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Developing teacher educators in the era of the 'smart worker'

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Abstract

In a rapidly changing environment where graduate teachers are expected to have 21st century skills and knowledge, it is critical that teacher educators keep up with their own professional development. One way to do this is through engagement with professional development activities provided centrally by academic development units within universities where the teacher educators work. Traditionally, this has involved attending formal, stand-alone professional development sessions that reflect a learning agenda set by the central academic development unit in response to the university's strategic priorities. However, the pace of change in the 21st century, coupled with the rise of the 'smart worker' (Hart, 2015) who takes charge of their own professional learning, are challenging this model, requiring academic units to rethink their roles and activities. This paper explores the challenges, tensions and opportunities presented by this situation for one such academic unit at a northern Australia university. It argues for the need to develop a new model of academic development that nurtures opportunities for teacher educators and other academic staff to build on their professional networks and enables them to engage in professional learning in multiple ways that suit their needs at different times.

Introduction

Professional development for teacher educators is critical in a rapidly changing environment where graduate teachers are expected to have 21st century skills and knowledge. Constant changes and reforms in the profession necessitate ongoing professional development designed to enable teacher educators to maintain the currency of their pedagogical, technological and content knowledge. There is, however, little research on how teacher educators are prepared for and maintain currency in their work of teaching teachers (Grossman, 2013). This is a possible consequence of the dearth of attention that has been given to teacher educators' competencies in the past (Koster, Brekelmans, Korthagen & Wubbels, 2005; Smith, 2005). Internationally, while a few initiatives have been directly targeted at developing standards for teacher educators, information on how teacher educators will achieve them is still lacking

(Smith, 2005). It is also noticeable in the discourse surrounding the ongoing professional development of teacher educators, no mention is made of the key role played by university academic development units in providing professional development opportunities for all academic staff.

This paper explores the role of one such unit located within the Office of Learning and Teaching (OLT) at Charles Darwin University (CDU) in northern Australia. After describing the context of teacher education at CDU, the paper examines the changing nature of the work of the teacher educator and the implications this has for their professional development. It then critiques the extent to which the traditional model of academic development is responsive to these needs and argues for the development of a 21st century model centred upon flexibility, collaboration and communities of practice.

Teacher Education at CDU

CDU is a dual sector tertiary education provider with its main campus in tropical Darwin, Northern Territory, Australia. Over the last decade or so, CDU has diversified its delivery mode options so most higher education courses are now offered both internally on campus and externally online. In 2014 it offered 995 units externally (90% of total Higher Education offerings) through its Blackboard Learn learning management system (LMS) (Charles Darwin University, 2015c). The percentage of students studying externally has correspondingly grown from 35% in 2005 to 62% in 2014 on a course enrolment basis (Charles Darwin University, 2015b). Today CDU is "one of only a few Australian universities at which more than 50% of the student population is enrolled in some form of distance education" (Charles Darwin University, 2012a, p. 5). Online delivery at CDU has attracted large numbers of mature age students and students from non-traditional backgrounds from across Australia which are reflected in the higher education student profile. In the 2014 academic year, 73% of students were aged 25 years or over, 66% were female and 5.5% were of Aboriginal or Torres Strait Islander origin (Charles Darwin University, 2015a, p.11).

In the School of Education, nearly all Bachelor of Education courses that lead to teacher registration are now delivered both internally and externally, which is uncommon within the Australian higher education system. This has contributed to a doubling of enrolments in these courses between 2007 and 2014, with 87% of students in 2014 enrolled externally (Charles Darwin University, 2015b).

The increase in external delivery at CDU has been achieved primarily through the development of online learning systems that have created a paradigm shift in how, where and when students can engage in learning. For a unit of study, both internal and external cohorts of students normally have access to the same electronic teaching resources in the LMS, which are available day and night for the duration of the teaching period. One perception of this blended delivery might be the internal students have gained access to resources designed for the external student in virtual teaching spaces. However, blended delivery has blurred the temporal and spatial patterning of traditional learning for the internal student. Now the teacher, peers and resources are available around the clock and the learning place is no longer confined to a university building for internal or external students.

A major project commenced at CDU in 2011 to upgrade teaching spaces for blended delivery. Standard equipment was installed to provide the requisite technology for the synchronous teaching of internal and external students. One of the specific implementations was a number of rooms which were designed to support the use of web-conferencing software through a virtual online classroom in the LMS. This technology allows for increasing engagement and collaboration between internal and external students and teachers. However, this rapid increase

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in the use of learning technologies has a massive disruptive impact on teacher educators, with the use of technology often raising "fundamental questions about content and pedagogy that can overwhelm even experienced instructors" (Mishra & Koehler, 2006, p. 1030). Teacher educators need the technical expertise to utilise the equipment in the new teaching spaces as well as the pedagogical skills and knowledge to teach face to face, online, and synchronously to internal and external students. This presents challenges in ensuring their emerging professional development needs are met so they are able to cope with the technological changes and harness the potential of these developments in their teaching practice.

The changing professional development needs of teacher educators

Professional development of teacher educators is seen as being motivated by the constant changes and reforms in the profession (Ben-Peretz, et al, 2013). In Australia, the Australian Professional Standards for Teachers set by the Australian Institute for Teaching and School Leadership (AITSL) do not apply explicitly to teacher educators. However, the flow on is such that teacher educators need to have expertise in all aspects of teaching as referred to by the standards in order to educate teachers to achieve these standards. This includes engagement in professional learning under Standard 7 (Australian Institute for Teaching and School Leadership, 2014).

A useful way of thinking about the professional development needs of teacher educators is by using the Technological Pedagogical and Content Knowledge (TPACK) framework (Mishra and Koehler, 2006). This framework suggests there are three knowledge domains required for effective teaching - technological, pedagogical and content - and 21st century teaching takes place at the intersection between these domains where they are integrated and connected. Within universities, it is generally seen as the responsibility of academic staff and the schools they work in to address professional learning around content specific knowledge. However, central academic development units are often well placed to deliver professional development activities related to the other domains of technological and pedagogical knowledge, and at the intersection between the three domains.

In the technological domain, professional development needs are driven in part by the profession's recognition that digital technologies and digital literacies are essential for young people to participate fully in a knowledge based society (Ministerial Council on Education, Training and Youth Affairs, 2008) and it is therefore critical for educators teaching with technology to increase their digital media literacy (Johnson, et al 2015). They are also driven by each university's teaching context, and the extent to which it delivers its courses externally through digital technologies. For teacher educators at CDU, this means they must be able to utilise digital technologies effectively in their own teaching, whether this be in a face-to-face or online environment. This can be challenging, because many are new to teaching with digital technologies in an online environment and are on a journey to develop their expertise in this continually developing medium. Beyond this, they must also maintain currency in the technological innovations and possibilities afforded by digital technologies in the classrooms their students will be entering and teaching in.

In the pedagogical domain, teacher educators generally have significant knowledge and expertise in comparison to their academic counterparts in other disciplines. However, their expertise does not necessarily extend to teaching in an online environment, particularly where the content involves teaching practical skills in disciplinary areas such as science and the performing arts. For example, teacher educators in the area of chemistry may have to grapple with teaching emergent teachers online how to teach practical laboratory skills as well as assess the practical skills of those emergent teachers from a distance. It is in this murky area

of the TPACK framework where the pedagogical, technological and content domains overlap, that university academic development units stand to assist teacher educators the most, by providing them with professional development and support to reimagine teaching in a new and changing environment.

Challenges for academic development units in meeting the professional development needs of teacher educators

Academic development involves supporting academic staff in developing and enhancing teaching and learning practices (Fraser, 2001). While the nature of the role of academic developers varies from one institution to another, Gibbs (2013) suggests it commonly involves some combination of the following categories of activity:

- developing individuals
- developing groups of teachers/teams
- developing learning environments
- developing the institution
- influencing the external environment
- identifying emergent change and spreading best practice
- developing students
- developing quality assurance systems
- undertaking educational evaluation
- undertaking educational research or educational development research and supporting the scholarship of teaching across the institution.

At CDU, academic development is based on a traditional model whereby a small team of academic developers located within a centralised office of learning and teaching undertake activities designed to enhance the quality of learning and teaching across the university. This is done in accordance with the university's strategic priorities which are identified in the university's Strategic Plan (Charles Darwin University, n.d.) and Learning and Teaching Plan (Charles Darwin University, 2012b). These strategic level documents set the direction for the work of the central academic unit and situate the context for learning and teaching support. The work of the academic developers is divided into four broad functions that encompass most of the wide scope of activities described by Gibbs:

1. Supporting curriculum design and development activities, and the attendant accreditation documentation at school and faculty level

2. Supporting the design of learning and teaching approaches, and activities for individual units

3. Building the capacity of academics to engage in the scholarship of teaching and learning, including researching their teaching activities, implementing learning and teaching innovations, and applying for teaching awards and grants

4. Facilitating professional learning opportunities that build academics' knowledge and skills and enhance their capacity to carry out their teaching more efficiently and effectively, including delivering learning and teaching seminars and workshops, and coordinating or delivering both credit and not for credit courses, sometimes in partnership with the School of Education

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As CDU is increasingly a predominantly online university, the discussion of technological integration pervades all four functions outlined above. For instance, at course design level, the academic development team assist in the conceptualisation of pedagogical approaches relevant to the disciplinary area and how technology will be used to mediate them. Through unit development and implementation, strategies for practical application of learning technologies are applied in the context of the teaching environment and content. Thus the function of professional development is critical and, when effective, can assist academics in making what Mishra and Koehler (2006) describe as intelligent pedagogical use of learning technologies throughout the course cycle (planning, development, delivery and review).

This whole-of-university agenda is moderated to an extent by the allocation of academic developers to work with specific schools within the higher education faculties, and consult and negotiate with them regarding their priorities. Through this process, the academic development team strives to address the specific professional development needs of teacher educators. However, the breadth of the work of the academic developers at CDU means they are often spread very thinly and find it challenging to do this successfully, which creates a degree of tension commonly experienced by staff engaged in these types of roles (Little & Green, 2012; Napoli, et al, 2010). This tension is heightened if the needs and priorities of the teacher educators are not congruent with those of the university's professional development agenda. Despite these challenges and tensions, the academic developers strive to build strong professional relationships with teacher educators and other academics as part of this work. However, such relationships give rise to a sense of obligation to cater for individual learning needs that may not align with the priorities of the university, faculty or school, and may not be feasible given the resourcing available. This gives rise to a further tension because the sheer diversity of staff learning needs across the areas of technological, pedagogical and content knowledge impedes efforts of catering for the professional learning needs of all academic staff.

Challenges for academic development in the era of the 'smart worker'

This situation is further complicated by the emergence of what Hart (2015) refers to as the 'smart worker' who takes care of their own professional learning on a continual basis in the workplace through engagement in informal learning. Hart (2015) argues many 21st century employees want to engage in professional learning but "don't have the inclination nor the time to learn in what we might call traditional ways – which take them out of the workflow – in a separate room for training or at a separate time to work on e-learning courses" (p. 2). These staff members are therefore more likely to focus on achieving solutions to just in time problems by either looking for resources, particularly those easy to access and use, or by calling on people in their social or professional networks. In addition, while these employees may be willing to engage in formal training, this needs to be flexible, for example online programs that have flexibility around attendance and time frames. Even more attractive are opportunities for learning in a social context where ideas can be shared and discussed with others.

The concept of the smart worker taking charge of their own professional learning may appear to challenge the traditional role of central academic units in setting the professional development agenda. However, to some extent it also reflects the way in which engaged teaching academics have always pursued further professional learning, perhaps in response to the perceived failure of central academic units in meeting their expectations and needs. Indeed, there is some evidence in the field of teacher education that traditional professional development models and practices are ineffective (Darling-Hammond, et al, 2009). Such assertions need to be taken seriously by central academic units. The characteristics and preferences of the

smart worker also mirror those of CDU's growing number of online students, who similarly seek learning programs that can be flexibly incorporated into their busy existing lives and include opportunities for sharing and discussing their ideas with others. The challenge facing academic developers at universities such as CDU is thus to realign their own approaches and practices with those they are helping and encouraging teaching academics to embrace.

A professional development model for the 21st century

The characteristics of the smart worker provide central academic units with challenges as well as opportunities to rethink what professional development programs might look like in the a21st century. Indeed the concept of the smart worker could be considered not just a reflection of how many academic staff want to learn, but as an ideal of the type of engaged and proactive learner that central offices want to nurture and support. To do this requires a step away from traditional models of professional development in which academic developers deliver inflexible, stand-alone professional development activities to groups of often passive teaching academics. Instead, as much as is practicable, professional development activities need to be offered as a flexible and easily accessible bank of high quality resources that academic staff can dip into as the need arises and in time frames that suit them. It also involves facilitating the development of networks and communities of practice around learning and teaching that enable teaching academics to come together to share and discuss their ideas, practices and innovations. This is consistent with research that shows the most effective professional learning for teachers is situated in practice, takes place within a community of learners, and contains opportunities for activity and reflection on practice (Meiers & Ingvarson, 2005).

Within this emergent model, teaching academics are conceptualised as active participants in the professional development process and academic developers act more often as 'guides by the side' rather than 'sages on the stage'. To legitimate and empower teaching academics to take control of their own professional learning, the model needs to be depicted as a whole-of-career framework that enables staff to map their own professional learning pathway from threshold to advanced and expert levels of learning and teaching skills, knowledge and practice. This provides academic developers with the opportunity to review the scope and coherence of their professional development programs and identify ways they might be enhanced to support the complex professional learning required by 21st century academics. While the complex professional learning needs of academics cannot be, and never have been, fulfilled solely by the programs offered by central academic support units, the model makes this explicit and in doing so dissipates some of the pressure on academic developers to be all things to all people in relation to the provision of professional development. It also provides the opportunity to improve how academics are recognised and rewarded as they achieve different levels of skills, knowledge and practice in learning and teaching, and to build in activities that support the emergence of learning and teaching leaders within each school.

For all teaching academics, this new model of professional development offers greater scope to take control of their professional learning and ensure their individual needs are met. Additionally, for teacher educators it provides the opportunity to gain greater recognition for their pedagogical skills and knowledge and correspondingly play a more active and collaborative role in contributing to the professional development program.

At CDU, the academic development team is currently engaged in reconceptualising its professional development program to accord with this new model. Work has begun on increasing the range of professional development courses and materials available online, and reconceptualising the delivery of workshops to include a greater focus on the development of learning and teaching communities of practice. In the past year the team has also co-

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facilitated a learning and teaching seminar series in conjunction with academic staff including teacher educators in the School of Education. Illustrating the shift in thinking towards flexible and collaborative professional development delivery, the face-to-face seminars were streamed online using the same technologies and facilities used to stream face-to-face classes to online students. They featured academics from across the university showcasing their learning and teaching innovations, with staff from both the School of Education and the academic development team performing various support and coordination roles. However, these activities only represent a beginning, and much more work remains to be done.

Conclusion

This paper has explored the imperative for a change in the role of academic development units in relation to professional development generally and the development of teacher educators in particular. Using the experiences of the academic development team at CDU to illustrate the need for change, it argues traditional models of professional development no longer meet the needs of teaching academics, who are smart workers who want to take charge of their own professional learning. The paper argues instead for the development of a 21st century model centred upon flexibility, collaboration and communities of practice. Such a model provides support and guidance to teaching academics as they negotiate their own pathways along the continuum from threshold to expert teaching practitioners at the complex intersection of technological, pedagogical and content knowledge. The challenge for academic development units, including the team at CDU, is to turn this nascent model into a reality.

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