

Impact of Technology-based Reflective Practice Tools on Student Skill Development

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ABSTRACT

The purpose of this study was to examine how students received the combination of technology-based tools implemented in a staged manner within a curriculum and if any specific tool was of greater benefit in developing their reflective practice skills. Participants were 45 tertiary students enrolled in a health professional course. Qualitative and quantitative analysis revealed student preference for individual tools changed over time. Students preferred supportive tools (simulated video recordings, group blogging and teaching approaches) earlier on and independent tools (e-journaling and online reflective summary writing) in their final year. The findings support the use of different reflective practice tools in course design to better support student development and improve student engagement in reflective practices.

KEYWORDS

Adult Learning, Curriculum Design, E-Journaling, Group Blogging, Online Education, Reflection, Simulated Video Recording, Technology-Enhanced Learning

INTRODUCTION

The strength of university level education is its ability to provide students with an environment to foster critical thinking skills. These skills are essential to all aspects of the modern workforce. One area that is a central part of the critical thinking process is reflective thinking. Reflective thinking is the process of analysing and making judgements about what has happened. Dewey is commonly attributed with defining what critical thinking is back in 1933, and he defined it as an active, persistent and careful consideration of a belief or form of knowledge to develop it further. We know that learners become more aware of and in control of their learning as a result of active participation in reflective thinking when it forms part of their learning practice. Students with good reflective practice skills are better able to assess what they know, what they need to learn, and plan how they will bridge the gap between those two areas.

Experiential learning is central to developing critical thinking skills; it is the reason why most university courses require students to undertake placements during their final years. The translational practice model describes skill acquisition as a continuum where an individual move from a rule-governed novice towards an expert with intuitive understanding of a situation that includes all of the possibilities and limitations the situation presents (Benner, 2004). In this study we surveyed third and fourth year dietetic undergraduate students to shed light on their experience with reflective practice tools. We have chosen to use a combined framework of tools instead of a single tool in isolation, because a variety of tools were needed to increase the learning challenge as students developed their

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reflective practice skills over two years and no single tool was suitable for every learning activity. We chose the final two years of a health professional degree because their specialist knowledge and reflective practice skills undergo dramatic development during this timeframe. They move from using only theory to make their decisions in controlled settings (novice level) to consolidating their skills in a variety of real-world settings (competent level).

The aims of the study were to: (i) examine how a combined framework of tools (simulated video recording, e-journaling, group blogging and online reflective summary writing), implemented in a staged manner within a curriculum, were received by students; and (ii) to assess if any specific tool was of greater benefit in developing their reflective practice skills.

It is important to shed light on these issues, because university and external accreditation bodies are increasingly requiring demonstrable evidence that students are able to engage in reflective thinking and reflective practice. The reflective practice framework we are proposing contains core components that are readily adaptable for a wide variety of settings and it is important to know if the individual tools alone are sufficient to drive student reflective practice skill development.

BACKGROUND

In recent years studies across different disciplines and countries have investigated the application of reflective practice in higher education settings (Blackburn et al., 2014; Falk-Ross, 2012; Griggs et al., 2015; Hermesen and Embregts, 2015; Muncy, 2014; Ossa Parra et al., 2015; Shaw, 2013; Swanwick et al., 2014). Common tools used include reflective learning journals, portfolios, group reflection and mentoring (Alegado, 2017). Technology-based tools such as video, electronic portfolios and blogs are increasingly being explored as vehicle to extend or facilitate reflective practice (Muncy, 2014; O'Reilly and Milner, 2015).

Higher education increasingly recognises reflective practice as a core generic skill that will aid graduates within a changing work environment (Oreopoulou et al., 2015). Reflective practice can be described as a continuous process that involves the analysis and application of previous experience to new situations through consolidating knowledge and theory-based practice (Schön, 1987). This process also involves identifying what drives an individual's learning and development, including their own values in order to continually develop the skills and knowledge required to achieve the desired outcomes (Alegado, 2017). Certain tertiary courses require more advanced reflective practice activities because it is an explicit profession and accreditation standards requirement, with allied health being one example. Students clearly benefit from reflective practice skills, they show: improved self-assessment of performance, advanced incorporation of theory into practice, insight into personal strengths and weaknesses, and enhanced professional behaviour (Thorpe, 2004; O'Connell and Dymont, 2011; Laverty, 2012). However, the evidence suggests reflective practice develops to varying degrees depending on the individual student abilities and the curriculum support provided (Scanlan et al., 2002). As reflective practice rarely happens habitually, these supports can provide a scaffolding to enable student engagement (Kong and Song, 2015), for example students following a set order of activities to develop their reflective practice skills.

Technology-based tools may also be beneficial for students living or studying in geographically isolated areas (Deng & Yuen, 2011). While students may benefit from using technology-based tools in reflective practice skill development, it does not diminish the need for teaching support because growth in reflective practice skill requires ongoing feedback and guidance (Canniford & Fox-Young, 2015; Hermesen & Embregts, 2015; Swanwick et al., 2014).

The current literature is heavily based on studies investigating the use of a single reflective practice tool and limited evidence exists where tools have been combined, for example paper-based and video (Coffey, 2014). It is possible that people may make sense of reflective practice tools in a different way, finding one tool more useful than others so providing a suite of tools designed to meet their learning challenges as they develop may enhance their engagement in reflection and ultimately improve their skills.

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