THE AAEEL ePORTFOLIO REVIEW (AEPR)

The Association for Authentic, Experiential and Evidence-Based Learning (AAEEBL) ePortfolio Review (AePR) invites you to submit articles and reports covering the broad area of eportfolio use. We publish articles about pedagogy, research, technical, and organizational issues tri-annually. Our readership includes eportfolio practitioners, administrators, and students. AePR is an online journal serving the needs of the global eportfolio community and seeks to promote portfolio learning as a major way to transform higher education.

The AePR is a theme-based journal; therefore, acceptance is competitive. After a proposal has been accepted for a specific issue, the authors are paired with one of our peer reviewers. Proposals submitted for a current issue may be considered for a subsequent issue if it fits the upcoming theme.

ARTICLE TYPES

We're particularly interested in the following types of articles:

- Longer articles (3,000 to 5,000 words) about practical research, administrative reports, or case studies with generalizable results – again, not as peer-reviewed research but as reports.
- Short articles (1,000 to 1,500 words) discussing a case study at an institution/course, offering advice and opinions to other eportfolio practitioners.
- How-to articles, tutorials on specific tools or approaches (500 to 1,500 words).
- Interviews (500 to 1000 words) with key individuals directly involved with the use of eportfolios.
- Announcements (up to 300 words) of items regarding the use of eportfolios in the field.

Call For Proposals

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Letter from the Board

We are excited to offer another issue of the AAEEBL ePortfolio Review. In this issue, we build on the “high impact practices” to focus on a critical aspect of eportfolio work — assessment.

Assessment is at the heart of eportfolio work. The portfolio process is intimately tied to an understanding and improving of learning through a careful examination of evidence and change over time — in other words, assessment. Likewise, many eportfolio technologies have developed functionalities of assessment — feedback, rubric-building, and snapshots to name a few. Most excitingly, as the AAEEBL community and others have begun to demonstrate, eportfolios support a certain kind of transformation of assessment, primarily by using the learner’s own work as its evidence and a learner’s voice as its medium. This is an exciting time for assessment, and we—the AAEEBL community — are a big part of that.

In this issue, there are articles that focus on many different audiences for assessment. From instructional designers working with faculty, to instructors working with students of different disciplines, we can see that assessment isn’t to be isolated from the learning moment any longer. And, significantly, it is a process that all of us can participate in — from students to administration, we can use eportfolios to convey many different learning stories.

Welcome and enjoy!

Marc Zaldivar
Virginia Tech and Secretary of the AAEEBL Board
Letter from the editorial team

When the AePR team sent out the CFP for this issue we stated that assessment is at the heart of education. How else can we know if learning is effective? In academic institutions we typically think of assessment in terms of judging how well our students are learning. Traditionally, we determine this via tests, papers, quizzes and other assignments in which the instructor evaluates the students in a very one dimensional dynamic, but the development of eportfolios have allowed another dimension to enter within the assessment framework. Most eportfolio champions understand that these traditional methods cannot solely assess long-term success of our students, our educational programs, or even faculty development.

In this fourth issue (Volume 2, Issue 1) of AePR, the authors take you on a journey of their own assessment practices related to the use of eportfolios. The articles within this issue allow the reader to explore various eportfolio assessment dimensions. In this edition, for example authors connect learning outcomes to eportfolio assessment, peer assessment along with self-reflection, and also digital and visual assessment literacy just to name a few areas.

ePortfolio assessment practices are growing and we, the AePR team, envision the day when traditional methods will be secondary and eportfolio practices will lead the way. We hope you enjoy this edition which provides a glimpse into the various eportfolio assessment practices by our valued authors.

Happy reading,

Cindy P. Stevens, Executive Co-Editor
stevensc@wit.edu

David R. Dannenberg, Executive Co-Editor
ddannenberg@alaska.edu
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The holistic Operating Department Practice (ODP) eportfolio.  
Page 8: Fostering self-assessment by scaffolding in the Operating Department Practice ePortfolio.

Used with permission by the student: Tyler’s eportfolio.  
Page 32: More than words: Assessing students’ eportfolio design and visual literacy in the composition classroom.

Home page for the workshop portfolio, readers are invited to access the site and utilize the resource.  
Page 40: Isolating Rhetorical Challenges with Curation in ePortfolios: A Writing Faculty Workshop.
Fostering Self-assessment by Scaffolding in the Operating Department Practice ePortfolio

by Barbara Nicolls, Shane Roadnight and Danny Clarke
Editor: Ellen Zeman

INTRODUCTION

Self-assessment is defined as "the involvement of students in identifying standards and/or criteria to apply to their work and making judgments about the extent to which they have met these criteria and standards" (Boud, 1995, p. 12). In other words, self-assessment requires students to reflect on their own work and judge how well they have performed in relation to assessment criteria. Internalizing these criteria encourages deep rather than surface learning, greater autonomy (Brown, Rust, & Gibbs, 1994) and helps students better engage with feedback from tutors and peers. However, Boud warns that learning how to make effective judgments is an acquired skill because of the difficulty to articulate standards and criteria in a way which can be understood. Moreover, educators have discovered that engaging undergraduate students in reflective practice through self-assessment to enhance their clinical decision making along with their Personal Professional Development Portfolio has been reported as an ongoing challenge (Owen, Sprick, & Sanderson, 2010; Sandars, 2009). Students cite a lack of knowledge and skills required for assessing their own work, or they view assessment as the responsibility of their tutors (University of Reading, n.d.). Rust, Price and O'Donovan (2003) support these observations by reporting that not only novice learners in the discipline, but also experts are challenged by self-assessment. Therefore, as highlighted by Boud (1995), for students to acquire the skill to make these judgments, educators must help students develop:

1. the understanding of and an appreciation for how the appropriate
standards and related criteria apply to authentic work scenarios, and
2. the capacity to make judgments about whether or not their own work does or does not meet these standards.

Wood, Bruner, & Ross (1976) explain that the interventions that educators design for student acquisition of self-assessment skills usually involves a kind of “scaffolding” process that enables a novice to carry out a task, which would be beyond his or her unassisted ability.

Scaffolding is defined as “a teaching strategy in which instruction begins at a level encouraging student success and provides the right amount of support to move students to a higher level of understanding” (Jafari & Kaufman, 2006, p. 557) in the zone of proximal development (ZPD). Vygotsky’s concept of ZPD is explained as the difference between what students can do independently and what they can do with the teacher’s guidance, or in collaboration with more capable peers (Vygotsky, 1978). Pedagogical scaffolding can enable interactions not only with humans but also with technology, resources and environments through structured activities that aim to move students progressively toward a stronger understanding of concepts and ultimately greater independence in the learning process. In so doing, teachers help students to develop as autonomous, independent lifelong learners. However, Bruner (1983) alerts educators to the gradual removal of the scaffolding to prevent student dependence and helplessness. Lifelong learning capabilities are developed through raising self-awareness which, in turn, is an outcome of reflective writing during which the writer examines interactions with colleagues, identifies knowledge gaps, acknowledges weaknesses and finds ways to improve them (Kuiper & Pesut, 2004).

Reflective writing has the potential to facilitate both self-reflection and integration of theory and practice. It also assists students in identifying the connection between personal experiences and professional values (Walmsley & Birkbeck, 2006).

Because of the challenges inherent in engaging undergraduate students in reflective practice to enhance their clinical decision-making and personal/professional development, we propose a Personal, Professional Development Portfolio (PPDP) to facilitate reflective practice in the healthcare professions. Operating Department Practice (ODP) and other healthcare professions in the UK have a history of using portfolios within both undergraduate and postgraduate curricula to facilitate reflective practice and support learning and development (Owen et al., 2010; Sandars, 2009; Tochel et al., 2009) through reflective writing. The Joint Information Systems Committee (JISC, 2015) endorses this finding: eportfolios facilitate peer-to-peer and peer-to-tutor dialogue, private reflection and in some cases, assignment submission and receipt. This paper presents the scaffolding that is in place within the Diploma in Higher Education (HE) in ODP eportfolio to promote self-assessment of the achievement of the Standards of Proficiency through inquiry and reflection-centered strategies for professional learning.
OPERATING DEPARTMENT PRACTICE – THE PROFESSION

Operating Department Practice is a relatively new profession, regulated since 2004 by the UK’s Health and Care Professions Council (HCPC), formerly known as the Health Professions Council (HPC), which protects National Health Service users by keeping a register of health professionals who meet the standards for their training, professional skills, behavior and health. In order to ensure a high standard of skilled support during peri-operative care, the HCPC expects its practitioners to provide evidence of continuing personal and professional development (CPPD) through the maintenance of a portfolio of evidence, not only at the undergraduate level but also at the registrant level, to remain on the register. Practitioners’ broad knowledge and skill base, including management and communication skills, is used in the assessment, delivery and evaluation of peri-operative care. As of September 2016, there were 12,986 registered ODPs in the UK working as members of multi-disciplinary teams that include surgeons, anesthetists and theatre nurses to ensure that surgery is as safe and effective as possible. Bucks New University is one of UK Higher Education Institutions (UKHEIs) that is currently offering the Diploma in HE in Operating Department practice. Table 1 shows the cohorts and the numbers since 2011.

BACKGROUND OF THE BUCKS OPERATING DEPARTMENT PRACTICE EPORTFOLIO

Since 2011, the Bucks Diploma in HE in ODP curriculum has embedded the projectional eportfolio (Barnett, 2000; Moore, 2001), which is outward facing to employers and the economy rather than the introjectional, facing inwards to the discipline. The aim is to develop highly flexible, integrative and adaptive lifelong learners who are capable of keeping pace with the rapidly changing demands of new knowledge, emerging work roles and changing work environments. The process of creating this eportfolio, including reflective writing on academics, practice, and experiential learning, aims to prepare the students for employment in the hospital setting as registered ODPs through 40% theory and a minimum of 60% practice. Learning takes place in diverse environments across a range of settings in the National Health Service (NHS), the independent and voluntary health and social care sectors as shown in Figure 1.

Table 1: Cohorts and numbers of ODPs recruited at Bucks New University

<table>
<thead>
<tr>
<th>Year</th>
<th>Recruited</th>
<th>Graduated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>2012</td>
<td>35</td>
<td>23</td>
</tr>
<tr>
<td>2013</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>2014</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>2015</td>
<td>45</td>
<td>32</td>
</tr>
</tbody>
</table>

Table 2 illustrates the structure of the two-year course with theory modules. Table 3 shows how, in Year 1 Semester 1, teaching of theory and concepts integrated with practice placements enables student ODPs to apply their learning in a real environment. This format is repeated
over the two–year course of study and is unique to the Bucks Diploma in HE in ODP. Returning to the campus on Debrief Days during the placement period allows the student ODPs the opportunity to reflect on their experience in a safe and familiar environment with the course team and their peers and discover ways of doing things differently or confirm their understanding of the professional models of practice. This is an example of scaffolding in the ZPD to help the students integrate theory with practice.
# Table 2: Structure of the Diploma in HE in ODP COURSE

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Level 4</th>
<th>Course Code (CL)</th>
<th>Course Title</th>
<th>Course Description</th>
<th>ePortfolio Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 1</td>
<td>CL 401</td>
<td>Fundamentals of Perioperative Practice</td>
<td>Clinical Practice in Anesthetics, Surgery</td>
<td></td>
<td>ePortfolio induction, familiarization, exploration, collection, selection of evidence</td>
</tr>
<tr>
<td></td>
<td>CL 402</td>
<td>Principles &amp; Practice of Anesthetics &amp; Surgery</td>
<td>Clinical Practice in Anesthetics, Surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 1</td>
<td>Sem 2</td>
<td>CL 403</td>
<td>Developing Perioperative Practice</td>
<td>Clinical Practice in Emergency Anesthetics, Surgery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CL 404</td>
<td>Anatomy &amp; Physiology</td>
<td>Clinical Practice in Emergency Anesthetics, Surgery</td>
<td></td>
<td>Summary of learning in Y1</td>
</tr>
<tr>
<td>Year 2</td>
<td>Level 5</td>
<td>CL 501</td>
<td>Advancing Perioperative Practice</td>
<td>Clinical Practice in Complex Anesthetics, Surgery</td>
<td></td>
</tr>
<tr>
<td>Sem 1</td>
<td>CL 502</td>
<td>Applied Anatomy and Physiology</td>
<td>Clinical Practice in Complex Anesthetics, Surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td>Sem 2</td>
<td>CL 503</td>
<td>Specializing in Perioperative Care</td>
<td>Clinical Practice in Specialist Anesthetics, Surgery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CL 504</td>
<td>Developing Leadership Qualities in the Perioperative Care Environment</td>
<td>Clinical Practice in Specialist Anesthetics, Surgery</td>
<td></td>
<td></td>
</tr>
</tbody>
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Fostering self-assessment by scaffolding in the Operating Department Practice ePortfolio
Barbara Nicolls, Shane Roadnight and Danny Clarke

<table>
<thead>
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<th>Week commencing</th>
<th>2015 Cohort Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-Sep-15</td>
<td>Campus Study Block for CL401 &amp; CL402</td>
</tr>
<tr>
<td>21-Sep-15</td>
<td></td>
</tr>
<tr>
<td>28-Sep-15</td>
<td></td>
</tr>
<tr>
<td>05-Oct-15</td>
<td></td>
</tr>
<tr>
<td>12-Oct-15</td>
<td>Clinical Placement</td>
</tr>
<tr>
<td>19-Oct-15</td>
<td>Debrief Day</td>
</tr>
<tr>
<td>26-Oct-15</td>
<td>Clinical Placement</td>
</tr>
<tr>
<td>02-Nov-15</td>
<td></td>
</tr>
<tr>
<td>09-Nov-15</td>
<td>Debrief Day</td>
</tr>
<tr>
<td>16-Nov-15</td>
<td>Clinical Placement</td>
</tr>
<tr>
<td>23-Nov-15</td>
<td>Campus Study Block for CL401 &amp; CL402</td>
</tr>
<tr>
<td>30-Nov-15</td>
<td></td>
</tr>
<tr>
<td>07-Dec-15</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Delivery typical semester in the Diploma in HE in ODP course: Year 1 Semester 1

The curriculum is translated into the integrated eportfolio, which is structured around the course learning outcomes with evidence slotted in to demonstrate how the learning outcomes have been met (Figure 2). Thus, student ODPs develop a digitized collection of evidence relating to curricular and co-curricular achievement and reflection (Lorenzo & Ittelson, 2005). In its embrace of eportfolios for reflection, employability and lifelong learning, the Bucks ODP eportfolio is unique in that it uses the free, institution-independent, student-owned Google Sites platform and is based on the concept that students will create a sense of personal ownership over their accomplishments, because "ownership engenders feelings of pride, responsibility and dedication" (Paris & Ayres, 1994, p. 10), allowing students to demonstrate continuous personal and professional development through self- and peer assessment in the eportfolio. Student ODPs share their individual Google Sites eportfolios with the course team during their learning journey rather than keeping it private to enable formative feedback on their reflections using the COMMENTS box in the eportfolio environment. The course team, therefore, promotes critical reflection upon both the course work and the practice experiences.

In order for the students to overcome the challenges of creating a web-based eportfolio with Google Sites, the course team developed cohort-specific templates (see Figure 2 for the template for cohort 2015). The course team’s experience has been that students with techno-phobia become more confident when they successfully adopt and adapt the template and see their name on an online space. Lamson, Thomas, Aldrich, and King (2001) noted the
value of templates in creating eportfolios, a finding which the ODP eportfolio team strongly supports. However, in order to promote creativity and initiative in demonstrating individuality through the eportfolios, the course team has allowed changes in the eportfolio design provided students maintain the required content.

Table 4 below shows the functions of the different sections in the eportfolio where the student ODPs display their work.

The course team believes that not only does the ODP eportfolio serve a practical purpose by allowing students to compile course work, reflect on academic and clinical experiences, and store and publish their work, it also helps students draw connections between academic learning and clinical practice and to integrate learning over time. As they select and organize work in their eportfolio, student ODPs are encouraged to envision the “big picture” of their academic journeys and to reflect on their overall goals and accomplishments. EPortfolios serve both a personal and a public function, helping students to synthesize work for themselves and allowing them to share that work with others.

Table 4: Functions of the different sections in the ODP eportfolio

<table>
<thead>
<tr>
<th>Welcome</th>
<th>Students’ welcome message includes the type of eportfolio, the purpose and the site navigation. Comments from viewers are invited.</th>
</tr>
</thead>
<tbody>
<tr>
<td>About Me</td>
<td>Students introduce themselves to the viewers, describe their background and their reason for being on the course, often including current CVs, preferred learning styles, a SWOT analysis, pictures and favorite quotes related to learning.</td>
</tr>
<tr>
<td>My Development Plan</td>
<td>Students document the areas for academic and clinical development identified at the beginning of each semester using SMART goals to demonstrate the journey traveled from Year 1 Semester 1 to Year 2 Semester 2 until graduation.</td>
</tr>
<tr>
<td>Year 1 Level 4</td>
<td>Students reflect on their performance based on the feedback on all course work focusing on the academic skills and the clinical competence selected by the assignment. Identified development needs are recorded in My Development Plan. At the end of each year students also complete the Position Paper: a snapshot of their journey through the course, drawing together reflections on their personal and professional development resulting from the application of theoretical knowledge in practice, evaluating their current position and projecting forward to the future where they want to be.</td>
</tr>
<tr>
<td>Year 2 Level 5</td>
<td>As above.</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Debriefs for Year 1 and Year 2</td>
<td>Students reflect on the clinical experience focusing on one of the fifteen HCPC Standards of Proficiency (HCPC, 2014). A minimum of ten reflections are required for submission at the end of the two years acknowledging the possibility of cases where two or three standards could be demonstrated in one experience e.g. communication, confidentiality, awareness of the impact of culture, equality and diversity on practice. The reflective writing in this section should provide evidence of their ability to think metacognitively about their profession and practice that would develop a deep conceptual understanding and also provide a basis for making more informed clinical based decisions.</td>
</tr>
<tr>
<td>My Blogs</td>
<td>Students use this page to record individual practice experiences similar to journal entries or a diary. They then select a critical incident linked to an appropriate HCPC Standard of Proficiency to reflect on from this log of entries on Debrief Days. A critical incident is anything that seems important to the student ODP in relation to their development as a student ODP. This includes times when things went well and times when they found operating department practice particularly challenging (adapted from Fade, n.d.). Blogging is similar to writing a journal which is commonly used as an educational tool within nursing programs but has an added value of using technology in line with the changing needs of health care and technology.</td>
</tr>
<tr>
<td>Mandatory Updates</td>
<td>Students document the practice skills updates required for fitness to practice as an ODP. They may use the skills acquired in their reflections.</td>
</tr>
<tr>
<td>File Cabinet</td>
<td>Students store their work within the allocated space in their eportfolios making them self-contained environments.</td>
</tr>
<tr>
<td>Help!</td>
<td>Students can find assistance with common technical issues: how to upload YouTube videos to the Filing Cabinet, how to create hyperlink from the Filing Cabinet to another page in the eportfolio, etc.</td>
</tr>
</tbody>
</table>
SCAFFOLDING IN THE GOOGLE SITES EPORTFOLIO FOR SELF-ASSESSMENT

Self-assessment of achievement of module learning outcomes

The ODP eportfolio is structured according to the learning outcomes of the course, as reflected in the template (Figure 2). Figure 3 shows a breakdown and the progressive nature of the year one and two modules, designed to help students visualize the modules they will need to complete. In this section students are required to reflect on feedback provided by the tutor on marked assignments in which students described, analyzed and explained an experience in practice in an academic style. During the self-assessment task, as an exercise for reflection on practice, students actively engage with the assessment criteria and the process of evaluating performance against those criteria in a way that leads to improvement. The aim is to help students develop as independent learners capable of monitoring and regulating their own learning, which results in deeper learning. The course team believes, in accordance with Nicol and Macfarlane-Dick (2006), that simply providing feedback does not promote deep learning. Therefore, creating opportunities for students to take responsibility for setting their own learning goals and evaluating progress in reaching those goals in the eportfolio environment fulfills the education requirement of Bucks New University’s Strategic Plan 2016-21 (Bucks New University, 2016).

Figure 4 is an example of a student ODP’s self-assessment of the achievement of the module learning outcomes using the Level 4 marking criteria recalling their experience in fulfilling each assignment. It demonstrates the scaffolding provided within each module to...
Fostering self-assessment by scaffolding in the Operating Department Practice ePortfolio
Barbara Nicolls, Shane Roadnight and Danny Clarke

help students self-evaluate their professional knowledge and academic skills in the assignment and to show them what a good academic essay looks like.

Scaffolding takes the form of timetabled eportfolio sessions during which the course team explain to students what self-assessment is, how to do it and why it may be useful to them. These sessions help students move through the integrated and dynamic process of reflection:

- first, when comparing tutor feedback with their evaluation of their own ability to observe, analyze and judge their performance (O’ Brien, 2006, Chapter VIII, p. 74 in Jafari & Kaufman, 2006) based on the marking criteria, they may feel “surprise (Schon, 1991), disjuncture (Jarvis, 1992), or dissonance (Boyd & Fales, 1983) that all is not well” (Kennison, 2012);
- second, they begin to understand the causes of the successes and failures through dialogic discussions with the tutors; and
- third, it may result in a recalibration of their self-assessment before determining

Figure 4: Student reflections on the feedback on module assessment
Fostering self-assessment by scaffolding in the Operating Department Practice ePortfolio
Barbara Nicolls, Shane Roadnight and Danny Clarke

The majority of year-one student narratives in the eportfolios demonstrated that the students were beginning to learn the meaning of the professional knowledge including theories and models by trying to interpret them and apply them in their own work. The course team found that self-critique increased students' responsibility for their own learning and made their relationship with peers more collaborative. Students also appeared to have a clearer understanding of the assessment criteria and became more reflective in their judgments, as we observed in their reflective accounts. Students also became more interested in the tutor’s comments and feedback than in grades.

Furthermore, the course team found that by the second year, self-evaluation of the achievement of learning outcomes had become second nature for this cohort of ODPs, which can be attributed to the embedded reflective tasks in the ODP eportfolio space as shown in Figure 5. The ODP eportfolio could, therefore, be described as a “Learning Portfolio” (Commander & Valeri-Gold, 2001), as it invites the students to participate in self-assessment of their growth and development in their learning journey and helps them set goals and devise strategies to be successful despite the structured nature of the eportfolio, intentionally created to meet predefined expectations (Stevenson, 2006).

Self-assessment of achievement of the HCPC Standards of Proficiency

The Standards of Proficiency (SoP) are the professional standards which every registrant must meet in order to become registered and must continue to meet in order to maintain registration. These standards set safe and effective practice in the professions regulated by the HCPC and are the threshold standards considered necessary to protect members of the public (HCPC, 2014). Student ODPs need to demonstrate what they must know, understand and be able to do by the time they complete their training at Bucks in order to register with the HCPC. Through reflective writing, the course team aims to enable the students to explore their understanding of their actions and experiences, and the impact on themselves and others. They are expected to do this by integrating experiential and academic learning as part of an ongoing process of meaningful knowledge construction.

To facilitate the integrative learning, the course team has structured Debrief Day eportfolio sessions based on the Learning Communities model underpinned by the pedagogical theory of integrating reflection (constructivism) through shared and student-centered learning (Dewey, 2016; Vygotsky, 1978). Here integrative learning refers to how students connect theoretical learning from modules with their practice experiences to synthesize and transfer discovery and realization to new, complex situations within and beyond the safe learning environment.

On a typical Debrief Day students receive a verbal prompt to assist with reflection on their practice experiences, for example:
• Select an experience from practice recorded in My Blogs; this will be a critical incident as it would be significant to you in some way
• Record:
  - What the situation was
  - What you did in it
  - What happened as a result of your actions
  - A reflection on the situation or event and the process by which it unfolded, identifying any knowledge, understanding and/or ability to practice lawfully, safely and effectively as a student ODP in relation to a HCPC generic SoP that presents your chosen area and ensure you demonstrate understanding of the ODP profession specific standards
• Record your development needs in My Development Plan

The eportfolio facilitator and an ODP professional are always present in the computer suite as “guides on the side” rather than “sages on the stage,” facilitating the technical or the professional aspects of working in the virtual environment through dialogue with individual or groups of students. The presence of the instructors seems to ensure that students engage with the content of the session, their tutors and their peers. More importantly, the course team believes that learning takes place most effectively in the company and with the guidance of those who are only slightly more advanced in their learning (Vygotsky, 1978).

During the Debrief Day eportfolio session, students appear to develop a sense of professional community, while being challenged to consider things more deeply, and to learn from others’ experiences. In year one, the students relied heavily on the course team to facilitate the process of making a reflective critique of their practice but the examples below show that as they progressed through their placements they became more and more autonomous in this respect. The course team’s powerful and constructive questioning technique could have facilitated effective reflection on action. This questioning could have enabled students to identify their strengths and weaknesses and to devise an action plan to ensure good progress. The students commented that the dialogic nature of the questioning process helped them to summarize the topic and discussion points during the one-hour session and refine the reflection later in their own time. Therefore, as Fade (n.d.) argues, time and questioning style are the two influencers for the success of facilitated reflection.

Figure 5 is an example of a year-two reflection on a selected SoP. The student’s name has not been included to maintain confidentiality.

From the reflections above, it could be argued that the oral prompts in Debrief Day eportfolio sessions helped the student build and create knowledge: she applied lecture constructs in her practice context and came up with plausible explanations and solutions to realistic problems. As Gagnon and Collay (2001) explain, the student assimilated the new experience in the theatre. Then, using her preferred learning style, and meaning making abilities, she rendered the unfamiliar familiar before accommodating new information demonstrating self-regulated learning; this in turn imposes a substantial burden on her and asks for a high responsibility of her as a
“Be able to practise as an autonomous professional, exercising their own professional judgement”


I have chosen to reflect on this standard as I have had the opportunity to practise autonomously, under the supervision of my mentor in the Post-Anaesthetic Care Unit (PACU). I was recovering a patient who had surgery under a general anaesthetic and the patient had been receiving prescribed oxygen through a facemask after their airway had been removed. Once the patient became awake and alert the facemask was removed to determine whether the patient’s oxygen saturation levels (SpO2) remained above 94% on room air. However, as the patient fell asleep their SpO2 levels were not maintained and I therefore decided to use a nasal cannula with a low flow of oxygen. Additionally the patient was experiencing pain, so I determined the level of pain using the verbal pain scale (Portenoy, Kanner and Davis, 1996) and referred the information to my mentor who was able to administer pain relief. As a result of my actions the patient’s SpO2 levels increased to 100% and their pain was effectively managed, so they were able to be discharged to the ward.

Williamson and Hoggart (2005) suggest however, the verbal scale using “mild, moderate and severe” options is not very sensitive to small differences in the patient’s pain level, while the numerical scale using “0 to 10” is generally preferred by patients and is more sensitive. Therefore I could use the numerical scale to get a more sensitive understanding of the patient’s pain level. In future as a student, I will continue to work within the limitations of my role and consult my mentor if I have any doubts about a patient’s care. I will also consider a range of methods to determine patient pain levels based on the individual needs of each patient.
student. The scaffold provided in the form of timetabled classroom support and guidance during placement gave the student ODPs the opportunity to examine their experience in the context of a dialogic process (Knowles, 1980) thus helping them to develop connections between the “abstract world” of concepts with the “real world” of personal experiences” (Gitterman, 2004, p. 96).

Unlike the self-assessment of the achievement of module learning outcomes where the artifact to be reflected on was the marked assignment and therefore, specified by the course team, in the self-assessment of the achievement of the HCPC SoP, the students themselves chose a practice experience to reflect on. According to the constructivist paradigm, students in this situation behaved as autonomous, self-aware, self-regulated and self-mediated thinkers which could be attributed to the verbal prompts during the eportfolio session on the Debrief Day. Moreover, as demonstrated in the study by Nguyen and Ikeda (2015), the scaffolding provided in the form of timetabled eportfolio sessions, the structured templates and the staged process of reflective writing may also have developed self-regulated learners. The two entries (Figure 5, see previous page) also demonstrate how the student made the first entries on the Debrief Day and then reviewed them later, in her own time, demonstrating the accessibility and approachability of the student-owned eportfolio.

On the other hand, providing students with a rubric for the self-assessment of the SoPs could have helped the students ensure the quality and depth of their reflections. Rubrics are defined as a set of rules or instructions for performing a certain task used for teachers for assessment purposes and by students for self-evaluation (Flanigan & Amirian, 2006, Chapter XI, p. 102; Fritz, 2006, Chapter XXIII, p. 248 in Jafari & Kaufman (Eds.), 2006). The criteria and performance-level descriptions in rubrics would help students

1. understand what the desired performance looks like
2. understand how they would know to what extent they have performed on each criterion and
3. identify future development

Lassonde, Black, Miller, and Hanfu (2009) recommend that the reflective writing rubric contain the maintenance of a strong “I” voice when responding (text to self), using metacognitive understanding, demonstrating analysis, synthesis, and evaluation and, basing insight upon theory and practice.

**CONCLUSION AND FUTURE ACTIONS**

Here we have demonstrated the efficacy of scaffolding within the eportfolio environment for helping students develop as professionals from the commencement of their learning programme at university. Students experienced a mixture of prescribed and self-selected artefacts in their eportfolio, both of which guided and motivated them to engage with the tasks in the eportfolio resulting in 32 remaining students from the original 45 handing in their ODP eportfolios for summative assessment in mid-July 2017. It was encouraging that the one-hour eportfolio sessions over the two-year course appeared to contribute to 29 students fulfilling all the requirements of the eportfolio assessment and demonstrating the skill for the
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self-reporting of personal and professional experiences. The remaining 3 students, on the other hand, submitted incomplete eportfolios with descriptive narratives and were therefore required to resubmit. One important point noted was the lack of an overarching narrative to connect the academic and practice experiences to produce a reflective whole. The course team attribute this to the structure of the eportfolio template in which the different aspects of theory and practice in the reflective accounts were assessed separately. Therefore, instead of the spinal column type eportfolio emphasizing the original work of the students with the evidence used to support or illustrate the case being made as envisaged by the course team, the ODP 2015 eportfolio remains a toast rack (Endacott et al., 2004) described as a set of self-assessed assignments stacked by their progression through the learning programme. As Lassonde et al. (2009) recommend, we will provide modelling, scaffolding and teaching of the professional content as well as reflective writing to help ensure successful transitions to practice. A rubric to self-assess achievement of the SoPs will clarify performance expectations and can help facilitate successful transition of new ODPs into practice. Thus, in the future, scaffolding for self-assessment in the eportfolio will be made explicit: to develop independent and autonomous learners we need to embed an explanation of self-assessment, as well as how and why it is done in the online environment rather than explain verbally. Feedback will be made through comments embedded in the eportfolio following student self-assessments rather than through verbal feedback in the eportfolio classroom. Devising a checklist requiring students to verify that they have met the basic criteria for the reflective accounts in their eportfolios prior to submission will ensure engagement with the guidelines and encourage students to recognize the different elements of the eportfolio assessment.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the following for their contribution to this study: the cohort 2015 students on the Diploma in Higher Education in Operating Department Practice for consenting access to eportfolios for useful examples especially, Emma Cox who gave written permission for the authors to reproduce her work shared in her eportfolio.

AUTHOR BIOGRAPHY

Barbara Nicolls is a Senior Lecturer in the Learning Development Unit at Buckinghamshire New University. Barbara received the MSc in technology-enhanced learning with the dissertation on the role of academic staff in the learning eportfolio development in 2010. Since then she has led Web 1.0 and Web 2.0 eportfolio use and implementation at Bucks mainly within health care courses by collaborating with discipline-specific academic staff designing customised templates delivering conceptual and technical workshops contributing to their CPD. Her advocacy for social constructivism is obvious at the Staff Development events and international eportfolio conferences where a concerted effort is made to showcase the contributions made by her collaborators for the success of their students’ learning. Additionally, Barbara delivers and evaluates student eportfolio workshops which focus on pedagogy rather than the technology. Barbara was awarded the Bucks Fellowship Award 2015 for exceptional impact on learning and teaching across the university especially for her creativity in applying technology-enhanced learning approaches for student engagement with their academic development. She is also a Senior Fellow of the HEA demonstrating her sustained engagement with the UK Professional Standards Framework (UKPSF) highlighting a thorough understanding of effective approaches to learning and teaching.
Shane Roadnight spent twenty years as an Operating Department Practitioner (ODP) and has been a full time academic at Buckinghamshire New University for the last five years delivering both an undergraduate professional programme and three post registration professional modules. Shane has gained a wide range of experiences that enable a transfer of knowledge in relation to the perioperative environment and critical care. This resume is supported with a foundation of scholarly activity including presenting at a range of conferences, both national and international with further activity seen through the authoring of a number of academic papers.

Throughout this journey, a single constant can be observed, creating a thread which links all of these activities together. The construction and development of the eportfolio for use within the ODP programme for both personal and professional development has been a hub from which a range of pathways have emerged allowing a recordable structure demonstrating achievement alongside advancing the use of technology within both fields.

Danny is a motivated registered nurse with more than 14 years of practical experience in the high-level care of patients in the operating department. Additional to this, Danny has been working in full time education for more than 3 years, teaching on undergraduate and post graduate courses and modules. Aligned to this, Danny has presented at University and International conferences on the subject of student engagement with eportfolios.

Danny’s research interests are on how to improve student engagement with the eportfolio and the use of marking rubrics for the assessment of the eportfolio. These interests have led to Danny developing novel ways of designing the eportfolio to benefit the professional growth of students both clinically and academically.

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Navigating Social Work Education: Utilizing an ePortfolio Survey to Map Curriculum

by Scott Berlin, Paul Kiger, Shelley Schuurman, Julie Guevara, Jamie Langlois & Andrew Borgman
Editor: Gillian Hannum

INTRODUCTION

The Grand Valley State University School of Social Work (GVSU-SSW) Bachelor of Social Work (BSW) Program uses an eportfolio project as part of a high impact learning activity and assignment that is designed to facilitate student reflection about their learning, promote integration of the knowledge, skills and values learned throughout the social work curriculum, and give voice to their developing professional identity. As students plan for graduation, they complete this eportfolio as a “final review” of their accomplishments, while in the BSW program.

The capstone eportfolio assignment is introduced when students enter the BSW program and is referred to in each course throughout the BSW program. This long term effort forms the basis of the capstone final portfolio project. The School of Social Work BSW program uses an online software program that allows students to manage course assignments and other learning activities (also known as artifacts), submit key assignments to professors, receive comments from professors on their work, and maintain and store all assignments and other artifacts. During the final development of the capstone course eportfolio, students complete a series of surveys indicating which meaningful and significant learning experiences (artifacts) they have selected to demonstrate their proficiency in each of the professional competencies. The capstone eportfolio survey project will be discussed in detail.
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LITERATURE REVIEW

ePortfolios are gaining acceptance in higher education because they offer an opportunity for students to critically reflect on their competency development in a field of study. Many eportfolio platforms provide a “content-management-system” (Jafari, 2004, p. 40) that facilitates the process of collecting, reflecting on, and sharing of learning outcomes between and among students and faculty members (Fitch, Peet, Reed, & Tolman, 2008).

Building a portfolio is important to the GV-SU-SSW. Dale, Reed, Poet, and Tolan state that “because portfolios can foster the integration of theory, action, self-reflection, group learning, and assessment - essential elements of professional education - they may enhance educational outcomes as students navigate their social work programs” (2008, p. 37). Further, eportfolio use facilitates various levels of feedback for students about their learning, including formative, summative and peer assessment (Schuurman, Berlin, Langlois, & Guevara, 2012).

In addition to serving as a high impact learning experience for students, in recent years there has been an increasing emphasis on the eportfolio as a tool of assessment (Banta, Ewell, & Cogswell, 2016; Rickards, Diez, Ehley, Guilbault, Loacker, Hart, & Smith, 2008); Swigonski, Ward, Mama, Rodgers, & Belicose, 2006). Many institutions of higher learning are utilizing eportfolio content as an avenue to assess the aggregate student performance related to proficiency levels of professional competencies. This is often accomplished through critical evaluation of eportfolio content, by faculty, to assess how well students have gained proficiency of the associated competency outcomes (Berlin, Adam, Borst, & Bolea, 2015). The GVSU-SSW has used epportfolios for the assessment of student performance for many years. While GVSU currently uses the capstone eportfolio assignment to contribute to overall program assessment, the capstone eportfolio survey project, discussed in this article, collects objective data consisting of students’ feedback about the specific classroom assignments, field education experiences, and/or co-curricular activities they believe enhanced their ability to demonstrate proficiency in each of the professional competencies. This use of student voice in identifying high impact learning experiences that faculty can use to inform upcoming curricular decisions is an unexplored area in the existing research on eportfolio use.

METHODS

Gathering Artifacts: Introduction to the ePortfolio at Student Orientation

During student orientation for BSW majors, the future capstone eportfolio assignment is discussed in detail. Students are required to purchase a specific online assignment submission software program, with an eportfolio feature. As they move through the social work program students are encouraged to begin collecting artifacts that demonstrate their proficiency as related to the Social Work Core Competencies associated with professional social workers. They are challenged to holistically consider all of their professional activities, and to accumulate evidence of each experience in the software program’s artifact library. These artifacts can be acquired from a variety of sources including assignments in social work courses, assignments in elective or non-social
work courses, field practicum activities, volunteer activities, co-curricular activities, and employment related activities. Additionally, students are required to submit key assignments in every required social work course through the online software program system. Upon submission, these assignments are automatically stored in the student’s artifacts library. As students enter the capstone course in their final semester in the BSW program, they will possess numerous artifacts that they have stored in the online software system. At the beginning of the capstone course, students are encouraged to upload any remaining artifacts they wish to include in the final portfolio into the artifact library.

Development of the Final ePortfolio in Capstone Class

The primary assignment in the capstone class is the development of the student’s eportfolio that serves to integrate each student’s journey toward proficiency associated with the core social work competencies as developed by the Council on Social Work Education (CSWE), the social work profession’s accrediting body. Throughout the course, students review one competency per week, and prior to class they are required to identify learning experiences (artifacts) as evidence of their proficiency in this competency and construct a short narrative critically reflecting on their choices of artifacts. In class, students participate in a three-person structured peer assessment group process where each group member presents the rationale for their artifact selections and critically reflects on their level of proficiency and professional development related to the competency of that week. After presenting their material, they receive structured written feedback from their peer group.

### Weekly Capstone Survey

**Where did you get your artifacts for each behavior?**

Thank you for completing this week’s survey. We are asking you to provide information about the location and activity related to each artifact that you used to demonstrate your proficiency related to this week’s competency narrative.

For class assignments, please reference the back of this survey to locate the School of Social Work assignments. You may use the number to the left of the assignment. If the assignment is not listed, write a brief assignment name in the blank. If your artifact was achieved in Field or Elsewhere, please write a short description of the activity. Thank you!

#### Core Competency: Advocate for human rights and social justice

**Behavior: Understand the forms and mechanisms of oppression and discrimination**

__In Class:__ Course ______ Assignment?

__In Field___

__Elsewhere___

**Behavior: Advocate for human rights and social and economic justice**

__In Class:__ Course ______ Assignment?

__In Field___

__Elsewhere___

**Behavior: Engage in practices that advance social and economic justice**

__In Class:__ Course ______ Assignment?

__In Field___

__Elsewhere___
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The Capstone ePortfolio Survey

A weekly capstone survey is introduced at the beginning of each capstone class. An example of a weekly capstone survey is located in Figure 1.

As students complete their weekly competency narrative, they are asked if they would like to complete a short survey as well. In the survey, students are prompted to identify which activities were selected to serve as the artifacts used to demonstrate their proficiency of each competency. The first portion of the survey asks respondents to select the location of the artifact: in class; in field practicum; or somewhere else. If the location of the artifact is from a social work class, then the specific assignment is requested. The survey provides a list of most social work assignments for students to reference. For unlisted assignments or non-social work courses, a narrative field is provided for students’ comments. When students select field practicum sites as the location of their artifacts, a narrative field is provided for students to describe the specific activity(ies) that facilitated their proficiency development at the field practicum site. As incentive to complete the surveys, students are told that if they completed all of the weekly surveys their name will be entered in a drawing to win a free cap and gown for commencement.

Mapping of the Curriculum

At the end of the semester upon completion of all eportfolio surveys, data is entered and analyzed by faculty and program administrators. This analysis is tabulated by each social work competency. All responses are quantitatively coded and entered into a Statistical Package for the Social Sciences (SPSS) program. When all data is coded and entered, an analysis is generated which includes a ranking of the most commonly utilized artifacts for each category (in-class, in field practicum, and elsewhere). Faculty teaching in the BSW conduct the program review and discuss all of the findings.

Identifying Pillars of Student Learning

Through analysis of the eportfolio survey results, the SSW-BSW faculty can identify which classes — and, more specifically, which assignments — students believe best encapsulate certain practice areas within specific competencies. Additionally, field practicum program administrators gain a deeper understanding of the activities students find most meaningful in their field practicum experiences. As field practicum administrators seek to improve the field practicum experience for students and field agency personnel they are better positioned to offer input on the types of activities that support student learning. Additionally, the analysis provides an overview of other activities, such as co-curricular, employment related and volunteer activities, that have provided meaningful development of student leaning in specific competency areas. Faculty and administrators can examine these findings and adjust program curricular and co-curricular activities to improve students’ educational experiences in these key areas of competency development. This type of student feedback and active student participation in assessment of their learning helps facilitate continuous improvement in the SSW BSW program. The BSW program is better positioned to continue to refine and improve its curriculum in response to students’ voices; the result is a better overall educational
experience for the learner and an improved BSW program for future students.

CONCLUSION AND IMPLICATIONS

Here we presented a model where eportfolio survey data is analyzed to give greater student voice to teaching and learning and program improvement. In the eportfolio survey, students identify meaningful learning activities, including where the learning occurred. These findings contribute to the creation of a holistic curricular map and highlight areas for improvement/revision in the social work program.

The educational benefits of eportfolio integration are well documented. Unfortunately, institutions may be reluctant to spend the time, money, and effort required to deploy such a system unless there is measurable benefit to the university. Taking advantage of the abundant data produced by one of these online content management systems allows departments the opportunity to optimize their curricula and concretely measure student and program improvement. The combined institutional benefits and enhanced educational experience for students provided by the integration of eportfolios make their inclusion into any educational arena a necessity.

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We appreciate our colleagues from the Grand Valley State University - School of Social Work who provided insight and expertise that greatly assisted our research and helped us to frame our findings to improve our curriculum.

AUTHOR BIOGRAPHY

Scott Berlin received his Master of Social Work (MSW) degree from Wayne State University in 1994 and received his doctorate Social Work in from Michigan State University in 2007. His research interests include assessment of student learning, aging, healthcare, and social work with clients who identify as Lesbian, Gay, Bisexual, Transgender, Queer, and Questioning (LGBTQ). His doctoral dissertation assessed psychological adjustment to aging among gay men over age 50. He has published and presented on the topic of assessment, LGBTQ community needs, and social work practice. From 2007-2013 he served on the Council of Social Work Education (CSWE) - Council of Sexual Orientation and Gender Expression. This national council oversees LGBTQ curriculum content in social work education. Berlin has been teaching at the graduate and undergraduate levels for the past twelve years at Grand Valley State University.

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Scott Berlin, Paul Kiger, Shelley Schuurman, Julie Guevara, Jamie Langlois & Andrew Borgman


More than words: Assessing students’ ePortfolio Design and Visual Literacy in the Composition Classroom

by Richard Miles Britton
Editor: Andrew Harver

INTRODUCTION

In this day and age of branded websites, professional Facebook and Instagram pages, and other forms of designed and personalized web spaces, combining words, images, audio and other communicative modes into an appealing and effective digital text is an increasingly expected skill. While traditional writing literacy is still the cornerstone of most composition classrooms, as Gee (2014, p. xi) bluntly put it, no matter the field or discipline, “In the 21st century anyone who cannot handle multimodality is illiterate.” eportfolios, which are inherently multimodal, offer students a practical and authentic experience with 21st-century communication and “provide a valuable forum for teaching online presentation skills” (Lane, 2007). Given the importance of visual and digital literacy for our students’ futures, assessment of students’ eportfolios beyond the words is vital (Neal, 2011; Penrod, 2005; The New London Group, 1996; Yancy, McElroy, & Powers, 2013). Just as we have standards for our students’ eportfolio content — written work, projects, reflections, etc. — not holding similar standards for design and visual literacy undercuts the value of these fundamental 21st-century communication skills for our students.

Although the pedagogical benefits for students learning visual literacy through eportfolios is clear, the challenge for many instructors, especially those teaching writing-intensive courses, comes with comprehensive assessment of students’ multimodal eportfolios at the end of a semester. Without a background in graphic design or experience with creating websites, many composition instructors understandably feel uncomfortable with their ability to fair-
ly and adequately assess students’ multimodal ePortfolios beyond the written words (Bickmore & Christiansen, 2010; Neal, 2011; Reilly & Atkins, 2013). But just because we’re not graphic designers or website developers doesn’t mean we don’t judge the visual effectiveness of the variety of websites we click through on a daily basis.

I’ve often chosen a restaurant or a doctor or a plumber over another solely based on the professional and aesthetic quality of a website, and those same internal assessments we apply to those digital texts can be directly externalized to apply to students’ digital ePortfolios.

Yet while scholars have devoted considerable attention to assessing multimodal texts in general (see Borton & Hout, 2007; Murray, 2009; Murray, Sheets, & Williams, 2009; Neal, 2011; Penrod, 2005; Reilly & Atkins, 2013; Yancey, 2004; Yancey, McElroy, & Powers, 2013), much less attention has been given to assessing ePortfolios as multimodal texts. By building from design and multimodal assessment strategies set forth by Composition scholars such as Kimball (2003) and Yancey (2004), I have started to evaluate the visual and design effectiveness of my students’ final ePortfolios through four assessment categories discussed below.

**ASSESSMENT OF VISUAL AND DESIGN EFFECTIVENESS OF EPORTFOLIOS**

At Appalachian State University, I teach first and second-year general education writing courses in the Rhetoric and Composition program — respectively titled RC 1000: Expository Writing and RC 2001: Introduction to Writing across the Curriculum — with class sizes of around twenty students who represent different backgrounds, majors, and professional interests. ASU began using the Digication platform for ePortfolios around 2014, which I now require students to use in all my courses.

While the majority of the final grade for a student’s final ePortfolio assessment in my course is still weighted on the ePortfolio content and reflections, I now devote 20% toward assessing effective visual literacy.

And since websites and ePortfolios are experienced first visually, the first aspect of the student’s ePortfolio that I assess is the design and visual elements before moving onto assessing the contents of the ePortfolio. The rubric I employ in the process is summarized in Table 1.

**Design and color consistency**

Visual unity is the centerpiece of professional-looking websites. Just as we expect most written works to have a clear unity in tone, writing style, and sentence structure, we also expect consistency in a website’s design and use of colors. As Kimball (2003, p. 27) notes, web designers often use the same or similar elements on each page of a website, because “this consistency reassures readers that they haven’t gone astray when they click on a link.” For ePortfolios, this type of design and color repetition “provides an anchor to the viewer’s/reader’s portfolio reading experience” (Yancey, McElroy, & Powers, 2013). Due to the advancements in many ePortfolio platforms, students now have an overwhelming number of choices for fonts, hues, border styles,
More than words: Assessing students’ ePortfolio design and visual literacy in the composition classroom

Richard Miles Britton

Table 1: Rubric for assessing design and visual literacy.

<table>
<thead>
<tr>
<th></th>
<th>Exceeds Expectation</th>
<th>Meets Expectation</th>
<th>Below Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consistency</td>
<td>The portfolio displays a highly effective, consistent, and unified use of color, font, and other design elements</td>
<td>The portfolio displays a generally consistent and unified use of color, font, and other design elements</td>
<td>The portfolio lacks any unified or consistent design qualities</td>
</tr>
<tr>
<td>Coherence</td>
<td>The portfolio makes an effective argument and displays a sophisticated connection between the portfolio’s purpose, the visuals, and the words or other content</td>
<td>The portfolio makes a clear argument with a general connection between the portfolio’s purpose, the visuals, and the words or other content</td>
<td>The portfolio lacks a clear argument and/or a clear connection between the portfolio’s content</td>
</tr>
<tr>
<td>Navigation</td>
<td>The portfolio is highly reader-friendly, with thoughtful and appropriate section headings that create a clear and consistent road map for the viewer to find specific content</td>
<td>The section headings are appropriately named for the content they contain, and display a consistent format with minimum clutter</td>
<td>The section headings lack clarity and consistency, and/or cause viewer confusion through section clutter</td>
</tr>
<tr>
<td>Ethics</td>
<td>The portfolio author only uses material of their own creation and/or non-copyrighted material and indicates this with appropriate attribution</td>
<td>The portfolio author only uses material of their own creation and/or non-copyrighted material, though does not clearly indicate this with appropriate attribution</td>
<td>The portfolio author uses copyrighted or trademarked material without permission</td>
</tr>
</tbody>
</table>

shading, opacity, and other design features at their fingertips. Yet effective websites focus on subtlety and restraint in order to “help the reader see the contents better, rather than distract the reader from the contents” (Kimball, 2003, p. 27). Graphic and web designers often abide by the 3 color rule, which suggests limiting color palettes to around three choices (this same rule can be applied to font styles, as well).
Since students will often initially balk at the idea of learning elements of design in a “writing” class, I show examples of websites with strong design and color consistency — I choose a variety of major brands, from international companies to pop stars, as well as local businesses — to provide real-world models. Students are often surprised to see that many local businesses use the same design and color strategies as major brands in order to create visually-appealing websites, and I allow time in class for students to do side-by-side comparisons (either in groups or as a class discussion) of different websites of their choosing in order to identify the effective visual elements, which gives students more confidence in their own design abilities.

When assessing a student’s portfolio, I ask myself: 1) When I first open the homepage, is there a consistent and restrained use of color, font, and other design elements? 2) As I click through each individual section and webpage, do the visual elements feel unified so that I know I’m looking at the same eportfolio?

For example, Madi’s homepage (Figure 1) of her portfolio displays a sophisticated and clear unity in design and color, and uses an appealing and restrained color pallet. By limiting her color choices to gray, white, and a contrasting red, she creates a strong “anchor” for the viewer, which is repeated throughout the rest of the portfolio. She also used the Adobe Color Wheel — a free, online tool that can build a color palette from an uploaded picture — to match the gray hue from her background image with the solid gray in her navigation bar, creating a unity between background and foreground. Similarly, she uses the contrasting red hue in the side borders, the banner image, and the top navigation bar, which helps connect the various design elements into a visual whole.

Coherence between content and visuals (i.e., personal branding)

Websites and eportfolios, like any other communicative text, are rhetorical acts, and thereby make an argument for an intended purpose targeted toward an audience or audiences. But “because the Web is such a visually intensive medium” (Kimball, 2003, p. 25), the images and other visual media included on the page play as much of a role in creating meaning as does the written or other content that makeup an eportfolio. Including visuals is more than just “‘prettying up’ a document for the reader” (Kimball, 2003, p. 26). For Yancey (2004, p. 94), for example, it entails thoughtfully “putting...
the verbal and the visual in dialogue with each other” in order to create a coherent overall argument for the intended audience.

In the professional world, this type of cohesion is often referred to as “personal branding,” which “entails capturing and promoting an individual’s strengths and uniqueness to a target audience,” much like product branding does (Labrecque, Markos, & Milne, 2011, p. 39). Not creating a cohesive brand or message for a web-text can lead to what Kimball (2003, p. 92) refers to as “visual noise.” Overall, a student’s eportfolio, whether it be a professional or themed eportfolio, should display “a well-chosen selection of both words and images” that effectively “persuades the audience of their argument” (Murray, Sheets, & Williams, 2009, Writing Program Rubric section). To encourage students to think deeper about the cohesion between their eportfolio content and the visuals they include, I conduct an in-class exercise and ask students to write down the intended argument or purpose of their portfolios, as well as their intended target audience or audiences (beyond the instructor). Finally, I ask students to consider how the visuals they include help persuade their audience of that argument or purpose.

For this assessment category, I consider: 1) Is there a clear connection between the images or other visual media on the page and the words or other content on the page, and 2) Does it support the eportfolio’s purpose and argument?

The homepage of Tyler’s eportfolio (Figure 2) is an excellent illustration of an eportfolio with a clear central argument (his passion and experience in broadcast news) and target audience (a potential employer). The banner image of Tyler speaking in front of a camera, along with the professional headshot of Tyler standing in front of a title graphic, display a clear visual cohesion that aligns with the written content of his portfolio. The visual similarity between the images and the choice to include only two, strong images reduces “visual noise.” Overall, through two effective images, Tyler creates a strong and appealing personal brand that showcases his strengths and personality to support his eportfolio’s argument and purpose.

Reader-friendly navigation

Good website design takes into consideration not only how the reader will view the site, but also how the reader will interact with the site. As Heskett (2002, p.95) notes for company and business websites, “virtuoso visual effects are useless if the ability of users to take action is not taken into account.” A reader-friendly eportfolio, much like a well-designed website, ensures that the “navigation tools are all placed in a consistent position, and they look the same from page to page, giving readers a firm guide to the portfolio” and a clear indication of what the reader will find in each section (Kimball, 2003, p. 14). In my courses, students are given the freedom to organize their eportfolio in whatever way they see fit, but I encourage them to carefully consider the sections and heading names in order to create a clear road map for the viewer to find specific content.

For this category, I judge the clarity and consistency of the visual effect: 1) At first glance, is it clear what each section contains, and 2) Is there a consistency across the section headings and placement?

Hannah’s homepage (Figure 3) shows thoughtful consideration in regards to how the reader...
More than words: Assessing students’ ePortfolio design and visual literacy in the composition classroom

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can navigate within her eportfolio. Her sections are prominently positioned in one row across the top, creating a “firm guide” of the portfolio contents for the reader. The section headings are also consistently theater-themed to align with the personal brand of her portfolio, and the headings provide a clear indication of the contents of each section, which helps the reader quickly locate certain material or information, such as her resume (under the Theatrical Experience heading) or her passion for education (under the Importance of Theatre Education heading).

Ethical use of visual communication

We stress to our students that the unethical use of another person’s words or ideas (i.e., plagiarism) is such a serious matter that it could lead to disciplinary action. What we might not often stress enough, though, is that the unethical use of another person’s visual creation (i.e., copyright infringement) can lead to legal action, and such action is not as uncommon as many might think. Therefore, it is highly important for students to “use borrowed multimedia ethically and legally” (Kimball, 2003, p. 88), and I typically devote at least one class period to discussing copyright law, fair use exemptions, and how students can find non-copyrighted material or material labeled for reuse that they can safely use in their eportfolios.

But just using ethically-obtained material is not enough, since it is impossible for the viewer to know if an image is being used with permission from the author unless clearly indicated. I require, therefore, students to always include attribution for any image or other visual material they use, even if it is their own creation. Because there is no expectation of citation styles for most websites outside of academia, I’ll accept any type of appropriate attribution, as long as it is clear who the original...
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CONCLUSION

While the majority of my students’ final eportfolio grade is based on their written work and other content, assessment of the students’ visual and digital literacy as displayed in their eportfolios is vital to fostering students’ 21st-century communication skills. Using the assessment I have described has enabled me to focus and prioritize the design and visual skills I believe are most valuable for their futures, regardless of the student’s or instructor’s level of experience with graphic or web design. As Hicks (2005, p. 212) contends, “[t]he writing and design fit hand in glove as a part of the portfolio construction process,” so it is crucial not to ignore one at the expense of the other when it comes time for assessment.

ACKNOWLEDGMENTS

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Isolating Rhetorical Challenges with Curation in ePortfolios: A Writing Faculty Workshop

by Brendan Hawkins and Julie Karaus
Editor: Elaine Gray

INTRODUCTION

Appalachian State University’s Rhetoric and Composition program requires eportfolios for all freshman composition (FYC) as well as sophomore introduction to writing across the curriculum courses. The Composition and Writing Across the Curriculum (WAC) programs provide faculty discussions and workshops each semester, yet many faculty still hit roadblocks as they introduced eportfolios to colleagues and students. Specifically, faculty encountered problems in knowing when and how to introduce the electronic platform that hosts student eportfolios.

WORKSHOP JUSTIFICATION

Through faculty discussions, workshops led, workshops attended, as well as successes and failures in our own classes, we came to better understand the ways faculty and students struggled with situating eportfolios within their teaching and learning strategies. We found helpful the way McDonald (2016) uses Flower and Hayes’s (1981) work to categorize three problems in eportfolio pedagogy, “knowledge,” “rhetorical,” and “language problems” (2016, p. 210). Our understanding is that:

- **Knowledge** problems relate to things we need to know in order to use software to compose eportfolios, such as digital and media literacies and, more generally, gaps in understanding;
- **Rhetorical** problems relate to the context, exigence, audience, design and other considerations the author must balance; and
• **Language** problems relate to the glossary we use when we talk about eportfolios as well as ways we talk about knowledge and rhetorical problems.

McDonald (2016) radically shifted how we parsed through the challenges of using targeted language and keywords in our dialog with faculty. For example, we had discussions about whether programmatic goals and outcomes affected eportfolios and then what exactly that meant. Language impacts eportfolio implementation, and effective dialog can maximize this high impact teaching practices, or HIPs (American Association of Colleges and Universities, 2016; Rhodes, 2016; Watson et al., 2016).

Our greatest hurdle discussing eportfolios with faculty came somewhere between knowledge and rhetorical problems. However, faculty and students alike struggled with being digitally literate (Visser, 2012) enough to craft eportfolio assignments or to complete them as they wished. In order to address this difficulty, we outline a workshop model based on the idea of “paper Web sites” (Fleckenstein, 2003) that isolate rhetorical problems from knowledge/technical problems, allowing workshop participants to practice curating the eportfolio in a non-digital space. Our workshop model is intended foremost for writing faculty development purposes; however, we encourage adapting this to multiple contexts for different needs. (Figure 1 below is the home page for the workshop portfolio, and we invite you to access the site and utilize the resource.)

Figure 1: Link to presentation workshop.
CONNECTIONS TO STUDENT LEARNING

In order for students to capitalize on the full potential of this HIP, they must become savvy composers and creators. Becoming a savvy composer and curator in this medium hinges on developing both rhetorical and digital literacies, such as the ability to identify the rhetorical situation (author, medium, and audience among other considerations) and respond with the appropriate composing and revision strategies as well as the ability to manipulate digital mediums to effectively communicate that knowledge.

Further, a student may lack the digital literacy skills necessary to learn and compose in a new software platform. These limitations may function in conjunction or separately from rhetorical literacies, which relate to students' ability to understand the context of or surrounding communicative relationships. If the curriculum asks students to make highly personal connections between past experiences, learning, interests, and the development of new knowledge, instructors and workshop leaders would find merit spending time on the activity of curation, or the creation and manipulation of artifacts and reflective writing to support a main idea, to demonstrate how it is distinct and to address gaps in specific aspects of digital literacies.

DIVESTING FROM DIGITAL, A REMINDER

We argue for teachers and eportfolio facilitators to consider the importance of non-digital process work prior to digital design, acknowl-

<table>
<thead>
<tr>
<th>Rhetorical Literacy Problems</th>
<th>Digital Literacy Problems</th>
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<tr>
<td><strong>Audience:</strong> Teachers wondered whether students should craft their eportfolios primarily for the teacher, other students, or program assessors.</td>
<td><strong>Copyright:</strong> Teachers had to learn about copyright laws, since students wanted to use pictures and videos in their eportfolios.</td>
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<tr>
<td><strong>Medium:</strong> Teachers struggled with how an eportfolio does or does not work similarly to a paper portfolio. Teachers did not see why they should change their pedagogy, especially given that students struggled with using the platform.</td>
<td><strong>Privacy:</strong> Teachers had to understand and communicate to their students how the privacy settings meant and the ramifications of them publishing eportfolios to the web.</td>
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<tr>
<td><strong>Author:</strong> Possibly because students could not define their primary audience, they struggled with how to present themselves (i.e. as a professional, as a learner) in their eportfolios.</td>
<td><strong>Usability:</strong> Teachers and students alike struggled with how to make the eportfolio building platform work, often deleting hours of work on accident.</td>
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Table 1: List of common rhetorical and digital issues.
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We highlight “new vocabulary” because, largely, the rhetorical underpinnings of communication do not change when we digitize portfolios. We do, however, need to rethink how we talk about these shifts. Shipka (2011) cautions us about the issue, saying:

*I am concerned that emphasis placed on ‘new’ (meaning digital) technologies has led to a tendency to equate terms like multimodal, intertextual, multimedia, or still more broadly speaking, composition with the production and consumption of computer-based, digitized, screen-mediated texts. I am concerned as well that this conflation could limit…the kinds of texts students produce in our courses. (p. 7-8)*

In our hurry to implement curricular reforms that produce, the desired, more effective learning outcomes that reflect a broad conception of “composition,” we may, Shipka reminds us, conflate terms that need to be defined and discussed for their similarities and differences. Additionally, we should point out the theme of vocabulary that runs throughout Shipka’s text.

As we sought to balance these issues, our research led us to Flash (2016) and Roozen’s (2016) texts (2016), which led us to revise our approach introducing faculty to eportfolio pedagogies and technology. Flash’s (2016) chapter presents a snapshot of the University of Minnesota’s writing enriched curriculum (WEC) and how pedagogies can shift when faculty reflect on their assumptions about and tacit knowledge of writing. Additionally, she displays the after-effects of those discussions and curriculum reform (implementing the WEC). Flash (2016) echoes Yancey (2004a) and Shipka’s (2011) ideas but in the context of a
WAC setting, emphasizing:

“Reflective processes involved in the creation, implementation, and assessment of writing plans can result in three areas of change: changes in attitudes about writing and writing instruction, changes in instructional methods and in language used in describing writing to students and colleagues [emphasis added], and changes in the rate at which student writing meets faculty expectations” (p. 235).

Furthermore, Roozen (2016) offers a strategy for initiating conversations that can uncover students and colleagues’ tacit knowledge or assumptions about writing. He builds off of Yancey’s concept of “constructive reflection,” arguing that it “centers around the use of open-ended questions, typically about specific writing tasks, that invite writers to consider their purposes, goals, and practices for writing and what they see themselves learning through participating in those composing activities” (p. 253). Roozen also outlines two premises for reflective interviewing, interviewing about past literacy experiences and interviewing about composing specific texts.

With these texts and strategies in mind, we decided that the methodology Fleckenstein (2003) presents in Embodied Literacies would be an effective basis for our temporary suspension of the electronic in favor of the non-digital multimodal workshop model. Twice within a semester’s time, Fleckenstein reports, her class constructs “paper Web sites” in groups to better understand multiple meanings a text can hold (2003, p. 135-162). Groups create a paper Web site to respond to a literary and academic text. Paper Web sites hold everything a digital website would, such as text, visuals, hyperlinks, but is created on a poster to foster curating in a non-digital setting and, Shipka (2011) might add, helping to resist conflating multimodal composing with digital composing.

These methods radically changed our approach to eportfolio implementation and discussion. If the faculty are prepared to talk about and practice curation effectively, then they can also have meaningful discussions with students about collecting, selecting, and reflecting as they compose their eportfolios.

Before we continue, we will take a moment to outline keywords in this article.

1. **Collecting** is when the author begins considering the items and their interrelationships with each other and the main theme. The author will often be asked to reflect on learning and how the chosen artifacts represent that learning.

2. **Selecting** refers to the creation and manipulation of artifacts and reflective writing into a structure that supports the main idea, theme, or argument of the eportfolio.

3. **Reflecting** is when the author begins considering the items and their interrelationships with each other and the main theme. The author will often be asked to reflect on learning and how the chosen artifacts represent that learning.

4. **Curating** refers to the creation and manipulation of artifacts and reflective writing into a structure that supports the main idea, theme, or argument of the eportfolio.

Here, we want to isolate curating from reflection, highlighting curating as a cognitive process that incorporates design and arrangement to represent further the interplay of the artifacts with the reflection.
THINK LIKE TEACHERS, PRACTICE LIKE STUDENTS

The goal of our workshop is for participants to practice the act of curation by using sample student work and to think about how the act of curation articulates lessons from the course work in relationship to the interests or prior knowledge of the student. We recommend you also view our online presentation version of this model. The strength of the eportfolio as a high impact pedagogical tool stems from the potential for metacognition that comes with these activities.

Workshop Goals and Objectives

By the end of the workshop:

1. Participants should practice curating an example student eportfolio in a non-digital setting to help identify possible areas where faculty would struggle implementing eportfolios and where students would also struggle to make their own.

2. Participants should take note of the issues, both positive and negative, that they encounter as they attempt to curate authentic student work as a student would at the end of a course of study.

3. Participants should categorize these issues as knowledge, rhetorical, or language problems.

The purpose of engaging in non-digital curation activities prior to digital curation is an attempt to first tackle the knowledge problems pointed out by McDonald (2016). This will also help teachers utilizing eportfolios to separate technical issues from knowledge, rhetorical, or language problems.

Collect

Before beginning the workshop, collect several pieces of writing, compositions, or other projects (here called “artifacts”) from one student. Be sure to collect both high and low stakes writing assignments.

- High stakes artifacts are usually polished and submitted as assignments, such as essays, media projects, term papers.
- Low stakes artifacts are smaller texts like journals, notes, reflections, and brainstorming and are typically ungraded work.

Depending on the workshop participants’ needs, collect curricular and extracurricular artifacts. For instance, a capstone eportfolio would need work from several classes and may include integral extracurricular artifacts like service projects, lecture reflections, blogs, work experience, and others.

For our purposes working mostly with writing faculty teaching first and second year writing classes, we chose to practice with two high stakes assignments, 1 reflective essay, and six low stakes assignments. After collecting the artifacts to use in the workshop, divide
participants up into groups of about 3 or 4
and ask the group members to read the artifacts.
Participants then summarize what they read,
understood, and interpreted to each other.

Select
Each group should decide on a main theme,

narrative, or argument of their choosing that
they want to highlight from the sample work.
For instance, they may want to highlight ac-

complishments (perhaps goals and outcomes),
a new identity (perhaps as a budding profes-

sional), or growth (perhaps a new self-aware-

ness). The theme needs to be supported by the

artifacts; therefore, groups need to determine
how they will support their claim using the ar-

tifacts given. Not everything in the collected

artifacts will be useful for the main theme, nar-

rative, or argument, so participants should feel
encouraged to keep, use, and rearrange as they

see fit. As we practiced this ourselves (see next

section), we chose a mixture of high and low
stakes assignments to support our main points,

which differed even though we read the same

material.

Reflect
Artifacts and themes do not speak for them-

selves, as we know quotes and statistics do not

speak for themselves. Since these artifacts sup-

port a specific theme, group members should
begin to articulate to each other why artifacts
support the main theme. Likely, this step has
already happened throughout the selecting
phase, as members arrive at a consensus about
what the main theme is and which artifacts best
suit that main theme. Groups should take note
of what they want to say about the artifacts and
each artifacts’ connection to the main theme.

Curate
Once groups have gone through the previous
steps, they should start to practice curating
the paper Web site by sketching out the
organization that best suits the theme. As
we have noted, curating is embedded within
the collecting, selecting, and reflecting steps,
but this workshop highlights curating as a
specific step that asks participants to focus
on designing the structure of the non-digital
eportfolio as well as providing the reflections
and connective dialog that builds the artifacts
into a cohesive theme, narrative, or argument.
Depending on the time allowed, participants
will likely want to just make note of things to
discuss later. In her “paper Web site” activity,
Fleckenstein (2003) has groups of students
collaborate and make posters of their various
readings of difficult texts. Participants will not
have that time but can work towards making
meaning through design and reflective notes
that would aid the main point of the non-
digital eportfolio.

Discuss
At the close of the workshop, participants should
come together to discuss their work. Sketches
can be shared and the issues encountered
should be openly discussed. It may be a good
idea to appoint one individual in the group to
record the discussions for accurate reporting
and more productive reflective discussions.
Discussions should center on how the group
encountered and overcame the common
barriers as well as why they decided on the
themes and design elements they chose.
Workshop Preparation

The objectives of this workshop are accomplished by engaging in the task of reading through a set of example student artifacts and mimicking the curation process as a student would experience it toward the end of the semester or course of study. In order to perform the workshop, we recommend allowing participants to work in groups or pairs so there might be collaboration and conversation regarding choice as well as shortening the time to read through artifacts. The workshop should take about 45 minutes.

1. Divide participants into groups of about 3-4.
2. Each group should be given a set of student writings, pictures, or projects (i.e. artifacts) from an individual student.
3. Group members can split the artifacts and then practice summarizing to the rest of the group what the artifact is and begin to articulate why it may or may not need to be included (10-15 minutes).
4. Each group should select a theme or thread around which the portfolio can be designed (5 minutes).
5. Select 2 high stakes assignments and 2-3 low stakes assignments that support the main idea. Reflect and record those areas within the selected texts that led to the decisions made by the group (5-10 minutes).
6. Practice the curating process by sketching your ideas for arrangement and composition of an eportfolio (5 minutes).
7. Each group should share their eportfolio sketch as well as discuss any knowledge, rhetorical, and/or language problems they encountered (10-15 minutes).

The creation of a non-digital plan prior to delving into the digital medium is essential in practicing the structure and design of eportfolios. In our experiences, there will be shifts in students’ well-laid plans that will result from technological limitations. Navigating these issues in the digital space will be easier if the design and structure is laid out prior to curation. This practice will also make it easier for students to navigate the subtle difference between a rhetorical problem and a technological problem. If the rhetorical decisions are made prior to digital arrangement, then technological issues encountered can be resolved with the original rhetorical intent intact.

WE PRACTICE THE WORKSHOP

Workshop participants “may benefit more from your experience if you have ‘walked the walk’ of experimenting with the same kind of portfolio you are asking them to create” (Reynolds & Davis, 2014b, p. 8). What follows recounts our own personal experiences doing the workshop we outlined above.

Brendan’s Example Sketch

After reading the sample work from our presentation website, I decided that I wanted to highlight the students’ understanding of author and audience. My idea for this “reading” of his work came from a journal entry where the student lays out a revision plan for turning an analysis paper into a multimedia project. Even though the multimedia assignment was not in the collection, I thought his understanding of the relationship between author and audience was insightful. The student writes (as cited in Karaus & Hawkins 2017 n.p.):

“This idea for the…[multimedia] assignment relates
to J. L. Lemke’s statement… that discusses the fact that students are not taught to integrate different forms of media into the writing. I think that, especially in Physics, using forms of media that are not strictly black text on a white page is very useful and beneficial for students in learning subjects. …I believe incorporating many types of media into writing is important and only makes one’s message clearer and stronger.

The student highlights ways of writing that contrast from his earlier beliefs of writing, specifically he noticed that the audience often dictates the way an author should write. For physics writing, the student focuses on different kinds of writing and different approaches to relating information to audiences.

After reviewing my notes and finding threads I could pull together, I chose to arrange the epiphany at the beginning and reflection at the end. In the middle, I would put the high stakes assignments that led to the discovery of the integral author-audience connection. I chose to discuss the epiphany from his low stakes writing to show how far he had come in understanding (perhaps implicitly at the time) authorship in the second tab. The third and biggest tab in my sketch—End Reflection—shows where most of the work would go. The major assignments, the writing in physics and the rhetorical analysis, would go there for evidence and as fodder for discussing how these two artifacts changed his understanding of the kinds of writings he has to author as a physics major. Additionally, the rhetorical analysis demonstrates his understanding of multiple rhetorical moves authors may use in different situations.

With these two works constituting the middle part of my narrative, I would return to the end of the frame, the reflection essay, to discuss how the reflection essay (and on a meta level the planned eportfolio itself) represents learning about authorship and growing as a writer. If I had access to it, I would put his multimedia paper here, too, to exemplify his awareness of his own learning and ability to put that learning into action.
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Brendan Hawkins and Julie Karaus

Julie’s Example Sketch

Practicing new technology is the first step in developing the accompanying pedagogy surrounding how we teach eportfolios, but in what form should that practice occur? In order to practice this workshop, I pulled paper copies of a single student’s work: low stakes and high stakes and began to consider how I might arrange it with in the new digital medium. It was somewhat difficult to separate from the technology, and I had to eventually turn away from the computer. In fact, I went and sat at another desk without access to the digital medium.

Before reading through the student’s work, I made three categories: low stakes, high stakes, and not utilized (Figure 3). The student himself had decided to turn in the rhetorical analysis paper, the WAC paper, and the Reflection Essay in his paper portfolio. The original portfolio assignment required the reflection essay, but there was a choice involved in what final drafts were included as well as the choice of which high stakes paper could be radically revised into the alternative media assignment. The well-developed reflection essay helped me see the trajectory of his thinking as he developed a broad metacognitive sense of the course upon completion.

Choice is an important component of the underlying portfolio pedagogy, flat or electronic. The first step in curation is deciding which
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pieces belong in the product and which pieces best represent the journey of the class or course of study. Therefore, my first step in curating this eportfolio was to look at the products he chose for his flat portfolio. From this point, I was able to use his reflection essay to work backwards through that piece of writing as well as the low stakes writing to identify points of metacognition and transfer and make the connections to the course goals and outcomes that would inform the rhetorical decisions I made for him in the development of the eportfolio.

Every piece of writing that came from the course ended up in the sketch somehow, and although the annotated bibliography wasn’t utilized in the flat portfolio, it was discussed at length in the reflective essay as part of his process. Therefore, when designing the eportfolio it became a low stakes piece because the student did not choose to revise and polish it. However, in the reflective essay, he makes the statement that the rhetorical analysis would not have been possible without the WAC paper, and the rhetorical analysis inspired his alternative media assignment.

Looking at it later, somewhat removed and having crafted the eportfolio, the sketch seems like a bit of a mess, but it helped me later create a sample eportfolio. I can report that when I turned to the computer and began to experiment with the technology, learning its possibilities and limitations, I returned constantly to the drawing itself and was able to remember why and even when I made certain rhetorical decisions including design. For example, when I began the design phase and was searching for symbols of physics such as images and equations, I looked back to the stars doodled in the margin and shifted my design focus to pictures of the cosmos.

CONCLUSION: ADAPTING PRACTICES

Reflecting on our workshop model, we found a classroom application for the non-digital eportfolio pre-writing, pre-design exercise. One classroom application would be a midterm curation practice in the first-year writing classroom. During the course of the freshman year, students are producing mainly low-stakes writing in relation to larger course goals in the writing class and in other courses. They
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are just beginning to learn who they are as thinkers, writers, and learners. As a midterm reflection practice, we encourage practitioners of eportfolio pedagogy to engage their students in a non-digital curation activity where they begin to think through the rhetorical choices they are making in the direction of the digital space before thinking about those decision in the digital space, which is often limited by the technology itself. Reflecting on a quote from one of the author’s own flat-portfolio-based course syllabus, “the portfolio should be a collection of your best work from the semester and a reflective letter that ties the work together.” In practice teachers should be aware that the eportfolio is best when not utilized as a repository for finished work. When undertaking this exercise, they should intersperse rhetorically situated curatorial practices throughout the semester, leading up to the eportfolio. Moving the practice of curation beyond this workshop and into the classroom should encourage practitioners of eportfolio pedagogy to include reflective practice in each step of creation from invention to finished product and beyond. This particular act, the act of curation, works to link the creation of individual products to the production of a body of work.

By introducing curatorial practices early and often, we can limit the knowledge, rhetorical, and language problems we encounter when implementing eportfolio pedagogy. For instance, we can talk to students about what a repository of students’ work is and how to avoid it. We can talk about the rhetorical skills students need to avoid simply uploading all of their work in an eportfolio without selecting, reflecting, and curating their eportfolio.

We encourage instructors to adapt the workshop to fit their needs. Solving the common barriers to eportfolio pedagogy early in the semester should help teachers and students navigate the tricky but fruitful territory of eportfolios.

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AUTHOR BIOGRAPHY

Brendan Hawkins is now a PhD student in Florida State University’s Rhetoric and Composition program. Before moving to FSU, Brendan was a Writing Across the Curriculum (WAC) faculty consultant and Rhetoric and Composition adjunct instructor at Appalachian State University. He also earned his MA in English with a Graduate Certificate in Rhetoric and Composition from Appalachian State University.

Julie Karaus earned her MA in higher education from Appalachian State University with concentrations in teaching Rhetoric and Composition and History. She currently works as a professional consultant in both the University Writing Center and the Writing Across the Curriculum program and teaches first and second year writing at Appalachian State University.

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Isolating Rhetorical Challenges with Curation in ePortfolios: A Writing Faculty Workshop

Brendan Hawkins and Julie Karaus


Integrating ePortfolios into an assessment strategy in an undergraduate Geography module

by Susan Hegarty
Editor: Diane Holtzman

INTRODUCTION

Many of us who teach in Higher Education have a module that students struggle with. While the enthusiasm of the lecturer may not be lacking, the ability of students to succeed within the module appears to be deficient. This can create a sense of frustration on the part of both lecturer and student. The module “The making of the Irish landscape” has been taught for over a decade to second year undergraduate students of Geography, with class sizes ranging from 70 to 100. Students taking the module have come from a humanities background into a program which is humanities-rich. The module, however, has an earth science focus, and draws on concepts from geology and Quaternary science. Thus, the lecturer has struggled with the student perception of the module as ‘hard’, and students have struggled to attain the learning outcomes.

The module had been taught for ten years in the traditional lecture fashion, with the aid of a presentation tool. Each lecture was accompanied by a handout and support material in the form of additional readings in a Virtual Learning Environment. A large quantity of information was given to the students in the course of each lecture. The module was assessed through an end-of-semester exam and a group-based project during the semester. However, students struggled with the material presented, and the results from the module were consistently lower than other modules done by the same students. There was also a lack of fulfilment for the lecturers in teaching the module, as they could see that students struggled – the initial perception of
the module’s difficulty was borne out by the results in the final assessment.

NEED FOR A CHANGE

Following discussions with colleagues, a decision was taken to change the mode of delivery of the module to make the content more accessible while also engaging the students in their own learning and assessing student learning in the lecture setting. In the past, lectures had information flowing in one direction – from the lecturer to the student group.

The initial changes in the module were around adapting the teaching to include in-class assessment for learning, structuring lectures around a series of learning outcomes, each with the condition and criteria of performance. This focused teaching in the module around discrete concepts. Learning in each outcome was centered on tasks that the students engaged with, and discussion with the lecturer. To aid student learning, many of the learning outcomes were associated with a document (either a map, a diagram, an academic article, a graph or a video) which students were asked to engage within the lecture itself, with the lecturer posing questions around the documents, and the students working in peer-groups to answer these. This enabled the lecturer to circulate and to help students tease out the various topics, thus creating a community of learning. Each lecture session became two hours (instead of the traditional one hour twice a week), and each session began with an overview of what would be learned in the class, and how it would be learned. "Traditional" teaching was not abandoned completely, but instead was used to explain a context for the tasks the students were engaged with.

The changes in delivery necessitated a change in the pace of module – the amount of information given to the students was reduced as it became clearer to the lecturer which concepts were key concepts and which were secondary.

Integration of ePortfolio into the assessment - rationale

Although there was some success in this new method of delivery, as evidenced by a reduction in the failure rate for the module, students were still struggling to achieve the learning outcomes, and the mean grade for the module was still below 50%. After a two-year trial period of delivery of the module in this fashion, the university began piloting an eportfolio based on Mahara. The opportunity to integrate the existing assessment for learning in the restructured module into the summative assessment, using the eportfolio tool, was taken. Thus, the eportfolio was not an add-on, but formed an essential part of the assessment strategy. JISC (2008) suggests that, for the effective use of eportfolios, it is important to define the purpose of the eportfolio from the outset. For the purpose of this module, therefore, the eportfolio was defined as a place for students to create pages based on their learning in lectures, for the purpose of summative and formative assessment. Individual pages
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would be submitted to the lecturer as part of the summative assessment of the module, and would act as summative assessment allowing the lecturer to see the students’ learning as the module progressed. The use of the eportfolio platform within the module, it was hoped, would further engage students in their learning, as well as providing a means of peer- and teacher-feedback to students. This is in line with Nicol and Macfarlane-Dick (2005) who assert that formative assessment and feedback can help students to take control of their own learning, helping them to become self-regulated learners.

Students were asked to create a page within their digital portfolio based on their learning for six of the eleven lectures. Each page was to include a reflection on what the students had learned during the class, also incorporating extra reading from texts included on the bibliography for the module. Students were required to upload at least one artifact of something that they created during the lecture (lecture notes / a diagram they were asked to draw etc.) and to write a reflection on why that was important for their learning. They were asked also to include a website that could help their learning for that topic, and to conclude each page with a piece on how that week’s lecture fitted into the bigger picture of the module as a whole. A template page (F. 1) was provided to the students within the eportfolio platform. Subsequently, students were asked to share three of these pages with a peer, who would comment on their reflections. Students were required to submit each of their reflections before the following class, therefore forcing them to engage with the material between classes, and tapping into their short-term memory.

Figure 1: Template for eportfolio pages provided to students.
Student engagement

Although initially the students were somewhat reluctant to engage with the process of reflecting on the lecture using the eportfolio, by the end of the module students were putting a significant effort into each of the pages.

The initial hesitation was due to the fact that the eportfolio was a totally new platform not only to these students but to the university as well. These students were the first to engage with the platform, and therefore had no peers to look to for help, and felt somewhat overwhelmed by the technology rather than the task itself.

This was overcome by doing some in-class work on the eportfolio, with the learning technologist explaining how to get the most from the platform as well as being online for any queries that the students had about the eportfolio. After the first fortnight of classes, students were much more comfortable using the platform, and were changing fonts, adding videos and image galleries and changing the look and feel of the template skin to allow it to reflect their own personality. Students who initially were less than enthusiastic about spending time reflecting on their learning, and writing down what they learned, now were reporting spending between four and six hours each week on revising their lecture notes and completing extra reading and research on the topics. The difficulties that were encountered and overcome, the embracing of the eportfolio despite an initial reluctance due to the time investment required, are consistent with what O’Keeffe and Donnelly (2013) found in their study of postgraduate student use of an eportfolio. On sharing their work with others, students in this module commented on what they found difficult, and offered suggestions of online sites to their peers to aid understanding of the topics they found difficult. On the part of the teacher, seeing the level of understanding of the students each week allowed for better tailored classes and exercises, as well as being able to scaffold the learning of those who were struggling.

THE RESULTS

The catalyst to implement this change in the assessment of the module was to enhance student learning and to increase a sense of fulfilment on the part of the lecturer on seeing that the students were able to succeed in the module. Figure 2 shows the mean grade, in percentage, achieved by the students over a seven-year period. The number of students each year varied from 70 to 90. Figure 2 also shows the percentage of students who failed this module in each of the academic years. The failure rate in the academic year 2016-17 has significantly reduced. Moreover, the mean percentage attained by the student group over the seven years, which had remained quite consistently the high 40s until the introduction of the eportfolio, rose by almost 10% to 59% in the academic year 2016-17. This underlines the success of imbedding the eportfolio into the assessment.
Students were overwhelmingly positive about the use of eportfolios as part of the assessment. In the end of year module feedback, 70% of the respondents specifically mentioned the eportfolio-based assessment as one of the strengths of the module in an open question. Common threads through the student responses included the "learning of material as we went along", with students engaged in the material week on week, and the creation of their own study notes, including extra reading, for use as study aids afterwards. Students also commented on the sense of calm they experienced coming up to the examination period itself knowing that they had already successfully completed the readings. This all contributed to the sense of achievement on the part of the students. On the part of the lecturer, it was very satisfying to read the examination papers and to see that the students had really engaged with the material, had understood it and had overcome the difficulties of the subject area.

CONCLUSION

The integration of an eportfolio as part of the assessment of this undergraduate module has been highly successful. Although the implementation of the assessment, for both the lecturer and the students, is time-consuming, this was not seen as an impediment to the assessment strategy by either party. Students who were initially reluctant to spend time on the eportfolio were, after completing the module, asking for this approach to be implemented in other modules.

The feasibility of using eportfolios in the manner demonstrated here throughout a program may not be possible. A variety of assessment types, balancing student time with assessment demands, is required for most programs. Also, in the study presented here, the time spent by the lecturer in reviewing and providing feedback to the students was considerable, and
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would not be possible if every module were assessed in the same way. Nonetheless, the benefits of the eportfolio scaffolding the learning that was happening in the lecture, and that learning being taken outside of the lecture hall and into the space in between classes, can be seen in the results obtained by the students.

The added benefit of the students creating pages within an eportfolio is that they can tag both relevant content within these pages and also have them available to future employers should they be required to show evidence of learning in the specific area of the module. This is particularly important as many of the students on this module have traditionally gone on to become teachers. In the Republic of Ireland, where this study is based, the Teaching Council require of student teachers that they create a professional portfolio of work which shows the lifelong learning process of the student (Teaching Council, 2017). Many of these students will be able to include these pages within this professional portfolio, and the pages will be accessible by the students when they themselves go into the classroom to teach some of this material in the future.

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AUTHOR BIOGRAPHY

Dr Susan Hegarty is a geographer and assistant professor in the DCU School of History and Geography, where she lectures on aspects of physical geography such as landscape evolution and geomorphology, and water resources. She is currently chair of the BA Joint Honours programme at DCU. She is particularly interested in the evolution of the Irish landscape, and her research has focused on the role of the Quaternary ice-sheets on this landscape. She is also interested in our use of the natural landscape over time, particularly the exploitation of Irish mineral resources in the nineteenth century, and in water resources. She is enthusiastic about transmitting the importance of Geography to the wider public, and to this end has taken part in a number of documentary series on both Irish and British television channels, and is co-presenter of the interdisciplinary series Building Ireland on RTE1, Ireland’s national public service broadcaster. Recent publications include ‘Schools and schooling, 1650–2000: New perspectives on the history of education’, (editor with James Kelly), 2017 and ‘Monaghan’s physical landscape: exploiting its natural resources’ Susan Hegarty (2017) In: Patrick J. Duffy; Éamonn Ó Ciardha (eds). Monaghan History and Society.

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Assessment from an Instructional Designer’s Perspective

by Matthew Louvet
Editor: Connie Rothwell

INTRODUCTION

We all know authentic assessment is important. But, if the assessment does not directly measure the course materials and learning objectives then it may be authentic, yet completely useless and irrelevant. As an Instructional Designer, it is my job to guide the instructor through the course design or redesign process with a deep consideration of the alignment of the course lesson by lesson. Using an eportfolio is encouraged to collect artifacts and narratives, supporting a student’s deeper cognitive understanding of the material being learned as well as linkages across topics. As students continue to use their eportfolios to collect artifacts from each successive learning experience, narratives can be created showing the cognitive link between artifacts across subjects.

WHERE TO START

How does a class fit into the curriculum it supports? Is the course a prerequisite for another course and/or does the course require a pre-requisite? With the instructor, we compare the current course description with what was approved during the most recent governance review process. To then prompt further idea development, the instructor is asked:

- Is the course a degree required course?
- Can the course be taken as an elective?
- Is the course a prerequisite? For what course? Does the course support the necessary learning for the next course?
- Does the course require a prerequisite? What course is the prerequisite? Does it provide the requisite knowledge to students for your course?
• Does your course description accurately reflect the information we have discussed? That is a lot to think about right up front, so we begin with a seemingly simple question. What do you (the instructor) want the students to get out of your course? The question is asked to develop the goals for the course. These are not measurable, but are what the instructor wants the students to get out of the class conceptually.

MEASURABLE OBJECTIVES, THE NEXT STEP

Having both the description and goals together in front of the instructor, the next question is what concepts have the students grasped and can apply to situations when the course is complete? Essentially, what are the objectives from the student perspective on what they can expect to learn and what they can be expected to be assessed on to demonstrate a minimum of understanding of the course material. Establishing proper, measurable course level objectives allows the instructor to develop assessments showing the material is being taught and internalized. The revised Blooms Taxonomy action verbs (Revised action verb list, Table 1) are very helpful information for setting course objectives.

With developed course objectives, content development could begin. However, it is better for the Instructional Designer/Instructor team to develop required topics for the course which nest within the course objectives. Topical development nested within course objectives focuses the required content development and ensures the materials develop the knowledge needed to assess the objectives. Each course lesson must have measurable objectives associated with it. Not only are these integral to student conceptual knowledge of the lesson, they are also a portion of the overall measurement of some part of the course level objectives. At the end of the course development or redesign, every lesson-level objective must be associated to at least one course level objective. Just like with the course level objectives, the revised Blooms Taxonomy action verbs are a key component to make these measurable.

Even if the course in question has been taught before, switching the semester it is taught could affect the material presentation outline. The instructor needs to just brainstorm topics which fit in the course description, meet prerequisite requirements, and provide students with information to proceed in their studies. Review the topic list several times and make sure the topics flow in an order which makes sense and are not jumping around from place to place.

The topic list, covering everything in the course description, becomes finalized for the instructor, as course lessons, only when the topics are aligned to course objectives and estimated teaching time is applied to each. This can be seen in the Physical Geology course below where plate tectonics and weathering and soils are both topics within the idea of Physical Geology and are lessons within the course. Now, the instructor is certain the course is covering all necessary topics to the required cognitive level and can be completed during the time allocated for the course.
## Action Verbs Appropriate for Each Level of Blooms/Anderson & Krathwohl’s Taxonomy (Cognitive Domain)

<table>
<thead>
<tr>
<th>Remember</th>
<th>Understand</th>
<th>Apply</th>
<th>Analyze</th>
<th>Evaluate</th>
<th>Create</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define</td>
<td>Choose</td>
<td>Demonstrate</td>
<td>Analyze</td>
<td>Assess</td>
<td>Arrange</td>
</tr>
<tr>
<td>Identify</td>
<td>Cite examples of</td>
<td>Dramatize</td>
<td>Appraise</td>
<td>Choose</td>
<td>Assemble</td>
</tr>
<tr>
<td>List</td>
<td>Employ</td>
<td>Employ</td>
<td>Calculate</td>
<td>Compare</td>
<td>Collect</td>
</tr>
<tr>
<td>Name</td>
<td>Generalize</td>
<td>Generalize</td>
<td>Categorize</td>
<td>Critique</td>
<td>Compose</td>
</tr>
<tr>
<td>Recall</td>
<td>Illustrate</td>
<td>Illustrate</td>
<td>Compare</td>
<td>Estimate</td>
<td>Construct</td>
</tr>
<tr>
<td>Recognize</td>
<td>Interpret</td>
<td>Interpret</td>
<td>Conclude</td>
<td>Evaluate</td>
<td>Create</td>
</tr>
<tr>
<td>Record</td>
<td>Operate</td>
<td>Operate</td>
<td>Contrast</td>
<td>Judge</td>
<td>Design</td>
</tr>
<tr>
<td>Relate</td>
<td></td>
<td></td>
<td>Correlate</td>
<td>Measure</td>
<td>Develop</td>
</tr>
<tr>
<td>Repeat</td>
<td></td>
<td></td>
<td>Criticize</td>
<td>Rate</td>
<td>Formulate</td>
</tr>
<tr>
<td>Underline</td>
<td></td>
<td></td>
<td>Deduce</td>
<td>Revise</td>
<td>Manage</td>
</tr>
</tbody>
</table>

Table 1: Revised action verb list (Anderson & Krathwohl, 2001)
AN EXAMPLE

To illustrate, let’s take a look at an introductory Physical Geology course with alignment from the course description to the lesson objectives and assessments. The course description clearly states what a student will encounter in the course. As an introductory course there are no pre-requisites and in this case, it is not a pre-requisite for another course.

To describe the alignment we have discussed so far, there is a sentence in the description that states “...to learn how geology and climate are naturally related” Course goals #2 (G. 2) and #4 (G. 4) both are aligned with this statement from the description with no question. Course Learning Objectives #3 (3.) and #4 (4.) are aligned to G. 2, G.4, and the course description.

The instructor for this course developed a topic list, and we analyzed it for completeness and time. Two of the lessons included were 1. Plate Tectonics and 3. Weathering and Soils. Each of these lessons had three lesson level objectives for students to be assessed under. The instructor being the subject matter expert decided each set of three lesson level objectives were aligned to the previously mentioned course objectives 3. and 4. With our narrative so far and the example material, we can clearly outline the alignment from lesson level objectives, to lessons, to course level objectives, to course goals and to the course description.

<table>
<thead>
<tr>
<th>Course Name: Physical Geology (Freshman Level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Description:</td>
</tr>
<tr>
<td>This is an introductory level course about the Earth, with emphasis on its composition, structure, and dynamics. You will be learning about rocks and minerals, the building blocks of the continents, oceanic basins, and about Plate Tectonics and the processes that shape the Earth. Part of the course is dedicated to the resources (energy and materials) we obtain from Earth, and how their availability worldwide is strongly connected to geology. An important part of the course is to learn how geology and climate are naturally related, and how human activities interfere with this relationship. The final part of the course looks beyond Earth, to the Solar System and our search for life beyond our planet.</td>
</tr>
<tr>
<td>Course Goal(s):</td>
</tr>
<tr>
<td>G. 1  Understanding the role of the scientific method in geology.</td>
</tr>
<tr>
<td>G. 2  Developing an understanding of Earth as a dynamic system.</td>
</tr>
<tr>
<td>G. 3  Achieving a sound appreciation of our dependence on Earth for all the resources we need to sustain our technological society and life style.</td>
</tr>
<tr>
<td>G. 4  Building a critical viewpoint of the implications of our interactions with the System Earth.</td>
</tr>
<tr>
<td>G. 5  Develop a non-Earth centered perspective of our Universe.</td>
</tr>
<tr>
<td>Course Learning Objectives:</td>
</tr>
<tr>
<td>1. Articulate the scientific approach to problem solving in Earth science.</td>
</tr>
<tr>
<td>2. Critically evaluate geological information and recognize the intellectual products of research (versus pseudo-science).</td>
</tr>
<tr>
<td>3. Describe the fundamental systems that control geologic processes within and on the surface of the Earth.</td>
</tr>
<tr>
<td>4. Explain how the Earth system is composed of a large number of interacting and interdependent parts.</td>
</tr>
<tr>
<td>5. Communicate how geological knowledge is the basis for, and enables the extraction of, energy and mineral resources from the Earth.</td>
</tr>
<tr>
<td>6. Articulate examples of how geology influences society and how human activity impacts the Earth.</td>
</tr>
<tr>
<td>7. Learning to view Earth as part of the Solar System and the larger Universe.</td>
</tr>
</tbody>
</table>

<p>| Lesson Level Objectives:                        |</p>
<table>
<thead>
<tr>
<th>Lesson</th>
<th>What course learning objective number this achieves</th>
<th>Lesson Level Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1. Plate Tectonics</td>
<td>#3, #4</td>
<td>1. Outline Wegener’s idea of drifting continents and describe the evidence he cited to support his hypothesis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Summarize the process of seafloor spreading and the</td>
</tr>
</tbody>
</table>

Figure 1: Excerpt from Physical Geology course alignment plan
Both course objectives begin with measurable verbs aligning within the Understand cognitive domain, see the Revised action verb list, Table 1. All of our lesson level objectives also begin with measurable verbs as part of the Understand cognitive domain, Figure 1. These all fit perfectly within an introductory course. With lesson level objectives written this way, any student reading them will understand exactly what is expected of them for each lesson.

**ASSESSMENT**

After completing a set of lesson level objectives, the instructor develops the assessment(s) to measure the knowledge internalized by the student. The action verbs in the objectives help determine the assessment type, because the different levels of the revised Blooms Taxonomy (Revised taxonomy of the cognitive domain, Figure 3) lend themselves to different assessments. Creativity is encouraged to develop authentic assessment for the objectives. The lesson level objectives can all be measured by the same assessment or

<table>
<thead>
<tr>
<th>Course Objective</th>
<th>Lesson</th>
<th>Lesson Objective</th>
<th>Planned Activity and Assessments</th>
<th>Formative/Summative</th>
<th>Grade Points/Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>#3, #4</td>
<td>1</td>
<td>#1</td>
<td>Video Lecture Test</td>
<td>Formative</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>#2</td>
<td>Activity</td>
<td>Formative</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>#1, #2, #3</td>
<td>Lesson Quiz</td>
<td>Summative</td>
<td>10</td>
</tr>
<tr>
<td>#3, #4</td>
<td>3</td>
<td>#3</td>
<td>Video Lecture Test</td>
<td>Formative</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>#2</td>
<td>Activity</td>
<td>Formative</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>#1, #2, #3</td>
<td>Lesson Quiz</td>
<td>Summative</td>
<td>10</td>
</tr>
</tbody>
</table>

**Lesson Materials associated with assessments:**

**Lesson: 1 Plate Tectonics**

<table>
<thead>
<tr>
<th>Course Level Objective No.</th>
<th>Lesson Objectives</th>
<th>Lesson Assessments</th>
<th>Instructional Materials associated with Lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>#3, #4</td>
<td>#1</td>
<td>Video Lecture Test</td>
<td>Video Lecture</td>
</tr>
<tr>
<td></td>
<td>#2</td>
<td>Activity</td>
<td>Instructions + Excel File</td>
</tr>
<tr>
<td></td>
<td>#1, #2, #3</td>
<td>Lesson Quiz</td>
<td>Textbook</td>
</tr>
</tbody>
</table>

**Lesson: 3 Weathering and Soils**

<table>
<thead>
<tr>
<th>Course Level Objective No.</th>
<th>Lesson Objectives</th>
<th>Lesson Assessments</th>
<th>Instructional Materials associated with Lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>#3, #4</td>
<td>#3</td>
<td>Video Lecture Test</td>
<td>Video Lecture</td>
</tr>
<tr>
<td></td>
<td>#2</td>
<td>Activity</td>
<td>Instructions + Google Earth</td>
</tr>
<tr>
<td></td>
<td>#1, #2, #3</td>
<td>Lesson Quiz</td>
<td>Textbook</td>
</tr>
</tbody>
</table>
multiple assessments may be used. The type and subject matter of the course lend themselves to some of the decisions.

Using an eportfolio to gather representations of student assessments is important to developing the metacognitive skills in students over time. Requiring the students to reflect on the outcome of the assessment as it relates to the material in the lesson further develops their understanding of the material. Reflecting on what was learned, how it was assessed, and the outcomes of the assessment all lead to a broader and deeper understanding and allow the mind to further adapt to concepts as they are presented later. In our course example, there are two assessments not shown in the highlight which would be ideal additions to the student’s eportfolio. The two are creation of a topical poster and a topical recitation video created by the student. Both of these assessments are aligned with topics in the course and additionally highlight each student’s developmental, critical thinking, and creative skills.

Now that the assessment method(s) are determined, the content is developed. The content in this case is any material in any medium to allow students to understand the lesson to the appropriate level as determined by the action verb in the objective(s). The assessment measures how engaging the content is to the students through their level of comprehension and internalization.

In this one lesson, the assessment(s) is the measure of the lesson level objectives. Following the alignment further, the lesson level assessment, being aligned with lesson level objectives, is also aligned with course level objectives. This supports the assessment of the measurable course level objectives.

**IMPLICATIONS**

Proper alignment allows the instructor to focus on the required course and lesson objectives. It also allows for assessment at multiple levels, both summative and formative, aligned with objectives at the course and lesson levels. Utilizing proper alignment provides a stable framework for course development from its description to its assessments. Course alignment is key to providing a learning environment allowing each students to develop to their own potential. The use of an eportfolio aids in the assessment of each students, measuring their cognitive understanding of aligned topics in aligned courses as they progress and finally receive their degrees.
ePortfolios serve as learning tools. However, they are also assessment tools which allow not only the advisor or instructor to provide assessment and evaluation of the included material, but also show the cognitive growth of the student over time. Looking back at either an independent course eportfolio or a larger program capstone eportfolio, students should be able to reflect on how they analyzed, approached and completed each learning task as the task complexity increased. Ideally, they will see a pattern of change, success, and application of conceptual principles across disciplines and tasks.

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AUTHOR BIOGRAPHY

Matthew Louvet is an Instructional Designer at Virginia Polytechnic Institute and State University. He works in Learning Experience Design (LED), Technology-enhanced Learning and Online Strategies (TLOS), Department of Information Technology (IT).

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