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The AAEEBL ePortfolio Review (AePR) is the tri-annual magazine of the Association for Authentic, Experiential and Evidence-Based Learning. The 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.

AePR is sent to AAEEBL members, partner representatives, eportfolio practitioners, administrators, and students. It covers the broad area of eportfolio use including pedagogy, research (AePR is not a double blind peer-reviewed research journal), technical (including articles about technology), and/or organizational issues.

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Dear Educators,

In the previous issue of AePR we focused on reflection, which is central to the process of learning. In this issue we turn our attention to teaching practices that strengthen student engagement and the quality of the learning experience.

In 2008, George Kuh of Indiana University identified ten “high impact” practices that lead to student engagement and deepened learning, and this work was published and widely disseminated through the Association of American Colleges and Universities (AAC&U). From First-Year Seminars to Capstone Experiences, over the years institutions of higher education have dedicated significant attention and resources toward high impact practices with the understanding that they would help address the challenges, interests, and needs of students.

In the past year, something really exciting happened. George Kuh added eportfolio practice to the canon, and even noted that eportfolio is a “meta” practice that can intensify the benefit of other high impact practices. This is an exciting juncture for the eportfolio community because it raises the visibility of eportfolio as an educational practice, and in so doing increases opportunities for systems-level engagement with eportfolios within our institutions and within higher education.

But this development is not just important because we’re now “in the club.” It’s important because it also helps us think about our work in new ways. It helps us consider what, in the words of Bret Eynon and Laura Gambino, it means to “do eportfolio well.” It helps us think more about opportunities to improve our work with portfolios. It also broadens our perspective on high impact practices that can be embedded in our portfolio work, and conversely portfolio practices that can be embedded in the other high impact practices.

In this issue you will read about the work of colleagues who are increasing the sophistication and thoughtfulness of eportfolio practice within their institutions, using eportfolios as an intensifier for other high impact practices such as a first year seminar course and capstone work, and systematically analyzing the results to improve their impact on student learning and engagement.

Remember this moment, because it is a turning point in the development and improvement of our field!

Best –
Gail

Gail Matthews-Denatale
Northeastern University and the AAEEL Board of Directors
Dear readers,

As practitioners, we have long known the value and power of eportfolios. After years of work, this past January, the AAC&U and George Kuh officially announced that eportfolios was added as the 11th high impact practice in higher education teaching and learning. The inclusion of eportfolio in the list is the result of years of evidence-based research and improved student success metrics. While we don’t need to tell you, our readers, how long this inclusion is overdue, it does now provide us a stronger platform to articulate the importance of eportfolio practice within education and student success.

Therefore, we can think of no better way to celebrate the historical importance of this event than by dedicating the entirety of this issue to the subject of eportfolio as a high impact practice. The articles within this issue detail the breadth and depth of eportfolio use and the tremendous impact it has on the student participants. We hope you find the issue both inspiring and invigorating to get you through the summer months in anticipation of returning to campus.

One last note; the production of the AePR is a labor of love for everyone involved. Our only hope is that you see the publication as a powerful and meaningful tool to detail the work of everyone involved in the field of eportfolios. To that end, we are attending the AEEBL Annual Conference in Portland in July and hosting a session about the AePR and invite you to visit with us. In our short session, we will share our plans for the Review and solicit your feedback for ideas, themes, and more. We will also host a poster session at the conference. We would love to have you join us as we strive to improve the AePR to best serve your needs. Please review the AEEBL 2017 conference schedule to find us while you are in Portland.

Happy reading,

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Heather Caldwell

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Call for proposals

AAEEBL annual conference

Call for proposals

AAEEBL annual conference
This is a question I often get at social gatherings. Lately, I’ve started telling people that I help faculty and students use technology effectively. But that isn’t exactly true. Well, at least that’s only a part of my job as an ePortfolio Strategist.

I work at the University of Alaska Anchorage (UAA) and the university didn’t have a formal portfolio program before our small team of two began eWolf. As with many of us in what I like to call Portfolio-land, we are groundbreakers. We are the first on our respective campuses to go where others have yet to journey. As such, our team had quite a bit of work to do; the first of which was to create job descriptions defining all that we do and all that we are responsible for. Since we didn’t have any predecessors on our campus we looked at what others were doing on their campuses. We imagined what our end goals would look like on our campus, and then we figured out what we would need to accomplish to make it all happen. Throughout the process, our job descriptions became an iterative process – reevaluating and redefining as we went along. Over the past year they have developed and have become more defined. Here’s a look at what I do as an ePortfolio Strategist.

As an ePortfolio Strategist, I work mostly on the Academic Affairs side of the house and I deal mainly with faculty, staff, and students. Overall, my job consists of six parts: ePortfolio Program Support, ePortfolio Outreach/Consulting, eWolf Program Evaluation, eWolf Coach Supervision, ePortfolio Research and Reporting, and Professional Development.
So, you are doing what exactly?

HEATHER CALDWELL

ePORTFOLIO PROGRAM SUPPORT

At the institutional level, I manage and facilitate our eportfolio trainings, activities, and annual two-day intensive. On the departmental level, I work with departments and programs, helping them assess their needs and if/where eportfolios might fit into their curriculum. On the faculty level, I work with individual faculty, helping them integrate eportfolios and folio thinking pedagogy into their courses. I also provide them with one-on-one support throughout the process.

ePORTFOLIO OUTREACH/CONSULTING

I work and consult with faculty, staff, and administrators to identify potential eportfolio opportunities and projects. For example, one of my tasked works was to explore the existing promotion and tenure process on campus. I worked with a Faculty Senate ad hoc group to establish a pilot program which moved the paper-based promotion and tenure files and reviews to electronic files and reviews using eportfolios. This is an ongoing project and we are successfully completing our second year.

eWolf Program Evaluation

While short-term evaluation gives us a quick view of how the ePortfolio Initiative is growing on campus, my goals are to build a strong eportfolio community. Therefore, a long-term evaluation plan is necessary. I am building and implementing an evaluation plan so we can keep a pulse on how our community is growing and where we might need to dedicate more time and/or support. This is currently in development and I hope to finalize the plan and roll it out next academic year. In the meantime, we use Google Forms to survey faculty and staff as they work on specific projects and attend different workshops or trainings.

eWolf Coach Supervision

I manage our eWolf Coaches who are peer student workers who help students navigate Portfolio-land. Each semester we have 4 – 8 peer coaches who offer class demonstrations and one-on-one coaching sessions for students across campus. Coaches assist with basic portfolio how-to’s, curation, brainstorming, and artifact construction. In addition, they maintain our online resources, identify exemplar portfolios, and much more. Visit our Everything Portfolio to see examples of online support.

ePortfolio research and Reporting

I write and edit research papers that contribute to the dissemination of knowledge on a national/international scale, including conference presentations, eportfolio journals, and AAEEBL’s publications. I also work with faculty and staff through their eportfolio research activities, including Make Learning Visible (MLV)/Scholarship of Teaching and Learning (SoTL) projects. One of my most recent publications and contributions include a chapter titled “Faculty eportfolios: Teaching and Learning and Professional Development.” This chapter can be found in The Field Guide to ePortfolio which is a forthcoming collaborative project of AEEBL, AAC&U, IJeP, and EPAC. I have also recently collaborated on The AAEEBL eportfolio Review’s first edition where my colleagues and I detailed our eportfolio journey in “Journey of the eWolf: eportfolios in Alaska.”

Professional Development

While a large part of my job deals with professional development, much of that is helping others with the integration of eportfolios and folio-thinking pedagogies. In order to do this, I must stay current on eportfolio trends and topics, our campus environment and trends, and other pertinent discussions that would impact our campus’ use of eportfolios.
CONCLUSION

While the position requires working across campus in a variety of roles and on a myriad of projects, it has its ebbs and flows. Transitioning from one project to the next often happens organically and there’s rarely a dull moment at the office. But like I tell folks at social gathers, I just teach faculty how to use technology.

Heather Caldwell earned her MA in English Literature, Rhetoric and Composition from the University of Alaska Anchorage. She taught first and second year composition for over 5 years before jumping to the other side of the house where she’s now an ePortfolio Strategist. Her research interests are varied but they currently surround all things eportfolio. Her most recent projects include campus-wide eportfolio Promotion and Tenure files, Undergraduate Research Scholarship eportfolio files and evaluation, and supporting faculty members in their sabbatical and SoTL eportfolio projects.

REFERENCES


Three for the price of one:

Combining three high impact practices in one learning community eportfolio

by Kate Culkin and Jordi Getman-Eraso
edited by Diane Holtzman

Bronx Community College of the City University of New York (BCC), like many urban community colleges, has struggled with low passing, retention, and graduation rates. In response, the school has introduced initiatives to improve student success designed around high-impact practices. These practices, which “engage students in active learning that elevates their performance on desired outcomes,” can be “especially powerful for students who may be the first in their family to attend college, and those who are historically underserved in postsecondary education,” such as the majority of BCC’s students (Kinzie, 2012). Since 2015, the school has piloted linking First Year Seminars and Learning Communities, identified in the original list of ten high-impact practices (Kuh, 2008), and eportfolio, officially recognized as a high-impact practice in 2016 (Watson et al., 2016). Linking High Impact Practices (HIPs) can have exponential benefits, “as the more HIPs a student does during their studies, the more they benefit” (Watson et al., 2016, p. 66). Learning communities aim to “encourage integration of learning across courses and to involve students with ‘big questions’ that matter beyond the classroom” (Kuh, 2008), while successful first year seminars “focus on engagement of students through critical inquiry, frequent writing, information literacy, and collaborative learning” (Kuh, 2008). First offered in 2012, the BCC First Year Seminar (FYS) is a one-credit course for incoming students. ePortfolio integration is a critical component of the FYS curriculum, as it helps “engage students in using reflection to think critically about themselves and apply their learning to their college experience while receiving feedback from a faculty member” (Buyarski & Landis, 2014, p. 50). At BCC, eportfolio use in FYS has contributed not only to 9.6% higher one semester and 10.3% higher one year retention rates for entering first year students, but also to higher two-year average credits earned (+4.43) and higher GPAs (+0.47) (Mechur, Raufman, Efthimiou, & Ritze, 2015).

In this case study, we analyze our experience teaching FYS in learning communities that also include introductory English and history courses. We address our strategic employment of eportfolio in FYS to help students develop cross-course connections that make learning visible, develop cross-disciplinary metacognitive learning, and encourage long-term academic success. In doing so, we examine the benefits and challenges of combining these three high-impact practices.
BACKGROUND
We are both history professors at BCC who also teach in the FYS program. Jordi taught in this learning community in Fall 2015. Kate took over the FYS section in Fall 2016. The English and history faculty were the same both semesters. While we structured our FYS sections differently, the integration of scaffolded assignments was at the heart of both of our approaches.

The scaffolded assignments encourage reflection on academic learning processes across the three courses to help students develop metacognitive skills, as well as an understanding of the conceptual links between courses.

CASE STUDY
FYS is designed to combine academic skills development – from time management to information literacy – with disciplinary themes chosen by instructors. Jordi’s course focused on the history of immigration in New York City, using a study of the immigration experience as a metaphor for students migrating and adjusting to college. The connective thread for all three courses in the learning community was the development of research and citation skills. The FYS course included four information literacy sessions developed in collaboration with a librarian specializing in digital literacy. The first two sessions were intended to help students more broadly learn about library offerings, the use of database user interfaces, and the academic/cultural definitions of plagiarism. The second two were geared specifically to the research papers students were required to write in the history and English courses.

Students used their FYS eportfolios as a sandbox, where they posted their thoughts, reactions and research notes from each library session to later work on arranging them into more organized projects for their history and English classes. At the end of the semester they posted all the finished projects, along with reflections on their experience with the information literacy project. The students touched on what they learned about library databases, plagiarism, citation and, more broadly, how that learning applied to other areas of their academic work and life learning.

The library sessions were dynamic, interlacing student discussions and group work with real-time postings to their eportfolios. With each visit to the library, students’ reflections indicated a growing comfort with using library resources and a deeper understanding of plagiarism and proper citation, even while learning two different citation styles. The eportfolio sandbox concept was initially confusing to students, who often criticized the seeming lack of structure or direction. According to a young eighteen-year-old male student, the “piling together of different stuff” on the same eportfolio page didn’t “seem to go anywhere.” One student concerned with the aesthetic presentation of her eportfolio, commented the sandbox approach was “very ugly,” making her eportfolio “unbalanced and unattractive.” Yet another student was left “hoping I don’t get a bad grade because it looks so disorganized.”

As the semester progressed, however, students began recognizing the sandbox eportfolio as helpful in gathering, processing, and synthesizing evidence used in their English and history research projects. A number of students identified having developed a deeper conceptual appreciation for research and synthetical writing. A student, who earlier had voiced frustration with posting materials from all four sessions on the same eportfolio page, reflected on being happy “seeing things come together,” noticing “connections between all the sessions.” The student who initially had complained about the “piling together of different stuff,” recognized feeling empowered as a “researcher” and identified “the similarities between the papers we did in both [English and history] courses.” A very shy young female student who barely participated in class discussions admitted she appreciated “not being alone in trying to figure out how to use the library databases,” and overall being “more confident to carry out future research projects in college.”

When Kate took over the course the following fall, she used the theme of history and memoir in graphic novels. The librarian was leaving the school, and with the new librarian, the information literacy sessions were less interactive and less successful. Although students reflected before and
after the sessions, they spent much of their time passively listening to information provided by the new librarian. The students were not as well prepared for the research assignments and valuable time for community building and student engagement was lost.

What did work in Kate’s class was the use of eportfolio to develop metacognitive skills and an awareness that the material and skills taught in discrete courses build on one another. Asked to reflect on an assignment she felt was significant, one student explained of her review of her trip to the Brooklyn History Society, “Even if I don’t get an A, it will be okay with me because it is the first time that I feel that my vocabulary improved. Coming to college without knowing enough English has been very hard, but finally I think I’m moving forward.” Much of the reflective work focused on building connections between the three courses. The English and history faculty had developed a shared assignment, in which students analyzed how an historical event shapes the modern world. Students posted guided reflections on the scaffolded assignments on their eportfolios, with a focus on their future steps and what they had learned. At times they made unprompted connections between their classes, such as the student who selected American Born Chinese for his graphic novel review in FYS because he had enjoyed visiting the Chinese American Museum for his history class. FYS students wrote letters to incoming students as their final reflections, giving practical advice and discussing their experience, often expressing their appreciation of the learning community. As one student concluded, “all of the classes correlate to one another in some shape or form. This is a good thing because when you have many classes, or in my case, is your first semester this can help you keep your head in the game.”

In FYS learning communities, communication among the professors, student advisors, and peer mentors is critical. The reflections that students posted helped flag problems and suggested the best way for the team of professors and advisors to broach them. Students noted the benefits of this support network. As one student, who was struggling with health issues that initially came across as disinterest in her coursework, explained in her letter to an incoming student, “Did you know you the teachers all work together behind the scenes? No one knows when these meetings take place, it’s like they are a secret dark cult that meets in a lair under the school. And that’s what makes them so much cooler.” The eportfolio gave this student, who was at serious risk for dropping out, a place to articulate what she appreciated about the school, and, in the process, strengthened her connection to BCC and her education.

**Overcoming logistical challenges**

Having students use one eportfolio for three courses addresses the logistical problems that pose challenges to integrating eportfolio. Both the English and history professors were resistant to eportfolio, for different reasons. The English professor is committed to reflection, but has little interest in any educational technology; the history professor embraces Blackboard, but resists reflection and the time necessary to implement eportfolio. By having the FYS eportfolio span the learning community courses, students reaped the benefits of reflection and metacognitive development in three classes, without the technology encumbering resistant faculty and reducing the time commitment needed for successful eportfolio integration and training.

The students enrolled in the learning communities compared favorably with the general BCC population, both during the semester they participated in the learning community and beyond. Of the 49 students enrolled in both FYS learning communities, 41 (84%) passed FYS, 40 (82%) passed history, and 39 (80%) passed English. The percentage of passing students surpasses the average passing rates for both the history (59%) and English (76%) courses at BCC. Perhaps more importantly are the retention statistics. In Spring 2017, 3 semesters after taking Jordi’s FYS class, 14 of the 26 students are still enrolled; at 60% that far surpasses the school’s average 2-year rate of 41% still enrolled at that point in their career. Of Kate’s FYS class, 12 of 18 were enrolled at midterms of their second
semester, at 66% again surpassing the school’s rate of 57% of students enrolling for a second semester.

**Implications for Practice**

While successful, we will make changes to future iterations of this learning community or other learning community pairings. Communication between the academic faculty and the FYS instructors can be improved. We can design more relevant eportfolio assignments with better alignment of learning community and course-specific learning outcomes. The academic faculty should also be more closely involved in developing the research sessions, better articulating the kind of sources they require, connecting them to their learning objectives and possibly attending the sessions offered in FYS. Nonetheless, the richness of student reflections on eportfolio and the evident impact on student success, both statistical and conceptual, inspires us to continue developing integrative learning strategies centered around high impact eportfolio pedagogies that break down disciplinary boundaries while building enduring communities of learning.

Kate Culkin, Ph.D., is an associate professor of History at Bronx Community College. She is the author of *Harriet Hosmer: A Cultural Biography* (2010) and the associate editor of the *Harriet Jacobs Family Papers* (2008).

Jordi Getman-Eraso, Ph.D., is an associate professor of History at Bronx Community College. He has published on Spanish anarcho-syndicalism in the 1930s and more recently on teaching utilizing the interpretative tools of historical epistemology.

**References**


As diverse learners begin to comprise a larger percentage of the learner population at universities, it is imperative that we consider and survey how culture shapes the identities and the characteristics of such students in places of higher education so that we may begin to understand what elements of diversity contribute to education. Electronic portfolios (eportfolios) prepare learners to develop their identities by reflecting on the ways that their various learning experiences are connected. It is especially important to provide a space for diverse learners, indigenous and non-indigenous, to reflect on and consider the ways that culture, identity, and education overlap to form all learners’ perspectives. Many eportfolio implementations overlook the significance of encouraging learners to consider the ways culture shapes their learning identities. Drawing on identity theory, eportfolio research, and learning theory, this paper explores ways eportfolio can assist in identity development and shows the value “knowing thyself” can have for fostering learning, particularly among underserved populations, such as indigenous learners.

Challenges that indigenous learners and non-indigenous learners may experience include culture shock if they are moving to an urban area or are not familiar with academic culture (Merculieff & Roderick, 2013). ePortfolio provides the space for learners to capture their stories and make explicit the skills they have acquired while adapting to academic culture and university life. It may also serve as a tool to support students through the formation of online communities.

Learners entering the university may not be academically prepared. ePortfolio can bridge the gap through eportfolio assignments that provide learners with quick feedback from their peers and instructors. The instructor should also require learners to journal about what they learned during each assignment to better prepare the student for the next assignment by providing resources for the learner to review in order to improve their skills and abilities.

The last concern is learners may experience a “conflict of success,” because their family or community may need them or the learner becomes disconnected from their family and community through their educational efforts (Merculieff & Roderick, 2013). ePortfolio can provide an online learning community where students can support one another by sharing about their own experiences in their
assignments. Then the professor would have to require all students to comment on or critique the eportfolios of at least two to three other students to create the online learning community, or might encourage students who create a public eportfolio to invite members of their home community to comment as well. Another option would be to create workshops or activities that students could attend on their own time and do a write up in the eportfolio about it that relates to the conflict of success.

**Why is cultural identity important?**

The definition of culture in basic terms is the way you live, and the basic definition of identity is who you are. Therefore, cultural identity is who you are based on how you live. Cultural identity bonds a person to a larger community that shares the same cultural practices, and the person gains social support through sharing the same cultural identity (Ministry of Social Development, 2003). Cultural identity is an important factor in fostering and developing a person’s sense of belonging and ability to be part of a community. Therefore, a formed cultural identity provides learners with social support and a healthy well-being.

**Connections between cultural identity and learning identity**

Identity connects with education and affects learners’ self-efficacy. A learning identity is how a person sees himself or herself as a learner. Often people who have developed a positive learning identity seek learning opportunities throughout their lifetimes because they believe in their ability to learn (Kolb & Kolb, 2009). A “fixed” identity occurs when a student does not believe they can learn, so the learner fulfils that prophesy and does not learn (Kolb & Kolb, 2009). When students take on the false belief that they cannot learn no matter how hard they try, they will not put the effort into absorbing the material.

Educational institutions should consider new approaches with improved perspectives on how student-parent relationships with the education system may affect how students learn. Kolb explains that a parent, guardian, or the community may mirror or teach learned behaviors to their children by the ways in which they interact with learning in front of the children. This especially affects minority groups who have suffered a traumatic and oppressive history with the education system. The minority learners’ parents may have developed distrust of education institutions and therefore an unhealthy relationship with learning and the education system, which in turn affects how young learners interact with learning and its institutions.

To remedy this distrust and unhealthy relationship, it is imperative that we look to the ways that education systems and instructors can build relationships with minority and diverse learners and their parents or guardians. The eportfolio has the potential to act as a bridge to learners, parents/guardians, and education institutions.

**Identity theory**

There is no universal definition for indigenous identity and no way to measure it. Colonization affected indigenous people’s identity, and the processes of healthy identity formation, through the oppressive laws that outlawed various ceremonies and the gatherings of indigenous peoples. It also affected how non-indigenous people view indigenous cultures, history, and peoples. Fanon (1967) popularized the colonial identity theory on identity formation in relation to the effects of colonialism. This causes harm to individuals’ perceptions of themselves. To
transform the imposed negative identity, the group can create a culture that works towards developing a collective identity of their own (Frideres, 2008).

Indigenous and non-indigenous students who are still developing their identities may move through Marcia’s (1966, 1980) four stages of identity development. The first is the identity achievement stage; this is when a person has done some work to develop their identity and is committed to their choice of identity. The second is the moratorium phase when people are searching for an identity and are somewhat committed to what they have found. The third stage is the foreclosure stage and is when a person is committed to the identity they developed and they did not do any external work to come to that conclusion. The last possible stage is identity diffusion; this is when a person may have not worked toward developing his or her own identity at all.

Tzeng & Chen (2011) found that students who are creating their identities and working on committing to their choice of an identity are more likely to use eportfolio to explore their identity development. Allocating funds and time for students to explore and express their identities leads to identity formation. ePortfolio provides opportunities for learners to connect with other people with similar identities, which provides a community of support for those who are still forming their identities. The ability of eportfolio to create an online community reduces the likelihood that students will feel isolated at the university.

IDENTITY THEORY AND CULTURAL IDENTITY

Research on eportfolio in higher education suggests that eportfolio provides learners with opportunities to document learning across contexts. Crucial to this is the ability of eportfolio to enable learners to reflect on learning that happens in a variety of contexts, which can empower them to become active learners (Penny Light, Chen, & Itelson, 2011). In order to be empowered, though, learners must have opportunities to develop their identities (Nguyen, 2013; Barrett, 2004). The central value of the portfolio for learning is that students are able to develop their reflective abilities over the course of their learning careers. As such, eportfolio is a living portal that allows learners to revisit their thinking in light of new learning experiences (Nguyen, 2013).

Reflection is one integral part of academic achievement. ePortfolio creates a framework for learners to practice their ability to reflect on material they have learned. Reflection in an eportfolio occurs when a student reflects on their learning after completing an assignment or an activity or when they journal about the process of completing the task. The student reflects on what they learned and how their learning correlates with course learning objectives and their own personal experiences. ePortfolio creates the space where learners can visibly see the learning that occurred over a course or degree program (O’Connor, 2014).

ePortfolio also supports and encourages students’ abilities to share their diverse perspectives in spaces that may not traditionally create areas for oppressed learners. High impact activities such as studying abroad, internships, and externships produce an identity shift for students, and an eportfolio project can have a similar effect on students (Freeman-Singe, Bastone, & Skrivanek, 2014). We believe this to be true when students are exposed to diversity through online communities by reviewing their peers’ reflections that are based on their diverse personal experiences. ePortfolio expands a student’s perspective when students are able to see in their peers’ reflections and work and understand that there are “other” realities and perspectives besides their own.

CANADIAN CONTEXT AND TRUTH AND RECONCILIATION COMMISSION

In 2008, the Canadian government developed the Truth and Reconciliation Commission (TRC) that was tasked with researching and sharing the truth about what occurred at the residential schools (Truth and Reconciliation Commission, n.d.). The residential schools were developed in the late 19th century to remove indigenous children from their communities to educate and assimilate them into Euro-Canadian culture. The TRC works towards rebuilding the relationship between indigenous peoples of Canada and the Canadian government, which created the residential schools. Ninety-four calls to action were also developed to guide the government in how they can work towards rebuilding their relationship with the indigenous people of Canada. The tenth recommendation calls upon the government to indigenize the curriculum to include the history of residential schools in the public education system (Truth and Reconciliation of Canada, 2015).
As the history relates to current trends in the education system for indigenous students, it is important that indigenous and non-indigenous students alike understand what happened in the past and how it affects indigenous people now. The distrust between indigenous peoples and the government affects learners’ ability to develop healthy relationships with the education system. In turn, the distrust hampers current indigenous students from developing a healthy learning identity and cultural identity. When education institutions finally address what occurred in the past, then indigenous students can work towards forming healthy learning and cultural identities.

**Cultural Identity ePortfolio (A case study)**

The Indigenous Cultural Identity ePortfolio Project at Thompson Rivers University seeks to develop and validate a platform for diverse university students who come from various backgrounds to develop their cultural identities and to practice including local indigenous culture in their coursework. ePortfolio projects afford students the opportunity to develop their own intellectual and cultural identities as they document their learning across contexts to develop knowledge, reflection skills, and abilities that foster career success. Importantly, eportfolio will help students to be able to reflect on all their learning and see the connections between their education, culture, and identity. This research project is focused on measuring a student’s knowledge of eportfolio, motivation to use eportfolio, the value of eportfolio, and knowledge of identity development. This emerging research on the use of eportfolio to develop cultural identity builds on the work of *Native Student Services at the University of Alaska Anchorage*. The main difference between the original project at the University of Alaska Anchorage (UAA) and the Cultural Identity ePortfolio template at Thompson Rivers University (TRU) is the number of questions (or prompts) to which students are asked to respond. The TRU Cultural Identity ePortfolio was also influenced by the Aboriginal leadership and staff, and the eportfolio was focused more on students’ personal stories in relation to cultural content. It was also built with the knowledge that students were not likely to participate if the eportfolio was not required or incentivized. Lastly, the eportfolio was a case study and was not institutionally endorsed.

**Methodology**

To begin the research, students at Thompson Rivers University (TRU) were invited to develop a cultural identity eportfolio via flyer invitation. Short announcements were made at Cplul’kw’ten on Wednesdays during the weekly soup circle event to recruit participants. No money or incentive was offered, but students were offered a WordPress eportfolio template, to be created for them through Thompson Rivers University. Each participant, after being recruited and once they agreed to participate, was given a consent form and a quick explanation of the project before moving forward with the pre-survey or focus group. Most participants were peer mentors from Cplul’kw’ten or Aboriginal students who studied in the space. The participants are not representative of the general population at Thompson Rivers University, where there are about 10% Aboriginal students on campus (Thompson Rivers University, 2013).

To answer the proposed research question, we used paper pre- and post-surveys to gauge students’ levels of engagement with eportfolio. The baseline information gathered in the pre-survey included students’ knowledge of eportfolio, motivation to use eportfolio, the value of eportfolio, and knowledge of identity development. Seven students ranging in age from 19 to 41 years old self-selected into the project and filled out the pre-surveys. There were three women, two men, and two students who identified as “other.”

The post-survey included more open-ended questions that measured students’ opinions about the Cultural Identity ePortfolio and user ability. The post-survey overall had 25 questions in it. The first nine questions were open ended. Ten questions included a Likert scale and measured students’ opinions on how effective and efficient eportfolio use is for students. Only two students completed the post-survey. Both were female and ages 23 and 27 years old.

Focus groups were conducted to gather information to improve the Cultural Identity ePortfolio Project. The genders, ages, and whether participants were students or staff were not recorded. The reason was to protect their identity and to ensure the participants would remain anonymous. There were nine participants who self-selected to participate in the focus groups, which each

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1 The University of Alaska Anchorage Native Student Services provides Alaska Native students support services.
2 Cplul’kw’ten is an Aboriginal student services organization on campus at Thompson Rivers University for Aboriginal students who self-identify.
lasted about a half hour to an hour. They were conducted at Cplul’kw’ten, and participants were recruited as they sat down in the kitchen area of the building. The focus groups were not audio recorded, and the researcher only took notes and asked questions to clarify responses.

**Template**

The template created for the case study at TRU was simple so that students would be more likely to complete it. However, only two students ultimately participated, and based on the data from the focus group, students wanted more than just a template in order to get involved. The template I created required students to answer three questions and to create an "about me" page. The three questions involved thinking of past experiences, feelings, and lessons. First, they were asked to share a story from their culture and reflect on values, lessons, or history that the cultural story has taught them. They were then asked to share a cultural object that they felt they identified with and were asked why they chose it. Students were finally asked who inspires them or what value or teaching they try to live by.

**Findings**

The pre-survey questions focused on eportfolio were used to measure students’ knowledge of eportfolio and the likelihood they would use eportfolio. When asking students on the pre-survey about what an eportfolio is, five out of the eight participants said it was an electronic portfolio. Three participants included in their written answer that an eportfolio was a space to blog or journal and that the focus of the eportfolio was about themselves. Students were then asked how easy it would be to create an eportfolio. Three participants responded that it would be easy, and three were not sure. Participants were asked if using an eportfolio is of immediate value to their learning. Four out of the seven students were not sure if eportfolio is of immediate value to them.

The identity questions gauged participants’ levels of understanding of the terms. Participants shared that cultural identity was about how they were raised. Others shared that they are still learning about their culture and are not sure how to define it. One participant said they did not know what cultural identity is or how to define it for themselves. The pre-survey also asked students what culture means to them, and students were able to come up with a list which included: arts, community, cultural knowledge, values, and beliefs. However, there were two participants who did not know how they would define culture. After focusing on cultural identity, participants were asked about their educational identities. Many were not sure what an educational identity was, and five participants said it was related to the type of education you received.

Once the pre-survey was completed, I asked participants if they had any questions and most asked for the definition of an educational identity. I shared with the students that it was how they see themselves as learners. Other significant findings from the pre-survey showed that many participants did not know much about their culture, because of colonization, residential schools, no one to teach them, or they are still learning. This relates to the focus group responses, because many participants mentioned they did not have anyone to teach them or have access to resources about their culture. Participants wanted cultural resources available online, because it made the cultural knowledge more readily accessible to them.

Two respondents even said that it is important to share indigenous world views in a way that makes it understandable to a certain extent to non-indigenous peoples. One participant said that, “Our ideas about safety are different. The western world only focuses on people and does not acknowledge the safety of the land and the animals.” The eportfolio, therefore, is seen as a locus for intercultural communication and understanding.

Although students in the pre-survey mentioned that they thought it would be easy to create an eportfolio, the question did not ask if they would be likely to create an eportfolio without any requirements from a class or an...
incentive to motivate them to do so. That is the other issue; many courses at TRU do not require students to utilize eportfolio, so students do not have the background information about what an eportfolio is and what the benefits of eportfolio are for learning and professional development. The solution would be to utilize eportfolio in more courses at the university and to offer workshops by student workers for students.

Finally, students wanted more structure than just a template, because students were not sure where to begin when they were asked three questions related to culture. Most students felt that they did not know much about their culture, and when they tried to research their culture, it was difficult to find resources. Students wanted resources to be easily accessible online, but most students needed to call family members and older adults in their communities for information. Students were not sure what books were published about their culture.

A new approach for educational institutions might be to require the cultural identity eportfolio in courses so students know who they are and can have easily accessible resources to begin their own research.

However, institutions need to create a series of steps that include encouraging students to reach out to local indigenous communities and perhaps to schedule a meeting with an Elder (older indigenous adult with cultural knowledge) to do an informational interview to gain cultural knowledge. Faculty members would need to provide students with a “how to guide” for field research or a list of cultural resources to begin with, so students can seamlessly transition to including culture into their assignments.

Students also wanted more information in the form of workshops, videos, presentations, and a community of support. While I have found that students wanted to learn more about the benefits of eportfolio, students also needed more information about what identity means and what cultural identity and learning identity encompass. The solution would be to have more interactive activities for students to find the structure they need and to provide feedback to give students the ability to form their identities in a safe online community through eportfolio.

Clearly, eportfolio provides professors with the ability to include culture in the post-secondary curriculum or their assignments fairly easily; however, it would take professors amending parts of their syllabi to include culture. To embed culture in the curriculum can be as easy as requiring students to include local indigenous culture into their assignment by having them reflect on creation stories and compare or contrast them to their discipline. Another easy way to include culture is to have students utilize indigenous resources and to reflect on why they decided to choose that resource in their eportfolio. Lastly, it can be as simple as including a local indigenous person to review students’ eportfolios and leave feedback or to share resources that would help students build stronger eportfolios.

**Conclusion**

Cultural identity is important for diverse learners who are still forming their identities and for non-indigenous peoples to learn about diversity. It is further important for all students whose learning identities may be affected by past trauma or their parents’ unhealthy relationships with educational institutions and learning. It is important for students to build online communities to support one another in forming their identities and approaches to learning, so that all students are exposed to diversity and perspectives that are different from their own.

Reflection is an integral part of the transformative power of learning; it stimulates students' abilities to relate learning to their identities (Catalyst for Learning, n.d.). The Cultural Identity ePortfolio creates an online community for students to reflect and form their identities while learning. Pairing this with cultural content will deepen learning and create a level of cultural awareness that is not present in most educational institutions. Lastly, it is important to ensure it is an online community, because students who share their eportfolios develop their skills for deep integrative learning when provided with timely
feedback from professors and their peers (Catalyst for Learning, n.d.). Using eportfolio and reflection exercises is one easy way to implement cultural content into a course and meet the tenth recommendation made by the TRC.

ePortfolio is a high impact practice because it provides space for students to reflect on learning that occurs in and outside of the classroom. Students can share their diverse perspectives with their peers and at the same time gain new perceptions on topics by reading their peers’ eportfolio reflections. ePortfolio also helps students form their identity, whether it is cultural or educational, and makes visible the progress and learning that occurred.

The results show that there is an interest in eportfolio use to learn about local indigenous cultures and to indigenize the curriculum or integrate culture into assignments. There is a need for more resources to be made readily available and to increase opportunities for classes, workshops, or presentations on culture or identity. Also, students do not know much about their culture but are interested in learning and understand that it is a lifelong process.

Despite the emerging research on the value of eportfolio in higher education, more work needs to be done to truly understand the value of eportfolio for student development and exploration of identity in relation to learning (Eynon, Gambino, & Török, 2014). Even more research is needed to look at ways to foster student success among first-generation and indigenous learners to mitigate high attrition rates; Snider & McCarthy (2013) find that most research is on professional identity and reflection, instead of on cultural differences. There are hardly any studies on how diverse students represent themselves with eportfolio. While many universities are working to address the challenges faced by indigenous learners, few strategies have emerged that foster the development of intellectual AND indigenous identities so that students are able find their path through postsecondary education (AUCC, 2011). This research, therefore, is timely and needed.

The TRU Cultural Identity ePortfolio was a simple template with three questions addressing how culture is part of a student’s identity. The student feedback from the TRU eportfolio project suggests that a series of steps for researching indigenous culture be included and that resources be easily accessible for indigenous students. The researchers’ recommendations include creating interactive workshops that teach about a local indigenous culture, so students could then write up a reflection about how the cultural content relates to their learning objectives. Overall, the Cultural Identity ePortfolio provides a simple solution to indigenizing the curriculum and supporting learners who are forming their identities.

Crystaly Lemieux graduated from the University of Alaska Anchorage in the spring of 2015 with a bachelor in health sciences and a minor in psychology. During her undergrad Lemieux participated in Native student council and volunteered regularly in the Native community in Anchorage, Alaska. Lemieux completed an internship at First Alaskans Institute and discovered her interest in supporting the Native community through her educational goals. Lemieux spent time again at First Alaskans Institute as a Vista volunteer working on a literature review on Indigenous evaluations. That is when she realized her interest in research and went on to take Decolonizing methodologies; which is a form of research developed by Dr. Linda Smith from New Zealand. She received her Collaborative Intuitional Training Program certificate through the University of Alaska Anchorage, while taking the course. Lemieux received a Fulbright research grant to conduct research on cultural identity ePortfolio at Thompson Rivers University with Dr. Tracy Penny Light an international ePortfolio expert.

References


Guidelines for integrating eportfolios in distance education

by Dr Christa van Staden

edited by Connie Rothwell

Eportfolios have been introduced the past twenty years in the curricula of courses offered by higher education institutions globally. In South African context, the integration of eportfolios is still a new concept. The University of South Africa (Unisa) is one of the first institutions for higher education in South Africa that embarked on the eportfolio route.

Unisa is the largest institution for distance education in Africa with more than 300,000 students registering annually from all over the world for a wide variety of courses and modules. The university was forced to explore alternative methods for assessment due to limited venues and the astronomical cost of securing venues (Swart, 2015). The university explored different possibilities to move away from those traditional venue-based examinations.

Due to the nature of distance education, Unisa traditionally relied overtly on summative assessment in the format of written assignments and final examinations. According to Sinhanetti & Kyaw (2012) continuous use of rote learning strategies is promoted by examinations and a failure to try out ‘best’ practices. Unisa placed the focus on technology-enhanced options and the following methods for alternative assessment were recommended (Havenga & Opperman, 2016):

- eportfolio;
- take home assessments;
- timed assessments;
- webinars;
- continuous assessment; and
- peer review.

The Review and Reconfiguration of Unisa’s Assessment Systems and Practices Project gave permission for the integration of eportfolios (Naicker, 2015) as method for alternative assessment. A handful of modules, characterized by small student numbers, were identified to pilot the eportfolio project. Mahara was identified as the best eportfolio platform due to the easy integration into the current learning management system. Since my module, Instructional Techniques and MultiMedia in Adult Education (INTMAEU), was identified, I was actively involved during this process. In this paper, I have interviewed professor Peter Havenga, Executive Director and Academic Planner at Unisa, who is closely involved with this project, in an attempt to develop guidelines for a smooth integration of eportfolios in distance education.
**Interview with Peter Havenga**

Professor Havenga, the University of South Africa integrated eportfolios beginning 2015 as method for alternative assessment. The second group/s of students have submitted their eportfolios as method for alternative assessment. Looking back at the process, would you recommend Mahara as an effective platform for eportfolio development in African-based distance education?

We investigated a number of platforms before we decided on Mahara. Obviously every package has its advantages and its disadvantages. One of the major reasons why we decided on Mahara was because it is a student centred system and an open system built on open principles. It could easily be integrated into the existing learning management system and that was of course an added bonus. A further selling point is that it was developed within the higher education environment which meant that the underlying principles informing its development resonated with our own requirements.

Did the integration of eportfolios have a positive impact on student success in all the modules that integrated eportfolios to replace summative examinations? Please elaborate.

The initial indications are that it has a positive impact. A number of student surveys were done during the pilot phase where the student experience was investigated and overall the outcomes are positive. This does not mean that there are not challenges. ePortfolios as a relatively new concept requires a learning curve for both students and academics. My own perception is that we have not yet seen the full potential but that the full impact is yet to be seen.

If the integration of eportfolios did not have a positive impact on student success, what barriers have been identified and how were these addressed?

The biggest barrier on the use of eportfolios is academic unfamiliarity with the tool. The University Centre for Professional Development was therefore instructed to offer a number of seminars on the use of eportfolios and these were positively received.

Although eportfolios have been integrated globally in many universities, Unisa and other South African universities have only recently embarked on this route. The hidden curriculum, namely to learn to use a technology to develop an eportfolio, can have a negative impact on student success. What systems did Unisa put in place to overcome this potential barrier?

A help desk was created to deal with all student and lecturer enquiries about the eportfolios. All modules which used eportfolios for the first time were closely monitored to determine the impact on student success. In all instances where it had a negative impact measures would be put in place to mitigate the effect. The measures would depend on the specifics but were done within the ambit of existing policy.

ePortfolios were added in June 2016 to Kuh’s list of high-impact practices. Would you regard Unisa’s implementation of eportfolios as a high-impact practice and why?

The implementation of eportfolios on its own cannot be regarded as a high-impact practice but within the context of the alternative assessment project it certainly is. I do not think that the real impact of eportfolios has yet been achieved since it was introduced on a limited scale. The effect will be felt and the impact seen once more modules are allowed to make use of the system. The decision has now been taken that it can be rolled out across the university. The true effect will only be clear in the next few years.

What guidelines would you provide to other distance education institutions to improve the implementation of eportfolios in distance education settings?

Implementation is one of the most problematic aspects in any project. However, a crucial aspect of the project is that it must be implemented in a real time environment. It is no use to try and implement on an experimental basis since the experimental environment does not reflect reality. At the same time, it is necessary to provide a dedicated help desk for both students and lecturers.

ePortfolios were integrated in modules characterised by small student numbers. Do you think that it can also be integrated in modules with 5000 and more students?
Yes, there is no reason why it cannot be used in mega modules as well but only once the system is stable and the lecturers are more than familiar with the tool.

What systems need to be in place to ensure that eportfolios can be regarded as a high-impact practice?

It will be a high-impact practice when it can be used in the same manner as any other assessment tool. The tool must also be integrated in the institution’s existing LMS since it forms a fundamental part of teaching and learning.

Based on this interview, the following guidelines can be provided for integrating eportfolios in a mega institution for distance education.

**GUIDELINES FOR INTEGRATING EPORTFOLIOS IN DISTANCE EDUCATION**

The guidelines have been grouped under integration of eportfolios, eportfolio platforms, and systems that can be put in place to support the integration of eportfolios.

**INTEGRATION OF EPORTFOLIOS**

Regarding the integration of eportfolios, it is recommended that:

- eportfolios be integrated in real environments;
- initially, only modules characterized by small student numbers be identified since students can be switched back to existing assessment systems in case of problems experienced with eportfolio platforms.

**EPORTFOLIO PLATFORMS**

Regarding an effective eportfolio platform, it is recommended that an eportfolio platform suitable for a large institute for distance education, needs to be:

- student centered;
- open and built on open principles;
- easily integrated into existing learning management systems (Mahara integrated easily in the Sakai-based learning management system);
- developed within the higher education environment since the underlying principles informing its development resonates with higher education requirements.

**SUPPORT FOR ACADEMICS**

Regarding support for academics, a need to familiarize academics with the tool, was identified. The following systems can be put in place to support academics during the integration of eportfolios:

- seminars; and
- workshops.

**SUPPORT FOR STUDENTS**

Regarding student support, the following approaches can support the integration of eportfolios:

- creating a help desk to deal with all student and lecturer enquiries about using the eportfolio platform;
- monitoring all modules integrating eportfolios for the first time closely to determine the impact on student success;
- ensuring that measures put in place to mitigate negative impact are done within the ambit of existing policy.

**IMPLICATIONS FOR PRACTICE**

These guidelines are based on the experiences of an administrator who was actively involved during the integration of eportfolios at a mega institution for distance education. Unisa follows an open distance learning (ODL) model of teaching, which represents an approach that combines:

- learner-centeredness;
- lifelong learning;
- flexibility of learning facilitation provisioning;
- removal of barriers to assess;
- provision of relevant learner support; and
- the construction of learning programmes.

According to Teferra and Havenga (2015), Unisa's move to alternative assessment is based on the work of Carless (2007) who developed a learning-oriented approach to assessment. The basic premise is that all assessment should advance student learning; therefore, learning-oriented assessment focuses on the identification of appropriate tasks, the development of evaluative expertise and student engagement with feedback. Learning-oriented assessment is based on three principles that need to be taken into account when lecturers develop their courses/modules, namely:
• to develop learning tasks rather than assessment tasks;
• to involve students actively during assessment; and
• to provide prompt feedback that can be used to improve current and future learning.

From this interview, it is not clear if eportfolios were integrated in all modules from a learning-oriented approach to assessment. I have developed a learning-oriented framework for the integration of eportfolios in the INTMAEU curriculum and found that eportfolios can be regarded as high-impact practices if used as method to demonstrate ways of thinking, ways of working, ways of living in this world and method to demonstrate the use of tools for working (Van Staden, 2016a, pp. 36–53; 2016b). One of my students reported that her eportfolio journey can be regarded as a high-impact practice since this approach supported the development of metacognitive skills as well as self-directed and lifelong learning skills (Snyman, 2017, pp. 42–53). Therefore, I would recommend that workshops and seminars be conducted to allow lecturers to share their best practices with their peers in an attempt to support the development of eportfolios as high-impact practices at this institution for distance education.

I would like to thank Connie Rothwell for reviewing my paper. Your recommendations added value to this paper.

REFERENCES


The Capstone ePortfolio: High impact practice for general education

by Carol Van Zile-Tamsen, Krista Hanypsiak, Lindsey Hallman, Elaine Cusker and Andrew McConnell Stott
edited by Andrew Harver

In fall 2016, the University at Buffalo (UB) launched its new general education program, the UB Curriculum. This program was designed over a two and a half year period by a committee of nearly 200 faculty and staff to intentionally incorporate several High-Impact Practices (HIPS; Kuh, 2008) and to embody the goals of the Association of American Colleges and Universities’ (AAC&U) Liberal Education and America’s Progress (LEAP) initiative (AAC&U, 2011). The Capstone is the culminating requirement of the curriculum and is typically completed in the junior year. This Capstone is meant to provide students the time, space, and support to make meaning of their general education experience through the development of their Capstone ePortfolios. As such, the Capstone ePortfolio serves as a meta-HIP to help students recognize the value of their learning in the UB Curriculum, as well as to connect formal and informal college learning experiences (Hubert, Pickavance, & Hyberger, 2015).

Kuh (2008) identified key characteristics of HIPS - programs, educational activities, and instructional strategies that promote student success (e.g., deep learning, good grades, persistence, and completion) - based on years of research with the National Survey of Student Engagement (NSSE). HIPS are generally characterized by the following:

- students devote considerable time and effort to meaningful learning tasks;
- successful engagement in or completion of these tasks requires that students interact with faculty and peers around substantive topics for an extended period of time;
- participation in these tasks increases the likelihood that students experience diverse perspectives and points of view;
- students receive frequent and specific feedback about their performance of the learning task, allowing them to continually improve;
- the learning tasks allows them to apply learning across situations and contexts, both within and outside of the classroom; and
- the learning task involves an experience that has the ability to change their lives.

Among the activities that are officially recognized as HIPS are first-year seminars, common intellectual experiences, learning communities, writing-intensive courses,
collaborative assignments and projects, undergraduate research, diversity/global learning, service and community-based learning, internships, capstone courses and projects, and, most recently, ts (Kuh, 2008; Watson, Kuh, Rhodes, Light, & Chen, 2016).

Another important hallmark of HIPS is that they have compensatory effects for students from educationally disadvantaged backgrounds. Kuh (2014) reported findings from California State University Northridge, where the completion rate for Hispanic students not involved in any high-impact practices was 38%, below even the national rate of 51%. With participation in just one high-impact practice, completion rates for Hispanic students increased to 49%. With participation in two high-impact practices, completion rates increased to 65%, and with participation in three or more high-impact practices, completion rates increased to 73%, slightly higher than the completion rates for white students participating in three or more high-impact practices (69%). Finley and McNair (2013) found similar results for other underrepresented groups: as the level of exposure to high-impact practices increased from 0 to 3-4, students identifying as black, Asian, or Hispanic report their learning gains to be equivalent to those of white students.

In 2016, eportfolio was named as the eleventh HIP based on many sources of evidence in which a well-structured eportfolio experiences were shown to be related to an increase in grades, increased persistence, and increased four-year graduation rates, especially for high-risk students. The key to this success like any other HIP is that the eportfolio must be done well (Eynon & Gambino, 2017). Effective eportfolio practice requires active student engagement in both eportfolio design and reflection on the content, as well as student responsibility for learning. The instructor, then, serves as a guide and mentor, allowing the students to direct their own learning experience through this reflection on and integration of the content.

This article describes the UB Curriculum and the HIPS that have been intentionally incorporated into its design, with a special focus on the role of the Capstone and the Capstone ePortfolio as the culminating experience and the meta-HIP, respectively, allowing students to interconnect the UB Curriculum coursework and learning experiences into an integrated and meaningful whole. Expected program outcomes are described, preliminary results are shared, and next steps are outlined.

**UB Curriculum: The Evolution of General Education at UB**

The University at Buffalo is the largest and most comprehensive institution in the State University of New York (SUNY) system and a member of the Association of American Universities (AAU). UB currently enrolls approximately 20,000 undergraduates in over 100 degree programs. The undergraduate population consists largely of students studying in STEM or health science majors and is 53% male and 48% white. Based on the 2016-17 Common Data Set (UB, 2016), the four-year graduation rate is 58%, and the first- to second-year retention rate is 86%. Although there have been gains in the four-year graduation rate over the last ten years, the retention rate has remained fairly constant. One important underlying reason for revising the general education program by incorporating HIPS was to help improve student success and degree completion, two important university objectives.

Previous iteration of the UBs core curriculum was launched in 1986 as the Undergraduate College (UB, 1993). It was designed with the intention of developing students with a broad base of disciplinary knowledge, excellent communication skills, and critical thinking skills. UB received national attention at that time for being a pioneer in developing a core curriculum focused on helping students become global citizens through the required two-course sequence, World Civilizations, and in developing an understanding of diverse perspectives through a one-semester course called American Pluralism and the Search for Equality. One of the main drawbacks of this program, however, was that it was only required of students enrolled in majors housed in the College of Arts and Sciences. Those enrolled in Engineering, Architecture, and health science majors were not required to complete this program.

In the early 2000’s, the core curriculum was altered slightly to meet SUNY’s newly adopted learning outcomes for general education, and was required for all undergraduates (UB, 2005). World Civilizations and American Pluralism were maintained, but the number of courses required within the areas of basic communication, foreign language, mathematics, natural sciences, social sciences, arts, and humanities was decreased. To make up for the depth that was diminished in the revised program by no longer requiring multiple course sequences, a new depth requirement was introduced in which students were to select an upper level course in any disciplinary area in
which they would pursue advanced study in a topic outside of the major area. Even though the program was universal, students in high-credit majors, such as engineering, and transfer students were allowed to waive certain requirements. Only students entering as freshmen with majors in the College of Arts and Sciences were required to complete the full program.

Initially, there was a small administrative unit within the College of Arts and Sciences devoted to the delivery of the general education program. After the primary administrator retired in the late 2000’s, administrative support for the program was disbanded. A 2010 task force commissioned by the provost to review the state of general education at UB concluded that there were a variety of problems with the program and recommended it be revised. These major issues included:

- lack of a central mission or unifying purpose;
- perception by students that the program was merely a menu of options with no organizing scheme;
- no central or shared ownership of the program; and
- too many exemptions and waivers leading to the perception by students, faculty members, and advisors alike that the program was unfair (UB, 2014).

In response to these concerns, a committee was convened in 2013 to devise a new general education program to address these weaknesses. Members of the committee reviewed articles and reports on both the AAC&U LEAP Initiative and HIPS and set out to design a coherent and meaningful universal program that would help students integrate and apply the knowledge and skills gained through the core curriculum to study in the major and beyond. Key design principles included a focus on a common intellectual experience, integrative learning, global and diversity learning and authentic assessment through the use of the eportfolio platform. The resulting program, approved in December 2014, is depicted in Figure 1. Each component is described below, along with evidence examined by the Steering Committee that provides the rationale for including that component in the revised curriculum.
THE UB SEMINAR
The seminars, taught by full-time, tenure-track faculty, introduce students to the UB Curriculum and help them prepare for their next steps as a UB student. Since this is a universal program, incoming transfers must also take a seminar during the entry semester. Those entering with fewer than 45 credits enroll in the first-year, three-credit seminar, along with new freshmen. This version of the seminar helps students develop the skills required for successful study in the university setting.

These are ‘big ideas’ courses, tackling conceptual problems from a professor’s disciplinary perspective, while sharing common learning outcomes across sections, including critical thinking, ethical reasoning, and oral communication. Learning outcomes also include time management and study skills to help students develop the self-regulated study habits they will need to be successful in their studies at UB.

Transfer students entering with 45 or more credit hours take a one-credit seminar, also taught by a faculty member around a big idea or topic, but the focus of the course is on assimilating these students into the UB Curriculum and the university. Instead of learning outcomes related to learning skills, the common learning outcomes for the one-credit seminars include the development of a plan for applying transfer coursework to UB Curriculum requirements and preparing for completing study in the major. Both versions of the seminar include an introduction to the eportfolio platform and folio thinking. In addition, these sections are capped at 28 students to create an intimate learning environment in which students can interact with the instructor and with each other. Research has shown that first-year seminars promote a greater perception that faculty care about students, a greater knowledge and use of campus resources, greater involvement in campus activities, and improved time management skills (Brownell & Swaner, 2009). In addition, Kuh (2008) and constructivist researchers (e.g., Fosnot, 1996; Piaget, 1952; VanZile-Tamsen, 1999; von Glasersfeld, 1996; Vygotsky, 1978) have found that small classes requiring students to interact with faculty members and other students around content, makes the content more meaningful and more likely to become a part of permanent knowledge structures.

The small class sizes of the first-year seminars and the range of topics available are designed to promote connections among students that carry over into campus life outside of the classroom. The interaction with the faculty member and with peers adds significantly to students’ sense of social belonging (Pascarella & Terenzini, 2005) and ensures that students will be exposed to diverse perspectives as they listen to and participate in class discussions (AAC&U, 2011; Brownell & Swaner, 2009; Kuh, 2008). This experience is especially meaningful for students from disadvantaged backgrounds (Astin, 1993; Pascarella & Terenzini, 2005; Walton & Cohen, 2011) and those in STEM disciplines who are often faced with large gateway courses with little opportunity for active learning or interaction with faculty members and peers (Archer & Miller, 2011; Drane, Smith, Light, Pinto, & Swarat, 2005; Gasiewski, Eagan, Hurtado, & Chang, 2011). Developing a sense of belonging and feeling like faculty members care are important factors in student retention (Astin, 1993).

FOUNDATIONS
Four areas were identified as foundational components for success in the university and in life. These include communication literacy, mathematics and quantitative reasoning, scientific literacy and inquiry, and diversity learning. Each of these foundational areas is described below.

COMMUNICATION LITERACY
The Communication Literacy sequence consists of two courses and addresses the need for students to communicate
in a world that is textual, but also digitally mediated and highly visual, understanding that they will be asked to collaborate and communicate with diverse groups in a global context, challenged not only to find information, but to organize, evaluate and manage enormous quantities of information. As with the seminars, Communication Literacy 1 sections are small, with enrollment capped at about 25 to allow students to be immersed in a writing-intensive experience with the opportunity for instructor-student and peer-to-peer interaction, promoting learning and a sense of social belonging (Astin, 1993; Fosnot, 1996; Pascarella & Terenzini, 2005; VanZile-Tamsen, 1999; von Glasersfeld, 1996). Communication Literacy 2 is taught within the discipline with the main objective of completing the transition from general writing to writing from a particular disciplinary perspective. Within both courses in the sequence, students use eportfolios for digital composition and to further develop the skills of archiving, reflection, and integration. In addition, by the end of the sequence they will have developed an understanding of the various concepts that fall under the umbrella of digital literacy.

**Mathematics and Quantitative Reasoning (MQR)**
The Mathematics and Quantitative Reasoning requirement provides a basis for students to develop skills in mathematical and quantitative thinking necessary to function in modern society. The primary objective of this requirement is to help students develop the mathematical and quantitative reasoning skills required to navigate their college years and prepare them to be 21st century citizens. Topics range from “big data” to the mathematics of voting, cryptography, finance, and environmental issues. The addition of a greater variety of MQR courses beyond traditional calculus is meant to make the content more relevant to students in all majors and to life outside the classroom. Through the emphasis on real life uses of mathematics and quantitative reasoning skills, faculty members are motivating the students to see the inherent value of math as a way to encourage them to put forth more effort (Eccles & Wigfield, 2002; Wigfield & Eccles, 2000).

**Scientific Literacy and Inquiry (SLI)**
This interdisciplinary sequence is composed of two lecture courses and a lab and is aimed at students in non-STEM majors. This sequence promotes scientific literacy by actively exploring how scientific discoveries are made, how they can be subject to forms of manipulation, and how they have impacted society. Issues related to pseudoscience and scientific ethics are also addressed. STEM majors fulfill the SLI requirement with a science sequence that is required in the major.

As with the MQR requirement, students outside of STEM majors have a variety of options for meeting the SLI requirement. Traditionally, non-STEM students are required to complete science courses taught in very large lecture sessions and are often lost in the shuffle (Chang, Cerna, Han, & Saenz, 2008; Giesiewski, Eagan, Garcia, Hurtado, & Chang, 2011). By offering a separate science sequence for non-STEM students and by focusing on issues related to scientific discovery, faculty members are providing a more supportive environment and providing science content that has more relevance to these students.

**Diversity Learning**
In the spirit of continuing UB’s commitment to promoting diversity and acceptance of multiple, diverse perspectives, the UB Curriculum explicitly includes a Diversity Learning requirement to address issues related to Diversity within the United States. Instructors of Diversity Learning courses are encouraged to embed competencies related to diverse perspectives in coursework, and students are required to take at least one such course to meet the requirements of the general education program. As a part of this course, students are to write an essay in which they demonstrate their understanding of the Diversity Learning outcomes. This essay is submitted to the Capstone ePortfolio.

**ePortfolio in the Foundations**
While the Communication Literacy sequence fully incorporates usage of the eportfolio, for all of these areas, students are to identify an important piece of work that demonstrates their learning and achievement and include it in the Capstone portfolio. For each of these artifacts, they are to write a reflection in which they describe what they learned in the course and why they have selected this particular piece of work to share in the portfolio.

**Thematic and Global Pathways**
The Pathways have been designed to allow students to pursue the additional disciplinary areas required by the SUNY general education learning outcomes in a personally meaningful way. Selection of and study in the Pathways
encourage students to reflect upon their education as a continuum rather than a set of discrete courses and allows them to deepen their understanding of academic material through multiple iterations of concepts across coursework, disciplines, and modes of inquiry.

Students must complete a Thematic Pathway and a Global Pathway. Students begin by first selecting from a variety of overarching topic areas within each Pathway. Once they select a topic, they are given lists of courses at the 100-level, 200-level, and 300-level that represent the remaining SUNY general education disciplinary requirements not addressed within the Foundations. These include Arts, Civilization and World History, Foreign Language, Humanities, and Social Sciences. Students select one course from each level for each Pathway, and they must include at least four of these disciplinary areas in their course selections.

Transfer courses are used liberally to fulfill two of the three courses in each Pathways, but transfer students are required to take the third course in each Pathway at UB or transfer one in that has a direct articulation to an appropriate 300-level course at UB. The process of selecting Pathways would be very complex if done manually, but UB has created the Path Finder Tool to help students select courses appropriately. For transfer students, the tool is pre-populated with their transfer courses, allowing them to easily fit these into selected Pathways. (The Path Finder tool is available via this link.)

The Pathways are an important step forward for several reasons. This delivery method encourages students to integrate knowledge gained in a variety of settings into comprehensive understanding and also encourages application of knowledge across a variety of settings, either across disciplines or across curricular and extracurricular experiences (AAC&U, 2011; Kuh, 2008; Wingert et al., 2011). Since formal learning has traditionally been context-specific and humans tend to compartmentalize learning, students do not have an extensive amount of practice with this integration of learning across different courses and different disciplinary settings (Brown, Collins, & Duguid, 1989). Scaffolded support in the process of integrating knowledge across disciplinary areas helps students gain integrative learning skills needed to apply learning in one course to another and to contexts outside of higher education (Wingert et al., 2011). This approach also provides students a mechanism to see the relevance of general education courses across disciplinary areas and in understanding and responding to real world issues (Eccles & Wigfield, 2002; Wigfield & Eccles, 2000).

The Capstone
The UB Curriculum Capstone (UBC 399) is the culminating general education requirement at UB. It is a one-credit mentored experience in which students work within the eportfolio platform, with the support of a UBC 399 instructor, to create a reflective and integrative eportfolio based on their college learning experiences, both inside and outside the formal classroom. UBC 399 instructors are advanced graduate students with prior undergraduate teaching experience who have received training in instructional strategies that foster reflection and integration, digital composition, and eportfolio pedagogy, and they have extensive training in the eportfolio platform. Although they have the freedom to individualize weekly activities in their sections of the Capstone, the overall course structure and the Capstone ePortfolio are consistent across sections. The sections are capped at 25 students, comparable to the UB Seminars and Communication Literacy. The Capstone Coordinator convenes weekly meetings with the TAs to ensure that instruction is consistent across sections. A common rubric is used to evaluate the eportfolios at the end of the course.

While some may question the use of TAs to teach such an important course as the Capstone, the planning committee was forced to work within resource limitations, as well as consider faculty workload issues. Because the Capstone TAs, many of whom are in the last stages of dissertation writing, have extensive teaching experience and because their only job assignment is to teach their Capstone sections, they can devote time to guiding students and providing feedback. They attend an orientation and training program before fall semester starts and the topics of integration, reflection, digital composition, and quality feedback are revisited at key times during the semester in the weekly meetings.

With regard to the culminating eportfolio, students start with a common Capstone ePortfolio template. This template ensures that they include sections for all required components while having the freedom to personalize it, even to the extent of changing section and sub headings. The required components include: (1) a personalized home page that serves as a brief introduction to the student, his or her studies, co-curricular work and career goals; (2) a
philosophy statement that represents the student’s interests and key areas of interest/themes of study and a sense of her or himself as an evolving learner; (3) course artifacts demonstrating achievement of learning outcomes for each component of the UB Curriculum; (4) two reflective essays, one that is focused on weaving together learning in the Thematic Pathway courses and one that weaves together learning in the Global Pathway courses; and (5) artifacts and reflections about learning activities outside of the formal classroom, such as through work and internship experiences, service activities, participation in clubs and activities, or through friendship and familial roles.

**The Capstone ePortfolio is Reflective**

Students must consider the courses they have taken to fulfill UB Curriculum requirements and critically reflect on their learning in each course. They are led through a step-by-step process to consider the work they completed, select course “artifacts” that represent an important aspect of learning and place it in the Capstone ePortfolio. Early in the Capstone semester, students create their Capstone ePortfolios from the template and are introduced to the UB Curriculum coursework section, where they will upload at least one artifact to represent each of the components. Through direct instruction, the TAs clarify what items might constitute artifacts. Students are then directed to obtain a copy of their academic advising report, which shows which courses they have taken to fulfill each component area, to help them think about the relevant courses and coursework, as well as what they learned in the course and what the impact of the course has been on their learning and educational trajectory. Weeks 5 and 6 are devoted to the upload process, and instructors are available to discuss any concerns students have about artifact selection.

Along with each of the artifacts, students must include a criteria statement describing their reasons for selecting the artifact. This reflective process facilitates their engagement with learning experiences at a deeper level, making stronger connections between and across discrete bodies of knowledge, as well as deepening their understanding of themselves as learners (Eynon & Gambino, 2017; Flavell, 1979; Livingston, 2003; Mentkowski & Sharkey, 2011).

Transfer students also complete the Capstone, and a common issue they are facing is the lack of saved artifacts that demonstrate learning in courses taken at other institutions. So that they will not be penalized for transferring from another institution, transfer students are allowed much more freedom in selecting artifacts to represent the various components of the UB Curriculum. For example, if they do not have saved coursework, they can upload a syllabus or course description. However, they must write an expanded criteria statement summarizing their learning in the course in greater detail than is required when uploading an actual piece of work.

**The Capstone ePortfolio is Integrative**

Students are encouraged to connect experiences across the courses they have taken and to connect classroom learning with out-of-class experiences, such as co-curricular activities and their own day-to-day lives. The activities of the Capstone focus specifically on the integration of the UB Curriculum Pathway courses into a meaningful, cross-disciplinary body of knowledge about the selected Pathway topic. This integration is evidenced in the development of two integrative essays, one for the Thematic Pathway and one for the Global Pathway. Through their creation of these two integrative essays, they come to better understand that a single topic or issue can be viewed from many different disciplinary viewpoints (Mentkowski & Sharkey, 2011) and that knowledge gained in one setting can be applied to problems that arise in other settings. This type of integrative learning helps students become flexible problem solvers who have the facility to apply their learning in many different kinds of situations.

**The Capstone ePortfolio as Signature Work**

The AAC&U (2015) suggests that Signature Work in general education is an important precursor for meaningful student learning and can also serve as an effective mechanism to assess that student learning. To be considered Signature Work, an assignment, paper, or project must allow students to demonstrate their proficiency. In other words, it is an assignment that students complete at the end of a course or program to summatively display their learning and achievement. Such an assignment must also be based on the student’s initiative and self-direction – the student determines the format and content that is included. Signature Work also includes integrative learning and problem-based inquiry. The Capstone ePortfolio is characterized by all of these aspects of Signature Work and can thus be viewed as the Signature Work for the UB Curriculum. It is important to keep in mind, however, that this is the Signature Work for their first two years of undergraduate study. It is meant to provide a snapshot of where they are as learners at the
midpoint of the undergraduate career. This Capstone ePortfolio should in no way be considered Signature Work for their major or the entirety of the undergraduate career. As students near the end of the Capstone semester, they are encouraged to develop a professional eportfolio to display their accomplishments in their major.

**ePortfolio in the UB Curriculum**

The eportfolio is meant to weave together the various components of the UB Curriculum. Students are introduced to the concept of eportfolio and the eportfolio platform during their first semester of enrollment in the UB Seminar, and they can access the Capstone ePortfolio template immediately. For those students who must take the initial Communication Literacy course, the ePortfolio is also used heavily. Although use of the eportfolio is not currently a required part of the other Foundations courses or the Pathways, students are encouraged to reflect on these courses as they are completed and to upload artifacts into the Capstone ePortfolio as they go along. The Capstone itself is delivered through the eportfolio platform and requires students to develop the culminating learning portfolio. The eportfolio was included as a key feature in the UB Curriculum for several reasons: eportfolio keeping helps students develop several important skills and encourages the deep learning processes of reflection and integration; it serves as an important communication tool between faculty and students; and it allows for authentic assessment of student learning (Eynon & Gambino, 2017; Reynolds & Patton, 2014; Watson et al., 2016).

**ePortfolio and Student Skill Development**

During the first semester of the UB Curriculum, in the UB Seminar, the first Communication Literacy course or both, students learn how to navigate within the eportfolio platform and they are introduced to the skills of self-archiving, reflective writing and to the concepts of digital identity and digital citizenship. These are important skills that will allow them to better leverage their use of eportfolio in the remaining UB Curriculum requirements.

In addition, UB’s inclusion of the eportfolio throughout the program emphasizes intentional and regular self-reflection (Reynolds & Patton, 2014). This reflection allows students to consider how they have been successful in their learning and how learning in the present situation relates to other contexts. From this reflection, they gain metacognitive knowledge which they can use to help them self-regulate learning processes in future learning situations (Flavell, 1979; Livingston, 2003). The process of reflecting on learning in general education and integrating content from across general education courses makes learning more explicit and increases the likelihood that students will transfer knowledge and skills gained to study in the major and to life outside the classroom (Eynon & Gambino, 2017; Mentkowski & Sharkey, 2011). Further it raises the level of importance of the general education program by not allowing it to be something that students can just forget about as courses are completed. This reinforces the perception that it has inherent value for them in later studies and in their lives after college (Eccles & Wigfield, 2002; Wigfield & Eccles, 2000).

**ePortfolio and Communication and Feedback**

Beyond the important skills that students develop as they create and maintain their eportfolios, the platform allows for multiple avenues of communication between faculty and students. Constructive feedback can be provided to students in multiple forms – rubrics, discussions, comments, and conversations. As mentioned above, the continuous provision of constructive feedback is one of the key characteristics of HIPS (Kuh, 2008). Further, the incorporation of peer review into eportfolio development provides for additional feedback but also results in the audience effect, whereby students are motivated to do their best work since others beyond the instructor will see it (Watson et al., 2016). Such peer review is built into the review and revision process in the Capstone. Students’ final revisions should address any questions or concerns raised by peers and by the instructor.

**ePortfolio and Authentic Assessment**

The eportfolio allows for authentic assessment, which was one of the original design principles of the UB Curriculum. Student assessment is done though the eportfolio platform after the UB Seminar and again after the Capstone. An assessment plan for each component area has been developed by the faculty committee providing oversight for that component. Assessment data for Diversity Learning and the Pathways will be collected from the Capstone ePortfolios and reviewed by the members of the Diversity Learning and Integrative Learning Committees. In addition, a Capstone Advisory Committee has been created and tasked with implementing the assessment plan for the Capstone. This plan will involve the selection of a
random sample of Capstone students and a review of their eportfolios using a rubric based on the learning outcomes of the course and of the UB Curriculum as a whole.

**Faculty Professional Development**

A very important aspect of any eportfolio initiative is professional development for faculty (Eynon & Gambino, 2017). Beginning two years prior to the launch of the UB Curriculum, the eportfolio platform was piloted with composition instructors who are primarily teaching assistants (TAs) from English and Comparative Literature. One of these TAs, a former secondary teacher with eportfolio experience, was hired by the UB Curriculum office to support an additional pilot in small seminars to approximate the first-year seminar experience. This TA also served as the primary instructor for a pilot of the Capstone. Through these pilot courses, faculty were immersed in eportfolio pedagogy even before the launch of the program.

The UB Curriculum office offered several training sessions in advance of program launch and partnered with the campus teaching and learning center to offer hands-on workshops to set up courses in the eportfolio platform and create course-specific eportfolio templates. These workshops have continued into the first year of launch, and the Capstone Coordinator and TAs provided additional support to faculty throughout the academic year. In addition, the Capstone TAs were formally assigned to serve as the liaison to a number of UB Seminar instructors. Not only did they provide support to these Seminar instructors, but they also did classroom presentations to their students to show them how to navigate within the eportfolio platform. In the first semester of use, 67% of the UB seminar instructors actively used eportfolio in their courses. While we would like this percentage to be higher, it is quite good for a completely new technology for which very few examples of good practice exist on campus. As we move forward, an important part of faculty development will be the sharing of best practices through our UB Seminar learning community.

**The Capstone ePortfolio as a Meta-HIP**

Capstone courses and Signature Work completed as a part of such courses have been previously defined as HIPS (AAC&U, 2015; Kuh, 2008) based on the reflection and integration process required to create a culminating project encompassing learning in all prior coursework (Kuh & O’Donnell, 2013). Eynon and Gambino (2017) suggest that using an eportfolio as Signature Work is ideal due to the fact that both the Capstone itself and the eportfolio are based on integration and reflection. Eynon and Gambino (2017) further suggest that it is exactly this longitudinal nature of an eportfolio that makes it a meta-HIP. Within the framework of an eportfolio that is either maintained from the beginning of a student’s career or created to encompass all events that occurred in their time as a student, students will be reflecting on and integrating other HIPS they have experienced, such as first-year seminars, collaborative learning activities, global and diversity learning, internships, and eportfolio use. Hubert, Pickavance, and Hyberger (2015) agree, suggesting that such a culminating eportfolio can be the one HIP that is situated to help students connect all of the others into a more comprehensive and meaningful experience. It is this aspect of eportfolio that leads these authors to equate it to Tolkien’s One Ring. (From J. R. R. Tolkien’s novels, The Hobbit and The Lord of the Rings.)

Based on these assertions, the Capstone ePortfolio is the One Ring of the UB Curriculum. In this eportfolio, students reflect on and integrate all aspects of the UB Curriculum, including those that were, in and of themselves HIPS, such as the UB Seminar, eportfolio work in Communication Literacy courses, collaborative learning throughout the entire program, etc. Students will not only experience the first-hand impact of participating in these HIPS, but there will be additional impacts as they reflect on the meaning of these HIPS and integrate them into a cohesive and meaningful learning experience. Through the process of creating the Capstone ePortfolio, they will further develop their identities as learners, coming to a better understanding of their strengths and their weaknesses, developing a greater level of metacognitive knowledge which can be leveraged in future learning activities.

**First-year Progress and Next Steps**

At the time that this article was written, the UB Curriculum was still in its first year of deployment. The Capstone is being taught for the first time in the spring 2017 semester, and the only students eligible to enroll were transfer students who entered in fall 2016 with a substantial amount of transfer credit hours that were applicable toward fulfilling the other UB Curriculum requirements.
– 53 students total. As a result, there is, as of now, no data on the effectiveness of the Capstone ePortfolio as a meta-HIP. However, based on student feedback on the Capstone pilot that was conducted in the spring 2016 semester with students in the previous iteration of general education at UB, we firmly believe that is has the potential for great impact on student learning and development.

Student achievement in and reactions to the pilot are described in detail in Morreale, VanZile-Tamsen, Emerson, and Herzog (2017), but one notable finding was that students were very capable of making connections across a wide range of learning experiences and were able to draw conclusions about themselves as learners and their learning experiences through the reflective and integrative processes required to complete the Capstone ePortfolio. In addition, they were able to recognize the value of their general education course for preparing them for their study in the major and for functioning in the real world. The following quotes from the reflective essays of two different students seem to best capture the potential of the Capstone experience and eportfolio to help achieve the intended outcomes:

Through my general education requirements... I was able to explore these empathy-driven interests. I explored cross-cultural understandings, economically disadvantaged communities, race in America, and the legal system as it relates to morality. In each of these courses, I felt the fibers, the empathy which motivates me, resonate. As I explored the variety of stories so often forgotten or overlooked by others, my curiosity in the human experience only expanded, and it still expands with my majors....

...by my senior year I really began to appreciate all the opportunities that I have had to learn. Three years ago, I thought my World Civilizations class was futile to me as an Accounting major. As I reflect back, I realize that the class did effect [SIC] me, not necessarily the specific learning material, but with the exposure I have gained by taking the course. I feel like I understand people better and their cultures. I understand others viewpoints and the things that are meaningful to them. Specifically, this impacts my role as a global citizen because it is important to have awareness of what is going on in the world.

While these quotes represent only two students of the 19 who completed the pilot, they represent the types of integration and reflection made possible through completion of the Capstone. From these reflections in the eportfolio, we have a window into the student's process of identity development, in which they envision where they have come from and where they currently are as learners, as well as their future trajectory for lifelong learning and professional development within their chosen disciplinary area. We hope to see many more examples as we implement the Capstone for all undergraduate students entering the university fall 2016 and after and to be able to provide systematic evidence of the value of the Capstone ePortfolio for promoting desired student outcomes.

The inaugural semester of the Capstone (spring 2017) is proceeding smoothly. While it is too early to examine completed eportfolios for evidence of reflection, integration, and personal growth and development, students are working diligently to finalize their eportfolios and appear to be proceeding quite smoothly through the process. At the end of the semester, the Capstone Coordinator will convene a debriefing meeting for the TAs in which the following items will be reviewed:

• syllabus and weekly activity schedule;
• the eportfolio template as a useful starting place for students;
• due dates for eportfolio sections;
• the usefulness of assignment prompts for stimulating reflection and integration;
• the eportfolio grading rubric;
• evidence from final eportfolios of achievement of the Capstone and UB Curriculum learning outcomes; and
• professional development with regard to eportfolio pedagogy and the chosen platform.

The conclusions drawn from the discussion in the debriefing session will be shared with the Capstone Advisory Committee, and any necessary changes that are identified will be incorporated for the following academic year. Through this process of continuous review and revision, we will ensure that the Capstone and the Capstone ePortfolio achieve their promise for promoting student thinking skills and development as lifelong learners and for serving as a Meta-HIP.
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REFERENCES


ePortfolios as over-arching high impact practice for degree programs

by Norman Vaughan, Rachel Cool, Kristen MacIsaac and Tanya Stogre

Edited by Elaine Gray

Over the past decade, there has been an increased focus on the topic of student engagement in higher education in light of rising tuition costs and concerns about student success and retention rates (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005). In 1998, the National Survey of Student Engagement (NSSE) was developed as a “lens to probe the quality of the student learning experience at American colleges and universities” (NSSE, 2007, p.3). The NSSE defines student engagement as the amount of time and effort that students put into their classroom studies that lead to experiences and outcomes that constitute student success, and the ways the institution allocates resources and organizes learning opportunities and services to induce students to participate in and benefit from such activities. Originally, five clusters of effective educational practice were identified based on a meta-analysis of the literature related to student engagement in higher education. These benchmarks were (NSSE, 2007):

1. Active and collaborative learning
2. Student interactions with faculty members
3. Level of academic challenge
4. Enriching educational experiences
5. Supportive campus environment

From the enriching educational experiences benchmark, Kuh (2008) identified ten high impact practices (HIPs). These practices are defined as techniques and designs for teaching and learning that have proven to be beneficial for student engagement and successful learning among students from many backgrounds. The ten HIPs are:

1. First-Year Seminars and Experiences
2. Common Intellectual Experiences
3. Learning Communities
4. Writing-Intensive Courses
5. Collaborative Assignments and Projects
6. Undergraduate Research
7. Diversity/Global Learning
8. Service Learning, Community-Based Learning
9. Internships
10. Capstone Courses and Projects

At a recent conference, Kuh (2016) announced the addition of eportfolios as a HIP. There are now eleven HIPs and this study investigated how eportfolios can act as a ‘spine’ or ‘backbone’ to support and integrate the other ten. The questions that guided this research were:

1. How does an eportfolio process allow students to connect their high impact practice learning experiences throughout a degree program?
2. What challenges are the students encountering with the eportfolio for documenting their HIP experiences?

3. Recommendations for improving the eportfolio process as an over-arching high impact practice?

**STUDY CONTEXT**

*Mount Royal University* is a four-year undergraduate institution located in Calgary, Alberta, Canada. Our Bachelor of Education (B.Ed.) program was launched in the fall of 2011, prior to the establishment of eportfolios as a high impact practice. Our four-year B.Ed. degree places an emphasis on connecting theory with practice through the use of Kuh’s (2008) original high impact practices. In the first two years of the program, students have a core education course each semester that meets once a week on-campus with a thirty-hour field-placement. Each of these courses also have a weekly seminar that the faculty members conduct in partnership with mentor teachers in local K to 12 schools. These common intellectual experiences allow students to develop program and professional learning communities.

In the third and fourth years of the program, the students have extended field placements that are connected to program of studies courses and a capstone experience designed to integrate theory (of the coursework) and practice (of the field experiences). These internships allow the students to collaborate with K to 12 mentor teachers on action research projects as well as school-based service initiatives. The following table illustrates the percentage of our first graduating cohort of Education students who participated in high impact practices ( Vaughan & Cloutier, 2016).

Two areas of concern that are highlighted in Table 1 are related to student research and study abroad opportunities. The plan is to work with the Office of Research to develop an institutional undergraduate student research initiative, which has proved to be a challenge given the increasing emphasis on faculty research funding at the expense of student research support. In terms of increasing study abroad opportunities for the Education students’, discussions have begun with our International Education Office to identify spring semester general education courses and alternative field placement experiences that are offered in other countries through international partnerships. In addition, the potential of developing an

<table>
<thead>
<tr>
<th>Which of the following do you plan to do and have done before you graduate from Mount Royal University?</th>
<th>Student Response March 2012 (First Year) Plan to do</th>
<th>Student Response April 2015 (Fourth Year) Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer school placement, teaching practicum</td>
<td>58%</td>
<td>100%</td>
</tr>
<tr>
<td>Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)</td>
<td>23%</td>
<td>100%</td>
</tr>
<tr>
<td>Community service or volunteer work</td>
<td>38%</td>
<td>82%</td>
</tr>
<tr>
<td>Participate in a learning community or some other formal program where groups of students take two or more classes together</td>
<td>41%</td>
<td>67%</td>
</tr>
<tr>
<td>Coursework in a foreign or additional language</td>
<td>25%</td>
<td>26%</td>
</tr>
<tr>
<td>Work on a research project with a faculty member outside of course or program requirements</td>
<td>21%</td>
<td>19%</td>
</tr>
<tr>
<td>Independent study or self-designed major</td>
<td>12%</td>
<td>18%</td>
</tr>
<tr>
<td>Study abroad</td>
<td>35%</td>
<td>4%</td>
</tr>
</tbody>
</table>
alternative spring break program is being investigated where students would be involved with community service projects in developing countries during the February reading week (e.g., University of Western Ontario, 2016).

**ePortfolio process**

We wanted to investigate how our teacher candidates (TCs) are using their eportfolios as a high impact practice (HIP) to document their high impact practice (HIP) learning experiences. A number of educational researchers have stated that assessment drives approaches to learning in higher education (Biggs, 1998; Hedberg & Corrent-Agostinho, 1999; Herman & Linn, 2013; Marton & Saljo, 1984; Ramsden, 2003; Thistlethwaite, 2006). Entwistle (2000) indicates that the design of the assessment activity and the associated feedback can influence the type of learning that takes place in a course or program. For example, standardized tests with minimal feedback can lead to memorization and a surface approach to learning while an eportfolio approach can potentially encourage dialogue, richer forms of feedback, and deeper modes of learning (Penny Light, 2016).

Faculty and teacher candidates involved in our Bachelor of Education (B.Ed.) program have expressed increasing frustration with the Alberta Education assessment framework that relies heavily on standardized testing. They have observed that local school boards have recently begun to develop an eportfolio process in order to foster and encourage deeper modes of learning (Habanero, 2015). These online learning plans allow students to take ownership of the documentation and goal setting for their own growth throughout their kindergarten to grade 12 educational journeys.

In order to help our teacher candidates to be ‘experientially’ prepared for this type of learning environment we are now requiring them to design, organize, facilitate, and direct their own online professional learning plan (eportfolio) throughout the entire four years of our B.Ed. program. The purpose of this learning plan is for TCs to document and articulate professional growth and development related to the B.Ed. program competencies: planning, facilitation, assessment, environment, and professional roles and responsibilities. This eportfolio is the space for TCs to develop and communicate self-understanding and create learning goals and strategies that will allow them to be most successful in their future teaching practice (Johnsen, 2012). We wanted to investigate how our teacher candidates (TCs) are using their eportfolios as a high impact practice (HIP) to document their high impact practice (HIP) learning experiences in our B.Ed. program.

The TCs use digital applications such as Google Sites to create their eportfolios, which consist of the key components described in Table 2.

<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>Introduction and overview to personal teaching goals and aspirations</td>
</tr>
<tr>
<td>Resume</td>
<td>Documenting personal experience related to the K to 6 teaching profession</td>
</tr>
<tr>
<td>Teaching evaluations</td>
<td>Evaluations by mentor teachers from K to 6 school placement and practicum experiences</td>
</tr>
<tr>
<td>Teaching philosophy</td>
<td>Ongoing development of a personal teaching philosophy</td>
</tr>
<tr>
<td>Journal</td>
<td>Link to course and practicum journals in Google Docs</td>
</tr>
<tr>
<td>Course reflections</td>
<td>A brief summary of the courses that students have taken at MRU. These include; a link to the MRU course description and key “learning take-aways” from each course</td>
</tr>
<tr>
<td>Teaching competency</td>
<td>Planning, facilitation, assessment, environment, professional roles &amp; responsibilities with related artifacts, reflections, goals, and strategies</td>
</tr>
</tbody>
</table>

Table 2: Key components of the eportfolio
Guiding Framework

In order for students to graduate from our B.Ed. program they must demonstrate that they have successfully achieved the Alberta Education Interim Knowledge, Skills, and Attributes (KSAs). There are seventeen Interim KSAs, which have been grouped into the following five categories (Government of Alberta, 2011):

1. Planning
2. Facilitation
3. Assessment
4. Environment
5. Professional roles

These five categories were used to develop the learning outcomes and associated assessment activities for the high impact practices (HIPs) in our B.Ed. program. The students maintain a Google Docs journal to reflect on their learning experiences and develop an eportfolio in Google Sites to document how the high impact practices are helping them achieve the Alberta Interim Teaching Certificate KSAs.

Methods of Investigation

An action research approach in partnership with students and faculty was used to direct this study. There are various forms of action research, and the framework defined by Gilmore, Krantz, and Ramirez (1986) was utilized:

Action research... aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process. (p. 161)

Stringer (2014) indicates that action research is also a reflective process of progressive problem solving led by individuals working with others in partnership or as a part of a ‘community of inquiry’ to improve the way they address issues and solve problems. This research approach should result in some practical outcome related to the lives or work of the participants, which in this case is the use of an eportfolio process to help students connect and document their high impact practice experiences in a degree program. There have been concerns about the validity of this methodology, as it is often carried out by individuals who are interested parties in the research (i.e., faculty members) and thus, potentially biased in the data gathering and analysis (Pine, 2008). The justification for action research counters this criticism by suggesting that it is impossible to access practice without involving the practitioner. Practice is action informed by values and aims, which are not fully accessible from the outside. Practitioners may not even be wholly aware of the meaning of their values until they try to embody them in their action (Kemmis, 2009).

We attempted to address the validity threat of this research design by investigating and integrating the perspectives of both students and faculty involved with the B.Ed. program’s professional learning plan (eportfolio). Our research team consisted of Ms. Rachel Cool and Ms. Kristen MacIsaac who were 2nd year teacher candidates in the program at the time of the study plus Dr. Norman Vaughan and Dr. Tanya Stogre who are faculty members in the B.Ed. program. We received a research grant from our Faculty of Health, Community, and Education (FHCE) to conduct this study. The funds were used to provide Rachel and Kristen with a monthly stipend for their research work as well as to cover their travel costs to present our preliminary research findings at the first International Summer Institute for Students as Partners in Learning and Teaching in Higher Education, held at McMaster University in Hamilton, Ontario, Canada in May 2016.

Data Collection

A mixture of quantitative (i.e., student surveys) and qualitative data (i.e., faculty interviews) were collected. During the fall 2015 semester, we conducted semi-structured interviews with faculty members in the B.Ed. program, which were digitally recorded and transcribed (n=9). All students enrolled in the four year B.Ed. program were invited to complete an online survey during the final week of the fall 2015 semester. There were 187 students who completed this survey from the 285 students registered in our program (response rate = 67%). The purpose of this survey was to collect data about how the students had connected their personal, classroom, and field-based learning experiences to document and demonstrate how they were achieving the Alberta Interim Teaching KSAs. The SurveyMonkey application was used to administer this online survey.
We held bi-weekly research meetings during the 2015 to 2016 academic year. During the fall 2015 semester the two student researchers, Rachel and Kristen, visited all the Education classes in our B.Ed. program and invited the students to voluntarily complete our online survey. Rachel and Kristen then collated the survey results and posted their preliminary themes to an editable Google Document. The two faculty members on our research team, Norm and Tanya, conducted semi-structured interviews with all the full and part-time instructors in our B.Ed. program and then Rachel and Kristen, transcribed the interviews in MS Word documents. These interview transcripts were then emailed to the B.Ed. program instructors for verification and editing. In December 2015, the students and faculty members, who participated in our study, were then invited to add comments and recommendations to this Google Doc and several contributed very insightful feedback. The winter 2016 semester was spent analyzing the faculty interviews and student surveys as well as debriefing and reflecting on the opportunities and challenges of our student-faculty research partnership experience. Our research study received institutional ethics approval and the students and faculty members who participated in this study signed an informed consent form before the research process commenced. The consent form offered the participants confidentiality and the ability to withdraw from the study at any time.

**Data analysis**

Comments and recommendations from the faculty interviews and student surveys were added directly to the Google Document. All members of the research team then reviewed this document using a constant comparative approach to identify patterns, themes, and categories of analysis related to the three research questions that “emerge out of the data rather than being imposed on them prior to data collection and analysis” (Patton, 1990, p. 390). In addition, descriptive statistics (e.g., frequencies, means, and standard deviations) were calculated for the online survey items using MS Excel.

**Findings**

The findings and key themes for this study are reported for each of the three research questions:

1. How does an eportfolio process allow students to connect their high impact practice learning experiences throughout a degree program?
2. What challenges are the students encountering with the eportfolio for documenting their HIP experiences?
3. Recommendations for improving the eportfolio process as an over-arching high impact practice?

### 1. Benefits of an eportfolio as an over-arching high impact practice

The faculty interview and student survey results indicate the teacher education candidates (TCs) perceive that the eportfolio can be a useful overarching high impact practice by:

1. Having all my learning artifacts in one place to connect, critique, and reflect upon;
2. Documenting professional growth;
3. Journaling in each education course about high impact practices; and
4. Peer mentoring and collaboration.

In terms of having all of the learning artifacts in one place, TCs commented that “I think the professional learning plan really brings together all the components of the program, as well as weaving in our personal experiences” (TC survey participant 17) and “It has for sure helped me connect because I’ve had to think more about the things that I was noticing in the elementary school classrooms and having to connect it with the Education course content” (TC survey participant 44).

With regards to documenting professional growth, one student stated that the learning plan process “forced me to see the connections and relevance between personal and professional life” (TC survey participant 23), and another student explained that “It allows me to display what I am learning while being able to go back and reflect on what I have learnt. As well it allows me to build on my prior knowledge and to create a stronger professional learning plan” (TC survey participant 33).

Another student commented about the relationship between her course journals and the professional learning plan “I have been able to include artifacts and pictures from my experiences in my learning plan that I have first documented in my field journals” (TC survey participant 6).

And, finally, a number of students emphasized the importance of the peer mentoring and collaboration high
impact practice that was involved in the construction of their professional learning plans, “I found that when I created my learning plan I was able to input all my experiences into one space and other people were able to see them and provide me with feedback, this made our class stay connected and become a community of learners” (TC survey participant 39) and “It has helped me to become more creative by seeing how the other students in my class think and learning from each of them” (TC survey participant 29).

2. Challenges of an ePortfolio as an Overarching High Impact Practice

Findings obtained from the faculty interviews suggest that there is currently a tension with the eportfolio process between being a surface versus a deep learning experience for the B.Ed. students. Faculty perceive that many TCs view the eportfolio simply as a “check-list” or “set of hoops to jump through” in order to demonstrate their achievement of the Interim KSAs.

In addition, the teacher candidates identified a series of challenges, which have been categorized into the following three themes:

1. Clarity of purpose;
2. Time; and
3. Digital technology support.

The survey results demonstrated that the teacher candidates are increasingly less clear about the purpose of the eportfolio process as they progress through the program (Table 3).

Table 3: Clarity on the purpose of the eportfolio process

<table>
<thead>
<tr>
<th>Program Year</th>
<th>Percentage of TCs clear or very clear on the purpose of the eportfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>78%</td>
</tr>
<tr>
<td>Two</td>
<td>70%</td>
</tr>
<tr>
<td>Three</td>
<td>58%</td>
</tr>
<tr>
<td>Four</td>
<td>46%</td>
</tr>
</tbody>
</table>

The TCs indicate this downward trend is because the eportfolio is not being applied to any of the core 3rd and 4th year education courses. “You only work on the portfolio in 1st or 2nd and there is no opportunity to work on it in 3rd year classes or 4th” (TC survey participant 132) and “It would be have been more useful if the eportfolio was implemented correctly in every course. Some professors emphasized its importance more than others, and, therefore there were large gaps in between updates and various inconsistencies that we were required to fix on our own” (TC survey participant 87).

TCs from each year of the program also commented on the challenge of finding the time to work on their eportfolios. In the first year, “It does take up a lot of time but overall, I found it useful” (TC survey participant 14) while in the second year “The least useful part of the eportfolio process is that it requires time and a lot of thinking to plot information down on each page” (TC survey participant 53). These comments were echoed in the third year, “Unfortunately, time is always an issue. I felt as if I may not have had enough time to include insightful artifacts to my eportfolio” (TC survey participant 114) and emphasized in the fourth year, “eportfolios are mentioned, but we never focus on them or given time to work on them in 4th year. They seem to always be an afterthought, and now I feel like I will be scrambling” (TC survey participant 156).

In addition, the TCs, especially in the 1st and 2nd years, emphasized the need for more digital technology support for the creation and maintenance of their eportfolios. In the first year, “The least helpful part was having to figure out Google Sites on my own after only one workshop. I feel we didn’t spend enough time in creating it in class with our peers” (TC survey participant 27) and in the second year “I am still not 100% comfortable with how Google Sites works I think it would be really helpful to have a workshop to remind us of the things we learned in year one on how to create and maintain our eportfolios” (TC survey participant 63).

3. Recommendations for Improving the Eportfolio Process as an Over-Arching High Impact Practice

In terms of creating a deeper learning experience for the TCs, the faculty members recommended that the eportfolio process should be revised in order to allow TCs to “tell their stories about how they are developing their professional teaching identities through the digital connection of their personal, classroom, and field-based learning experiences” (Faculty interview 3). In order to achieve this outcome we have begun to examine the

The teacher candidates who participated in this research study provided a number of ideas and suggestions for improving the overarching nature of the eportfolio process. Our research team has distilled this ‘wish list’ into four key recommendation themes:

1. Designated eportfolio course for each semester of the B.Ed. program;
2. Goal setting versus scrapbooking approach;
3. Peer mentorship support; and

One of the key challenges identified by the TCs was the lack of consistent focus and use of the eportfolio throughout the entire B.Ed. program. In order to remedy this issue, the research team recommends that each semester a core education course be designated for the eportfolio. This would involve creating an assignment for each of these courses that would provide TCs with a rationale and dedicated time to work on their eportfolios along with assessment feedback to help direct their growth and development. Table 4 provides an overview to the proposed designated eportfolio course framework.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Semester</th>
<th>Winter Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>EDUC 1231: The teacher: Professional dimensions I</td>
<td>EDUC 1233: The teacher: Professional dimensions II</td>
</tr>
<tr>
<td>Two</td>
<td>EDUC 2325: Understanding current and emerging pedagogical technologies</td>
<td>EDUC 3323: Effective assessment - measurement and evaluation</td>
</tr>
<tr>
<td>Three</td>
<td>EDUC 3010: Practicum I</td>
<td>EDUC 3361: Exceptional students, special needs, and inclusive schooling</td>
</tr>
<tr>
<td>Four</td>
<td>EDUC 4107: Program of studies and curriculum instruction in teaching social studies</td>
<td>EDUC 4201: Integrating ideas, values and praxis</td>
</tr>
</tbody>
</table>

Table 4: Designated eportfolio education course framework for the B.Ed. program

In many of the faculty interviews, concerns were expressed that the TCs approach the eportfolio as a “check-list” or “set of hoops to jump through”. A superficial scrapbooking process rather than a deep and meaningful learning experience. Chen, Grocott, and Kehoe (2016) emphasize that we need to move our pedagogical and technological approaches from “one of checking off boxes to one of connecting the dots” (p. 1). Learning artifacts related to high impact practices that are presented in the eportfolio should be used to “trigger” growth and development goals and action plans as illustrated in Table 5.

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artifacts</td>
<td>Representations of achievement of specific teaching competencies</td>
</tr>
<tr>
<td>Reflections</td>
<td>What I learned in the process of achieving this competency</td>
</tr>
<tr>
<td>Goals</td>
<td>What future growth and development do I want to achieve for this competency</td>
</tr>
<tr>
<td>Strategies (action plan)</td>
<td>What are my plans and strategies for achieving this future growth and development</td>
</tr>
</tbody>
</table>

Table 5: Teaching competency documentation and planning

The TCs, especially in the 1st and 2nd years of the program, indicated that they would like to have more support for the eportfolio process. Joubert (1842) is credited with coining the term “to teach is to learn twice” and in a related study Vaughan, Clampitt, and Park (2016) recommend the development of a peer mentoring circle for the B.Ed. program (Figure 1).
In this circular approach, fourth year TCs could receive peer mentor support for their eportfolios from recent graduates and in turn the fourth year TCs could provide volunteer support in the K to 12 classrooms of the recent graduates. Third year TCs could be supported by fourth year peer mentors in their first practicum experience. This would also help the four year TCs reflect and prepare for their final practicum experiences. Second year TCs could receive third year peer mentor support in their assessment course, which in turn would also allow the third year TCs to get feedback on the assessment activities that they plan to incorporate in their first practicum. Finally, the first year TCs could receive second year peer mentor support for the initial development of their eportfolios and in turn could get feedback from the first year TCs on their second year eportfolios.

The development of this peer mentoring circle would provide all TCs with “first hand” mentoring experience to help them become effective teachers and learners. Friesen (2009) has developed a teaching effectiveness framework that emphasizes “teachers improve their practice in the company of their peers” (p. 6) and a recent Alberta Education (2014) report advocates that an effective teacher “collaborates to enhance teaching and learning” (p. 29).

Currently, conversations about the eportfolio process are limited to the faculty members and TCs in the B.Ed. program and as the African proverb suggests “it takes a village to raise a child”. Several of the TCs, in the online survey, recommended that the mentor teachers for field placements and practicums should be more involved in these conversations. In first year, the TCs recommend that mentor teachers should be made more aware of the B.Ed. teaching competency framework (planning, facilitation, assessment, environment, professional responsibilities) so that they can provide advice and guidance related to these key outcomes. In the second year, they suggest that this conversation should be broadened to include topics such as; inquiry, digital technology integration, literacy acquisition, lesson planning, and assessment. And, finally in the third and fourth years, they stress that there should be a much greater emphasis on conversations with mentor teachers about unit planning, diversity, and inclusive education.

**Next steps**

As previously indicated in our methodology section, we presented the preliminary results of our study at the first International Summer Institute for Students as Partners in Learning and Teaching in Higher Education, held at McMaster University in May 2016 as well as at our Department of Education retreat in June 2016. Based on discussions and recommendations from these meetings we have begun to develop a guiding curriculum document and “roadmaps” for the B.Ed. program’s eportfolio. The guiding document contains the framework, template, examples, and resources for the eportfolio process. Given the complexity of the eportfolio process, we have also begun to create two maps; one for year one and two of the program and one for year three and four of the program. Each map consists of the core education courses designated for the eportfolio process with suggestions for artifacts, reflections, goals, and action plans.

Our experience to date suggests that a student-faculty research partnership is particularly effective in the design and development of a new curricular approach but that challenges can arise in the implementation phase due to faculty and student power dynamics in a university context when there is not mutual respect and trust between faculty and student. This aligns with Kuh and Associates’ (2015) assessment cycle, which demonstrates the increasing complexity of implementing change in higher education (Figure 2).
Our research team speculates that a growing number of Bachelor of Education programs are using an eportfolio process to document and assess teacher candidates’ growth and development. We hope that others are able to use and build upon the results of this student-faculty research partnership study in order to help teacher candidates effectively create their own professional identities by connecting their high impact practice learning experiences in a digital format.

References


ePortfolios as over-arching high impact practice for degree programs

NORMAN VAUGHAN, RACHEL COOL, KRISTEN MACISAAC AND TANYA STOCRE


Call for proposals

The Association for Authentic, Experiential and Evidence-Based Learning (AAEEBL) ePortfolio Review invites you to submit articles and reports covering the broad area of eportfolio use including: pedagogy (or learning theory, as you prefer), research (AePR is not a double-blind peer-reviewed research journal but articles about research are welcome), technical (including articles about technology), and/or organizational issues. Published tri-annually (November, March and July), for eportfolio practitioners, administrators, and students, The AAEEBL ePortfolio Review 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.

Please refer to this site for our latest upcoming theme, important dates and the submission form: www.aaeebl.org

**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.
AAEEBL annual conference

AAEEBL’s Annual Conference will be held on a university campus for the first time. The schedule will be the same as it has been each year. Costs will be significantly less, both for attendees and for exhibitors. The Conference page link is below.

When: July 24 - 27, 2017
Time: 8:30 AM
Where: Portland State University, University Place Hotel and Conference Center
Portland, Oregon
United States

For complete details, go to www.aaeebl.org