Steps in developing critical reflection among online graduate students through e-portfolios

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Problem?

- Teaching and learning approaches changing:
    - constructivist, transformative …?
    - development of critical reflection and critical self-reflection
    - metacognition; emotional, social and organizational (strategic) learning

- Assessment techniques do not fit contemporary understandings of teaching and learning processes

MEd e-Portfolio competencies

1. Problem Solving, Analysis, & Decision Making
2. Instructional Design & Development
3. Communication Technologies and Networking
4. Communication & Interpersonal Skills
5. Research
6. Management, Organization and Leadership

Research Q & Study

- **Longitudinal Action research study asking:**
- To what extent can e-portfolios promote:
  - experiential learning
  - critical reflection
  - transition from learning to practice
  - community cohesion and
  - lifelong and life-wide learning

   … in an Open and Distance setting?

- How can these be supported or scaffolded?

Problems and Concerns

- Student misunderstandings
    - *process* nature of MEd e-portfolios
    - Critical reflection
    - Critical practice (personal vs academic/professional)

E-portfolio Study 2014-2015 …

Techniques:
- 2008 Pilot Survey: Likert and open-ended Qs (students & academic staff)
- 2012 Full e-portfolio implementation
- 2014 Interviews with recent former students (last 2 years)
- 2015- Analysis of recorded student interviews
- 2015- Analysis of student documents (on-going)

Stages of student development 1/...2

- **Description**
    - → **our questions: dig deeper**
        - o **learning moments?**
        - o **triggers?**
        - o **"ah!" & "oh no!" moments**
- **Calling what they write "Reflection"**
    - → **examples from other students with parallel circumstances**
- **Listing competencies (rather than demonstrating)**
    - → **"just because you say it's so, doesn't mean it's so"**

Stages of student development 2/...2

- **Drawing out competencies from assignment criteria rather than THEIR experience of it**
  - ➔ **our questions:**
    - –**What did you notice?**
    - –**How did you perceive it?**
    - –**What did it mean to you? Your learning?**
    - –**How did it affect you as a learner?**
      - **As a professional?**
  - ➔ **Take-aways: what do/would you do differently now?**
  - ➔ **How has this experience affected you as a lifelong, life-wide learner?**

Interview questions

Time taken vs investment?
Useful resources?

Pros and Cons?

Understanding of critical reflection?
Development of critical reflection?

Contribution to lifelong and life-wide learning?
Contribution to professional/work life?

What could or would you have done differently?

Tools and process 1/...2

- Interviews recorded and transcribed
- Transcriptions sent to interviewees for confirmation/ changes (member checking)
- Identifying information removed
- Nvivo used for analysis
- Colour-coding of themes
    - Orange: reflection (doing it)
    - Brown: understandings (benefit)
    - Green: strategies
    - Blue: future/work-related benefits
    - Purple: examples
- Second (co-)coder used to independently code
- Discussion of discrepancies
- Collation/collapsing of some coded themes

Tools and process 2/...2

- Mapping of themes to categories found in the literature
- Revisiting participants' e-portfolio documents for comparison
- Cross-referencing e-portfolio texts with interview themes
- Adding/collating themes & drawing out quotes
- Distilling understandings from experiences
- Distilling support suggestions & recommendations

Some student comments: e-portfolio pros

The reflection and having that recorded and captured – it continues the learning. So it's not just reflecting on those things that I learned; it forced me to think about them more and in a further point in time, and then even now I can go back and think about those things based on what I've learned over the last two years since then. That's definitely the biggest pro.

I guess a similar point too is looking back at what I've done in school and then kind of picking and choosing the things that I think I want to ... the directions I want to point from, so that these things were the most useful, or I was the most interested in, and that's kind of how I want to point my career or when I look for a job, or the things I want to work on. So they're reminders or ways of understanding my own interests a bit better.

I'd say even a better organization of my own interests rather than just having it all jumbled in my head. I guess if I think of it as a relationship with myself, or a relationship with my own thoughts, being able to see that more clearly, being more confident about that.

- that was a big thing about going back to school and doing the master's degree, yeah – my thoughts were much more organized. So yeah, it was… I'd say that had started in the program and then the e-portfolio kind of tied that together and gave it even more… or even a better summary or better window to view that experience with.

Some student comments: Critical reflection

Right away, critical reflection… I think of looking back on something and thinking about either different actions I would have taken or different points I would have made or different artefacts I would have chosen or something different I would have done as a critical reflection. Or I guess in terms of the content of the artefacts… seeing how my perspective has changed whereas yeah, I used to think that, or that was a point, but I would extend it or expand it this way or I would think the opposite now because of this experience or what I've learned, or I would have made this point much more stronger because of what I know now, type of thing.

[coming from hard sciences] I've never had to critically reflect before, and so I was like in my Master's program, and I realized it's actually a very important skill to have and it's ... I think some people have it inherently in them to do, and other people, don't …That's an assumption I'm making…

In one of the courses I took in the Master's program … Anyhow, and it kind of hit me like a brick because she was very all about the critical reflection and having that put in your writing and everything, and I went … I like went… I hit a brick wall in that course and I went wow .. I don't know what I'm doing!!

Some student comments

In my e-portfolio presentation I made the comment that "the process of learning is important". Revisiting this artefact made me realize that learning is a multidimensional process and that my learning was not flat or linear. My learning through this artefact was systemic and dynamic and has continued over time due to my e-portfolio. I unwittingly celebrated my catastrophes when I handed in my first two assignments for the first time. Because of my fear of failure my learning moments were tangled. However, I can say my reflective e-portfolio process has helped me uncover my turning points, as I proffer my shift in perspective.

Some student comments: lifelong or life-wide learning

I think again, back to the capturing, I do try to capture a lot of my work, not just the end product, but I keep daily and weekly logs of what I'm doing, just so I can go back and have that there to reflect on or to see why I made certain decisions. And I think that comes in part from the e-portfolio and overall from the master's program.

I think it was just putting me in the habit of reflecting and not only just times reflecting while I'm on the train or waiting in line but doing it as a more intentional thing, keeping logs and journals and things like that. Even if I do it not to the fullest extent…. on certain projects, I can know that it's going to be more useful than others, and I think that comes directly from the e-portfolio.

Some student comments: lifelong or life-wide learning

I've incorporated a learning journal in my work and … just to help me with that life long learning, because like I said it's not about taking a course or learning a skill or getting some more knowledge, it's about what you're doing with that skill and knowledge and how does that make you feel and could you have done something different, or improved, and going forward, what are you going to do next? What's your next step? If I had not done that e-portfolio I would not be / have the understanding I have.

so now I'm definitely looking at, or reading the newspapers, … and really look at both sides of an argument. And I think that's keeping my own assumptions and my own biases in check … even though I may at the end of the day agree with that other argument at least I feel as if I've given it a fair look or understanding or…

And I think with relationships, too. Again, your partner may something or do something and now I have a different not "jump to conclusions" kind of response--that kind of "what were you thinking there" kind of thing or "could you explain that to me, why you think that way?"—I'm more that way now than I was before for sure.

Some student comments: lifelong or life-wide learning

… but what she had us do, which helped me so much, was a learning journal, and that was the first time I was exposed to a learning journal. And I kind of grabbed on to it and I actually used it as my crutch to participate in the discussion forums … anyway, and then I realized I was seeing the world in black and white and it really made me realize I… and then I realized really truly what having assumptions were and yeah… that was when I really went okay… so I need to figure this out!

I think I said in my e-portfolio, tangibles and intangibles and stuff. Like in my program I took away some intangibles I didn't realize had even happened until I went, "oh, yeah—okay yeah! I do speak up more in meetings; I do kind of think…." Anyway, I have more confidence.

Useful resources & recommendations

Resources:

• Sample e-portfolios from other students & elsewhere (what is expected and flexibility)

• How-to videos (technical aspects)

• Attendance at & availability of recorded presentations

• Examples of how to map learning to program competencies

• Early feedback on 1st draft of 1 artifact

• Access to written and oral comments from instructors

Useful resources & recommendations

Recommendations:
- Start early
  - Provides material that is fresh in the mind
- On-going journalling (practice, rehearsal & scaffolding)
- Separate product from process: add in more journals
- Advantages of retrospective view

Thank you!!

Questions?   Comments?

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http://cde.athabascau.ca/faculty/hoven/debrah.php

E-portfolio:
https://portfolio.elab.athabascau.ca/view/view.php?id=280