal for their project in Spring 2005
• All participating organizations needed to send at least one representative to the Inaugural meeting (Philadelphia just prior to NECC)
• Students must participate (and be supported) for the length of the entire program (2 years)

Research Project Factors

Timeline

A tale of two paper portfolios

High School graduates in Washington state (and Utah, too!)

High school freshman (Jim Mahoney, *Power and Portfolios* published by Heinemann)

Difference between those two stories?

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

Each school needed to decide on the best implementation to fit the needs of the project.

Many Choices….
- Showcase Portfolio?
- Assessment Portfolio?
- Combination of both?

What Type of Portfolio?

- **Presentation Portfolio**
  - Gives student ownership
  - Flexible structure

- **Assessment Portfolio (DRF)**
  - Provides rigid structure
  - Provides school with evaluation data

Purposes for Assessment

- **Assessment OF Learning** = Summative Assessment
- **Assessment FOR Learning** = Formative (Classroom-based) Assessment

Overlap of Assessment Types

- Portfolios that support Assessment OF Learning
- Portfolios that support Assessment FOR Learning

Institution-centered Learner-centered

www.qca.org.uk/afl (ages3-14)
What is your portfolio philosophy?

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

A look at some of the REFLECT schools

**Overall Cohort**

- 14 Active Projects
  - Arizona (3)
  - New Jersey
  - California (5)
  - Florida
  - Maryland
  - Michigan
  - Brazil
  - Tennessee

- 31 Active Schools
  - 15 in Arizona DOE Project
  - 4 in New Jersey DOE Project
  - 1 Elementary School
  - 1 Intermediate School
  - 29 High Schools
  - 2 Private Schools (MD & FL)

- ~133 Active Teachers
- ~3100 Students
  - (Fall Semester)
  - Could double in Year 2

**Mount Juliet High School**

- Presentation Portfolio
  - Template created and distributed to all of the students
  - 470 participating students

**Mount Juliet High School (TN)**

- "We have found the web-based portfolios are giving us a leverage (mobility) not found in paper-based portfolio products."
  - One-stop shop
  - Diane Bennett, Project Leader

Quotes
John O’Connell High School (CA)

- Directed Response Folio (Assessment Portfolio)
  - College to Career Classes
  - 450 participating students
  - French class
  - Spanish classes
  - AP Biology

Associado Brasil America

- Brazilian/American Bi-national Center accredited by the U.S. government
- It promotes cultural and educational exchange through English courses for adults, teens, and children and holds cultural events, courses and seminars for professionals, scholarship programs, Portuguese as a second Language, translation services and membership programs for U.S. alumni.
- Presentation Portfolios – one for each of eight semesters
- Portfolios Submitted to DRF
- 130 students

McGarvin Intermediate School (CA)

- Social Studies Classes
- 327 students
- Directed Response Folio Template
Summary of Research Protocols

- **Pre:** Fall 2005 (Dec-Jan)
  - Online surveys of students and teachers (UNT)
- **Ongoing:** through Online PD & Teacher Journals (blogs)
  - Sample student ePortfolio reviews
- **Site Visit observations:** Winter 2005/Spring 2006
  - Focus on introduction and implementation by teachers
- **Mid:** Spring 2006 (May)
  - Online surveys of students and teachers
  - Site Visit observations: Winter 2005/Spring 2006
  - Add Student focus groups
- **Post:** Spring 2007 (March-May)
  - Repeat online surveys of students and teachers (UNT + HSSSE)
  - Paper survey of parents (English & Spanish)

Looking Ahead… 2006

- Initial Surveys in the process of completion
  - Using Survey Builder and DRF within TaskStream
  - Student Survey (UNT’s CAQ)
  - Faculty Survey (UNT’s TAC, CBAM, Davies/Stiggins AFL strategies)
- Teachers submitting products
  - Weekly Journal
  - Professional Portfolio
  - Online Discussions
- Phase 2 Professional Development (Pedagogy)
- Site visits to schools throughout Spring 2006
- March Meetings in Orlando (FETC) and Palm Springs (CUE)
- Spring Survey focus specifically on Portfolio Use

PD Needs Assessment (TaskStream-Phase 1)

<table>
<thead>
<tr>
<th>Description</th>
<th>Count</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Maintaining a Reflective Journal with the Web Page Builder</td>
<td>16</td>
<td>36%</td>
</tr>
<tr>
<td>Using the Resource Folio to upload work samples</td>
<td>14</td>
<td>32%</td>
</tr>
<tr>
<td>Creating your Professional Portfolio using the Web Folio Builder</td>
<td>15</td>
<td>34%</td>
</tr>
<tr>
<td>Using the Lesson Builder and the Unit Builder</td>
<td>16</td>
<td>36%</td>
</tr>
<tr>
<td>Using the Rubric Wizard</td>
<td>14</td>
<td>32%</td>
</tr>
<tr>
<td>Using the Message Center (internal e-mail)</td>
<td>7</td>
<td>16%</td>
</tr>
<tr>
<td>Using the Discussion Board</td>
<td>13</td>
<td>30%</td>
</tr>
<tr>
<td>Creating a Directed Response Folio</td>
<td>18</td>
<td>41%</td>
</tr>
<tr>
<td>Creating a Template for the Web Publication Tools</td>
<td>10</td>
<td>23%</td>
</tr>
<tr>
<td>Creating a customized form for your students to complete</td>
<td>24</td>
<td>55%</td>
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n=44

PD Needs Assessment (Pedagogy-Phase 2)

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<tr>
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<td>21st Century Learning</td>
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<td>18%</td>
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<tr>
<td>Formative Assessment FOR Learning strategies</td>
<td>11</td>
<td>25%</td>
</tr>
<tr>
<td>Electronic Learning Portfolios</td>
<td>23</td>
<td>52%</td>
</tr>
<tr>
<td>Project-Based Learning</td>
<td>19</td>
<td>43%</td>
</tr>
<tr>
<td>Student Engagement and Motivation</td>
<td>22</td>
<td>50%</td>
</tr>
<tr>
<td>Effective Integration of Technology into Instruction</td>
<td>11</td>
<td>25%</td>
</tr>
<tr>
<td>Reflection to support deep learning</td>
<td>11</td>
<td>25%</td>
</tr>
<tr>
<td>Digital Storytelling</td>
<td>15</td>
<td>34%</td>
</tr>
<tr>
<td>Creating a school-based Professional Learning Community</td>
<td>10</td>
<td>23%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>5%</td>
</tr>
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n=44

Teacher Demographics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Male</td>
<td>14</td>
<td>31.11%</td>
</tr>
<tr>
<td>Female</td>
<td>31</td>
<td>68.89%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Degree</th>
<th>Count</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Bachelors Degree</td>
<td>20</td>
<td>44.44%</td>
</tr>
<tr>
<td>Masters Degree</td>
<td>18</td>
<td>40.00%</td>
</tr>
<tr>
<td>Ed. Specialist Degree</td>
<td>1</td>
<td>2.22%</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>2</td>
<td>4.44%</td>
</tr>
</tbody>
</table>

Computer Access at Home - Teachers

- 95% have a computer at home
- 91% have Internet access at home
- How many hours do you use computers and the Internet at home?

<table>
<thead>
<tr>
<th>Hours using at home</th>
<th>Computers</th>
<th>Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 hours per week</td>
<td>9%</td>
<td>16%</td>
</tr>
<tr>
<td>5-10 hours per week</td>
<td>24%</td>
<td>31%</td>
</tr>
<tr>
<td>10-20 hours per week</td>
<td>27%</td>
<td>36%</td>
</tr>
<tr>
<td>More than 20 hours per week</td>
<td>9%</td>
<td>7%</td>
</tr>
</tbody>
</table>
Computer Access at School - Teachers

How many hours do you use computers and the Internet at school?

<table>
<thead>
<tr>
<th>Hours using at school</th>
<th>Computers</th>
<th>Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 hours per week</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>1-4 hours per week</td>
<td>16%</td>
<td>47%</td>
</tr>
<tr>
<td>5-10 hours per week</td>
<td>24%</td>
<td>29%</td>
</tr>
<tr>
<td>More than 10 hours per week</td>
<td>60%</td>
<td>22%</td>
</tr>
</tbody>
</table>

C-BAM - Stages of Implementation

Stage 1: Awareness - I am aware that _______ exists but have not used it. - perhaps I’m even avoiding it. I am anxious about the prospect of using _______.

Stage 2: Learning the process - I am currently trying to learn the basics. I am sometimes frustrated using _______. I lack confidence when using _______.

Stage 3: Understanding and application of the process - I am beginning to understand the process of using _______ and can think of specific tasks in which it might be useful.

Stage 4: Familiarity and confidence - I am gaining a sense of confidence in using _______. I am starting to feel comfortable using _______.

Stage 5: Adaptation to other contexts - I think about _______ as a tool to help me and my students and am no longer concerned about it as _______. I can use it in many applications and as an instructional aid.

Stage 6: Creative applications in new contexts - I can apply what I know about _______ to new projects, and I am able to use it as an instructional tool and integrate it into the curriculum.

C-BAM - Levels of Use

Level 0: Non-use - I have little or no knowledge of _______, no involvement with it, and I am doing nothing toward becoming involved.

Level 1: Orientation - I am seeking or acquiring information about _______.

Level 2: Preparation - I am preparing for the first use of _______.

Level 3: Mechanical Use - I focus most effort on the short-term, day-to-day use of _______. I lack confidence when using _______.

Level 4: Routine - I feel comfortable using _______. However, I am putting forth little effort or thought to improve _______ or its consequences.

Level 5: Integration - I am combining my own efforts with related activities of other teachers and colleagues to achieve impact in the classroom.

Level 6: Renewal - I reevaluate the quality of use of _______, seek major modifications of, or alternatives to, present innovation to achieve increased impact, examine new developments in the field, and explore new goals for myself and my school district.

Self-Assessment Checklist for Student Involvement

- 13%43%50%12. Students are fully involved in the assessment process. They are working harder and learning more.
- 20%50%37%11. Students present evidence of learning to others and receive feedback.
- 24%48%35%10. Students collect evidence of their own learning.
- 11%43%50%9. Students revisit and reset the criteria as they learn more.
- 15%46%48%8. Students self-assess, and set goals.
- 15%43%39%7. Students debrief their learning with their peers and others.
- 13%46%48%6. Students receive and give themselves specific, descriptive feedback as they learn.
- 24%50%33%5. Students have time to learn.
- 9%41%54%4. Students set criteria with me to define quality.
- 24%39%46%3. Students are able to describe what evidence of learning might look like.
- 22%48%33%2. Students collect and refer to samples that show quality work.
- 20%59%28%1. Students are able to articulate the learning destination.
Assessment for Learning - Self-Assessment for Teachers

<table>
<thead>
<tr>
<th>Statement</th>
<th>Begin</th>
<th>On the Way</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. I involve students in on-going assessment for learning.</td>
<td>33%</td>
<td>23%</td>
<td>44%</td>
</tr>
<tr>
<td>14. I summarize in my own words the learning that students are expected to accomplish.</td>
<td>24%</td>
<td>48%</td>
<td>30%</td>
</tr>
<tr>
<td>15. I collect and review samples and models to show what the learning looks like for students of a particular age range.</td>
<td>30%</td>
<td>41%</td>
<td>30%</td>
</tr>
<tr>
<td>16. I think about what kinds of evidence students could produce to show they have learned what they needed to learn.</td>
<td>30%</td>
<td>43%</td>
<td>33%</td>
</tr>
<tr>
<td>17. I ensure the evidence of learning is valid and reliable by using the process of triangulation. I collect evidence over time, so emerging trends and patterns can be identified.</td>
<td>48%</td>
<td>35%</td>
<td>25%</td>
</tr>
<tr>
<td>18. I use classroom assessment information to fine-tune instruction and the learning environment for students.</td>
<td>33%</td>
<td>37%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Site Visits

- 1 day classroom observation + conversation with teachers
- 4-8 page report with these topics:
  - Observation of Technology and TaskStream Use by Students
  - Rolling it Out: Planning and Early Implementation
  - General use of/or goals for TaskStream in this implementation
  - Computer Environment in the School
  - Implementation of Research Requirements
  - School Environment
  - General feelings about TaskStream and ePortfolios from teachers
  - Professional Development Needs
  - Review of Project Goals from the original Proposal
  - Observations and Comments on the Progress of Implementation

Initial Observations from Site Visits

- Teacher’s role is critical
  - Dual learning curve
    - Learning TaskStream (prior experience in TED program)
    - Using portfolios with students (prior paper portfolio experience)
    - Understanding reflection and metacognition
    - Using Assessment FOR Learning strategies
  - Have really good technology integration strategies
- Access to technology is also critical
  - Home access by students
  - Classroom access impact on in-school use (scheduling)

Validating my dissertation research

- When learning new tools, use familiar tasks
- When learning new tasks, use familiar tools

My Hope and Wish…

Electronic Portfolios become dynamic celebrations and stories of deep learning across the lifespan

Dr. Helen Barrett & Risa Sackman

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  - http://www.reflectinitiative.com/
  - http://electronicportfolios.org/