EMBEDDING AN E-PORTFOLIO INTO A WORK INTEGRATED LEARNING ENVIRONMENT: EVALUATION OF AN UNDERGRADUATE NURSING STUDENT EXPERIENCE

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Abstract

Evaluation of the implementation of an e-portfolio within the work integrated learning (WIL) component of a foundation unit of the Bachelor of Nursing program at a regional Australian University was undertaken in 2010 as part of a teaching development grant. The findings have provided valuable insights about how to successfully embed the use of an e-portfolio into the curriculum. This process has also indicated that there are assumptions about information communication transfer (ICT) use and understanding among students that need to be addressed if e-portfolios are to become more utilitarian within this sector of the workforce. This evaluation indicated that the ubiquitous use of digital technology by students is fallacious. Additionally, student comprehension of the reasons for introducing software to enhance their learning experience was mixed.

The advent of e-portfolios has occurred in response to changing needs of learners and emerging technologies within the higher education sector. They are a function of the 'knowledge economy' with relevance across all industry sectors. e-Portfolios are recognised as increasing student skills and competencies in ICT and enhancing their workplace readiness. Development of these attributes is particularly relevant in professions where WIL is a component of the undergraduate experience. The use of e-portfolios represents a shift from institution-centric to student-centric control. This change requires the development of effective guidelines, policies and standards. The e-portfolio evaluation has enabled opportunities for reflection and guided changes that will improve and continue to support students and staff while undertaking WIL.

Participants were asked to electronically complete surveys pre and post-use of the e-portfolio. Pre-implementation surveys reflected results from other studies that indicate students were familiar with social networking (82%). However, few students indicated they used file sharing sites (15%) or possessed their own website (8%). The limited experience of students in ICT use provided insights into their perspective about access and use of learner support resources. Students indicated that the marking rubric and face-to-face tutorials were the most useful. They also reported that viewing and commenting on other students’ blogs helped them feel connected to their peers while on WIL. Additionally, blogging assisted students to reflect and understand the role of a nurse. The evaluation of this process also captured the students’ e-portfolio experiences.

Education institutions play an important role in guiding students on how to use e-portfolios effectively and responsibly; with control, access and standards for use being major challenges. Additionally, institutions are mandated to collaborate and support the provision of evidence-based best practice to guide the embedding of this technology within the curriculum. This study provides insights into the learning and teaching capacity of the e-portfolio software to engage students undertaking WIL and implications of its use within undergraduate programs.

Keywords: e-portfolio, undergraduate, student, work integrated learning, evaluation.

1 INTRODUCTION

The advent of e-portfolios into the higher education sector occurred in response to changing needs of learners and the development of emerging technologies. They are a function of the ‘knowledge economy’ with relevance across all industry sectors. e-Portfolios are recognised as increasing student skills and competencies in information communication transfer (ICT) and enhancing their workplace readiness. Development of these attributes is particularly relevant in professions where work integrated learning (WIL) is a component of the undergraduate experience. The use of e-portfolios represents a shift from conventional, institution-centric learning and teaching (L&T) to an approach that was more student-led. This change required the development of effective guidelines, policies and
standards. In response to the rapid growth of social networking and other emerging technologies, this University and the Royal Australian College of Nursing have developed ICT policies and social media guidelines that direct students in the appropriate behaviour expected when using digital media technologies while enrolled at the University, or during WIL [1, 2].

The evaluation of the implementation of an e-portfolio was undertaken in 2010 as part of an internally funded teaching development grant. The findings have provided valuable insights about ICT use and understanding among students. This evaluation indicated that the view that students are ubiquitous users of digital technology was fallacious. Student comprehension of the reasons for introducing software to enhance their learning experience was also mixed. Participants were asked to electronically complete surveys prior to and after using the e-portfolio. This evaluation enabled opportunities for reflection about further changes that could enhance the e-portfolio experience for students. The findings provided valuable insights into the learning and teaching capacity of the e-portfolio software to engage students undertaking WIL. It has guided changes that will improve and continue to support students undertaking WIL, and demonstrated its use within undergraduate programs.

2 BACKGROUND

Prior to the 1990s portfolios were used, particularly in the arts disciplines, and often involved large collections of papers and examples of work [3, 4]. These paper-based portfolios had the capacity to become bulky and difficult to transport. With the advent of an increasingly mobile workforce the use of paper-based portfolios became more challenging [3]. The emergence of digital e-portfolios as a repository provided a solution to the access and mobility issue [3]. Digital portfolios allow for greater portability for the owner and greater ability to share and showcase their work to others [4]. Subsequently, the use of digital portfolios has grown in higher education including in nursing education. Its use was pioneered in a Bachelor of Nursing (BN) program at an Australian University and the current study evaluates the use of an e-portfolio in the WIL component of the BN undergraduate curriculum [5].

A definition of an e-portfolio remains unclear but it is generally considered to be a collection of work held electronically, showcasing a person’s educational and professional material [3, 6]. e-Portfolios may be used at different levels - the student, tutor or institution [6, 7]. This hierarchy readily translates into the workplace or WIL programs with ownership being with an individual, a supervisor or the company [7]. The e-portfolio introduced into the BN program was student-centric, meaning that the student controlled access to their work, although it was hosted securely on the Internet by the e-portfolio provider subscribed to by the University [8].

The growth of e-portfolios in the University setting has been organic and without direction or coordination [3]. There are various software platforms and no global standards or policies on use [3]. This lack of structure has made it difficult and confusing for some users to fully understand the capabilities of e-portfolios [3]. Recently, the higher education sector has recognised the potential of this emerging technology and has been exploring the L&T capacity of the technology [9].

e-Portfolios are portable filing cabinets or repositories representing the history, journey, roles and responsibilities of an individual or an organisation [7]. Each user tier has different requirements from the stored information. A significant benefit of e-portfolios is the different access rights that are granted to different users. Used effectively e-portfolios are an excellent tool to assist in creating stronger relevance and meaning for students exploring their professional interests and potential while undertaking WIL [9]. In the study undertaken, capturing personal and professional development in an easily accessible format enabled individuals to make stronger links between their own aspirations and the professional opportunities they can explore [9]. A critical element for implementing the use of e-portfolios was that they have relevance throughout the learning and professional development of an individual and their portability, flexibility and adaptability made them a useful tool in the workplace [3]. It is these attributes that motivated the investigator to explore the usefulness of e-portfolios during the WIL component of the BN program.

2.1 The ‘Net’ generation

The ‘Net’ generation or ‘Millenial’ students who were born during the 1980s, have had ready access to information provided using the digital medium [10]. The literature states that Millennials are comfortable using computers for social networking and web interfacing, but that does not translate into them
having good information and communication technology (ICT) skills [9]. Additionally, Net generation students want information immediately and will seek answers through their computers or mobile phones rather than use other sources of media such as newspapers [11]. These students are considered to be able to engage effectively and more widely through social networking and global communication services, than earlier generations. For them the notion of ‘friendship’ extends further than the geographical boundaries of where they live. The Internet opens networks beyond any local or national Boundary, and enables a connectedness that was not available to previous generations of students. It is important that a clear separation is made between the use and purpose of social networking and e-portfolios [9].

Millenials are accustomed to active, rather than passive, learning, preferring flexible and multi-faceted approaches than previous generations [9]. They tend to prefer online learning rather than the formal classroom approach but they need a multi-media and multi-faceted approach to online educational delivery [11]. E-portfolios can add value to online learning by extending the information-centric approach to encompass reflective writing and communication [11] while at the same time increasing the student’s digital technology knowledge [12]. It was the opportunity to measure the value of an innovative student-led digital L&T tool that led to evaluating the implementation of an e-portfolio in a cohort of undergraduate nursing students.

2.2 E-portfolios as a learning and teaching tool

Siemens [13] suggested that the emergence of e-portfolios was in response to changing needs of learners and developments in learning delivery. e-Portfolios are a function of the ‘knowledge economy’ with relevance across all industry sectors [9]. The technology was considered useful as increasing students’ skills and competencies in ICT thereby better preparing them for the workplace to be more work ready at registration [12].

There are three primary purposes for using an e-portfolio: (i) to capture works in progress; (ii) to showcase work; and (iii) to submit work for assessment [14]. They enable a multi-media approach that allows for digital images, video and audio presentations, awards and altruistic work to be merged and kept in one location [3, 6, 7, 12, 15]. E-portfolios can be configured to a user’s needs. They can incorporate a hierarchy of access controlled by the owner, allowing others to view pertinent sections [3] and can be as broad or narrow as the owner desires [7]. The e-portfolio chosen by the University is considered to have an intuitive user interface and is supported by well designed learning and teaching tools [8].

E-portfolios are useful for self-assessment and self-regulation as well as developing critical thinking skills [3, 4]. It is believed their use has the potential to increase a student’s commitment and engagement with their studies, enabling theory to be better linked to practical application [12]. Through integrating learning processes and assessment, students gain a more meaningful educational experience, often resulting in higher grades [6]. They gain skills in multi-tasking and develop innovative ways to engage in WIL, using digital capabilities to showcase their work and achievements, giving depth and support to claims made [3, 11]. e-Portfolio use has the capacity to encourage students to engage in planning for their future and connecting the relevance of their scholastic years with professional ambitions [3, 11]. E-portfolios can add significantly to the learning and development experience by strengthening the links between gaining and applying knowledge, skills, attitudes and behaviour (Lorenzo and Ittelson, 2005). Self-assessment of progress through reflective learning has been found to improve time management and multi-tasking skills [11]. The focus of this evaluation was on the reflection L&T tools within the e-portfolio software.

For the tutor, e-portfolios provided a platform to explore different assessment approaches, adding to the student-tutor relationship. They provided opportunities to move away from the more traditional multiple-choice and essay assessment methodology to more interactive assessment techniques [12]. However, the literature states it is important for educational institutions not to over use or use inappropriately emerging technology by imposing over-assessment requirements on students that stifle reflective thinking and engagement in the technology [3, 12]. To address the findings from other studies [9] extensive consultation was undertaken to ensure that the assessment task was androgogically sound, and that appropriate staff and student learner support resources were developed, to support all stakeholders.

The Australian Government’s ‘Digital Education Revolution’ policy is particularly relevant to e-portfolios [15]. The policy states that there needs to be a change in how school students are prepared for post-secondary education and training and emphasise the need to introduce secondary students to e-
portfolio use and purpose [15]. The literature regarding the use of e-portfolios in tertiary institutions, especially universities, suggests introducing students to the technology prior to professional experience placement (PEP) or WIL. Reflection is often cited as being a particular attribute of the e-portfolio, encouraging students to better learn and chart their educational and professional development [3, 12].

2.3 E-portfolio use in tertiary education

E-portfolios can change the emphasis from ‘what’ to ‘how’ knowledge is gained through the reflective learning approach [9]. They are essentially bottom-up learning and development tools as opposed to the more traditional top-down assessment through grades approach [9]. However, to be effective teachers need to be trained and familiar with e-portfolios before they can be expected to use the tool as a tutor-student interface [4].

Provision of rationales for the introduction of an e-portfolio into WIL is important to facilitate student engagement with the software. Adequate lead time enables students to become familiar with the tool prior to assessment [9]. Relevance or authenticity is paramount, otherwise students do not engage with the process; understand the purpose of the technology or its long-term applicability that is essential for successful student engagement [9]. To increase engagement, it is recommended that e-portfolios be introduced in middle school, so they can become familiar with the tool before leaving secondary education [12]. However, the current cohorts of students entering tertiary education have not had the benefit of using this technology while at school. The investigator was interested in evaluating the implementation with a view of embedding the technology into the curriculum, so that future students already be familiar with the technology would be well equipped for L&T within the University sector [5].

2.4 Current relevance of e-portfolios

Making e-portfolios relevant to the corporate sector is another major challenge. Studies have shown that applicants (especially entry-level applicants) found e-portfolios helpful in responding to selection criteria as they better track progress and the person’s individual learning and development, not just grades [9]. Students preparing for the workplace have expressed enthusiasm in using e-portfolios to showcase their work at job interviews and use the technology to ‘get a competitive edge’ [4]. By contrast Temple and colleagues [16] reported how employers viewed e-portfolios as a tool to engage staff. A critical consideration for employers is the perceived time it takes to review applicants’ e-portfolios, suggesting that a hierarchy of needs would assist in overcoming this issue [16].

Questions remain over the efficacy of e-portfolios as a tool for assessment, either in part or in entirety [9]. Studies have found that students are often resistant to the idea that assessment will be purely through the e-portfolio platform, preferring a mix with traditional assessment methodology [9]. This view might be more concerned with how e-portfolios are used, rather than a concern with the tool itself. E-portfolios represent a shift from institution-centric to learner-centric control, a change that requires effective policies, standards and practices for guiding appropriate use [9].

A major concern with any digital platform is security, especially those that operate through the Internet. Who owns the e-portfolio and how it moves between institutions so there is continuity of access by the owner remain unclear [7]. These concerns raise the question of where e-portfolios need to be located; as web-based, saved to a CD-ROM or restricted to within the relevant institution [3]? The significant attribute of accessibility suggests a preference for a web-based location but this raises the ancillary issue of security for the information stored [9]. Similarly issues of copyright, authenticity and access still need to be addressed and incorporated into standards [9].

E-portfolios are more than an electronic version of a paper-based portfolio [17]. Education institutions have an important role in guiding students on effective and responsible use of e-portfolios, with control, access and standards for use being a major challenge [7, 17]. It is therefore incumbent on educational institutions to evaluate their use within curricula, design standards of use and provide users with safe platforms for appropriate use [3, 9, 17].

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3 METHODOLOGY

3.1 Objectives

The objectives of the project were to evaluate an innovative learning and teaching tool students could use while they were undertaking WIL; provide a scaffold for L&T to demonstrate the development of knowledge, skills, attitudes and behaviour which could also be used by students to provide evidence of progression towards competency. Additionally the implementation of the e-portfolio supported the requirement for students in nursing and registered nurses to demonstrate competence annually through provision of evidence to the Australian Health Practitioner Regulation Agency that presides over nursing registration [18]. The purpose of initiating the use of an e-portfolio at the undergraduate level was to enable students as beginning practitioners with an accepted method to demonstrate their progression towards competence. Furthermore, funding enabled the collection of baseline data that could be used for comparison with other iterations of e-portfolio use within the undergraduate nursing curriculum. Lastly, this project provided an opportunity to collect information for a review and refinement of the University ICT and social media guidelines if required [1, 2].

3.2 Context

Initially a literature review was undertaken. Information was gathered from a variety of sources including the Australian E-portfolio Project [9]. This evaluation used validated pre-use questions from this Project [9]. Video vignettes and case studies from other Universities were accessed from the e-portfolio website [8]. The outcome of the consultation process was to synthesize the reported learnings of e-portfolio use from other higher education curricula that ensured the assessment was aligned with the WIL learning outcomes. The investigator heeded many of the suggestions from this process, which were used to guide the development of staff and student learner support resources. The findings of this project indicated there were further improvements that could enhance the embedding of the e-portfolio into the WIL component of the BN program. The e-portfolio was introduced in the second semester of a first year foundation unit that is comprised of lectures and clinical laboratory sessions and 80 hours of WIL known as professional experience placement or PEP.

3.3 Cohort

The PEP unit was undertaken by 511 students across 4 campuses in two states within Australia. Ten teaching staff were responsible for supporting and facilitating the implementation of the e-portfolio by students. The e-portfolio was used by students undertaking WIL during the last two weeks of delivery of this unit. Students were allocated to approximately 250 placement agencies that included tertiary and district acute care services in hospitals, residential aged care facilities, multipurpose health centres, general practice surgeries and community based health services. These facilities may take one student or up to 60 students depending on the size of the organization and capacity to provide a quality supervision experience. The assessment task developed to augment the implementation of the e-portfolio and encourage its use needed to be aligned with the learning outcomes of the unit, be authentic and flexible to encompass the different learning environments available [5].

3.4 Assessment task support

During the development of the assessment task, there was a corresponding development of learner support resources and technical supports designed to assist users with using the software and being able to complete the assessment activity. These supports included face to face tutorials; availability of web conferencing to trouble shoot technical issues; user manual; video vignettes, fact sheets about using the software; and a narrated slide presentation about the assessment task. Additionally students had access to the University information technology staff that had been trained in using this software. The e-portfolio portal [8] was available to assist students with understanding about e-portfolios or solving technical difficulties.

3.5 Survey instruments

A pre-use survey using validated questions from the Australian e-portfolio Project was used [9]. A post-use questionnaire was also undertaken. Both questionnaires enabled the use of free-form answering in addition to the agreement statements and likert scale questions. The questionnaires
were provided to students using survey monkey [19]. The data was analysed using SPPS (Version 14). Minimum risk ethics approval was sought and granted for this project (H1116).

4 KEY FINDINGS

The key findings of the evaluation questionnaires have provided information that has guided future ICT developments within the BN program. Due to the age range of the cohort involved in the implementation of the software, the findings pre-evaluation findings were surprising. However, the post-implementation findings were mirrored in the literature [3, 5]. Synthesis of the responses has provided with useful insights into the L&T capacity of the e-portfolio software to engage students undertaking WIL with implications for use within undergraduate programs.

4.1 Pre-use of e-portfolio survey

Of the 60% (n=311/511) of students who completed this electronic survey 87% were female. Fifty-two percent of the cohort was aged between 16 and 25 years of age. A further 23% were aged between 26-35 years and 18% were aged 36-45 years. Forty-nine per cent of students (n=131) indicated they had not used a portfolio previously. Only 2% indicated they had used an e-portfolio before. Students were asked a series of questions about their use of other digital media and 8% indicated they had their own website. Fifteen per cent of respondents indicated they used file-sharing sites such as Flickr, uTube, Tumblr or Picassa. Conversely 82% of students indicated they used social networking sites such as Facebook, Twitter or Myspace.

Respondents were asked a series of questions relating to their attitude about using an e-portfolio, and 33% were positive in their response. Of the choices available that were not overtly positive, students indicated they were uncertain (31%) or anxious (11%). The qualitative comments regarding anticipated use of the software provided an insight into the group of students who could not successfully engage with the software or assessment task. For example, one student stated “I am not happy that we have to use the e-portfolio as we are already busy enough with our first clinical placement and our exams are coming up, totally wrong timing” and “mostly disinterested. I don’t like it. Don’t need a journal or diary. Never have, never will”.

4.2 Post-use of e-portfolio survey

The post-use survey results provided negative and positive feedback that have also been used to guide the embedding of the e-portfolio into the curriculum. The implications of these findings have been discussed elsewhere [20]. However, the main positive findings that provided information about embedding an e-portfolio into the curriculum were 78% of students strongly agreed or agreed that the use of blogs enabled them to feel connected with peers. They liked using the blog tool for reflection (66% strongly agreed or agreed) and 64% of students strongly agreed or agreed that e-portfolios supported integration of knowledge and skills. The results also provided insights into the student perspective about access and use of learner support resources. Sixty-five per cent of students strongly agreed or agreed that the marking rubric and face-to-face tutorials (58% strongly agreed or agreed) were the most useful resources. Conversely, students did not frequently access the University information technology service, with only 28% finding it very useful or useful to them. Similarly only 33% strongly agreed or agreed the e-portfolio online help was useful.

The negative findings of the evaluation indicated that students found the timeframe for the introduction of new technology was too short, as students reported they needed to feel comfortable with using the technology before using it for assessment purposes. They also indicated that appropriate training was required. One comment was “the program is so complex, and I’m a young student who uses a computer a lot, so I would imagine that the mature aged students really struggled”. Additionally, there was a group of students who were concerned about the storage of their information on ‘The Cloud’. One student commented “would not want to store any info somewhere I need an Internet connection to retrieve or update”.

5 DISCUSSION

The findings of this evaluation indicated that the assumption that students can utilize learning and teaching software effectively because they use digital media is flawed. The notion that students have a base-line understanding of computing and software terminology appears ill-founded. It became
apparent that although computer usage is ubiquitous in the environment and the majority of students used digital media for a variety of uses, this experience did not translate into a strong awareness of understanding the purpose of an e-portfolio, or how to use the software. The pre-use evaluation provided critical feedback about the level of student comprehension of various digital media and their attitudes regarding utilizing emerging technology. It dispelled a number of assumptions about ICT use by students undertaking an undergraduate degree in nursing. The post-use questionnaire reinforced the findings about the lack of ubiquity about student ICT use. These findings also provided insights into the student perspective about access and use of learner support resources that are important when considering changes to the curriculum.

The introduction of a web-based e-portfolio for use by students while undertaking WIL was implemented in anticipation that it would enhance and support L&T by students while undertaking WIL. However, the evaluation highlighted a number of assumptions that can be dispelled within this cohort. Overall cumulative evidence demonstrated the implementation was successful; it was the critical feedback that provided the information that enabled improvement of delivery, engagement and embedding of the software into the curriculum [9].

The results demonstrated that students needed more lead time to be guided and facilitated in the development of learning how to use the software to support their learning and teaching. To reduce the negative response about lack of support and instructions there were a variety of strategies identified that needed to be implemented to ensure that learner support resources could be effectively accessed by students. Although the investigator addressed the findings of other studies, it seems there will be issues for a proportion of students, regardless of the measures undertaken to scaffold and support their learning.

5.1 Assumption 1: Undergraduate students can utilize software effectively because they use digital media

The pre-implementation survey identified a deficit in the investigator's understanding that the provision of a variety of learner support resources could translate assessment task requirements into a digital media context. Provision of a range of learner support resources to suit different learning styles, in a variety of places, within the web environment was insufficient. It assumed a level of access by students to digital media that was not as widespread as assumed. Access to learner support resources needed to very obvious. Some students indicated there were insufficient learning supports provided because they did not or could not navigate their way around the online learning management system software; did not attend clinical laboratories; or read their unit outlines. The information required to complete the assessment task and instructions about how to initiate setting up their e-portfolio was provided by providing information via a range of learning styles including face to face tutorial discussion, web conferencing, video vignettes, function notes or using the help lines. One student stated “Uh... I was successful in my tenth time...” and “Trying to send to the gateway. However, after I worked it out it was very easy”. The investigator realized that it was necessary to repeatedly remind students about access to resources during face to face sessions or through online reminders. Additionally, ensuring that display of web links, contact numbers or resources available were displayed in multiple places, including within the learning management system, and at the e-portfolio entry portal.

The post-implementation survey provided insights into the perceptions of students needing to learn nursing thinking or clinical reasoning [21, 22]. Students demonstrated their lack of understanding about how to harness the reflection tools within the e-portfolio software to enhance the development of these skills. The feedback indicated that some students struggled to navigate their way around the software even though they were provided with more than one semester lead time. One student stated: “having access at the beginning of semester to work our way around it so we are familiar with it” showed that students may not have comprehended the availability of the software in advance. Additionally, they may not have realized the level of support available to assist with learning how to use it before the assessment task during WIL was required.

One of the learner support resources was a user manual tailored to the assessment task. It provided detailed instructions of how to complete the assignment using the tools within the e-portfolio. One student indicated “some very vital information was left out. Like what is a blog, and how do you add to it” and “setting up the blog is still a challenge to me”. From this critical feedback it was realized that some students lack the requisite skills and were not ‘computer savvy’. 

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5.2 Assumption 2: Students will have appropriate access to digital media while on WIL

Once students were undertaking WIL, they were required to complete their assessment task using their e-portfolio. The evaluation showed that depending on geographic location, facility policy or access to digital coverage there was inequity of access to the Internet and e-portfolio software. At the time of this study, a desk top web-based interface was used to access the digital e-portfolio. Some students became innovative in their approach to the assessment task while others did not manage to successfully personally post their reflective blogs online. For example, students visited other institutions such as libraries, with public access to computers, or Internet cafes to undertake their assessment task. Others dictated their reflections for others to post online on their behalf. Since this study was conducted this software is now supported by mobile applications for smart phone and tablet interfaces. These applications have a low fee for download, whereas the desk top interface is free. Additionally, there is also offline software that can be utilised that enables uploading when Internet access is available. To meet the requirement of equity of access by students on WIL required the e-portfolio software to be available on multiple platforms.

Another issue that became apparent once students were dispersed into their WIL environments was that access to reliable digital coverage was variable. It highlighted that learner support resources needed to be in formats that students could access effectively in situations where Internet connectivity was unreliable, slow or access to current software versions was limited. One student stated: “The fact that I needed Internet to access it. Where I was staying for prac, I had no Internet access.”

5.3 Assumption 3: Students will be prepared for WIL

Students were provided with a long lead time of more than one semester to prepare for using the e-portfolio during WIL. They were encouraged and supported by a variety of face to face and online strategies to engage with the software by learning to log on and set up their e-portfolio accounts before embarking on WIL. The findings indicated that often students did not access or learn how to use the software prior to going to WIL. This lack was reflected in their comments. For example, one student reported “The confusion and frustration of Peddle Pad (sic) interfered with my focus on PEP” or “may not be the best for stressed out students on placement”.

5.4 Assumption 4: Students will engage with the assessment task

Although the investigators anticipated different learning styles were needed to engage students with utilizing the software, the findings indicated that no matter what was provided there was a proportion of students who did not, or could not, engage with the assessment task in this format. Forty percent of students agreed or strongly agreed they could undertake their assessment task easily and 23% strongly disagreed or disagreed with this statement. This group of students will need identification early to prevent feelings of alienation, frustration, or incompetence related to the assessment activity or e-portfolio use. One student stated: “I do not see the point of it, and it did not support my studies and I cannot see how it would”. Another student found using the e-portfolio “a waste of time, energy and space in the REAL WORLD”. One student suggested “I really don’t think this is an effective way of making a portfolio about PEP, a traditional word document would make it easier”. These students in different circumstances may have been able to engage with the assessment task, but because it was embedded within an e-portfolio they could not focus on the learning and became frustrated with the platform used to undertake the activity. Some of these students may have lost valuable learning opportunities because they could not utilize the software adequately to complete the assessment task. However, overall, less than 2% of students failed to submit their assessment task to the gateway for grading.

Other students did not engage with the process of reflection. One student stated “Focusing on people’s inane story telling when I was exhausted after prac. Distilling my complex experiences while on prac into 100 word mini-posts enough that I could avoid inane story telling myself”. It is unknown whether these students had already demonstrated their lack of understanding about the purpose of the assessment task in the pre-use survey.

5.5 Post grant implementation

The aggregated findings from the evaluation indicated that the implementation was successful. However, it was the critical feedback that provided the impetus for change to enable a higher quality
learning and teaching experience for students while undertaking WIL. The main changes for the implementation in 2011 included a supported introduction to the use of the e-portfolio into the first semester of study of BN students. Furthermore, the e-portfolio was introduced into a non-WIL unit enabling students to become familiar with the platform without the stressors associated with going into a workplace environment. The task the students were assigned was not graded, but was essential to complete the unit successfully. This change enabled students to upload their assessment without the ‘fear’ associated with failure of incorrect submission. The last major shift related to user supports. The user manual was simplified. The web-based resources remained, as did the access to the technical supports. The web links to these resources were made more visible and repeated frequently in lectures and in clinical laboratories.

The 2010 cohort continued to use the e-portfolio in 2011 and tracking their use of the e-portfolio has demonstrated that it has become embedded as a learning and teaching tool. These students used the e-portfolio on WIL, and assessment activities were similar to the previous year. It was found that after the third WIL opportunity less than 0.5% \((n=2/256)\) of students did not successfully submit their assessment for marking. However, it is this small group of students that require early identification as they may also have difficulty in learning to use technical or digital equipment during WIL. There is potential for unsafe practice that could adversely affect patient or client outcomes, if some students cannot comprehend the steps required to complete required tasks, because they utilize digital technology. These students need to be supported to successfully complete the requirements of the unit and their BN program. Moreover, these students may also require support in undertaking similar activities during WIL. Further exploration of students who struggle to use digital technology as part of their academic studies may need to be followed up while they are participating in WIL.

6 CONCLUSION

This study implemented changes in the use of e-portfolios suggested from previous studies. However, some of the results were similar to earlier findings. It seems that regardless of the lead time or variety of learner support resources provided, there will be proportion of students who cannot initiate, use or navigate the requirements successfully. The reasons for this occurrence appear to be anxiety, lack confidence or ICT capability. Others students do not engage with learning how to use the software prior to undertaking WIL, while others demonstrate an inability to understand the function of the reflection assessment task as part of their professional development. To reduce the potential for unsafe practice, further research into the barriers of successful use of the e-portfolio by these students is required. Additionally, these students are currently missing the opportunity to develop their own resource where they can express their knowledge, skill and behavioral development that can be used to demonstrate their competence within their discipline, promote life long learning and maintain their annual registration. This repository once mastered can support their learning into the future. These students need to be engaged in how to use the e-portfolio to support them; they also need to learn skills in ICT etiquette that will guide them in the workplace. It is important that when implementing compulsory software based assessment tasks, that it is integrated into WIL with the policies and guidelines that clearly articulate the expectations of the University and the profession.

The integration of knowledge, skills, attitudes and behaviour development of students that is captured by the L&T tools used within the e-portfolio are useful for contributing to workplace readiness. Developing clinical reasoning and demonstrating emerging competency, while undertaking WIL, includes the capacity to complete the assessment process successfully. These attributes need addressing by higher education institutions if e-portfolios are to be come more utilitarian within the nursing sector of the future workforce.

REFERENCES


