



Assessment Practices in Teacher Education that Support Sustainability in the Profession: Perspectives from Australia and Sri Lanka

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ABSTRACT

This article explores assessment practices in initial teacher education in Sri Lanka and Australia from the perspective of two initial teacher education academics. Both are committed to teaching approaches that equip their students to productively handle their professions and see assessment as a key element in achieving this goal; both are constrained by the contexts of their teaching, albeit differently. We describe these different contexts and the ideal for sustainability through assessment before exploring the different yet complementary responses from these two academics, linking these responses to their different contexts.

Keywords: sustainable assessment; teacher education; sustainable practices; student assessment; international education; tertiary education.

Introduction: Sustainability in education

In this article we explore the motivations and assessment choices of two teacher education academics from different locations, namely Australia and Sri Lanka. These academics are both concerned that their students graduate to be professionals who can meet their own future learning needs and those of their own future students. Here, we explore two seemingly different views of sustainability of professional practice in teaching. One of these views links sustainability with the capacity for life-long learning (Boud, 2000; Boud & Soler, 2016), and the other is expressed as a commitment to developing in pre-service teachers (PSTs) the ability to successfully respond to the many changes that will occur in their careers (Day and Gu, 2007; 2013). We suggest here that despite these differences there is a congruence of purpose in these two academics.

In education, sustainability can be read as having both an environmental meaning and a second range of meanings that have to do with the capacity to maintain long-term commitment to various forms of professional practice (Day & Gu, 2007). In this article we are concerned with the second range of meanings of sustainability: teachers' ability to 'sustain their commitment to make a difference to the learning lives of their students over a professional life span' (Day & Gu, 2013, p. 45), including a capacity to sustain a commitment to the profession despite disappointment and adversity; and 'teachers' ability to sustain ... intellectual and emotional energy and commitment' (Day & Gu, 2013, p. 63). Day and Gu (2007; 2013) argue explicitly that these forms of sustainability arise from a variety of forms of resilience on the part of the individual teacher, their leaders and in the development of appropriate organisational structures.

At a system level, sustainability constitutes a complex problem involving, amongst other considerations, concern with teacher retention and the maintenance of quality of practice. High teacher attrition levies a significant cost to the state, while poor teaching practice has a significant impact on student learning and on the community-building that is a key function of education. Teacher retention in itself is a complex problem. For example, a recent extensive study undertaken in England by the National Foundation for Education Research and the Nuffield Foundation (Worth, Lynch, Hillary, Rennie & Andrade, 2018) shows that a variety of factors are likely to influence a teacher's decision to leave a particular school, or to leave the workforce altogether. Amongst these, poor job satisfaction was a key reason for English teachers leaving their profession. Teachers were not primarily motivated to leave by the prospect of higher pay outside teaching; rather, they cited the unmanageable workload and long working hours associated with the need to meet the demands of policy changes and inspections, and poor flexibility in working conditions. In Australia and Sri Lanka, the two countries involved in this article, teacher retention rates and morale are significant problems in some schools and regions (Dundar, Millot, Riboud, Shojo, Goyal, & Raju, 2017; Mason & Poyatos Matas, 2015). Dorman and Dyson (2014) suggest that in any Australian class of trainee teachers, half will not be in teaching in five years' time, and Australia faces a significant problem in staffing and retaining teachers in rural schools. Sri Lanka faces significant difficulty in attracting and retaining teachers in rural schools, and teacher pay is 'chronically and acutely low' (Dundar et. al., 2017, p.94).

Teacher education that supports sustainable practice in the profession, then, has potential benefits for teachers, their students and for the state. Teacher education may play a role in building resilience in graduating teachers (Day & Gu, 2013; Mansfield, Beltman, Broadley & Weatherby-Fell, 2016), and there is some evidence that a productive approach might be to assist graduate teachers to develop practices of deep learning for understanding, because graduates who have developed these practices are able to maintain them when teaching as part of a continuous learning journey that provides personal and professional sustenance (Collin, Van der

Assessment Practices in Teacher Education that support sustainability in the profession: perspectives from Australia and Sri Lanka

Heijden & Lewis, 2012; Korhonen, Heikkinen, Kiviniemi, & Tynjälä, 2017). Although the recent English research confirms the common sense insight that teacher education cannot on its own achieve sustainability in the teaching workforce, the idea that PSTs should graduate able to sustain a commitment to their profession, with the intellectual and emotional energy that entails, is a key commitment for many teacher educators.

Boud (2000) explicitly links sustainable assessment with the idea of lifelong learning, a concept introduced by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1970. Initially, lifelong learning was seen as providing education for all those who had underachieved in their past, and learning opportunities were provided for these people through formal, informal and non-formal modes of education (Tight, 1998). However, current cultural, social and economic trends have challenged this traditional concept of lifelong learning (Allert, Richter & Nejd, 2004), with the recognition that in contemporary knowledge-based societies all individuals need to develop themselves continuously in order to prepare for ongoing change. The development of generative skills that enhance the productive character of learning is important to initiate change, transform and create, while the reproductive character of learning is deemed necessary for the individuals to improve employability and adaptability to face workplace challenges. These ideas bring into light the new interpretation of the concept of lifelong learning while reinforcing the idea that learning is a core condition of human life (Allert et al., 2004; Shephard, 2008).

This article explores assessment practices intended to generate sustainable practice in teaching from the perspectives of two teacher educators. Author 1 is a Sri Lankan academic who studied in Australia on an Australian Agency for International Development (AUSAID) scholarship. Her goal is to use assessments that are both formative and sustainable to encourage her students to take ownership of their learning and develop a generative lifelong learning capacity. Author 1's view of what it is possible to achieve through this approach has been significantly influenced by her experience in a postgraduate subject whose lecturer used highly structured approaches to assessment that encouraged Author 1 to take a high level of ownership of her own learning. Author 2 is an Australian academic who with Author 3, supervised Author 1's Master of Education (M.Ed.) thesis. She is motivated to graduate students who are equipped to survive with agency in the constantly changing environment that is Australian school education. In one part of this article we employ the device of two voices to provide insight into the histories and motivations of Authors 1 and 2 before discussing responses to their individual situations.

Contexts: Education in Sri Lanka and Australia

In Sri Lanka, education has long been regarded as a means for social mobility (Little, 1997; 2011). Formal qualifications are valued as a means to secure employment and social success to an extent that has been described as *Diploma Disease* (Little, 1997; Little & Evans, 2005). Good marks on formal summative examinations are regarded as a key indicator of merit, and a traditional exam focus is regarded as necessary to maintain standards (Cole, 2017; Munasinghe & Jayawardena, 1999). Thus, teachers in Sri Lankan schools work in an environment that places a high value on formal examination grades and sees formal exam-focused tuition as a pre-eminent approach to learning.

Although the Sri Lankan secondary education system has undergone changes over the past several decades it remains a strongly authoritarian system where the student is not supposed to criticise the teacher. This does not mean that students learn by rote - there is some evidence to suggest that Sri Lankan learners do not fit the stereotype that Asian students prefer rote learning - but rather that students are taught to follow their teachers' thinking processes (Marambe, Vermunt & Boshuizen, 2012). Some Sri Lankan teachers lack the skills to promote conceptual change in the learner, and 'are mostly interested about the content of subject matter, and much less in how students process the information, what strategies they use in comprehending subject matter, and how they may regulate their students' learning process and understanding' (Marambe et al., 2012 p.12). The National Institute of Education has identified issues in relation to assessments in the Sri Lankan education system, including teachers' inability to design quality assessment tools (NIE, 2007), while it has been argued that teacher education in Sri Lanka has been following stereotyped procedures with *ad hoc* measures adopted as modifications from time to time (SBTD, 2007).

In Australia, teachers

must have strong self-efficacy, sound classroom management skills, highly developed organisational skills, and an ability to interact with people from a diverse range of backgrounds and motivations. They constantly face new challenges from students and the wider school community, in addition to working in a profession that is constantly evolving and demanding more from its employees (Dorman & Dyson, 2014, p. 45).

School education in Australia at present is characterised by a strong drive towards regulation within an environment of constant change. Historically and across its various states, school education in Australia has seen significant variation in practice and a mixture of assessment approaches is adopted in most schools and at most year levels. Despite this mix of tasks, the high stakes attached to assessment in the final year of schooling mean that students, teachers and the community tend to treat all tasks as summative. In addition, two key summative examinations for students in the primary and middle years of schooling: the National Assessment Program – Literacy and Numeracy (NAPLAN) (NAPLAN, 2017) and the Program for International Student Assessment (PISA) (PISA, 2018) - have gained prominence in recent years. NAPLAN, in particular, has introduced or re-introduced mandatory external summative testing for school children aged from 8 years. Hence, teachers in Australian schools must prepare their students to handle a range of types of summative and formative, internal and external assessments in an environment that is placing increasing emphasis on summative external testing.

Australian Initial Teacher Education (ITE) courses have entered a time of high national regulation by the Australian Institute for Teaching and School Leadership (AITSL, 2015a), and higher education institutions that provide ITE are closely monitored through

Assessment Practices in Teacher Education that support sustainability in the profession: perspectives from Australia and Sri Lanka

annual reports to teacher registration bodies. The strong regulation associated with accreditation of the courses means that the assessment within them tends to be geared towards equipping the students to demonstrate that they have met all thirty-seven standards for graduate teachers (AITSL, 2015b). The final assessment of impact of learning is moderated across universities. In addition, all students wishing to become teachers in Australia must satisfy a non-academic disposition assessment of teaching suitability before entry to a teacher education degree and pass an externally set summative online test of literacy and numeracy before they may graduate.

Within these constraints, Australia's higher education courses for ITE advocate diversity and variety of assessments, while at the same time acknowledging the importance of preparing school students for summative assessments that are given high prominence in the press and are highly politically sensitive. For example, at the institution at which Authors 2 and 3 work, ITE students do not often sit examinations in their education subjects. Rather, assessment, which cannot be altered without consultation with and approval from the regulatory body, is by a mix of portfolios, essays and lesson plans and presentations.

By contrast, postgraduate in-service teacher education courses in Australia are less publicly scrutinised. Although they also are regulated by the Tertiary Education Quality and Standards Authority (TEQSA), lecturers and coordinators of subjects in these courses have a higher degree of flexibility in the types of assessment tasks they set than do their counterparts who teach and coordinate ITE subjects. Thus, for example, at the institution at which Authors 2 and 3 work, and at which Author 1 was a post-graduate student, academics teaching postgraduate in-service teacher education subjects can alter the details of assessment tasks from year to year, as long as they fit broadly within the schemas published in the handbook, which in turn are governed by university regulations.

Sustainability through assessment

At their simplest, assessments give students feedback on their learning. However, they also send powerful messages to students about what is valued and valuable: they send messages about what counts as powerful knowledge and can influence students' approaches to learning (Weurlander, Söderberg, Scheja, Hult & Wernerson, 2012). Thus, assessment can enable purposeful interactions between learners and teachers, and assessment plays a key role in developing the habits of lifelong learning. Formative assessment, which uses feedback to provide learning support for deeper understanding, benefits student and teacher alike because it guides teachers to the next teaching stage and equips students with strategies for learning improvement (Hattie & Timperley, 2007; Yorke, 2003). Sustainable assessments build upon formative assessments for present and future learning needs through the acquisition of lifelong learning skills (Boud, 2000).

Responses to sustainability through assessment

Sri Lanka: Author 1

Throughout my career I have been aware of the need for formative assessment practices and have thought of different ways of regulating them. When I applied for an AUSAID Scholarship with the Australian Government, my vision was based on change in assessment practices for my own students, and, through them, for students in schools. The fact that I had been a teacher trainee myself in the Colleges of Education system, and then became a teacher educator in the same system meant that I was seen as an inspiration for my students and made me aware of the power of my example.

I see sustainable assessments as 'assessments that meet the needs of the present without compromising the ability of the students to meet their own future learning needs' (Boud, 2000, p.151). While studying for my M.Ed. in Australia, I was enrolled in a subject that seemed to me to exemplify sustainable assessment practice. The learning process involved the students in a deep learning approach and required them to use higher order cognitive skills. The academic teaching in this subject set considerable preparation for each class. The assessments were arrayed from simple to complex: the first of the series employed self assessment skills and peer assessment strategies further moving onto analysis and synthesis of theoretical aspects into practical situations presented in a context. Most importantly, the classes built strongly on the preparation tasks, which were valued in terms of grades and marks during the course of learning. The learning focus had to be maintained, so that cohesive effort of the students could be seen in the analytical process carried out in the class.

On my return to Sri Lanka I made a start to implement the desired changes in my own subject assessment tasks. Instead of heavy assessment tasks at the end of the learning and teaching process, simple class learning tasks which are contributory to the completion of the final assessment were provided where the learners engage in peer learning and assessing and engage in deep learning. This process eased the learners of the burden of completing heavy assessment tasks, yet motivated them to engage in generative learning as well. Efforts were put in to provide formative feedback by addressing the common mistakes immediately after the assessment task and providing constructive criticism on their performance.

The integration of sustainable assessments in my institution was comparatively difficult for various reasons. The major concern in this regard was the preparation time this whole process required, another was the additional reading materials that were needed for the students; there was a lack of accessibility to online materials and discussion forums, which would have enabled a common platform where the teacher educators and the students could share knowledge, and future generations of teachers be exposed to the international context of education through a scaffolded experience.

Assessment Practices in Teacher Education that support sustainability in the profession: perspectives from Australia and Sri Lanka

The assessment protocol of National Colleges of Education (NCoEs) is a combination of continuous assessments and summative assessments. At present the high stakes involved in a final summative examination tends to overshadow the positive contributions of continuous formative assessment and there is imbalance in the process. Formative and summative assessments each have their own share of duties to perform (Biggs, 1998) and the effects of formative assessments need to be stronger in the NCoE system thus reducing the high stakes at the final summative assessments. The whole learning process requires a culmination of stronger 'feed up, feedback and feed-forward' (Hattie & Timperley, 2007, p.86) strategies for the learner to feel the presence of the connection between summative and formative assessments and their dynamic collaboration that could improve all assessment activities (Crisp, 2012). The formative assessments and the feedback process might be regulated according to a standard through a moderation process. The entire NCoE formative assessment scheme requires to undergo a moderation process to change the long established 'protocol of practice' (Hall, 1997) where the teacher educators establish and maintain the active engagement in a community of practice.

My insights are likely to have more relevance to teacher education than the broad higher education context, because teacher trainees are engaged in learning and assessing in their 'likely sphere of influence in the future' (Thomas & Day, 2014, p.208), whereas in the higher education sector learners move to diverse career paths. The competencies that teacher trainees develop in practising sustainable assessments afford them the ability to play a role of generative learner and assessor. This in turn provides the practising teacher with opportunities to engage in lifelong learning.

Australia: Author 2.

Both Author 1 and my interpretations of sustainability had similar elements: to step learners into greater ownership of their learning, and therefore, change the *status quo*.

My aim has been one of benefit for my students - future teachers - through the duality of building their professional skills while they contribute to the teaching profession. As such, as an element of their assessments pre-service teachers (PSTs) create tangible artefacts for the profession, that are published in ways accessible to their fellow professionals: they publish articles in the journals of their professional associations and, in conjunction with education providers, develop activities to be used by teachers at excursion sites (LTWS, 2015).

With a professional history of school teaching for over 20 years I have first-hand experience of the constant change that characterises the Australian education environment. I know the pressure on teachers who are expected to jump to implement each successive change. Therefore, I had the desire to unravel for and with my students the complexities of how practicing teachers engage with and manage change. My motivation is to equip future practitioners to become change agents. I am driven by the belief that it is through ownership and sharing of learning through which individuals are empowered that they ultimately sustain themselves and their profession within a learning paradigm. Ownership enables change (Caldwell & Hayward, 1998; Sharkey, 1997; Smyth, 1997). Simultaneously, ownership of learning when one continuously participates in professional development engages life-long learning (Collin, Van der Heijden & Lewis, 2012). Yet change is inherently difficult (Sharkey, 1997) particularly when numerous factors influence change uptake (Hall, 1997). These include the technical (the know-how); the political, where the negotiation occurs between power and authority; and cultural dynamics, where a community has an existing established protocol of practice (Hall, 1997). Thus, the field of change management is one where tact is recommended (Sharkey, 1997).

A quandary exists in the Australian PST teaching landscape because the majority of Australian PSTs are studying full-time while also working long hours to fund their study and to earn a living for themselves and, often, their families. Assessment tasks need to be seen to be meaningful and worthwhile in the present while supporting the development of sustainable professional practice for the future. The generation of publishable artefacts can make a useful entry on *curricula vitae* while ownership of learning and professional skills are built. It has elements of enterprise and entrepreneurship (Jones & Iredale, 2010). Once writing for publication is generated, and authorship is acknowledged, the existence of the artefact confers authority (Irby, 1993; Redmon, 1997). Ownership occurs in the act of creating when control is taken by the creator. A deep learning process is evoked that raises quality, motivation and value given that public scrutiny is inherent in published products.

The solution to this problem is grounded in assessment. I have embedded within my and other university's ITE subjects for science and mathematics teaching assessments that enact this philosophy. Assessments which epitomise sustainability bounded in learning through ownership.

Discussion

Assessment is inevitably constrained by the expectations of the students, by institutions and by the expectations of the community, and approaches to implementing sustainable assessment must reflect this: academics must do what they can, while at the same time choosing the approach that is likely to be powerful. Both Author 1 and Author 2 are trying to send a message through their choice of assessments about what they value and what they believe will be of value to their students, as students and also in their future professional lives as teachers. Both are expressing a view of sustainability, in the sense that they are both trying to graduate teachers with resilience, who 'sustain their commitment to make a difference to the learning lives of their students over a professional life span' (Day & Gu, 2013, p. 45). Arguably, Author 1 places greater emphasis on preparing teachers who will see value in using formative assessments to make a difference to the learning of their students, whereas Author 2's

Assessment Practices in Teacher Education that support sustainability in the profession: perspectives from Australia and Sri Lanka

emphasis is on preparing teachers to sustain a commitment over a professional life span. Yet, we suggest that their intentions are not dissimilar and that both are using assessments to encourage practices in their students that will contribute to resilience and hence sustainability of practice in the teachers they will become.

Their apparently different priorities are informed by their understanding of what might be achieved in their contexts. Author 1 works in an environment in which all assessment tends to be viewed as summative, and in which externally determined examination results are highly valued. Her teaching is face-to-face, and she sees her students regularly. Her first priority in implementing sustainable approaches to assessment has been to introduce small learning tasks, done in class, for which timely feedback can be provided. These tasks implicitly teach future teachers that assessment need not be summative and externally mandated. By contrast, Author 2 teaches in blended mode, and is not able to set regular small tasks to be done in class; she does not see the immediate accountability of which Author 1 writes. She approaches sustainability in assessment by providing online materials for her students that scaffold their performance on summative tasks, but she chooses the summative tasks to generate the capacity for ongoing professional engagement. The tasks meet the immediate need for assessments that are meaningful, while at the same time preparing students for a particular type of future professional life in which they are change agents.

Both academics are trying to prepare teachers who will be agents of change. For Author 1 this means that she will graduate teachers who understand the power of formative assessments and who will have the skills and dispositions that allow them to use formative assessment in their own classrooms. In the Sri Lankan context, where summative assessment is highly valued, the introduction of systematic formative assessment and a valuing of deep learning is a strong step. From Author 1's perspective, if she is able to graduate teachers who are lifelong learners, she will have made a tangible difference to their capacity to meet their own future learning needs, and thus she will have played a part in the sustainability of their career. She will also have made a positive difference to the school experience of generations of school students. Author 2 works in an environment in which formative assessment is expected, and the PSTs she teaches are taught about the value and place of formative assessments in their own classrooms. For her, the powerful transformation she seeks is that her students will graduate with a sense of professional agency. Her approach to sustainable assessment is to demonstrate to the students that they have an audience and a community that is broader than their own schools and classrooms: she does this at a time when Australian school teachers face strong challenges to their fitness to teach and their professionalism (Fitzgerald & Knipe, 2016).

What is faced in both contexts is the challenge of altering students' vision of themselves from that of being passive recipients of knowledge. In Author 1's case, she wants her students to be actively engaged in their own learning and able to create situations in which others can be so engaged; in Author 2's case she wants her students to create knowledge that they share with others. Both Author 1 and Author 2 have drawn upon their knowledge of their individual school systems and education contexts and have chosen approaches that represent strong cultural challenges to the *status quo*. Change is inherently difficult and more so when it is institutionally based (Burkitt, 2002). Even where a student is inclined towards such an alteration, the process can be arduous. For example, the subject that inspired Author 1 in Australia was not part of an ITE program; her fellow students were not undergraduates taking their first university degree; rather, they had previous experience of success and a wider repertoire to draw on than can be expected of undergraduates. Despite this, some of Author 1's fellow students found the assessment in this subject onerous. Even Author 1 found the subject hard work, but for her it was worthwhile work.

Conclusion: Opportunities for sustainable assessment practices in initial teacher education

Here, we have explored the contrast between a vision for sustainable assessment as a set of practices that permeate and guide teaching and what it has been possible to implement in initial teacher education in two contexts.

Although Author 1's ambitions have not yet been entirely realised, nevertheless her altered *modus operandi* is having impact. Assessment in teacher education in the NCOE in Sri Lanka, at present, is a mixture of formative and summative assessments. Despite this, the weight given to the final summative assessments appears overwhelming. In fact, if the overall scheme of assessments is analysed, continuous assessment contributes a major portion of the final evaluation. This assessment could be formative and encourage sustainable practices, and Author 1 is moving in that direction. Authors 2 and 3, who work within a differently constrained system as teacher educators, can recognise opportunities within the assessment framework of the Sri Lankan NCOE system. From their point of view, a significant constraint faced by Author 1 is an institutionalised expectation on the part of students, teachers within schools, prospective teachers, regulating authorities, and teacher educators, that rote learning should bring success. The constraints are different across contexts, but in Australia educators are equally constrained by the view that school teachers and initial teacher education academics are implementers rather than shapers of the curriculum (Author 3, 2014; Fitzgerald & Knipe, 2016). It is this view that Author 2 is challenging in her approach to assessment.

We suggest that change will require great commitment because if sustainable practices are to be embedded into teacher education programs both the structure of those programs and the institutionalised responses to assessment within those programs will need to be shifted. Students who are willing to be active participants in their learning become aware of a secret that can only be known by those who are active learners: that secret is the generative power of knowledge acquired through active learning, and the durability of the active approach. It is the transformative potential of such learning that makes teachers who know the secret passionate advocates of sustainability in their own practice and for their students.

Biographies

I.B.K.Malka N. Wickramasinghe is a teacher educator in a pre-service teacher education institute in Sri Lanka and currently she is a PhD candidate in University of Colombo, Sri Lanka. Malka has research interests in formative assessments in pre service teacher

Assessment Practices in Teacher Education that support sustainability in the profession: perspectives from Australia and Sri Lanka

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Dr Jacolyn Weller has more than 20 years school teaching experience in the fields: Science, Chemistry, Mathematics and ICT. She is an ECA researcher with six years academic history. In her fourth year of course coordinating, a dominant theme in her research is sustainability of teachers in the teaching profession.

<http://www.latrobe.edu.au/wildlife/get-involved/schools/activities-to-support-learning>

Dr Dorothy Smith has research interests in contemporary relationships between professionals and their communities, including the ways in which contemporary knowledge production practices simultaneously reinforce and undercut disciplinary expertise. She is interested in the ways in which these relationships play out in the curriculum of schools and tertiary institutions.

<https://www.latrobe.edu.au/research/research-impacts/researchers/videos/articulate-science>

<https://www.latrobe.edu.au/education/staff/profile?uname=D5Smith>

https://www.researchgate.net/profile/Dorothy_Smith5

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Assessment Practices in Teacher Education that support sustainability in the profession: perspectives from Australia and Sri Lanka

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