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Personal development planning and ePortfolios in Speech Pathology: Staff and student perceptions

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Abstract

This paper describes the evaluation of the use of an ePortfolio which was embedded across a speech pathology program and designed to enhance employability. Personal development planning (PDP) is a key part of employability and includes learning, reflection, goal setting and understanding the wider context. Students' perceptions of their engagement in this process were evaluated using a mixed methods approach. Qualitative data was collected through student focus groups and individual staff interviews, while quantitative data was collected via a student questionnaire (reported in Lewis & Strampel, 2014). Qualitative data was analysed using NVivo following the six phases of thematic analysis described by Braun and Clarke (2006). This paper reports the themes which emerged from the focus group data. A key finding of the study was that the platform used was not ideal for the ePortfolio purpose causing frustration and negative reactions from students and colouring their engagement with, and enthusiasm for, the ePortfolio activities. Students achieved some of the objectives of personal development planning, especially goal-setting, but it was not until students were in their final year that they saw the links with their future career and employment. Further embedding of key tasks would enhance employability aspects, including for example involving industry from the first year and modelling the PDP process with students.

Keywords: personal development planning, ePortfolios, employability, speech pathology, career development learning,

Introduction

Tertiary education settings are constantly changing: senior leadership, industry, and students themselves, are calling for enhanced employability outcomes (Fabris, 2015; CBI/Pearson, 2015); new learning technologies are continuously emerging (Mouza & Lavigne, 2013); and, quality assurance bodies are mandating accountability in authentic, criteria-driven ways (see, for example, QAA, 2013; Rhodes, 2008; TEQSA, 2011). Lecturers must acknowledge these demands and meet various stakeholders' needs through the design and delivery of their courses. With the increasing focus on employability in higher education, a distinction must be made between *employment* and *employability.* While university leaders prioritise high employment rates for their graduates, lecturers and other university staff can only hope to have an impact on employment rates by enhancing students' employability. Much work has been done globally identifying graduate attributes, employability skills, competencies, and career management skills that, most argue, should be developed and demonstrated in addition

to discipline knowledge to improve students' employability and employment outcomes (Eisner, 2010; Hager, Holland, & Skilbeck, 2007; Evers, Rush, & Berdrow, 1998). For years now, graduate attributes have been embedded in program and course outcomes in many institutions. Most syllabi suggest that students will 'develop their oral communication skills through class presentations'; 'engage in critical thinking…'; 'problem-solve….' and so on. There has also been a renewed focus on developing the 'purposeful graduate' (Clydesdale, 2015): universities worldwide are placing more emphasis on career development learning (as distinct from career training), personal development planning, life wide and lifelong learning (Peet et al., 2011; Penny Light, Chen, & Ittelson, 2012; Richards-Schuster, Ruffolo, Leyda Nicoll, Distelrath, & Galura, 2014; Ward, 2006; Watts, 2006). Most of these philosophies and approaches strive to help students understand, articulate, and plan their learning and experiences across contexts: formal and informal learning environments and curricular and co-curricular activities. For example, career development learning engages students in the process of understanding how to manage life, learning, and work over the life span (Career Industry Council of Australia, 2006) by acquiring the knowledge, skills, abilities, and attitudes that will prepare them to manage their careers (Watts, 2006). There is potential for career development learning to make the higher education learning journey more personally meaningful for students by: helping them understand connections between formal learning, informal learning experiences, work, and 'real-life' contexts; making them more aware of the relationships between their disciplinary studies; and, providing an often-lacking focus on their personal aspirations, goals, and values (McIlveen et al., 2011). Ultimately, career development learning may support students' and graduates' transition into and through employment (McIlveen, et al., 2011). In the United Kingdom, many universities have a defined personal development planning (PDP) framework, which is then underpinned by many aspects of career development learning. Ward defines PDP and its primary objective (as outlined in the Dearing Report, 2007) as a:

> *…structured and supported process to develop the capacity of individuals to reflect upon their own learning and achievement and to plan for their own personal educational and career development*. *The primary objective is to improve the capacity of individuals to understand what and how they are learning, and to review, plan and take responsibility for their own learning, helping students:*
>
> - *become more effective, independent and confident self-directed learners*
> - *understand how they are learning and relate their learning to a wider context*
> - *improve their general skills for study and career management*
> - *articulate personal goals and evaluate progress towards their achievement; and,*
> - *encourage a positive attitude to learning throughout life* (Ward, 2006, p. 6).

PDP relies heavily on self-regulated learning (SRL), which involves *the monitoring and managing of one's cognitive processes as well as the awareness of and control over one's emotions, motivations, behaviour, and environment as related to learnin*g (Nilson, 2013, p. 5). It includes setting goals, planning, self-directing and staying on task, ensuring needs are met, maintaining motivation, taking responsibility for one's own learning, and so on (Nilson, 2013). Metacognition, a facet of SRL, is also an important element of PDP. Metacognition can be defined as having awareness and knowledge of one's own learning and involves *self-feedback* which supports meaningful learning and knowledge transfer (Nilson, 2013, p. 5). How PDP is implemented, however, differs significantly from university to university and even program to program within the same university. Although there does not seem to be one clear approach or framework to follow (Clegg & Bradley, 2006), the process seems a valuable way to support students to make connections between their learning experiences, understand and articulate

their learning, and highlights the potential of portfolios to support students in their journeys (Ward, 2006).

Portfolios and, more recently ePortfolios, have been used in higher education, especially in teacher education (Moran, Vozzo, Reid, Pietsch, & Hatton, 2013), social work (Richards-Schuster et al., 2014), and nursing (Garrett, MacAPhee, & Jackson, 2013), to give students the opportunity to document evidence of their learning outcomes, reflect on their growth over-time, and thus provide evidence of the learning process for staff and institutions. Folio thinking describes reflective practice that fosters the effective use of learning (e)portfolios. It is underpinned by experiential learning, metacognition, reflective and critical thinking, and mastery orientations to learning (Penny Light et al., 2012). The process of folio thinking involves intentionally designing activities into the curriculum to allow students to reflect on their growth over time, thus highlighting the transformational effect of their experiences. In this way, the ePortfolio is an important pedagogical strategy as it is about documenting the process of students' learning, not just the product. It seems that ePortfolios can be used to support students in their PDP by encouraging them to integrate discrete learning experiences both at university and outside of formal learning environments (Housego & Parker, 2009). Further, ePortfolios can be used to promote SRL and support students to develop their own professional and intellectual identity (Penny Light et al., 2012). Finally, as Clegg and Bradley suggest, the development of portfolios for PDP has the potential to *form an intermediary stage leading to continued professional development (CPD) and lifelong learning* (Clegg & Bradley, 2006, pp. 59-60).

This paper reports a case where ePortfolios were implemented in a speech pathology program in an Australian university. The use of ePortfolios was designed to engage students in developing their evidence of clinical competencies, as well as simultaneously developing their reflective and metacognitive capabilities, strengthening the curriculum/practicum links, and documenting evidence of students' competence in areas defined by Speech Pathology Australia (SPA), the accrediting body for speech pathology programs in Australia. Students in speech pathology programs often feel a disconnect between theory taught in the classroom and how to apply their knowledge in clinical settings (Walden, 2010). More generally, it has been found that students often do not see how their university learning prepares them for employment after graduation: there is a lack of understanding about learning outcomes and employability skills. In this case, the use of the ePortfolio was designed to actively engage students in learning about their competency development, including collecting evidence of competency, reflecting on the evidence, and relating the competency development to lifelong learning. The overall intention was to provide a method for students to connect their classroom learning with their practice in clinical settings in a flexible manner whilst producing artefacts that provide a creditable account of meeting the criteria of SPA in an authentic manner.

Background

An ePortfolio tool was implemented in the speech pathology program in 2010; formative learning activities were designed for several courses thus embedding the ePortfolio across the four-year program to ensure the greatest benefits (Faulkner, Aziz, Waye, & Smith, 2013; Woodley & Sims, 2011). The purpose of embedding the ePortfolio as a tool in the curriculum was to support students to: collect evidence against competencies; engage in reflective and metacognitive practice; link theory with practice; evaluate strengths and weaknesses in order to set future clinical practicum goals; and, map hours across a range of practice. Research has shown that students are more likely to engage when the ePortfolio is aligned with program outcomes, linked to future careers, has a clear purpose and has clear guidelines (Buckley et al., 2009). These purposes were aligned with the objective of PDP as described earlier (Ward, 2006). The design of the activities culminated in a final ePortfolio that met part of the accreditation requirements for SPA, demonstrating 'entry-level' evidence and reflection

against each unit of competence for speech pathologists. The use of an ePortfolio in the speech pathology program was an innovation in two ways: ePortfolio as a pedagogical strategy had not previously been implemented and the ePortfolio tool (technology) was new to the staff and the students. As with the implementation of any innovation, it was expected that there would be some difficulties (Chau & Cheng, 2010). The use of the ePortfolio as a pedagogical strategy required students to set goals, identify artefacts as evidence of their competencies, reflect on their experiences, and put these artefacts and reflective writing pieces together in a meaningful way. It was expected that many students would struggle with the concept of identifying evidence and engaging in critical reflection. Simultaneously, by introducing a new technology, it was anticipated that issues and challenges would arise, which, in turn, might impact students' satisfaction with the use of the tool for learning. Understanding these potential barriers to success, several measures, such as scaffolding, support, and appropriate assessment design were taken to ensure the new way of learning and the technology would not hinder students' engagement in the activities (Allen & Coleman, 2011). The authors (one lecturer and one learning designer) were both keen to embed the ePortfolio in the program because of a strong understanding of the value of the portfolio as a pedagogical tool. Both agreed that this value would be increased with an electronic portfolio which students could continuously add to, share with multiple stakeholders, take with them past graduation, and use to make links (physically or consciously) between experiences and learning across courses and years. Ultimately, both agreed that an ePortfolio was ideal to help students engage in critical reflection, understand how to articulate their learning, and help prepare students for graduation, employment, and lifelong learning. To support students' engagement in the portfolio process, the lecturer designed and facilitated several sessions tailored for the students' place in the program and their previous experience with the ePortfolio – so giving 'just in time' information at relevant points, shown in the following table.

Table 1: Embedding of ePortfolio Across the Program

Year Level	ePortfolio tasks
first	• the eleven speech pathology competencies introduced to the students • activities to support goal setting and scaffolding for reflections given • ePortfolio assessed in second semester unit 60% of course mark: depth of reflection, understanding of competencies, goal setting and quality of evidence assessed
second	• step by step instructions for completing the ePortfolio given each semester • reflections and artefacts drawn from short clinical experiences included • ePortfolio assessed each semester, 10% of course mark: depth of reflection, goal setting and quality of evidence assessed
third	• students commence their first major practicum associated with clinical practicum units • tutorials attached to the practicum cover each unit of competency, focusing on the type of evidence to collect for each unit • revision of goal setting and reflection • additional reminders and support in semester 2 tutorials • ePortfolio assessed each semester, pass/fail grading: depth of reflection, quality of evidence, goal setting and records assessed
fourth	• major block practicums throughout year, students spend most of the semester on practicum and off campus • students given the opportunity to ask questions in tutorials • ePortfolio assessed each semester, pass/fail grading: depth of reflection, quality and wide range of evidence, goal setting and records assessed

At the time of implementation, MyExpo was the ePortfolio tool in use at the University. Not designed as an ePortfolio tool, it was being repurposed for several programs across the University, including Nursing and Education. Some small programs were choosing to use free storage and showcase Web 2.0 tools, such as WordPress and other blogging tools, but these were unsupported by the University and there were some concerns about privacy and confidentiality, especially with students working with clients and client reports. Restricted by the University's technology infrastructure and policy about using unsupported tools, the Speech Pathology program used MyExpo. Problems with the tool for an embedded ePortfolio process were immediately evident: only one template was available, which meant that students' entire program had to be documented in one piece. Therefore the lecturer designed a template with embedded information for four years and this was cumbersome, confusing and overwhelming for students. Formatting and organising information was difficult and frequent glitches and system crashes frustrated students. There was no flexibility to change the template once a student had started using it. Potential future challenges were also identified, such as the fact that the ePortfolio could not easily be exported or accessed once the student had left the university. To mitigate foreseen challenges and issues with the technology, various forms of support were offered to students, such as an instruction manual and FAQ guide which was updated frequently. The tasks were designed to increase in both complexity and volume as students progressed through the program. Each semester, some structured tutorials were held in a computer lab to provide students the opportunity to complete their ePortfolio activities with support.

The ePortfolio template

In first year, second semester, students downloaded a template with detailed assignment information and marking guides which covered all four years. The template consisted of three parts:

1. Reflections on my learning – structured reflections about their learning on their practicum and about themselves as speech pathologists.
2. My development of competency – uploaded evidence mapped against the competency-based occupational standards for speech pathologists (CBOS) (SPA, 2011), including a STAR-L (Situation, Task, Assessment, Results, Learning) reflective comment (Australian ePortfolio Project, 2009).
3. Record of clinical hours – range of experience and learning contracts.

Students completed a part of the template each semester and submitted it for marking. The areas which were assessed are identified in Table 1.

Aims of the study

This paper presents an investigation of the effectiveness of an ePortfolio tool to support students' learning in a study approved by the University Ethics Committee that considered the following research questions:

- How does the technology help or hinder students' learning?
- What are students' perceptions about the ePortfolio?
- Does the ePortfolio support personal development planning?

Methodology

Data Collection

The project followed a mixed-methods approach: data was collected via a student questionnaire and additional qualitative data was collected through student focus groups and staff interviews. The University's Research Ethics Office gave ethics approval for the project (No: 8307).

Questionnaire

An anonymous student questionnaire (including both Likert-style and open-ended questions) was administered online to second, third and fourth year students separately in July 2012, after the completion of first semester and their submission of their ePortfolio for marking. At the time data was collected, the ePortfolio had been embedded in the speech pathology program for eighteen months, therefore third and fourth year students had eighteen months' experience with the tool and second year students had twelve months' experience. Invitations were presented through announcements in lectures and links to the anonymous online questionnaire were sent via email. Hard copy information about the project was provided to students in lectures and soft copy documents were emailed to students. Repeat emails were sent as reminders about the project and the questionnaire was open for two months. The questionnaire collected demographic data, used a Likert-type rating to canvas student perceptions in several topics related to the research aims (for quantitative data not reported here, see Lewis & Strampel, 2014), and used free text questions to elicit what students perceived to be the most useful and most difficult things about the ePortfolio along with suggestions for improvement.

Focus groups

Students were also invited to one hour focus groups, held by a research assistant, again with a separate focus group for each cohort. Students were invited by repeated announcements through the learning management system and in person during lecturers. Focus groups were conducted with second, third, and fourth year students between August and October 2012. The focus groups were designed to elicit students' insights into their daily use of technology; the ease of use of the ePortfolio tool; the purpose of the tool; their ideas for improvements for ePortfolio use in the program; and, the value of ePortfolios for lifelong learning after graduation. Questions were designed to be facilitative and open-ended with prompts if required (see appendix for focus group script). Data was gathered in semi-structured interviews around the themes in the questionnaires for triangulation of data and based around questions asked in other studies (e.g. Bolliger & Shepherd, 2010; Gardner & Aleksejuniene, 2008; Hrisos, Illing, & Burford, 2008). Students were also encouraged to raise other topics related to the use of ePortfolios, to give the researchers a better understanding of students' perceptions of their experiences. Focus groups were audio recorded and transcribed by the research assistant.

Interviews

Individual interviews were conducted with all staff in the School of Speech Pathology in November 2012 by a research assistant. The interviews were designed to gain staff perceptions of the value of the ePortfolios for student learning and the five interviews were audio recorded and transcribed.

Data analysis

Qualitative data from these three sources (free text questions, focus groups and staff interviews) were analysed using NVivo and followed the six phases of thematic analysis described by Braun and Clarke (2006, p.87) as follows:

1. *Familiarising yourself with your data*: each of the data sets was accurately transcribed, and checked.
2. *Generating initial codes*: response patterns were coded and data was collated relevant to each code.
3. *Searching for themes*: themes were derived from a thorough review of all of the data. Relevant extracts were collated.
4. *Reviewing themes*: themes were cross-checked against each other and with the original data set.
5. *Defining and naming themes*: ongoing analysis by three researchers facilitated the refining of the themes, generation of clear definitions of themes, and names for each theme.
6. *Producing the report*: compelling extracts were chosen, re-analysed, related back to the initial purpose of the research and the literature, and reported in this paper.

Participants

All students enrolled from second to fourth year of the speech pathology program were invited to participate in the research: 14 second year students, 24 third year students, and 15 fourth year students (n=53) received invitations. Of the students invited to participate in questionnaires the response rate was 47per cent (n=25) and 22 students participated in the focus groups (response rate 42 per cent).

All teaching staff participated in interviews (n=5), one staff member (second author) had developed the ePortfolio and marked first, second, third and fourth year ePortfolios. The remaining staff were involved in marking fourth year ePortfolios, but had an awareness of the ePortfolio activities across the program and had been involved in discussions about the development of the ePortfolio activities.

Results

Several themes arose from the data analysis, which are similar to those found in the quantitative data analysis (see Lewis & Strampel, 2014):

- use of technology;
- educational value of the tool;
- engagement with the ePortfolio activities;
- integrated learning; and,
- continuing professional development and lifelong learning.

The use of technology

From responses to the open-ended questions, it was clear that most students seemed to be comfortable and confident using technology. In particular the following comments from fourth year students indicate that they found it was easier to store large amounts of information online, research online easily, and share information:

> *I want to put it in an electronic form so I can store it and reproduce it a lot more easily than having a stack of paper;*

I think it makes activities a whole lot easier as well like researching and stuff instead of going through books and finding what you need in a massive book you just type it in and get it immediately;

Although using technology itself did not seem to pose a challenge to students, several issues were raised in regards to the tool that was being used, including inflexibility of the tool, structure and organisational ability of the tool, time-consuming nature of the tool and student onus to organise structure as evident in the following comments:

There are certain things we cannot upload electronically, and it seems a waste to not have it on display if it something is really important or a good achievement (third year student);

You have to figure out how to link that one item to those three things or you copy and paste that in three things and then it just keeps going down the side so it just becomes a massive mess (third year student);

…takes very long time to do very simple things (third year student);

I've got stuff in mine that's typed out in a box and it's this long and then in other places I've cut and pasted documents so [lecturer] has to click on it to open it and it looks so untidy she has asked me to tidy it up but I thought well what part to tidy (third year student).

The ability of students to take control of a tool and to present information how they want it displayed is often seen as a benefit. However, two staff members also noted the challenges that arose due to students' ability to organise the structure, for example:

…it did look complicated…I think probably setting it up was cumbersome and if they didn't spend a lot of time doing it or they weren't very technically capable then it was probably a real challenge to some of them... But as long as people organised it properly it was easy for us to use.

…*when the student's gotten confused and you have to search and search and search through all the evidence that makes it a lot more time-consuming when you've got to go and work out where they've put things because they've put them in the wrong place*.

Various forms of support were provided to students to try to mitigate issues that might arise with the tool. Students seemed not to value the support as indicated in the comments below:

…[the lecturer] posted a thing up talking us through how to do it but I didn't listen (third year student);

*… we got that little tutorial … and you kind of go yep that sounds easy and it's not until the end of semester when you go to try and do it you go what did she say…I understand that we did the tutorial at the beginning so if people wanted to start putting in their evidence from the beginning of prac they could but for me I would of much preferred it closer to the end (*fourth year student).

Many students did not attend the support sessions, which was acknowledged by one other student:

We were literally like three of us in a lecture at a time…it was ridiculous (fourth year student).

Educational value

Students did not seem to understand the value of the ePortfolio process, of ePortfolios as learning tools or assessment tools, as evident in the following comments:

I don't know what the end result of this is. Are we supposed to show it to prospective employees [sic] or I still don't really get what's the point of it (second year student);

End up wasting time trying to work out what needs to go in, and where it needs to go, then completing too many reflections to meet assessment criteria that I don't get much out of (third year student);

It just feels like there's no point because the portfolio is for an employer or something and do they really care whether I achieve my goal in year 1 semester 1 (third year student);

I have to be honest, until just before in that lecture where they said you actually take in pieces of evidence to an interview I didn't know the point of the e portfolio. It's probably not something I would've actually done (fourth year student);

One third year student seemed to understand the educational value of the ePortfolio, but suggested that by third year, it was too late:

It was just words on a page and none of that really had any meaning and then sort of as it's progressed it's got some meaning now but we sort of missed all the bit at the beginning so we're sort of floundering a little bit.

One fourth year student, however, showed insight into the value of collecting evidence and engaging with the ePortfolio activity *over time*:

I think as you get more placements you get better at choosing your evidence cause you get used to oh that's pretty good I'm going to keep that now rather than just wait til the end and gather them all up so get better at knowing what is appropriate to put in.

Engagement with the ePortfolio activities

The ePortfolio activities required students to select evidence demonstrating their capabilities against numerous required competencies and reflect on their own capability. Students commented on their engagement with the ePortfolio activities:

Maybe for other assignments you want 80 but this one you just want to get it over and done with (second year student);

Yeah sort of like it's not going to be of any use to me after you've assessed me why am I putting hours of work into this (third year student).

It seems that students did not see the value in showcasing or reflecting on their own capability and, in some cases, this may have impacted the rigour of their work. Four staff members commented on the rigour of student output, with the following comments:

… I had … a student who she actually did have opportunity to write, to do more reports but what she put in the portfolio were half pages on an introductory conversation with somebody with aphasia. And that's just not sufficient to demonstrate competence;

Have needed a lot of input and have put in minimal pieces of evidence;

I think some of [lack of entry level quality evidence] was the lack of putting effort in rather than they hadn't any other experience to draw on;

…they have worked on it each year they've been able to put in evidence that isn't entry level each year…they don't seem to have realised in fourth year that they have to up the ante and put the very best in.

Integrated learning

Students' understanding of the value of the ePortfolio for making connections between learning experiences seemed to be greater in the later years, as evidenced by the following comments:

> *This has been the most useful thing about the ePortfolio: Keeping all my documents organised and up to date. It is also very helpful when it comes to refreshing my memory on previous pracs* (second year student);
>
> *It's like an electronic repository for important documents. Looking back at documents assists me to do better for subsequent tasks* (third year student);
>
> *…sometimes I feel like I haven't had much experience in some areas and then I'll have a look and I've actually got a number of things I could choose to put in that so then I guess it makes you realise how much you've actually done* (fourth year student).

Interestingly, and despite the somewhat negative overtone, one third year student recognised the value of the ePortfolio for understanding the integrative learning journey and identifying their own gaps so they could build necessary knowledge/experience:

> *The only thing it did for me sort of was make me aware of what I did actually need to achieve because the competency thing was sort of blurred for me so it really put it down to well you need to have this and you need to have this so you need to be looking for it…*

Two fourth year students commented on the ability to use the process to identify gaps and take control of their own learning:

> *I thought it was good for identifying gaps because usually you go through your placement at like 100 mile an hour and you don't really know what you're doing or what you're missing and you can kind of go to that and tick off on a sheet and go to your supervisor and say I need this evidence can you please find a way of me getting it so I thought that was good to identify those gaps;*
>
> *I think like identifying gaps in the evidence and also making sure that you've covered everything in the program and also the things you have learnt and had experience in to be qualified*.

Two staff members commented on the ePortfolio process as a possible way to enhance students' metacognition in relation to their integrative learning journey, although both noted it hadn't happened:

> *I would imagine that students become more aware of their own change and that they should be more aware of the value of actually thinking about what they have done rather than just doing it for a prac and then going on to a new prac and just forgetting it;*
>
> *…if they crossed referenced more … then that should feed in to their logic about how different units relate to each other and how their skills relate to each other. Now I don't think that this particular year has done that but as we get an easier system then it should be more than just logistics, it should help their learning…*

Continuing professional development and lifelong learning

The key skills of a lifelong learner are understanding how you learn, setting goals, and engaging in metacognitive and self-regulatory activities. Students across the years made

explicit comments that reflected a negative attitude towards goal setting and reflection and limited understanding of the value of engaging in such activities, for example:

> *You don't want to do that goal you're just writing it cause that's what you have to* (second year student);
>
> *I'm not the sort of person that would set goals it's just not who I am* (third year student);
>
> *…[potential employers would] read it and go what is all this touchy feely stuff reflecting on everything and what is your idea as a speech pathologist, I'd feel like they would read that and go okay great where is your evidence that you know how you treat a stutter* (third year student);
>
> *…it's not often you work on [the goals] during a placement cause you're making the goals from before the prac and you're not sure that they're relevant and sometimes they turn out to not be relevant and then you've got to reflect on those goals you've placed before but generally you haven't really looked at them* (fourth year student).

Similarly, most students did not seem to value or understand the purpose of reflection as indicated in the following comments:

> *I find it somewhat annoying having to reflect on everything because I guess I'm not the type of person that's going to like be introspective of every single little facet that I've done that semester so like I understand the value of it but I feel like we've learnt reflecting now…we don't need to do it over and over and over again* (third year student);
>
> *I didn't think [the reflections] were as important as all my evidence and stuff…it's just forcing me to reflect on myself, it's just pointless* (fourth year student).

One student suggested that they did not understand the purpose of goal-setting:

> *…it was never explained to us at the beginning, it was just put to us that we have to have these goals and do this big assignment in first semester of first year and it's like do the goals and everyone's like well what are we doing these goals for* (third year student).

One third year student, however, noted that after time the purpose and value of goal-setting became clearer:

> *I think though now that I'm in third year second semester the penny is starting to drop what the goals actually mean like I can make goals that are a bit more relevant, that might sound silly but before I would like in first year I didn't know what these goals meant I didn't know what I had to do.*

Although fostering students' ability to engage in lifelong learning and thus be successful in their continuing professional development after graduation was a key objective of using ePortfolios in the speech pathology program, very few students seemed to understand that outcome. As one lecturer stated:

> *… they are learning because it is a professional skill but they don't see it because they think everything has to be content and everything has to be how to do assessments or treatments or whatever … they don't see all the other side of things of how to organise things how to conceptually do this or that or how to collect evidence, they don't see all that aspect as learning and professional development as such.*

Discussion

From the quantitative responses presented in an earlier publication (Lewis & Strampel, 2014), students found the ePortfolio tool difficult to grasp and the activities too time-consuming, impacting on their ability to understand the link between ePortfolio activities and their future careers as speech pathologists. The findings from the qualitative data substantiated these results; students had strong negative perceptions of the ePortfolio tool, although they became more familiar with the platform over time and found the support documents increasingly helpful. This finding is in keeping with research around the implementation of new technologies in teaching and learning settings (Chau & Cheng, 2010). Students often resist new technology, but when it is embedded in the program, with various supports and scaffolding, students become comfortable and confident with the technology and the process over time (Allen & Coleman, 2011). Students reported they were generally comfortable with and confident working out new technology, but reported they found the ePortfolio platform difficult to use and the template design difficult to navigate and understand. This seemed to put students in a state of 'extraneous' cognitive overload (Bower & Hedberg, 2009), leaving them unable to fully understand the value of the PDP activities, or meaningfully engage in them. Furthermore, students seemed to be in a state of 'germane' cognitive overload (Bower & Hedberg, 2009) because they needed to spend extra time and effort processing what to do and how. From the data, it is clear that the technology issues raised concerns for students and overshadowed the value they placed on the PDP process. To ensure appropriate cognitive load, the design of both the ePortfolio tool and templates within the system need to reduce extraneous and germane cognitive load so that students can focus on the natural complexity of information (intrinsic cognitive load) (Bower & Hedberg, 2009). The software platform needs to match the task requirements and the complexity of activities needs to be carefully graded to ensure engagement, as found by other researchers (Chau & Cheng, 2010; Hrisos, Illing, & Burford, 2008).

Learning

Ward lists five dimensions of PDP described earlier (Ward, 2006) that provide a lens from which the project can be understood. Three relate to learning: did speech pathology students *become more effective, independent and confident self-directed learners; understand how they are learning and relate their learning to a wider context* by using the ePortfolio and did the ePortfolio *encourage a positive attitude to learning throughout life?* (Ward, 2006, p. 6). The quantitative data showed students generally engaged with the ePortfolio (Lewis & Strampel, 2014) and the qualitative data also provide evidence that the personal development planning *process* supported students in their growth across their academic career, helping them become more employable. In order to develop as self-regulated learners, students need to practice various metacognitive strategies over time (e.g. reflection) and across learning environments so that they are able to build these into their repertoire of lifelong learning strategies. The ability to demonstrate these strategies to potential employers will increase their employability (Ward, 2006). The data shows that the ePortfolio activities helped students see their learning. Some were able to identify and fill gaps in knowledge, skills, and abilities, an important outcome of metacognitive activities. Giving students the opportunity to understand what they have learned, what they will need to know, do, etc. by graduation, allows them to take some ownership of their own learning and seek opportunities to ensure they are 'work-ready'. In this case, students needed to understand the value of gaining further learning experiences, as most focused on the 'lack of evidence' and 'getting evidence' rather than learning more about the skills required for the career. Other studies report students found ePortfolios supported their learning (Bollinger & Shepherd, 2010; Gardner & Aleksejuniene, 2008), but in this study there seems to be uncertainty in earlier years of the program, regarding the purpose of the ePortfolio. This is reiterated by the fourth years who commented that they

did not understand the purpose of the ePortfolio until a particular recent tutorial highlighted the value of the ePortfolio for their career. It is possible that students in earlier years may not have the context and clinical perspective to fully understand the purpose of the ePortfolio, or it has not been properly related to their current progression through program. This aligns with findings reported in the literature around the use of PDP to support students in making meaning of their learning. Clegg and Bufton (2008) describe the phenomenon as *retrospective meaning making* p. 438). They found that students did not put as much effort into foundation courses because they did not realise how much they would need the knowledge later: students commented that their goal in first year was to pass but in later years, they expressed regret that they did not know what they needed to know. By having such a focus on gaining evidence for their ePortfolios, students seemed to miss the link between what they were doing to get the evidence and the evidence itself. Their focus was on the product, rather than the process.

The quantitative data revealed students understood the concept of reflection and also increasingly saw how reflection highlighted their learning on their placements (Lewis & Strampel, 2014). Students did not report increasing depth of reflection, although this may be because the scaffolding of reflections continued throughout the program. In the focus groups students did not see the purpose of reflections as a learning tool and the cumbersome, inflexible ePortfolio tool may partly explain this response. Despite anticipating the need for support in the areas of folio thinking and technology, the data reveals that the use of technology impacted students' perception of the value of the activity which, in turn, impacted students' level of engagement in the activity. Students do not realise that reflection is an integral part of being a speech pathologist and will be useful throughout their career. The literature suggests that reflection is a process that is not inherent to many people (Mann, Gordon, & MacLeod, 2009); indeed it often requires time, scaffolding and practice to become deep reflective thinkers. Students clearly understood that they needed various forms and amounts of evidence to show potential employers, but they did not seem to understand the value of reflection and lifelong learning in developing their knowledge and skills. Making the purpose of the activities more explicit to students, and relating it to their role as speech pathologists may support students to overcome this surface-level focus on products and outcomes. Speech Pathology Australia requires continuing professional development (CPD) for membership and showing students how an ePortfolio could be used for this purpose (as the case in other professions, (e.g. Gordon & Campbell, 2013) may increase engagement. Having a software platform that can be shared with people external from the University (such as employers) and that can be taken when the student leaves the University enhances this link to students. Staff need to model the PDP process with the ePortfolio (Clegg & Bradley, 2006) demonstrating how the ePortfolio can be used to apply for jobs (address selection criteria), engage in lifelong learning and meet accreditation requirements.

General skills

Another dimension of PDP expects students to *improve their general skills for study and career management* (Ward, 2006, p. 6). The quantitative data (Lewis & Strampel, 2014) revealed students understood the value of the use of the tool for organising their activities and supporting analysis of their skills, however, in the focus groups students seemed to lack understanding regarding the value of completing the ePortfolio, especially in terms of employability in contrast to other research (Buckley et al., 2009; Gardner & Aleksejuniene, 2008). More explicit industry involvement, including presentations from recent alumni about the value of reflective activities not only for employability and employment upon graduation, but also for CPD, could help with motivation for students. This could be embedded throughout the program, starting in first year with the introduction of the ePortfolio activities. Activities should be designed around these presentations so that students actually reflect on what they are hearing from the speakers to think about what this could mean for them and their role as a student and a speech pathologist. Activities in their ePortfolios to help them make these

connections might help them better understand the value of various reflective and metacognitive activities as well as the importance of lifelong learning (Gordon & Campbell, 2013). Furthermore, it might help if employers are clear to students that they value the ability to set and reach goals, the ability to reflect on actions, the desire to engage in lifelong learning as it was only as students reached the end of fourth year that these links became clear and the value of the ePortfolio was realised.

Goal-setting

The final PDP dimension is that students can *articulate personal goals and evaluate progress towards their achievement* (Ward, 2006, p. 6). In the questionnaires students reported the ePortfolio did help them set goals (Lewis & Strampel, 2014) as in other studies (Bollinger & Shepherd, 2010). However, in the focus groups students were less certain that the ePortfolio is a good place to select, evaluate the evidence and set learning goals for the future although they felt it aided their ability to analyse competences required for speech pathology. Several students commented that they did not understand the value of goal-setting although fourth year students did value these activities. Again the importance of goal-setting and self-evaluation for their future career needs to be made more explicit for students. For example, detailed but simple explanations about activities, linking them to course and program learning outcomes, and clearly outlining the reason they are important and how they will help student learning ensures students become aware of the value of activities for their career in speech pathology. Moreover, students should be provided with verbal and visual representations of how what they are learning and doing relates to other content within the program, their practical experiences, and their future career. This requires a culture shift for lecturers because it is required in all courses within a program and with all activities and assessments. Students will then understand their learning as a whole, rather than a series of distinct courses and assessments. In terms of employability, this aspect is critical for helping students gain employment: the more aware they are of themselves as learners, of having abilities, skills, and knowledge, and the better able they are to articulate these outcomes to employers through selection processes, including CV writing, addressing selection criteria, and verbal interviews, the more likely they will be to gain fulfilling employment upon graduation.

Limitations

One of the main limitations of this project study is the small numbers – only 22 students participated in the focus groups across the three cohorts (42 per cent response rate). It is possible that the other 58 per cent of students may have different experiences to report so the sample may be biased. The issues with the software platform may have coloured students' responses to questions. Finally, teaching staff were also new to the platform which may have impacted the effectiveness of their teaching.

Future directions

In late 2012, the University adopted a new ePortfolio platform with more flexibility and functionality for use in the speech pathology program. The issues raised by students in this project have been addressed in various ways by academic staff, to enable students to focus on the pedagogical value of the ePortfolio use rather than on the technology. Further data has recently been collected after two years of student use in this new platform and this data will be compared with the current findings to evaluate whether students' perceptions have changed over time. It is intended that future research can now focus on the design of the activities (e.g. to promote deeper reflection and PDP) and corresponding student learning outcomes and employability outcomes with the improved ePortfolio tool.

Conclusion

This paper presents the qualitative results of a project that investigated students' perceptions of the validity of using an ePortfolio as a tool for supporting learning, showcasing and personal development planning across a program. Difficulties with the technology, being unsuitable for the tasks required, had a negative impact on students' engagement and valuing of the ePortfolio activities. One aim of the use of ePortfolios in the program is to provide students with an understanding of how to document evidence and reflection for their own continuing professional development post-graduation, as required by practicing speech pathologists. The results from the data indicate that teachers in any discipline may need to think more broadly than the tool and activities when implementing ePortfolios for PDP. Students seem to miss the connection between their classroom learning and experiences and their future career, despite several measures designed to help them make this connection. More than ever, students need authentic learning experiences, as well as other ways of seeing and hearing what happens in their potential careers. Using an ePortfolio as a pedagogical tool can assist students in making connections, post reflections and collecting evidence of learning, but without an inherent understanding of the value of these activities, the learning will be limited. Unfortunately, it's not enough for lecturers to tell students about the importance of collecting evidence, they need to model it, they need to demonstrate it, and students need to continually be encouraged to see the relevance to their future careers. Further, the intentional design of activities to support PDP needs to be clear to students from day one: the importance, purpose, and meaningfulness of activities and assessments needs to be made salient so that students can begin to make the links on their own. Anecdotal evidence across the University with the use of ePortfolios suggests that whilst students are motivated from the beginning of their university program to graduate and find a 'good job', more is needed to motivate students to continually prepare for graduation in terms of career and personal development skills. It is becoming increasingly evident that to ensure students are intrinsically motivated to engage, the rhetoric presented to students around the use of ePortfolios, and indeed many elements of higher education, may need to change from a focus on teaching and learning (pedagogy) to a focus on graduate attributes and employability.

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Appendix: ePortfolio Focus Group Script and Questions

Today we will spend about an hour discussing the use and usefulness of the ePortfolio for Speech pathology students at Edith Cowan University. We would like to gain your thoughts and perspectives.

The discussion will be audio-taped for research purposes. So that people feel comfortable expressing their views, we ask that you keep what is discussed today to yourself and that is what said in the room stays in the room. When I transcribe the tape, participants will not be identified by name, so no-one other than myself will know who said what. No other ECU staff members will know who said what. The data will be analysed into themes and although some individual comments may be quoted to explain the theme – no names will be used.

There are no right or wrong answers, we would simply like to gain your views. If you feel differently to others, please speak up, we would like a full range of views so don't be afraid to say something different to everyone else. We would like to hear from everyone and make sure everybody gets a chance to have their say, so please be respectful of other people's opinions and 'let everyone have a fair go'.

1. *How do you use technology in your everyday life? Prompts if required:*

- What technology? How many items you have?
- How much do you use it?
- How did you learn how to use it?
- How do you feel about it?
- Do you consider technology a useful tool for learning?

2. *How did you find developing your Portfolio using technology? Prompts if required:*

- How much did you use it?
- How did you learn how to use it?
- How do you feel about it?
- Did you encounter any problems using it?
- Were some sections more difficult than others (reflections, evidence for competency, records)
- Are the technological problems a major barrier to learning or using the ePortfolio?

3. *What do you understand the purpose of the ePortfolio to be? Prompts if required:*

- Recording reflections
- Demonstrating competencies
- Collecting records
- Overall, do you consider the ePortfolio useful for demonstrating competencies, collecting records, recording reflections?
- Can you think of alternative ways to demonstrate competencies, collect records, record reflections?

4. *What additional features or improvements can you suggest to the ePortfolio system?*
5. *Can see yourself using the ePortfolio after you graduate as part of your lifelong learning as a speech pathologist?*

I think we might begin to wrap up now. Can I ask first, do you have anything burning that you would like to say? Or something that you thought of, but didn't say as the moment passed or there wasn't the opportunity to say it?

Thank you very much for giving me your time, sharing your insights. Just lastly, I would like to again emphasise the importance of treating everything that was discussed as confidential and that you will not be identified by name in any transcript.