

Effectiveness of an Agencywide ePortfolio Initiative

for ABE, CTE, and ELD Students

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Introduction

While there has been a large database of information produced over the last three decades on the usage of ePortfolios and its implications within the adult learner community in a broad sense, there is much less literature dedicated to adult learners, specifically over the the age of 22, who are pursuing adult basic education (e.g. High School diploma) (ABE), seeking Career Technical Education (CTE) to increase employability (without a diploma), or are English language learners developing their skills (ELD). This literature review takes that limitation into account with the perspective that the research that is readily available can still be useful and applied to the focus of this paper. That is, research on non-traditional learners—usually envisioned as college students who do not fit the traditional role of attending a 4-year university while living on campus —when examined solely through the lens of andragogy remains applicable because the level of education (e.g. high school versus college) does not matter as much as how the student actually learns. In effect, all of the aforementioned populations could be considered non-traditional learners and these students bring a wealth of experience and previous knowledge into their studies which allows them to approach their learning experience in unique ways (Madden, 2015).

This paper aims to explore the effectiveness of ePortfolio use within a specific set of non-traditional learners: ABE, CTE, and ELD students over the age of 22. It is important to first define what an ePortfolio is to both the teacher and the student. Once the ePortfolio is defined

then it is decided how it will best be used and its role inside and outside the classroom is imagined. Finally, implementation of an ePortfolio initiative is explored.

The Literature

The main objective of this review is to identify the existing literature available in the area of using an ePortfolio with adult learners, and more specifically in Adult Basic Education (ABE), Career Technical Education (CTE), and English Language Development (ELD), if available. These segments are identified as adults over the age of 22 earning their high school diploma and/or receiving job skill training, or learning English as non-native speakers, respectively. The research will explore the historical usage of the ePortfolio, various means of use and assessment, and reflection on overall effectiveness.

What is an ePortfolio?

It is important to address the question before moving forward so that a baseline understanding is defined. An ePortfolio, since its rise in popularity and use in the late 1990's, has taken on different definitions for different users and different purposes. Some see the ePortfolio as an online repository for class assignments, others see it as tool for assessing progress, and many feel it is best used as a virtual resume (Jenson & Treuer, 2014; Kahn, 2014). For the purposes of this paper, due to the varied nature of our target populations, we will identify an ePortfolio as any student-created online space used for academic or workforce development purposes.

Early days. A portfolio can be described as a collection of personal and professional work used to outline, over time, skills, growth, or development (Kilroy, 2017). The print portfolio, which gathered a large following in the late 1980's and early 1990's, was meant to

encourage students to practice self-reflection, metacognition, and self-critique. Beginning in the late 1990's, with the advent of the modern internet, many schools and universities began implementing ePortfolio requirements and the older print portfolios were transferred online as essentially computer or web-based versions (Bolliger, 2010). Increased penetration of Learning Management Systems (LMS) and steady growth of the internet accelerated the early migration of student portfolios from analog to digital. This coincided with the increased influence of the so-called "assessment movement" and higher demands for evidence of learning from accrediting agencies and governmental bodies. The ePortfolio was seen as an ideal vehicle to meet these demands due to the ability to use digital media to capture work that represented authentic performance (Kahn, 2014).

Present day. There is still debate among practitioners as to what the true definition of the ePortfolio is; different types exist for different reasons: assessment, career exploration, evidence of learning, etcetera. This paper does not aim to land on a single definition, rather it looks at all methods as valid and in many cases the ideal ePortfolio addresses multiple objectives simultaneously (Kahn, 2014). One objective that is familiar to proponents of the ePortfolio is promoting lifelong learning.

Research in this area has not always shown positive results but study continues; recent evidence shows that widespread use of the ePortfolio after users' course of study is complete is not occurring (Jenson & Treuer, 2014). However, it is also being argued that there is simply not enough empirical data available to draw solid conclusions on the value of ePortfolio use and that the current literature suggests that when implemented properly ePortfolios can make a positive impact on student learning outcomes (Bryant & Chittum, 2013). Some statewide initiatives such

as eFolio in Minnesota show that students that take genuine ownership of their ePortfolios are more likely to take their work from an experimental stage to a living document stage where authors have a stronger sense of connection to their audience and see real value in their work (Cambridge, 2008).

Looking ahead. Reflection on over 20 years of ePortfolio use has yielded some insight into what successful implementation of an ePortfolio initiative should look like. Access to vast amounts of information on today's Web and an increasingly interactive environment should foster deeper and continuous learning through collaboration, documentation, self-directed learning, and reflection (Jenson & Treuer, 2014). While some critics are skeptical of the effectiveness of the ePortfolio, many proponents are predicting an era of increased adoption with a larger impact in the field of education. What started as an experiment has now been adopted by universities worldwide either at various program levels or, in some cases, campus-wide (Kahn, 2014).

Local and Global Perspectives

There are numerous case studies available showcasing technology integration in the classroom; there are much fewer, however, that focus on ePortfolio usage. The existing body of literature varies greatly in scope and breadth; this paper will focus on the challenges and successes of the project rather than specific usage of the ePortfolio. Planning, implementation, and further research are the main areas of study as it pertains to the effectiveness of an ePortfolio initiative in any given agency.

Arguably one of the most famous large-scale failures in the educational technology world was the so-called "iPad debacle" within the Los Angeles Unified School District (Lapowsky,

2017). In this case, the district prioritized the technology and curriculum vendor over the practical needs of the students and it ended up costing a significant sum of money and little to show for it. The broad consensus is that a lack of planning and implementation without teacher or school-level input was the main factor contributing to the project's failure. Meanwhile, in the Northern California city of Milpitas (a suburb of San Jose), the local district rolled out a very successful blended learning initiative using Chromebooks. The key difference seems to be that the superintendent started off by soliciting feedback from teachers and principals in order to formulate a strategy. These two very public and publicized stories prompted additional research in the area of project implementation both locally and globally.

Challenges. Review of a wide range of literature shows that challenges present themselves in myriad ways. Some challenges are practical or functional within technology itself while others are rooted in external factors or personal obstacles that have little to do with objective hands-on usage or presentation. Regardless of the field of study, a diverse body of challenges faced within ePortfolio initiatives can be found throughout the United States and around the globe.

Teacher challenges. A recent study of pre-service student teachers at the University of Wisconsin-Madison found that they may be prone to feelings of character dissonance; struggling with identity may be a problem for beginning teachers and teacher educators must step in to assist them with their ePortfolio as a tool to negotiate teacher identity (Hallman, 2007). In nearby Michigan, teachers experimenting with an ePortfolio initiative struggled with issues such as digital representation, addressing an audience, and managing student assignments and webpages (Hicks, et al., 2007). A nationwide study, including 19 high schools and 1 intermediate school,

researching issues related to ePortfolio learning and reflection found that the biggest challenge area was in the number of teachers implementing the initiative (Barrett, 2007). In schools with only one or two teachers there was little to no support and a community of practice could not be built which adversely affected the project. Schools with more teachers involved or with a dedicated technology coordinator enjoyed much more support with implementation as well as the potential for school-wide, cross-curricular adoption and a community of practice.

Student challenges. In a small-scale study conducted in Germany, researchers looking into using ePortfolios for project-based learning found that buy-in and usage was not a problem but that a major challenge was that tutor feedback was very vague (Füngerlings, Schmidmaier, Fischer, & Härtl, 2015). Arguments against too much information from tutors were made, however, to support self-directed learning. Similar studies conducted in Iran and China with English language learners found that one of their main challenges was that students found the process of using an ePortfolio to publish their work was labor-intensive and time-consuming (Sharifi, Soleimani, & Jafarigohar, 2016; Wang & Jeffrey, 2016); a study of Physical Therapy Assistant students at LaGuardia Community College in New York found this to be true as well, even going as far as to say that it could be to the student's detriment (Chan, 2012). A University of Iowa ePortfolio project also cited concerns about time commitments, however, the consensus was that it was a productive and positive experience overall (Jun, Anthony, Achrazoglou, & Coghill-Behrends, 2007).

Positive feedback. As many challenges as were documented, there were just as many (if not more) successes to be studied. Much of the information found translated into suggestions for early-stage research prior to implementation, actions to be taken during the project, and

follow-up measures, including data collection and further study. Again, the literature is broad and the findings are often preliminary and require additional research. However, with that being said, there is a solid foundation of experiences to build a pilot program on.

Case studies. A Queen's University (Canada) study of music students using ePortfolios suggested that buy-in and ownership was high due to being allowed choice in their repertoire and active, timely feedback from their teachers (Brook & Upitis, 2014). Sharing work, such as a recorded performance, with teachers and students was a particularly powerful aspect of the student experience. Setting goals and monitoring progress through the ePortfolio was also highlighted as a positive feature of the project.

Detailed data collection was the hallmark of a recent joint study from DePaul University and Concordia University Chicago in which markers were identified that provided evidence of effective metacognition in ePortfolio users (Bokser, et al., 2016). Understanding of these markers has helped improve assessment measures and is used as a teaching tool for reflective exercises. The implications of this discovery have far-reaching possibilities, however, the authors would argue that the most important finding was the value of cross-disciplinary collaboration.

A recent Deakin University (Australia) study of online students using ePortfolios found that discussion with peers, self-reflection, and formative assessment were key factors in positive student responses (Mihret, Abayadeera, Watty, & Mckay, 2017). Being able to intervene during the assessment process allowed the teacher/facilitator to better address learning outcomes as all assignments were based on them. Employing authentic, real-world-based discussions has promising possibilities in fostering self-directed and engaged learners focused on evidence of positive learning outcomes associated with workplace skills.

Additional findings. Goodson (2007) notes that as the ePortfolio is still an emerging genre in education, we as educators are able to participate and shape it. Analyzing research from a study done with middle schoolers in Boston, Massachusetts and undergraduate and graduate students at Salem State College in Salem, Massachusetts, shows that ePortfolios are capable of many things, including organizing, displaying, and assessing student work (Fahey, Lawrence, & Paratore, 2007). However, the authors declare that rather than trying to change the way teachers and students collect and organize their data, they want to change the way they think, discuss, and use that data. This perspective addresses a prevailing notion that suggests technology is not as important as what one does with it. Stansberry and Kymes (2007) go even further and explore beyond the technology and design of the ePortfolio; exploring self-reflection and taking ownership and agency of the project, it is argued, can be a transformative experience and change teaching beliefs.

Effective Use of the ePortfolio

The purpose of the ePortfolio is as varied as the agency or field that chooses to use it. In addition to educational institutions, many companies have also adopted ePortfolio initiatives in their organizations. As mentioned before, many agencies choose to use ePortfolios to support lifelong learning and lifewide learning as well as a wide range of interconnected purposes with the creator assuming multiple roles (Cambridge, 2008).

Career pathways. Utilizing an ePortfolio with a career path in mind can be very beneficial to the user, especially as the traditional job search is moving from the classified section of the newspaper to the computer screen. ePortfolios are emerging as a popular alternative to the paper based CV or job application (Kilroy, 2017). The trend toward e-business

and the popularity of the internet has also contributed to a widespread use of ePortfolios as a way to transfer students' knowledge and ability from the classroom to the workplace (Hsieh, Chen, & Hung, 2015).

Adult learners. Many institutions are utilizing ePortfolios with their students as a way to assess work, measure growth, encourage collaboration and peer critique, and foster lifelong learning. ePortfolios require students to engage in higher-order thinking while producing evidence of learning as well what they think about that learning experience (Bryant, Rust, Fox-Horton, & Johnson, 2017).

A recent study of nursing students at Birmingham City University (BCU) in the United Kingdom illustrated how the use of the ePortfolio became an effective model as all nurses and midwives are required to revalidate every three years showing evidence of lifelong learning. Previous use of print portfolios was replaced with ePortfolios which in practice encourages higher levels of inquiry, reflection, and integration (Ryan, 2018).

At Notre Dame de Namur University in the San Francisco Bay Area, California, completing an ePortfolio within the Human Services program are part of students' capstone class. This assignment requires elements of their academic study as well as suggested content from outside the classroom that are formative to their learning experiences. This may include connections made in the community, with family, or on the job, often over significant time spans (Madden, 2015).

Research of Arabic-speaking students studying English and using an ePortfolio showed encouraging results. Most students had little knowledge of how an ePortfolio worked and specifically how it could be applied to language development. By the end of the study students

reacted very positively to their experience citing the organizational capabilities and possibilities to save work for later. Students were also shown to have benefitted from collaborative experiences with fellow students and reflection became a valued aspect of the project (Dougherty & Coelho, 2017).

Possible concerns. There are significant differences in experience and comfort level using technology between younger and older students which may impact student engagement. Many students have concerns about the level of digital literacy needed in order to design and implement an ePortfolio. Similarly, there are instructor readiness concerns related to personal comfort level using various technologies as well as course design and assessment (Wuetherick & Dickinson, 2015).

Infinite possibilities. As previously mentioned, the applications of the ePortfolio are myriad and seemingly only limited by the imagination. Several examples of ePortfolio use at respected institutions in various practical situations were illustrated in this paper and new implementation and research continues to grow by the day.

Implementation

Implementation of an ePortfolio initiative in adult education should actively embrace adult learning principles. ePortfolios encourage and enhance self-directed learning, help to define realistic goals, and assist in constructing a framework in order to achieve those goals (Bryant, Rust, Fox-Horton, & Johnson). The Virtual Learning Academy Charter School (VLACS) in Exeter, New Hampshire is an entirely online high school focused on college and career readiness. They implemented an ePortfolio requirement schoolwide and found the following items essential for creating ePortfolios that are meaningful and useful:

1. Easily accessible to student and teacher;
2. User friendly interface;
3. Customization to allow for individuality of ePortfolio;
4. Required reflective component;
5. Straightforward oversight for school officials;
6. Manageable privacy settings;
7. Supports wide variety of multimedia files;
8. Clear understanding of the purpose and connection to curriculum;
9. Integration with current school technology; and
10. Life-long student access (Cote & Emmett, 2015).

Conclusion

The literature makes clear that ePortfolios are generally an effective vehicle to display students' evidence of learning and encourage peer collaboration and critique. However, many sources will argue that there are very specific guidelines that need to be followed in order to achieve positive outcomes program-wide. Among the main objectives of many agencies is the fostering of lifelong learning and personal ownership of the ePortfolio. This is a challenge as many students abandon their accounts after leaving their programs. This problem might be prevented by encouraging use of an independent service such as Google Sites rather than a proprietary LMS or agency-hosted platform. Other concerns include students not connecting to curriculum, availability of technology, and adequate levels of digital literacy.

Exploring the existing literature in the field of adult education (non-college) as it relates to ePortfolios suggests that the field of study requires ongoing contributions to research in order

to have a well-rounded repository of useful information. Further study may be necessary to better understand the unique nature of adult learners, over the age of 22, who are in ABE, CTE, or ELD programs and implementation of ePortfolio initiatives at their related agencies.

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