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Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

How action learning broke down silos, built referent power, and created sustainable capability building

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This paper presents a case study of how technology support moved from being a just in time (JIT) help service to developing capability and capacity building through a process of building digital self-efficacy (DSE). By active membership of the UNSW Online Learning and Innovation Community of Practice (OLI CoP) a process of action learning cycles was undertaken in partnership to focus on pedagogy ahead of technology. By doing so, a scalable change process was initiated that brings the coalition of the willing into being core university influencers. As a result, the academics see technology become embedded into their pedagogical practice rather than a tool alone. This case provides insights from the key learnings which have, in turn, enabled a new model of technology support delivery. This model has also provided career growth opportunities for both academics and the educational technology services (ETS) team, while also supporting student learning.

Keywords: Communities of Practice, Digital self-efficacy, Referent Power, Technology pedagogy

As educational technology has become a classroom necessity for academics in their work, the challenge to support widespread use and adoption of this technology in a sustainable manner remains. This case study explores how being a part of a Community of Practice (CoP) enabled partnering with academics to remove the siloed approach to educational technology. In the process, a newer approach of operating emerged removing the just in time (JIT) model of answering questions in a trouble shooting manner to creating a capability building focus. This removed the silos and the great divide between professional/support roles and academics building capability and enabling digital self-efficacy (DSE) (Ulfert-Blank & Schmidt, 2022). This case study demonstrates how the UNSW Educational Technology Support (ETS) team were able to develop DSE which built capability of the academics through a CoP approach. As a result, ETS found a voice, and presence that inspired change. As a 'grass roots' approach it has enabled an increase in the uptake of innovative technologies along with development of managerial skills for the ETS team members.

The results emerged in response to an action learning project through involvement with the Online Learning and Innovation (OLI) CoP. Through deep partnerships with those academics who were digitally curious DSE became embedded enabling capacity building through practice sharing. In reality it was a process of what Bandura (1977) would have labelled as a social learning process, where others observe the social cues and clues of working with ETS as the norms and part of the membership in this CoP. As a result, the ETS team 'found their place' in an exchange that enhances organisational capability and, as a result, student experience.

In order to build and enable DSE (Ulfert-Blank & Schmidt, 2022) those who work in educational technology need more than expert power (French & Raven, 1956) they must also be able to access and influence the academic as the end user. They need to be able to build a coalition of the willing (Kotter et al., 2021), and build referent power. The goal was to move ETS from the provision of JIT assistance to the role of empowering academics to have the capability to self-solve problems (Calvani et al., 2012; Carretero et al., 2017) and have sufficient DSE to act without assistance in the majority of cases. To do this, the ETS team needed to develop referent power (French & Raven, 1956) to influence change and create opportunities to be invited into the classroom for both delivery and support.

Importantly, building capability means the technology deployed becomes both scalable and sustainable without increasing the workload for ETS or the academic. In this way, academics navigate the teaching with technology terrain and become advocates for others to do the same. As a result, change is enabled ground up rather than top down.

Digital Self Efficacy: the building block to competence and capability

The competence to use technology can only be achieved where the building block of DSE has been laid. Hence, the first step of building capability rests on the foundational concepts of self-efficacy in general and DSE more specifically. Further, there is a need for all involved to have sufficient educational capital (after Bourdieu, 1986) which enables people to engage with the opportunities presented for learning. Without educational capital, people are reticent to step up despite being presented with such opportunities. To bring about change, people must be more than willing, they need to both believe they can develop the capability and then recognise they have enough capability to be self-sufficient. As CoPs are recognised for their capability development, OLI CoP took on the role of building digital literacy and in turn, competency. The interdependence of competency with efficacy cannot be ignored as one must have the belief that they can do something (even if it is distantly remote) as the basis for most skill development. Therefore, in order to use a tool, beyond knowing what it is and how to use it, one must feel they can do so successfully, without support and perhaps even go as far as to become an expert user. As such, in building DSE, the academic is more likely to continue to use the tools as well. There is also a contagion effect that can be seen through CoPs inasmuch as academics are more likely to adopt the practices of other academic's, again following Bandura's (1977) social learning view.

While DSE is developed in individuals, the OLI CoP can be thought of as an incubator, where online learning practices and ideas can be freely shared, and innovation is accelerated. CoP's create a sense of belonging and engagement that create conditions for any member, no matter their technological background to share their experiences and, in turn, inspire others in the process. As a result, this elevates an initially individual endeavour into a communal one. Whilst it is generally common for third space professionals (e.g., educational technologists) to take a role of providing knowledge on an as-needs-basis, it is through the inclusion of third space professionals as CoP members that they are brought into the development process as collaborators not information providers alone reducing and breaking down the silos and are able to provide the participatory approach to professional practice as favoured by professionals (Daza et al., 2021).

Commencing action learning

What commenced by way of being members of the CoP resulted in an action learning project. Action learning is frequently used in management studies and emerges as a form of 'study in the wild' (Bruun & Stentoft, 2019; Rogers, 2011). It is a cyclical process that asks for change to be considered through a process of planning, acting, observing, and reflecting (on the outcome). Undertaken as an iterative process, it requires planning improvements or innovations based on the reflections of the previous actions and on the outcomes observed (Koshy, 2010). In doing so, good practice is separated from poor practice and adjusted on an 'as needs' basis. Action learning as a method is useful as it commences from an observed need as a ground up approach and enables change to occur as a response to problem-based learning (Norman & Schmidt, 2000) in situ. This approach commences with pedagogy at its core.

This 'study in the wild' emerged during the initial responses to the COVID-19 need to teach online but extended as more broadly there was an acknowledged need for all university lecturers, facilitators, and teaching staff to use and be confident with technology. Doing so would enable efficiency and effectiveness (Ulfert-Blank & Schmidt, 2022). We posited that coupled with the rapid pace of technological change, the ability to upskill alone needs more than educational capital (Bordieu, 1986), it requires the building of DSE to enable organisational capability and capacity change. As such our action learning cycles began. The process of action learning was adopted as a natural rather than explicit process. Each implementation (action) resulted in observing together how the academic would use or adapt to the unique teaching circumstances, then through a process of continued support, joint reflection (on the outcome and the process) embedded change and

inspired planning for the next possible implementation or user. As a result, this practice informed and shaped the future of ETS operations and delivery to a new model.

Commencing the journey

This action learning project commenced as discussions with some digitally curious academics who were involved in the OLI CoP. This environment encouraged the removal of silos and as a result, the technology team delivered sessions and information to the community focused on answering pedagogical problems. As this coincided with the wholesale need to teach online (during the pandemic) and it became the perfect juncture to change how ETS was engaging. Together, the co-leads and ETS commenced a capability 'drive' expanding beyond academics sharing practice instead seeking to inspire and enable others to see every meeting as an opportunity to build competence and capability which would result in greater DSE.

The focus to build capability was on supporting academics to address their pedagogical concerns with technology and making life easier. The CoP discussions focused on teaching issues such as personalising at scale, using data analytics (that are hidden in plain sight), and creating engaging learning materials that also track learner questions and engagement. With academics already shifting materials and teaching online, it was the time to shift from a focus of offering products that were often, in practice, 'clunky' to use or misunderstood. The ETS team with the Co-leads of the CoP situated themselves in 'problem-based learning mode'. This supported academics in their exploration of potential technological solutions to pedagogical issues and in the process of implementation the goal was to build DSE. This is quite a different role than being a front-line trouble shooter or JIT support. Taking on the role of capability building, meant the ETS team had to develop their own educational capital to lead the conversation. With coaching and some referent power offered by the co-leads ETS were able to extend beyond the use of expert power alone. This meant ETS had to move from being an 'order taker' to 'meaning maker'. By enhancing the status of such services there is a shift in the power bases (French & Raven, 1959).

Creating change by stealth

Being a part of OLI CoP enabled the creation of trust as the community had a charter to learn through each other and develop shared understanding. As such, it meant that ETS could commence with offering individual support to digitally curious academics creating use cases as exemplars. In the process, rather than educational technology being 'pushed' onto academics, the adoption of recent technology by others became a process of being academics being 'nudged' (Thaler & Sunstein, 2008) towards exploration in what marketing would consider more 'pull' (Corniani, 2008) tactics.

What commenced as a process to build capability of the academics became a reciprocal process where the ETS changed too. This added benefit meant ETS learned to commence with a pedagogical problem (after Sankey, 2020) as a means to nudge (Thaler & Sunstein, 2008) behavioural change. They became part of the educational design and delivery process. Creating the use cases became their own form of development for ETS, as each time they worked with an academic the adoption of practices led to further exploration and subsequent user uptake. Both parties expanded their capabilities simultaneously.

Reflections from the trenches

Reflective narratives provide an insight to the experience and as noted as a process for professional development (Langellier, 1989). Together we noted the need for ETS to move from traditional support services model to become a 'guide on the side'. Historically, ETS had little exposure to the academic community as their role was focused on testing Moodle features/patches, responding to minimal support tickets, and raising issues with vendors in a never-ending cycle that changed little. In sitting behind the scenes, communication was principally asynchronous (email), and consultation services were limited to those who needed more than

Moodle support. This impersonal barrier meant ETS were neither seen and rarely, if ever, heard by academics. Managerial changes in 2019 enabled a shift in the core responsibilities and priorities of the team. Now focused on innovation, UNSW's first chatbot (Artificial Intelligence for Digital Education - A.I.D.E) was successfully deployed as an EdTech self-support service which freed up academic's time. They provided workshops where both the willing and curious could be informed, however, the offering was limited for up to 25 academics or support staff (one room capacity) in each session. These sessions were delivered as a 'sage on a stage' designed to ignite possibility and invite an academic to book a consultation with an 'expert'. However, academic uptake of technology remained the realm of the digitally curious and was at best a 'survival of the fittest' experience.

The need to move completely online in March 2020 along with active involvement in the OLI CoP became a perfect pivot point to commence broader capability development for all academics. With the support of the CoP Co-leads, the ETS team moved from back of room to front of house. Being given a voice in meetings and opportunities to write in newsletters increased ETS' visibility and enhanced the message of their roles. At the same time, by being in the meetings they became a part of the conversations. Hearing what academics needed, ETS started to change how they offered assistance. This built new relationships with the teaching community, and along with their already noted expert power, and recently gained referent power, they could now influence academics to behave differently beyond conforming and compliance (Cialdini & Goldstein, 2004) to bring about change.

It is noted how access to the academic conversations enabled the focus of assistance to be based on the academic pedagogical goals. Further all technological support focused on building DSE as part of the advice. The more successful outcomes were immediately visible and where applicable, multiple approaches could be offered to meet the stated and unstated needs. Where previously it had been hard to influence technology solutions ETS now saw the academics were seeking and appreciative of the advice. As time passed ETS' self-efficacy built, and in meetings, hesitancy and fear was replaced with eagerness and confidence. For the technologists too, this shift was notable from the first presentation being scripted to now being able to join sessions that are unscripted and answer questions 'without notice'. Further, investigations of how technology could change, or support teaching and learning were instigated by the team and follow-up meetings were scheduled. This practice was recognised, with comments on 'how resilient and persistent' the team were in navigating complex EdTech cases. In the process, ETS re-discovered their purpose and established stronger, more meaningful connections leading to a sense of belonging in an academic community that delivers great learning to our students. Concurrently, the academic community developed DSE leading to an increase in both competency and capability.

Key learnings for future implementation

Offering JIT services is not new or even unique in technology support, what differs here is the approach that was underpinned to build DSE through problem-based learning. This increased overall competency and as a result, built capability. Building capability often delivers some unexpected but beneficial outcomes. In this case, bringing ETS into understanding the academic's overall situation, moved their actions from 'problem fixer' to educational partner. Context is key in working with the academic to solve a problem. It is not about an 'answer' to a question but by exploring together the academic's understanding of the situation and knowing what they can do the keys to building their DSE were 'handed over' enabling them to undertake the action alone. To do this ETS had to remain clear that the academic is the subject matter expert for pedagogy (after Sankey, 2020), and educational technology is an answer not the answer. It is the overlap between the two roles that make this approach work. It enables some parts to be done in isolation and other parts synchronously as a discussion of collaborators through mutual problem solving.

While COVID-19 may have sped up the adoption and adaptation of technology in teaching delivery and support, there remains a need to build digital capability which requires the building of DSE, and educational

capital. This can only occur when technology teams' focus on DSE building with faculty to navigate the changing terrain of the classroom that is both digitally supported and enhanced. Additionally, when doing so it is useful to consider the development of teaching assets that can be used, and repurposed when designed well with solid pedagogical underpinnings. This view should not be underestimated as part of the overall capability building model. In this action learning project, the ETS team shifted from trouble shooting, and solution selling to capability building by partnering in pedagogical problems to deliver newer and more efficient means of digital delivery while building DSE. A further benefit was that ETS built their own self efficacy and educational capital and, as a result, their capability was also enhanced.

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