Implementation of Portfolios within Australian Initial Teacher Education: Who's Leading the Charge?

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Abstract: Recent changes to national accreditation requirements have emphasised portfolios as the required mechanism for initial teacher education providers to demonstrate the impact of their programs against the Graduate Teacher Standards and to prepare graduates to be classroom ready. This paper presents findings from a national survey of teacher educators developed to capture how and where implementation of portfolios of evidence has been occurring. Discussion focuses on the reported concentration of activities within small programmatic teams and the comprehensive level of involvement that champions of portfolios are assuming. The priorities pursued by these individuals and teams are presented alongside possible implications of the limited uptake across faculties, as well as the need for further study to better understand the current extent of implementation.

Introduction

This paper draws from a study investigating the implementation of portfolios in Initial Teacher Education (ITE) programs in Australia. While mandated changes in teacher education have specified the use of portfolios of evidence broadly across teacher education courses, this project examined the concept in relation to the professional experience components of ITE programs.

The new national accreditation documents (AITSL, 2015, 2016) require students to demonstrate teaching readiness through the collection of evidence of teacher practice (planning, teaching, assessing and reflecting) and the potential for this process to produce data about the outcomes associated with ITE has been significant. The requirement for pre-service teachers to demonstrate evidence of their impact on student learning and of theory-driven teaching practice is in itself a notable reorientation of how Australian ITE students are assessed. This shift emphasises the urgent need for pre-service teachers to capture their teaching practice within professional experience placement settings and lends itself to the use of portfolios of evidence as a mechanism and platform to make this data available.

Professional experience placements make an important contribution to the knowledge, practice and engagement of pre-service teachers. How these pedagogical elements of preparation for the classroom can be captured and presented, when they occur in situ and beyond the scope of traditional university-based assessments, emphasises the applicability of portfolios of

evidence. Portfolios are therefore widely recognised as fundamental to collecting and assessing evidence of authentic practice and development, expressed through myriad of responses and applications of pre-service teachers. Portfolios make this evidence available to a diverse audience and for a variety of purposes. As such, a range of stakeholders benefit from access to demonstrable development and suitability for teaching. Teacher educators, school leaders, employers, regulatory authorities and system administrators and others benefit from ways of seeing into learning environments through this medium.

TEMAG and Australian Initial Teacher Education

Since the 1990s there has been increasing global concern about the quality of ITE and a sustained desire for the establishment of a broader evidence-base for practice (Cochran-Smith & Zeichner, 2005). In Australia over the past 40 years, there has also been a sustained critique of ITE (Mayer, 2014), leading to the most recent review by the Teacher Education Ministerial Advisory Group (TEMAG) (2014).

The TEMAG Review was guided by a brief to examine central elements of ITE, including an exploration of what opportunities pre-service teachers were afforded to put their theory into practice. The Australian Government Response (Department of Education & Training (DET), 2015) focused heavily on the importance of professional experience for providing pre-service teachers with opportunities to apply their content and pedagogical knowledge within practical settings.

The complex relationship between evidence-based theory taught within academic settings and practical knowledge gained through application reveals the importance of both elements to pre-service teachers approaching career entry (Burn & Mutton, 2015). The interplay between these two elements is widely emphasised in the literature, as is the opportunity that this interplay provides for teacher educators to propel pre-service teachers' learning (Hagger & McIntyre, 2000). The Government's Response (DET, 2015) places particular emphasis on the benefits, reiterating many of the recommendations within the TEMAG Review (2014).

Capturing the Outcomes of Professional Experience within Portfolios of Evidence

An emphasis on practice-based learning focuses attention on the "…large repertoire of personal [and]… professional qualities, knowledge, skills and understandings…" required of modern-day teachers that cannot always be exclusively taught or assessed within the confines of the university setting (Mattsson, Eilertsen, & Rorrison, 2011, p. 3). Rather, much of the knowledge, skills and capabilities embedded within the Graduate Teacher Standards (Australian Institute for Teaching and School Leadership (AITSL), 2017) can often only be realised through placement activities and captured through the use of portfolios of evidence (portfolios) (Fox, White, & Kidd, 2011). This is particularly so when pre-service teachers have opportunities to apply their knowledge within authentic contexts, through authentic activities and with and through their peers, colleagues and students (Kertesz, 2016; Mattsson et al., 2011). Resultantly, new accreditation requirements for Australian ITE (AITSL, 2015) focus specific attention on professional experience components. The new requirements emphasise the place of portfolios in providing a platform for pre-service teachers to demonstrate their impact on student learning during their practical experiences (AITSL, 2016). Policy and accreditation drivers have firmly

established the central connection between professional experience as essential to pre-service teacher development and portfolios as the mechanism to capture evidence of this professional capacity.

Pre-service teachers may struggle to articulate their learning, however, portfolios can be used effectively to make this evident (Peet et al., 2011). This importantly extends to how they can demonstrate their range of knowledge, skills and attributes required beyond graduation (Kinash, Crane, Judd, & Knight, 2016). As such, portfolios have become a mechanism for ITE providers to demonstrate program impact through the knowledge, practice and engagement demonstrated by ITE graduates (AITSL, 2016; Kilbane & Milman, 2017).

Portfolios of Evidence within Initial Teacher Education

Whilst the use of portfolios is common in ITE (Light, Chen, & Ittelson, 2012) many challenges remain in relation to implementation (Masters, 2016). A portfolio is much more than storing of artefacts and many wrongly assume that pre-service teachers will be able to create their portfolio simply by being instructed to do so. A successful portfolio of evidence requires a systematic and sustained cycle of collection, selection, collation and reflection, and students need scaffolding to do this. Additionally, the portfolio needs to be embedded into the curriculum. Academics need to rethink assessment strategies and program alignment in order to build a comprehensive portfolio approach. This means that effective execution relies on a range of factors operating within schools of education and at the institutional level, reflecting a diverse range of priorities (Oakley, Pegrum, & Johnston, 2014). Where this does not happen, the outcomes associated with portfolios of evidence can be significant (see the discussion within *Challenges and Risks Associated with Limited and Fragmented Implementation*, below). Conversely, the effective implementation of portfolios may bring new opportunities for innovation. Within the rapidly changing contemporary context of ITE, a new approach brings the potential to move beyond merely seeking to capture evidence of learning to simultaneously shape pedagogical arrangements that can re-organise it (Herrington, Reeves, & Oliver, 2010).

A National Snapshot of Implementation of Portfolios within Initial Teacher Education

It is evident that the portfolio is rapidly becoming a vital component within ITE in Australia. The need to provide pre-service teachers the mechanisms to plan for, document, engage with and present demonstrable evidence of their developing knowledge, practice and engagement is pressing. Further, the significance of teacher educators who are directly involved in embedding portfolios is clear. It is, therefore, important to hear from those doing this work in order to gain insights into where the work is happening, where innovation is occurring and where this process is producing productive outcomes for pre-service teachers and the profession.

The roles that teacher educators are performing, and the influence and impact that they are having on resourcing, implementation activities and team leadership is of particular interest to this study, as well as where this influence is limited or constrained.

Methodology
Research Aim

The aim of this project was to capture a national snapshot of the ways in which the implementation of portfolios has been occurring within Australian ITE and particularly activity related to professional experience components of ITE programs. This national snapshot was sought within a period of intense re-accreditation pressures, as existing programs were transitioned to the new national requirements. As such, the accreditation drivers for the implementation of portfolios, a mechanism for demonstrating graduate teachers' classroom readiness within the new accreditation requirements (AITSL, 2015), were particularly influential to the timing of the study.

Participant Selection

An introductory email was initially sent to all Australian deans of education to provide an overview of the project and specific information about how recruitment and selection processes would be directed to their Academic Director of Professional Experience (ADPE). Participant recruitment and selection then commenced with a targeted email to ADPEs. This communication included project information, processes relating to participant consent and instructions for accessing the survey instrument.

This project adopted purposive sampling to target those charged with the implementation of portfolios, particularly in relation to where this occurred within professional experience. This highlighted ADPEs as the logical primary point of contact for each ITE provider. It was anticipated that ADPEs would have knowledge of where this work was occurring within their site and of the staff involved. An introductory email was sent to each ADPE. This email contained project information, a link to a survey instrument and a request to forward the information to all relevant staff within their faculty/school to invite them to participate. Additionally, ADPEs were given a specific request to purposefully recruit five staff who they knew were associated with implementation activities. Disseminating the survey at faculty/school level through the ADPE was paramount to capturing how and where this work was occurring and why.

Data Collection

A mixed-methods approach was adopted for this study to allow each data set and convergent data to provide a comprehensive insight into the topics under investigation. The project team considered that the mixed-methods approach offered additional opportunities for longer-term and longitudinal studies to follow.

Building on strategies provided by Creswell (2014) and Tashakkori and Teddlie (2010), a combined 39-item online survey instrument was developed to gather integrated qualitative and quantitative data. The survey was organised into five sections, with Section One collecting demographic information to build a profile of the personnel undertaking portfolio work. Section Two focused on quantitative data, capturing closed ended responses about where and how implementation activities were occurring. Section Three was directed at the impact of portfolio activities for pre-service teachers and what factors were most influential in shaping

implementation. Section Four sought information about funding and resourcing and Section Five gave the respondents the opportunity to discuss issues and challenges related to implementation.

Items throughout Section Two, Three, Four and Five contained opportunities for participants to provide qualitative data. The open-ended questions in these sections were designed to encourage respondents to provide elaborate and descriptive accounts based on their perspectives, priorities and responses to implementation activities within their contexts and retain a 'human' focus to the study.

The final question of Section One sought specific information about respondents' involvement in implementation of portfolios. Respondents who selected '*I have a leading role in the implementation of portfolios of evidence*', '*I am actively engaging in implementing the portfolios of evidence in my area*' or '*The subjects/units/programs I work with incorporate portfolios of evidence activities*' progressed on to Section Two and the remainder of the survey. If respondents selected '*I am aware of the pre-service teachers we work with need a portfolio of evidence*' or '*I am not really sure about the portfolios of evidence in my institution*' they were filtered to the final question of the instrument without completing the bulk of the survey. This was to ensure that respondents completing questions relating to implementation activities had first-hand experience and knowledge to contribute.

Data Analysis

The dataset from the distributed survey were initially analysed quantitatively and qualitatively by the research team to identify patterns and emergent themes. Mixed method approaches were taken to analyse the data through descriptive statistics and content analysis. Descriptive statistical analysis investigated the demographics of survey respondents, while the descriptive content analysis assisted the identification of and meaning-making obtained through the open-ended survey questions. Corresponding with the focus of the survey, qualitative responses were categorised, listed and coded to reflect the frequency of occurrence of responses (Bazeley & Jackson, 2013; Bryman, 2008).

The structure of the online survey meant that the data were organised and represented in ways that made it possible to initially analyse the data in multiple ways, moving backwards and forwards between individual survey items while at other times moving through the complete data set to explore and clarify initial themes across items before undertaking more analysis. This process progressed in to reading and re-reading the data against the project's driving research questions to further identification of patterns within responses to single items and identifying relationships between items (Richards, 2009).

Findings

In total, 67 respondents from 21 ITE providers completed the entire survey (respondents from just under 50% of ITE providers). Possible factors leading to a lower than anticipated response rate include the timing of the survey, the limited duration of the survey delivery window, the recruitment methods employed, and, potential misinterpretation of recruitment information. Despite this low response rate, all Australian states and territories were represented in the data with six institutions identified from New South Wales, five from Western Australia,

four from Victoria, three from South Australia, two from Queensland and one each from Australian Capital Territory, Northern Territory and Tasmania.

Fifteen respondents were Program/Course Coordinators within their institution at the time of their involvement in implementation activities, eleven were ADPEs and five were Professional Experience Coordinators. This meant that out of this 67, 31 participants directly involved in portfolio activities also held leadership roles within the academic programs where this work was occurring.

Of the 67 respondents, 64 were academic and 83% of those respondents (n=50) recorded that they were employed as Lecturer (55%) or Senior Lecturer (28%) while undertaking the implementation activities. Other academic staff involved recorded their appointments as: *Supervisor/Head of Professional Practice*, *Dean*, *Academic Level C Director*, *Principal*, *Lecturer and Program Manager* as their substantive position. Ninety-two percent of all respondents were employed full-time within their institutions. Of those responding 'other', one noted that he or she was tenured full-time while another was appointed on contract.

Where respondents reported involvement in the implementation and use of portfolios, they had involvement across a range of development and implementation activities, with each respondent choosing, on average, three ways in which they were involved (Table 1).

Role	Count
Involved in the design of portfolios tasks	*33*
Involved in content development to support portfolios	*25*
Involved in teaching about portfolios	*36*
Involved in assessment/marking of portfolio tasks	*27*
Involved in moderation of portfolio tasks	*22*
Involved in the administration of portfolios	*24*
Not involved with implementing the portfolios	*15*
Total	**182***
*Some respondents have chosen more than one option	

Table 1: Ways respondents were involved in implementation and use of portfolios of evidence (Question 7: n=64)

When reporting on their familiarity with implementation activities within their faculty/school, 28% of respondents reported *I have a leading role in the implementation of portfolios of evidence* with another 26% reporting *I am actively engaged in implementing portfolios of evidence in my area*. Approximately two-thirds (65.7%) reported that portfolio implementation occurred in both theory and practice components of their ITE programs and involved teams of staff directly related to that program. Qualitative responses about the most influential person within the faculty/school in relation to implementation (Question 16) emphasised that those most close to implementation of portfolios were seen as being the most influential in the decision-making. Over 79% of participants' qualitative responses to Question 16 identified that academic staff with direct involvement and leadership in implementation were those with the most influential role, as the following participants described:

Program and Practicum Coordinators [are most influential] as they are in leadership roles and aware of best practice and key priority areas. (Participant 1)

> *…[the] Fourth Year and Practical Experience Coordinator…[who] interacts with the final year students to a higher degree than others…they coordinate the program within which the portfolio sits… (Participant 3)*

Other responses from participants highlighted the important link between the role that academic staff members performed in relation to components of ITE programs/courses and their involvement in implementing portfolios. Academic staff with responsibilities in the latter stages of ITE programs and with proximity to the transition into the workforce were highlighted as being individuals with leadership and influence within portfolio implementation. As Participant 5 highlighted:

> *I have a role as a 4th year coordinator who has developed and implemented a program…to deliver options and suggestions about the development of portfolios for course completion as well as an ongoing tool as part of their teaching practice… (Participant 5)*

Other participants identified specific teacher educators who were seen to hold knowledge of accreditation requirements relating to portfolios implementation, as Participant 8 explained:

> *The Head of Department [is] involved directly with the course and aware of the importance of students collecting evidence to meet the Graduate Teacher Standards. (Participant 8)*

Responses to Question 16 also highlighted that those participants who were actively influencing implementation activities were having influence beyond their immediate teams and roles. They were impacting colleagues and pre-service teachers by attempting to create a shared vision and responsibility for implementation at a faculty/school level while having direct influence over how portfolios were utilised, for example:

> *Portfolios need to become a way of life for pre-service teachers, embedded throughout the course and therefore Unit and Course Coordinators hold the power to make it happen. (Participant 17)*
>
> *If all academic unit coordinators see the value and importance then [pre-service teachers] obtain consistent messages about portfolios and [they] will progress… (Participant 18)*

Other respondents highlighted ways in which they had taken strategic action to support implementation in systematic ways across their programs/courses, for example:

> *The Master of Teaching course development working party initiated the integration of a digital portfolio…into all units. Simultaneously, the Bachelor of Education course review supported the integration of a digital portfolio into the courses in all units… (Participant 7)*

Some respondents emphasised the critical links between elements of ITE programs (for example, between professional experience placements and curriculum units) and between and within teams of teacher educators working to implement portfolios. More than half of the respondents highlighted the ways that colleagues were working collectively to implement portfolios and to pursue specific outcomes for pre-service teachers through implementation. Respondents emphasised key staff who were involved in implementation activities and how these activities were becoming more coordinated and focused, for example:

> *The Course Director and Director of Professional Experience play the crucial role as they can provide the overview and…holistic insight [to influence implementation]. (Participant 16)*

> *To date it has been individual academics who see the value of portfolios for pre-service teachers about to graduate and enter the job market. However that is changing…There is a much more coordinated approach emerging…that will cross teacher-education programs. (Participant 4)*
> *…prior to the national push for implementation…these were mainly [implemented within] professional experience units and their associated pedagogy units…more recently implementation has been led by the Deputy Dean and specialist staff. (Participant 24)*

Discussion

Despite factors that give rise to the conditions for widespread implementation of portfolios of evidence, particularly within professional experience (Ingvarson et al., 2014), data relating to grounded portfolio use proved elusive within this study. This reflects previously reported findings of portfolio implementation within Australia (Coffey & Ashford-Rowe, 2014).

The response rate to the current study was low and reported implementation activities across the sector indicate that this work is being undertaken by a small number of teacher educators within a narrow staff profile. Moreover, implementation activities appear to be limited to pockets within ITE and confined to program/course teams within faculties/schools, rather than occurring in systematic, coordinated and widespread ways.

Narrow Profile of Teacher Educators Involved in Implementation of Portfolios

Project data revealed that the majority of staff associated with the implementation of portfolios were predominantly full-time academic staff employed at Lecturer or Senior Lecturer level. Through their roles, these academic staff were in direct contact with pre-service teachers and were developing, delivering and assessing course material, often using portfolios to do so.

In addition to their lecturing, they tended to perform key roles in coordinating academic teams and programs (for example, performing roles as course/program coordinator/director). This meant that teacher educators at this level were shaping how pre-service teachers were exposed to course- and program-wide priorities, including engaging with portfolios of evidence. These teacher educators were therefore influential, due to their extent of involvement in a wide range of design, development, delivery, assessment and administration responsibilities associated with implementation of portfolios.

Many teacher educators associated with portfolio activities additionally reported alignment with end-of-program activities that occurred towards the conclusion of the program and at the point of pre-service teacher transition into the profession. These staff discussed their awareness of new accreditation requirements and emphasised the ways that the requirements aligned with their goals and agendas to implement and strategically embed portfolios into their programs. Their priorities were connected to their intentions to support pre-service teachers to make successful transitions into teaching (and to meet the expectations of the Graduate Teacher Standards) and related directly to the goal to lead and engage academic teams in the process.

Challenges and Risks Associated with Limited and Fragmented Implementation

The high-interest of those reporting active involvement in implementation activities contrasted with a relatively low overall response rate to the survey, despite purposive sampling employed to generate a high response rate. Teacher educators recruited to this study were targeted through purposive sampling because of their direct involvement in implementation activities, therefore, it might be expected that widespread established and confident use of portfolios would be evident despite existing inhibitors.

High interest in portfolios but uneven implementation, previously identified by (Hallam et al., 2008), presents risks to the sector in meeting the requirements of a data-driven accreditation and policy environment. Further, it presents challenges to the sector, where limited uptake may reflect missed opportunities to connect this activity to key drivers underpinning quality ITE (Boulton, 2014).

When implemented well, through alignment with pedagogical and curriculum drivers, portfolios support student learning outcomes (Bryant & Chittum, 2013; Hallam et al., 2008). When attached to pedagogical and curriculum drivers, portfolios support pre-service teachers to engage meaningfully in their learning and to understand who they seek to be as teachers while managing the transition into teaching (Boulton, 2014). The challenges associated with limited or fragmented implementation are therefore multi-faceted, as providers run the risk of not capitalising on these important outcomes and consequently failing to capture the data required to fulfil their responsibilities. This has the potential to stall attempts to establish agendas to systematically prepare their pre-service teachers for the profession and navigate their transitions into it.

Patchy implementation means that the responsibility rests on the contributions and presence of a relative few champions. In this study, teacher educators who were actively championing for portfolios within their institutions expressed their awareness and commitment to pedagogical, policy and accreditation drivers for implementation. They were deeply invested in implementation activities, from overarching decisions that brought about the environment and circumstances for change through to decisions about resources and resourcing and the daily activities of delivering content and marking assessment items. When this extent of activity is left to rest on the shoulders of relatively few, it restricts opportunities to generate momentum for this work, limiting the resources developed to support it and the outcomes that can be gained through it. This impacts on the consistency that can be generated for pre-service teachers within the setting. A lack of critical mass to respond to the challenges associated with implementation of portfolios also introduces the risk of this agenda completely failing, particularly if a change-agent leaves the institution and take their knowledge, skills and momentum with them (Hallam & Creagh, 2010).

Conclusion

The conditions have been created for the widespread adoption and implementation of portfolios of evidence within ITE. Portfolios are a productive platform for gathering and demonstrating evidence of the types of authentic practice (Ingvarson et al., 2014) sought within the new accreditation environment (AITSL, 2016). Moreover, when implemented well, portfolios have the potential to generate productive pedagogical arrangements to support development (Boulton, 2014). Despite these realities, limited data captured within this project

indicates that portfolio use continues to be patchy, being implemented in pockets rather than in systematic ways. This may reflect barriers that have been previously identified within tertiary learning settings (Hallam & Creagh, 2010), however a more comprehensive data set is required to better understand the current drivers and inhibitors. Further data collection rounds are planned to add to the current data set with the intention of better understanding factors, as well as to provide a more comprehensive snapshot of the extent of implementation activities.

Limitations

The relatively limited response to the survey means that the data presented here needs to be interpreted as indicative only and this restricts the extent to which the data can be used to describe and explain implementation of portfolios more generally within Australian ITE. Participants who responded to the survey reported that their involvement with and knowledge of implementation activities was considerable, however the size of this cohort was small. Consequently, subsequent data collection rounds may provide enhanced understandings and a more comprehensive snapshot. Plans are underway to adjust project recruitment information and data collection parameters to produce a more representative data set.

Acknowledgement

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