Where have all the students gone?

Developing capacity and competence in online teaching and learning

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Abstract

With a move to a 'digital first' paradigm in pre-service teacher education, university academics are being required to reinvent the way they approach pedagogy as they move from on-campus to online delivery. In this chapter, the author explores how his notions of capacity building have developed and changed within his role as online technology pedagogical support mentor. As technology has changed the learning and teaching landscape, so too have the needs of the academic staff within this regional university's education faculty. These changes in turn have required a shift in the leadership provided by the author as the ways of developing capacity have become more complex, moving away from lower order problems such as 'how do I?' to higher order issues such as 'how might I best?'. Sustainability of the role has seen it change from that which merely provides support to one which endeavours to build group capacity through sharing, allowing those who take part to better cope with change as the learning environment evolve to keep pace with technology. Leadership is an essential part of the change process and transformation leadership is explored as a style potentially well suited in this context. The author then puts forward strategies to further build the skills, knowledge and practices of academics as they teach in online environments within the constraints of university policy and ways of working.

Background

Increasing numbers of university courses are being offered in WEB based modes to meet the learning needs of 21st Century students (Hart, 2012). The growth in online delivery can be illustrated through trends within the author's own Faculty of Education, where online student numbers have risen from approximately 10% of total enrolments in 2007 to over 70% in 2012. Online education, in this context of this regional Queensland university, refers to the digitalisation of course materials and the facilitation of learning activities through the current Learning Management System (LMS) Moodle 2.0. The ultimate goal of such online activity is to provide students remote to the university's campuses with equitable access to learning and teaching resources and experiences. Many students undertake their learning in a blended mode, utilising both the face-to-face experience supported by access and participation in the virtual classroom provided by the course StudyDesk.

With this context as the backdrop, the author's university has embraced a 'digital first' mantra, whereby excellence in online delivery of services is not only encouraged, but has become an expectation. Should enrolment trends such as these continue over the coming decade, it is not difficult to imagine a situation where online delivery of courses is the only mode of offer provided to students. Other examples of the move towards digital teaching environments can be seen in the university's claims of having the first Virtual Open Day, Virtual Program Inductions and Australia's first wholly online teacher preparation program. Review of enrolment data across all Australian universities show that the author's university is in many ways a 'pathfinder' in this field, but others

are moving with the market trend, recognising that modern learners' needs are quite different to those in the past, and are following close behind (Department of Industry, 2011).

The enrolment trends towards online options for university study have been largely student-demand driven. Maurino (2007) reports that more learner/learner and learner/ teacher interactions take place in online classrooms than traditional lecture based classrooms. This provides students with the potential for more nurturing social interactions and allows for socially constructed learning to take place (Wilson, 2004). Other authors report that students opt to participate in online courses as they allow them to control how, what and when they will learn (Beard, 2004; Hart, 2012). As students struggle to juggle their work, family, social and study lives, the flexibility offered by asynchronous courses allows them to manage their own personal time resources to meet their own specific needs (Harasim, 1996). Coupled with these reasons, the explosion of hand-held digital devices and growth of mobile technology and Internet access provides modern students with the ability to learn wherever they are and whenever they have a mobile phone signal.

This shift away from traditional face-to-face teaching has provided significant challenges for university academics. Many are still working with on-campus groups, but now have the added task of replicating the activities undertaken in these classes for their online cohort. Whilst holding high esteem in their fields of knowledge and being experts in the art of teaching these fields in traditional face-to-face environments, the challenges of mastering not only the technology of online teaching, but also the pedagogy of this new environment, has proven problematic for many (Wilson, 2004). Further to this, research (Jaffee, 1998) from the early days of online delivery of courses indicates that some academics are overtly hostile to the notion of online teaching and see it as a poor second-best option for course delivery, a notion that is still strongly voiced today by many of the authors colleagues. Many would argue that it is simply not possible to provide online students with the same rich learning experiences as those provided to on-campus students in a face-to-face environment, particularly within the domain of education where interpersonal communication is valued as an essential skill (Giannoni & Tesone, 2003).

This chapter explores the author's workplace response to the growing needs of both students and university academics in the area of online teaching and learning practice within his context as an online lecturer and online support mentor. The role of online pedagogical support person has enabled the author to work with a range of academic and administrative staff to build skills, competence and confidence in not only the use of online teaching and learning tools, but also in the pedagogy behind the use of such tools. A key element of the role of online pedagogical is to enable members of the faculty to become increasingly self-sufficient in their use of such technology and application of pedagogical principles. This chapter explores the practices currently used in that support role and those that might be used in the future to meet both the sustainability of the role and the ongoing capacity development requirements of members of the faculty as enrolment trends continue to move towards online learning and the technologies used to undertake this task continue to develop and change.

Literature review

As previously described in the background section of this chapter, moves away from traditional lecture based university teaching to an online paradigm of delivery have been rapid. The discontinuity caused by this rapid change has placed academics in a precarious and uncomfortable position as they reflect on the past and grapple with how it has or has not prepared them for an

uncertain pedagogical future (Limerick, Cunnington, & Crowther, 2002). The following literature review will focus on key areas that the author believes may illuminate the way forward in relation to this issue. The key areas reviewed are capacity building as a means of negotiating change, the role of leaders and leadership in this process and the use of network groups as tool to enable the process to progress.

Capacity Building

A review of the literature to follow illustrates that the concept of capacity building is varied and contentious, having different foci when viewed through the lenses of different fields of research. The view one takes regarding what capacity building depends on the domain in which this capacity building is to occur and the desired results of capacity building activities. If these two factors are incongruous, confusion may lie at the heart of the purpose and proposed outcomes of such endeavours. As there appears to be dearth of literature around the notion of capacity building in the field of education, the author will glean salient features from other fields in an attempt to create his own conceptual framework of capacity building for the purposes of this particular context and situation.

Literature in the area of humanitarian aid and community development positions capacity building as central to change management at a whole-of-system level. Black (2003) argues that this notion goes beyond the simple transfer of knowledge or skills but to a fundamental "understanding of, and approach to, change" (p. 117). This perspective appears to align well in discussions about the development of capacity in the use of information and communication technologies in learning and teaching where change is rapid and sustained. The role of the capacity builder is not to simply pass on skills about how to undertake certain discrete tasks, but to develop in their learners the ability to identify change and adapt to and with such change. This, Black muses, is reliant on systemic conditions creating an enabling environment.

Within the public management and policy domains, capacity building is framed more towards self-sufficiency. Honadle (1981) cites Gamm and Fischer (1980) who describe the role of capacity building as providing communities with the skills to establish internal structures which allow them to continue development with minimal outside intervention. Lindley (1975, as cited in Honadle, 1981), on the other hand, identifies capacity building as groups being able to operate on tasks at hand without external direction. Indeed, within the context described for this chapter, a key goal is for academic staff to gain sufficient competence and confidence to develop, maintain and improve online teaching capacities with limited additional external support.

Throughout the health policy and planning domain, capacity building is concerned with program implementation improving the skills, knowledge and actions of others. Potter and Brough (2004) contend that systems, policy and structures must be in place for workers to develop the skills they require to perform their roles. However, it could be argued in light of the context described in this chapter, that without the expert knowledge and pedagogical skills or practitioners, in this case the academics teaching online, the 'digital first' paradigm imposed by the university's policies and structures would not be able to exist. While the hierarchy of the university may have a vision for the future and implement a raft of systems, policy and structures to support that vision, ultimately the skills and knowledge of the workforce, using the tools provided to them, will determine realisation or downfall of that vision.

Leaders and Leadership

Another aspect which impacts significantly on the attitudes of academic staff, as they approach the challenge of a changing teaching and learning paradigm, is that of leadership, power base and the perceptions of those required to implement major changes 'at the chalk face'. Hersey, Blanchard, and Natemeyer (1979) explore such notions and their link to the motivation of followers to implement required changes. The type of leadership style utilised to bring about the change, they argue, is directly related to the needs or those required to implement it, in this case, the university academics teaching in online environments. The notion of who the leader is in this context is somewhat convoluted. 'Digital first' is being passed down from upper levels of the university and the responsibility for seeing that it is implemented becomes the responsibility of the heads of faculty, the Deans. The Deans then must manage this change process and provide strategies that support their teaching staff through it. In the context of this chapter, one major strategy utilised was the creation of the support position which the author holds. How the academic staff reconciles the way in which this position was filled has significant impact on their willingness to accept the leadership role of the incumbent and take up the opportunity for support, or deny it to themselves due to perceptions they hold about the incumbent and their right to hold such a position.

Beyond this rudimentary view of leadership and its part in the capacity building process however, a broader view of organisational leadership and the way the change process is managed within the university setting deserves some investigation. Literature in the area of transformational leadership provides some potential strategic direction for the leadership of change processes similar to those identified in this chapter. Indeed, the requirement for the development of skills in the technical and pedagogical aspects of technologically mediated learning environments in this context, is most clearly caused by a major change process within the university. Such a major change requires leadership and shared vision for it to be successful (Kotter, 1995). While it is unclear which came first, increased online enrolments or the 'digital first' mantra, the growth in this area is undeniable. For the process to remain sustainable though, Avio and Bass (1988) believe that those required to implement the changes must be able to "think on their own to develop new ventures that will further the group's goals" (p. 39). It is therefore clear that aspects of transformational leadership will in fact enhance the capacity building process as those undertaking the transformational process become more interested in developing themselves to realise higher standards in their work.

While transformative leadership may have a part to play in providing momentum for the promulgation of this online pedagogy movement, the nature of a university's hierarchical structure does not easily allow for this transformative process to take place (Limerick et al., 2002). Barriers to decentralisation, autonomy and emancipation at all levels of the organisation are evident in the array of policy and accountability arrangements linked to all aspects of a university's operations, not least in the area of teaching and learning. Such arrangements encourage pseudo-devolution whereby individuals have strict guidelines to follow in any decision making process and performance review measures are in place to ensure actions are aligned with process. These factors severely hamper opportunities for entrepreneurial activity, creativity and open sharing among and between workgroups.

While limiting processes and procedures may exist within the organisation, Fullan (2011) puts forward a model leadership that can galvanise motivation in rapidly changing environments. Elements within this framework link closely with ideas of capacity building and transformational

leadership. Fullan describes a seven step flow that allows for transformational motivation in the implementation of a change process which is describes as follows:

1. To get anywhere, you have to *do* something. Give people the experience and build on it.
2. In doing something, you need to focus on developing *skills.*
3. Acquisition of skills increases *clarity.*
4. New experiences, skills, and clarity stirs *intrinsic motivation*, if the idea is a good one.
5. Intrinsically meaningful experiences equals *ownership.*
6. Doing this together with others generates *shared ownership.*
7. *Persist,* no matter what, being flexible as you learn more. (p. 82)

Notions described in Fullan's description above links well to some of the key concepts behind capacity building as described earlier in this chapter. Clearly, the role of the author in supporting the development of online teaching and learning skills can assist in the development of the first five points listed above, but another key strategy needs to be employed to move on from this and ensure the sustainability of the process.

Networks

This type of open sharing, as described in point six by Fullan (2011) is exactly what literature suggests would be an appropriate means by which to meet the capacity building needs of academic staff in the use of online resources and improvement of the associated pedagogy. The individuals who form the academic body have a vast range of skills and knowledge in different pedagogical approaches, even if they do only one particular thing very well. The sum of the parts is indeed greater than the whole in terms of combined capacity in this area.   The issue is that, largely, the expertise held within particular work groups, remains within that group and rarely is seen outside it. In the author's experience, workgroups such as course teams, made up of a number of faculty members, tend to hoard their expertise within their courses and not readily share it with those outside of these immediate networks.

Loosley coupled networks, as described by Limerick et al. (2002) would provide an opportunity to break out of these closed teams and propagate the sharing of ideas on a larger scale. Loosely coupled networks allow for individuals from different work units who are independent of one another, to be responsive to and collaborate with each other on issues of significance to all involved. Individuals from beyond specific teaching teams, programs, schools or even faculties, could come together to collaboratively share skills and knowledge with one another in the development of online learning and teaching skills. These individuals would then return to their regular groups and share what has been discovered. Limerick et al. (2002) go on to identify four key issues that foster collaborative cultures such as that described above. These are:

- Overlapping responsibility
- Rewards for group performance
- Work areas where others can see what colleagues their colleagues are doing
- Procedures where employees doing different jobs have the opportunity to collaborate (adapted from p. 200)

From the literature then, the following key principles have been noted as part of a successful change process which involved the development of increased capacity for those participating in that process.

- Capacity building is about recognising and dealing with change.
- Capacity building is about helping individuals to become self-sufficient.
- The success of a change process within an organisation is reliant on the tools and skills of those who must implement the change.
- For capacity building to be successful, those whose capacities are to be built must regard those providing support in the capacity building process as legitimate, trustworthy and worth following.
- Transformational leadership must accompany the change process and permeate capacity building efforts.
- There must be a strategic approach to the development of support structures, on-going staff development and resource sharing, and;
- The development of interconnected networks may provide a useful model around which to structure such activities.

Discussion

At the time of writing, the author has been working within the support role for approximately two years. During this time, a number of strategies have been employed to aid in the development of the requisite skills and competencies to varying degrees of success. During this period of time, empirical data gained through observation, discussion and interactions with academics has led to the identification of phases of capacity building. Review of the literature on capacity building, leaders and leadership and networks has also provided insight into potential models that may enhance the current structures used and lead to increased capacity of academic staff in the realm of online teaching and learning and to cope with the continued change that is likely to result from ongoing utilisation of information and communication technologies in learning and teaching at universities.

Phases of building capacity in online teaching and learning

On reflection, the process of developing capacity through the role of online pedagogical support mentor has moved through a variety of phases. These phases align with increasing, or perhaps more correctly, changing levels of skills and knowledge for both the author and the academics being supported. These phases are not necessarily linear and can be impacted upon by changes in the LMS, students' changing needs and course variations, such as changes to assessment tasks.

In some respects, these phases can be seen to align with Bloom's cognitive taxonomy (Whitton, Barker, Nosworthy, Sinclair, & Nanlohy, 2010) as thought processes move from lower order thinking tasks such as recalling information to higher order tasks such as creating new ways of representing information. Initial stages revolve around the individual having to remember, understand and apply what they have learnt about a particular aspect of online pedagogy and the technology used. Later stages, however, necessitate that the individual analyse, evaluate and create, using skills, knowledge and attitudes developed in earlier stages to undertake new and different tasks. As capacity is built, so too is the level of complexity of the individual's skills and application of these skills.

Each phase is represented by a question starter. In the author's experience, these question starters are often used in the initial communications conducted when contacted by an academic for support in this area.

- 'How do I record my lectures?'
- 'How can I get my students to engage more with the forums?'
- 'How might I make my StudyDesk more user-friendly and logical for the students?'

One other phase, represented by a statement rather than a question, is beginning to emerge as skills, confidence and capacities grow. That is 'I want to share what I have done with others!'

Each phase will be explored further in the following pages of this chapter.

Phase 1: How do I?

For many academic staff not familiar with online teaching and learning, the first phase of their development of capacity in the area is focused on the practicalities of use. With a range of technological resources provided, just getting to know how to operate the various tools available and understand the processes involved in making them available to their students, is the key area of focus. If we return to Bloom's cognitive taxonomy, we see that in this phase the academics are trying to remember steps, understand what it is they are making or doing, and then how this can then be applied to their online classrooms.

During this phase, the role of the author is to provide basic knowledge transfer in a typically one-way dialogue. This often involves sitting with colleagues, providing step-by-step instructions as they attempt to use one online teaching and learning tool or other. This is often repeated multiple times as the individuals gain confidence and try to remember what seems to them (and often is) quite convoluted routines. Other resources are utilised as well in this process. Step-by-step diagrammatic instructions are sometimes produced and shared among staff and short screen-capture videos can also be accessed to demonstrate tasks often requested by the academics.

Peer teaching is also employed to allow individuals to consolidate their newfound knowledge and skills. The author tracks assistance provided to individuals and if a similar request for assistance is made by another academic staff member with whom the previous academic supported was familiar, the latter is invited to demonstrate for the former. The author provides additional assistance or information during these peer teaching episodes and provides feedback to both participants during the peer tutoring process, reiterating important points or providing guidance should the it be required by either participant.

Phase 2: How can I?

The second phase of the capacity building process emerges as academics become more familiar with the technology and want to focus on effective pedagogy using this technology. Here, individuals are comfortable with their use of various online teaching tools, but perhaps are not happy with the results the use of these technologies has achieved or that, on reflection, they feel that the technology could be used in a better way. When working within this phase, academic staff are using analysis and synthesis to explore how a learning activity has worked and then trying to improve the learning and teaching process. Another aspect of this second phase is that the academics know what pedagogy they want to use, but are not sure what aspects of the online learning tools available would allow them to use that pedagogical approach or teaching and learning strategy.

At this phase, the dialogue between the author and those with whom he is working is much more two-way in nature. The discussion held will often require the author to ask questions to help the individual clarify the intentions of the activity, the objectives to be met by the task, the outputs and outcomes to be produced by the students and so on. Such discussions require the academic to look beyond the technology being used and to focus wholly on the teaching and learning that is to take place.

This phase also utilises a form of peer support. In this case, the author will provide the person they are assisting with contacts who are undertaking similar pedagogical approaches in other courses. The learner then speaks with these individuals and compares the ways in which they are conducting tasks, then synthesising the options available into a solution that is right for their context and current level of technical capacity. This process also serves to create mini-networks between individuals at similar levels of competence, providing each with an additional support beyond that of the author and the online pedagogical mentor. Such networks then not only build physical capacity in the use of ICT pedagogy, but also allow for the cross-pollination of ideas between individuals and small groups, as new strategies and ways of working are passed between network members.

Phase 3: How might I?

The third phase, 'How might I?' can be seen to fall within the higher-order evaluate and create levels of Bloom's taxonomy. Within this phase, academics begin to critically reflect on their online pedagogical approach, activities used, resources developed and utilised as well as levels of student engagement and understanding. This critical reflection leads them to realise that while some activity or other may have gone part of the way to achieving its desired outcome, they would like it to achieve more. They may feel that student engagement has not been complete or that a resource used was underutilised or not suitable at all for the intended learning process. Such critical reflection also leads academics to review course content and assessment tasks and sees them question how these are conducted and if they could be better aligned with course objectives or more authentically linked to practical aspects of teaching and learning.

During this phase, the academic is more clear about the desired intentions of an activity and reflects a growing competence in and knowledge of online teaching approaches. The academic is well aware of the possibilities offered by the learning systems available and has often used or seen others use the particular features or functions they are interested in utilising. The dialogue between the author and academic is framed around the academic having a clear idea of what it is they want to do and what systems they would like to use to do it. The support required now is around possibilities that exist and getting the most out of the features of the systems available.

During this process, capacity is constructed by both the support person and the academic. The questions asked regarding possibilities being investigated often have not been considered or explored by the author. A partnership of exploration is developed as both parties explore the possible ways of achieving the desired outcome and explore the hitherto unfamiliar features of the learning systems. As potentially useful pieces of information or processes are discovered, these are shared within the partnership and their usefulness to the desired outcomes evaluated.

While these phases can be seen to be working for individuals within the work environment, they generally do not reach far beyond those individuals who have sought assistance from the author. This brings into question the sustainability of such an approach and its effectiveness in preparing the

wider academic community within the faculty for the continuation of the change process. Other strategies and process must be implemented more broadly to take this change process to the masses.

Future direction

One key strategy to assist in the development of online teaching and learning capacity within the faculty could be the development of loosely coupled network groups as described by Limerick et al. (2002). By encouraging academic staff to work across workforce barriers such as course teams, specialisations, campuses and faculties, individuals would have an opportunity to share skills and knowledge and gain expertise from individuals and groups that they would normally not have an opportunity to work with.

There are, however, a number of barriers to the development of such networks with the context of this chapter. The greatest is potentially the time-poor nature of academics where conflicting pressures of semester deadlines, research interests and a myriad of extraneous role expectations see them will little time to spend in discussion and sharing with likeminded individuals in terms of their pedagogical approaches (Lefoe, 2006). Another may be the reluctance of some academic staff to be seen as no longer being the expert, as they grapple with their own sense of self in this new online learning environment. Anecdotally, there also appears to be a barrier across faculties where expertise in the area of teaching and learning from outside that faculty is resisted or even refused, perhaps linked to this notion of dropping the mask of expert.

Another strategy which may be suited to this situation is that of the sharing of workspaces. By this, the author is advocating the sharing of online learning environments beyond course teams. Allowing individuals to explore the strategies and online tools utilised by others outside of their usual networks will provide similar potential to that of developing the networks described previously. This would not only allow academics to view activities but also to explore how others establish an online presence, how they develop rapport with online students and how they go about developing communities of inquiry. Beyond this mentoring-by-proxy, such an approach would allow individuals to explore a broad range of approaches to online teaching and provide a greater opportunity for them to locate others that share their philosophical and pedagogical mindsets. There are, however, barriers to the success of such a strategy. Again, the time-poor nature of academic working life is a key barrier to the success of such a strategy. Most academics already spend a great deal of their working day confined to their own online classrooms without having to also trawl through those of other academics. Administrative barriers also exist as there is the enforcement of restrictive practices in terms of the sharing of online course environments with those not associated with that particular course.

Conclusion

Currently, universities are experiencing a dramatic shift in the way students are choosing to study. In the author's context, online enrolments have risen from 10% to over 70% in the past five years and continue to rise. With this rapid increase in the number of students studying online, comes the need to provide engaging and robust online learning experiences which suit the varied needs of learners. This paradigm shift from face-to-face to online learning has proven to be challenging for many university academics as they attempt to overcome two key factors, knowledge of online pedagogy and the use of unfamiliar technology for the delivery and support of learning experiences.

This chapter has explored literature in the areas of capacity building, leaders and leadership and networking in an attempt to inform strategies utilised by the author to undertake his role as an online pedagogy mentor with his faculty at a university. This review identified the contentious

nature of notions around capacity building, though a key theme of developing self-sufficiency emerged. The role of leaders in the change process was identified as critical, though it is recognised that the hierarchical and bureaucratic nature of universities creates almost insurmountable barriers to the type of leadership required to successfully undertake a change process described within the chapter. However, it is clear that individuals could in fact empower themselves, if given the opportunity to do so, to successfully negotiate the change process if they were able to form networks with others beyond their usual working groups.

Phases of development in the area of online pedagogy were explored through a discussion of empirical evidence collected by the author in the role of online pedagogy mentor. Additional strategies beyond those currently used were identified, as were potential barriers to the success of such strategies.

Change is never easy is a statement often used in such situations. It is clear that while this may be the case, there are things that can be done not only by the leaders of an organisation, but by those who show leadership in their individual fields of expertise, that can make this process more bearable for those undertaking it. By dismantling some of the organisational and self-imposed barriers that prevent people from working together to share and learn from each other, the process can actually be beneficial, motivational and lead to improved outcomes for both academics and students alike.

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