What is the relevance of reflective practice in undergraduate e-portfolios to professional work practices?

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Abstract

Reflective practice is a graduate attribute that is typically difficult to assess and measure. Universities are increasingly turning to digital technology as a medium to support reflective skills. This is particularly relevant to undergraduate courses that incorporate professional field placements where students are off campus, including health professional courses. The aim of this study was to determine the relevance of reflective practice in undergraduate e-portfolios to current work practices of new graduate physiotherapists. Graduates (n=6) took part in a focus group which guided the development of a questionnaire sent to all 2010 physiotherapy graduates, addressing the use of e-portfolios and their impact on transition into the workforce. 42% (n=25) of graduates completed the questionnaire. The use of a structured framework for reflections, within the online medium, assisted to promote reflective practice. Graduates felt that they were more automatic in their reflections and resultant work practices, as a result of utilising assessed undergraduate e-portfolios. The future challenge for educators is to balance context, assessment and delivery of reflective practice tasks. E-portfolios are one medium that may assist with the development of reflective practice skills beyond graduation.

Keywords: e-portfolios, reflective practice, graduates

Introduction

With the introduction of digital technology into the higher education sector, the use of e-portfolios has expanded. For courses incorporating professional placements, including medicine, nursing, allied health, health sciences and education; e-portfolios provide a useful medium to both document and assess work practices. Reflection on work practices is not a new concept though there is debate in the literature on the value of student reflections and whether they are promoting ‘critical reflection’ in the correct learning context (Boud & Walker, 1998; Ryan, 2011). Initial findings from the Australian e-portfolio project noted that e-portfolios could aid students to become ‘reflective learners’ (Hallam & Creagh, 2010). The review also noted that the use of e-portfolios in the tertiary sector has added value in graduate recruitment. However, little is known of the link between student reflections utilising e-portfolios and how this translates to graduate attributes, specifically the ability to be a reflective practitioner. The aim of this study was to determine graduate physiotherapists thoughts and experiences on using the e-portfolio medium for reflection on undergraduate professional placements, and its relevance to current work practices.

Background

Physiotherapy students from The University of Notre Dame Australia complete online reflections while on clinical placement, following a structured framework (Connaughton and Edgar, 2011). Students are set up with a private blog account that is linked into the university’s learning management system. Students commence their reflective entries in first year while completing Pre-Clinical Experience (PCE) hours and continue throughout second, third and fourth years as they attend six, five week full-time clinical placements. Their final e-portfolio contains personal reflections from all their clinical experiences, as well as links to professional development presentations and other projects they may have completed whilst on placement. Students have access to view fellow students’ e-portfolios in their year group, through the learning management system. Reflective entries in the e-portfolios are assessed by the clinical education team and account for twenty percent of students’ final clinical placement grades for each placement.

The clinical education team noted that the depth of students’ reflections appeared to improve over the course of the physiotherapy program, following the introduction of assessed e-portfolios (Connaughton & Edgar, 2011). Students were not only evaluating their actions but were also considering strategies for future practice. A study was designed to determine if reflective skills developed as an undergraduate utilising e-portfolios, assisted graduates with their transition into the workforce and future practice.
Methods

Former students from the 2010 graduating cohort of the physiotherapy undergraduate program at The University of Notre Dame Australia were invited to attend a focus group on reflective practice, seven months after their graduation. Six graduates registered to attend and the group met onsite at the university. The focus group addressed the use of e-portfolios for reflective practice and their relevance and impact on transition into the workforce. The session was semi-structured and facilitated by one member of academic staff, least known to the graduates. The focus group was recorded, transcribed and coded into relevant concepts and further into categories, as per Braun and Clarke’s stages of analysis (2006).

Following the focus group analysis, a questionnaire was developed based on categories extracted from the transcribed data as well as surveys previously utilised for the health professional student population (Roche & Coote, 2008; Tsang & Walsh, 2010). The questionnaire consisted of 31 questions, each with a five point Likert rating, as well as five open-ended questions where graduates could expand on their thoughts related to reflective practice. The questionnaire was divided into four main sections with graduates rating statements on the use of the online medium, the STARES (Situation, Task, Action, Result, Evaluation, Strategies) format of reflective entries, reflective practice in general and the option of peer review. The questionnaire was reviewed by colleagues prior to emailing to all physiotherapy graduates from 2010. Participants completed the questionnaire anonymously via an online survey engine. Data were analysed utilising descriptive statistics as well as collation of open-ended answers.

Approval was gained for this study from the Human Research Ethics Committee of The University of Notre Dame Australia (011013F).

Results

42% (n=25) of the graduated cohort completed the questionnaire. Results for the section pertaining to reflective practice are presented in Table 1.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I resented being forced to do reflections on clinical practice</td>
<td>12 (3)</td>
<td>40 (10)</td>
<td>28 (7)</td>
<td>8 (2)</td>
<td>12 (3)</td>
</tr>
<tr>
<td>The purpose of completing reflections was unclear as a student</td>
<td>16 (4)</td>
<td>56 (14)</td>
<td>8 (2)</td>
<td>20 (5)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Finding something to reflect on was easy</td>
<td>4 (1)</td>
<td>36 (9)</td>
<td>36 (9)</td>
<td>20 (5)</td>
<td>4 (1)</td>
</tr>
<tr>
<td>I referred to my STARES entries after graduation</td>
<td>32 (8)</td>
<td>28 (7)</td>
<td>4 (1)</td>
<td>20 (5)</td>
<td>16 (4)</td>
</tr>
<tr>
<td>Being forced to reflect helped prevent me from repeating mistakes</td>
<td>8 (2)</td>
<td>24 (6)</td>
<td>24 (6)</td>
<td>40 (10)</td>
<td>4 (1)</td>
</tr>
<tr>
<td>The purpose of completing reflection has become clear now I am working</td>
<td>8 (2)</td>
<td>16 (4)</td>
<td>12 (3)</td>
<td>44 (11)</td>
<td>20 (5)</td>
</tr>
<tr>
<td>Being forced to reflect as a student assisted me with the transition from undergraduate to graduate</td>
<td>12 (3)</td>
<td>20 (5)</td>
<td>20 (5)</td>
<td>36 (9)</td>
<td>12 (3)</td>
</tr>
<tr>
<td>Since graduation I reflect on my actions whilst I’m working</td>
<td>0 (0)</td>
<td>4 (1)</td>
<td>4 (1)</td>
<td>48 (12)</td>
<td>44 (11)</td>
</tr>
<tr>
<td>Since graduation I reflect on my actions outside work hours</td>
<td>0 (0)</td>
<td>12 (3)</td>
<td>16 (4)</td>
<td>40 (10)</td>
<td>32 (8)</td>
</tr>
</tbody>
</table>

The majority of participants indicated that the purpose of completing reflections was clear to them and they did not resent being forced to complete online reflective entries as an undergraduate. However, many reported difficulty identifying a situation to reflect on. 36% of respondents reported that they had referred to their STARES entries since graduation. The majority of graduates agreed that they now reflect on their actions both whilst they are working as well as outside work hours.
Graduates were asked five open-ended questions in the online survey, including “What does reflective practice mean to you?” The responses to this question were varied although there appeared to be a common thread of thinking back on actions and improving outcomes. One graduate responded that reflective practice was “…critically assessing your performance to ensure you are giving the patient the best possible care... and know what to do the same or change when a similar situation arises again.” Another respondent commented that it was a “…daily reflection on clinical reasoning, theory and treatment decisions...critical to being a quality practitioner”. One graduate summarised the concept by stating that “Reflective practice plays a fundamental role in professional and personal progression, enabling you to analyse what you have done, where you have made mistakes and what you can improve on. Without reflection you have no clear understanding of areas to better yourself and therefore continue the same behaviours.”

Graduates responded positively to writing reflections online with 60% reporting that blogs were an easy medium to use with a further 16% feeling neutral about this statement. Continued access to online reflections after graduation was also noted as a positive both in the questionnaire and open-ended answers with two students expanding that it was “helpful for government interviews” and “extremely useful when applying for jobs”.

**Discussion**

Although there is debate about the use of structured reflections to promote critical reflections in undergraduates, graduates responded positively to the use of assessed online reflective writing. An important principle of adult learning is to ensure that the assessed learning activity is relevant to the student (Biggs & Tang, 2007). Almost three quarters of participants responded that the purpose of completing reflective practice tasks within the e-portfolio medium was clear to them as undergraduates. Education from the clinical education team about the relevance of critical reflection in the development of lifelong reflective practice skills could further contribute to the students engaging positively with the task.

The introduction of the STARES framework to online entries brought about marked changes in the quality of student reflections (Connaughton & Edgar, 2011). Students were including strategies for improved future practice. Now as graduates, they reported that they reflected on their actions both at work and outside work hours. Although, it is difficult to directly link undergraduate activities with work practices, the use of the STARES model appeared to ingrain the process of considering strategies for future practice. This research would further suggest that without a well-developed structure to promote critical reflection, an e-portfolio alone may not assist the transition from undergraduate to professional practice.

The graduates provided many and varied definitions on ‘reflective practice’. One common theme throughout, however, was the acknowledgement that there was a need for a change or improvement in behaviour. Through the use of the STARES framework as well as timely feedback and assessment of reflections, undergraduates were guided to consider future strategies for change. It would appear that graduates have continued to consider this an important aspect of the reflective process.

Undergraduates on clinical placement often encounter challenging situations which they may not encounter again until they have made the transition to professional practice. The opportunity to critically reflect on a difficult situation and develop future strategies with the guidance of supervisors and placement resources can only assist with the transition from undergraduate to professional practitioner. Some graduates reported accessing their e-portfolios after graduation to review these situations. Others utilised examples from their reflective writings for both written selection criteria and job interviews. Future access to e-portfolios to reflect and promote professional achievements appears to be a priority when designing mediums to incorporate at undergraduate level (Andre, 2010).

The authors acknowledge the limitations of this study which include the low response rate to the online questionnaire. The design of the study required the online survey to be conducted a significant period of time following graduation. Further, graduates were required to remember experiences from the year prior. Future studies will incorporate a prospective design with students being surveyed as they progress through clinical placements to graduation and future employment.

**Conclusion**

The e-portfolio is an ideal medium to use a structured framework to foster reflective practice skills in the transition from undergraduate to graduate. Nine months after graduating, 92% of participants reported that they now reflected on their actions during the working day. They reported an awareness of the need to consider
change in their behaviour when reflecting. The ongoing challenge for educators is to design relevant, structured, assessed reflective tasks that assist with promoting change beyond graduation. E-portfolios that are accessible beyond graduation can assist with this process.

References


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